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| 250 | K.22B | Huai Mae Nam Noi at Ban Mae Nam Noi, Kanchanaburi   | 500 |
| 251 | K.25A | Huai Tha Khoei at Ban Kha, Ratchaburi               | 502 |
| 252 | K.30  | Huai Mae Nam Lo at Ban Sai Yok, Kanchanaburi        | 504 |
| 253 | K.31  | Huai Mae Nam Noi at Ban Nam Chon, Kanchanaburi      | 506 |
| 254 | K.32A | Huai Bong Ti at Ban Bong Ti, Kanchanaburi           | 508 |
| 255 | K.35A | Khwae Yai River at Ban Nong Bua, Kanchanaburi       | 510 |
| 256 | K.37  | Khwae Noi River at Ban Wang Yen, Kanchanaburi       | 512 |
| 257 | K.38A | Huai Lin Thin at Ban Nong Bang, Kanchanaburi        | 514 |
| 258 | K.39  | Huai Ong Thi at Ban Ong Thi, Kanchanaburi           | 516 |
| 259 | K.50  | Huai Diso at Ban Hin Laem, Kanchanaburi             | 518 |
| 260 | K.53  | Huai Mae Kraban at Ban Si Mong Khon, Kanchanaburi   | 520 |
| 261 | K.54  | Khwae Noi River at Ban Lin Thin, Kanchanaburi       | 522 |
| 262 | K.58  | Khwae Noi River at Ban Pak Saeng, Kanchanaburi      | 524 |
| 263 | K.60  | Huai Kui Mang at Ban Kui Mang, Kanchanaburi         | 526 |
| 264 | K.61  | Lam Phachi at Ban Dan Thaptako, Ratchaburi          | 528 |
| 265 | K.62  | Lam Phachi at Ban Nong Phai, Kanchanaburi           | 530 |

**PRACHIN BURI RIVER BASIN**

|     |         |                                                         |     |
|-----|---------|---------------------------------------------------------|-----|
| 266 | Kgt.3   | Prachin Buri River at Ban Kabin Buri, Prachin Buri      | 532 |
| 267 | Kgt.9   | Khlong Phra Sathung at Ban Khao Chakan, Sa Kaeo         | 534 |
| 268 | Kgt.12  | Khlong Phra Prong at Ban Kaeng, Sa Kaeo                 | 536 |
| 269 | Kgt.13A | Khlong Phra Prong at Ban Non Suk Phum , Prachin Buri    | 538 |
| 270 | Kgt.14  | Khlong Yang at Ban Thung Faek, Prachin Buri             | 540 |
| 271 | Kgt.15A | Huai Samong at Ban Kaeng Din So, Prachin Buri           | 542 |
| 272 | Kgt.33  | Khwae Nam Sai at Ban Saphan Hin, Prachin Buri           | 544 |
| 273 | Kgt.34  | Khwae Hanuman at Ban Wang Man, Prachin Buri             | 546 |
| 274 | Kgt.38  | Khlong Phra Phloeng Yai at Ban Phu Ngoen, Sa Kaeo       | 548 |
| 275 | Kgt.40  | Upper Khlong Phra Sathung at Ban Thung Kabin, Sa Kaeo   | 550 |
| 276 | Kgt.41  | Khlong Kawat Kong Yai at Ban Khok Noi, Sa Kaeo          | 552 |
| 277 | Kgt.42  | Khlong Phra Sathung at Ban Tharapha , Sa Kaeo           | 554 |
| 278 | Kgt.45  | Khlong Phra Sathung at Ban Ta Ruang , Chanthaburi       | 556 |
| 279 | Kgt.47  | Khlong Phra Sathung at Ban Dan Chai Phatthana , Sa Kaeo | 558 |

**BANG PAKONG RIVER BASIN**

|     |       |                                                        |     |
|-----|-------|--------------------------------------------------------|-----|
| 280 | Ny.1B | Nakhon Nayok River at Ban Khao Nang Buat, Nakhon Nayok | 560 |
| 281 | Ny.3  | Lower Khlong Ban Na at Ban Pa Kha, Nakhon Nayok        | 562 |
| 282 | Ny.4  | Khlong Samo Pun at Ban Noen Hom, Prachin Buri          | 564 |
| 283 | Ny.6  | Upper Khlong Ban Na at Ban Cha Om, Saraburi            | 566 |

**TONLE SAP BASIN**

|     |      |                                                    |     |
|-----|------|----------------------------------------------------|-----|
| 284 | TI.3 | Khlong Phra Phut at Ban Pang Ngon, Chanthaburi     | 568 |
| 285 | TI.4 | Khlong Ta Kong at Ban Khlong Ta Kong, Chanthaburi  | 570 |
| 286 | TI.6 | Khlong Thung Krang at Ban Thung Krang, Chanthaburi | 572 |

**EAST COAST-GULF BASIN**

|     |      |                                                  |     |
|-----|------|--------------------------------------------------|-----|
| 287 | Z.10 | Khlong Yai at Ban Si Bua Thong, Trat             | 574 |
| 288 | Z.11 | Khlong Prasae at Ban Khao Chik, Rayong           | 576 |
| 289 | Z.13 | Chanthaburi River at Ban Puk, Chanthaburi        | 578 |
| 290 | Z.14 | Khlong Phayat at Ban Chaman, Chanthaburi         | 580 |
| 291 | Z.18 | Khlong Phlo at Ban Chamkho, Rayong               | 582 |
| 292 | Z.21 | Khlong Hin Dat at Ban Pong Rong Sen, Chanthaburi | 584 |
| 293 | Z.28 | Upper Khlong Tanot at Ban Khun Song, Chanthaburi | 586 |
| 294 | Z.30 | Khlong Sato at Ban Nong Bua, Trat                | 588 |

### XIII

|     |       |                                                    |     |
|-----|-------|----------------------------------------------------|-----|
| 295 | Z.38  | Khlong Thapma at Ban Khao Bot , Rayong             | 590 |
| 296 | Z.42  | Khlong Prakaet at Ban Prakaet , Chanthaburi        | 592 |
| 297 | Z.43  | Khlong Hin Phloeng at Ban Hin Phloeng, Chanthaburi | 594 |
| 298 | Z.45  | Khlong Aeng at Ban Kho Lae, Trat                   | 596 |
| 299 | Z.46  | Khlong Sano at Ban Nonthee, Trat                   | 598 |
| 300 | Z.47A | Khlong Chanthi at Ban Khlong Khwang, Trat          | 600 |
| 301 | Z.52  | Khlong Pran Bun at Ban Khlong Yai Tai, Chanthaburi | 602 |
| 302 | Z.53  | Chanthaburi River at Ban Thung Ta In , Chanthaburi | 604 |
| 303 | Z.55  | Chanthaburi River at Ban Wang Cha Ai, Chanthaburi  | 606 |
| 304 | Z.56  | Khlong Thung Plae at Ban Ta Bok Tia, Chanthaburi   | 608 |
| 305 | Z.59  | Khlong Nak at Ban Bo Rai, Trat                     | 610 |
| 306 | Z.60  | Khlong Phra at Ban Plai Khlong , Trat              | 612 |
| 307 | Z.61  | Khlong Khao Saming at Ban Khan Na Sung , Trat      | 614 |

#### PHETCHABURI RIVER BASIN

|     |      |                                                     |     |
|-----|------|-----------------------------------------------------|-----|
| 308 | B.3A | Phetchaburi River at Ban Song Phi Nong, Phetchaburi | 616 |
| 309 | B.8A | Huai Phak at Ban Prong Khae, Phetchaburi            | 618 |
| 310 | B.9  | Phetchaburi River at Ban Sarahed, Phetchaburi       | 620 |
| 311 | B.10 | Phetchaburi River at Ban Tha Yang, Phetchaburi      | 622 |
| 312 | B.11 | Huai Mae Prachan at Ban Cha Prong, Phetchaburi      | 624 |

#### WEST COAST-GULF BASIN

|     |       |                                                          |     |
|-----|-------|----------------------------------------------------------|-----|
| 313 | Gt.9  | Khlong Thap Sakae at Ban Klang, Prachuap Khiri Khan      | 626 |
| 314 | Gt.10 | Khlong Krut at Ban Nong Ya Plong, Prachuap Khiri Khan    | 628 |
| 315 | Gt.11 | Khlong Yai at Ban Chang Laek, Prachuap Khiri Khan        | 630 |
| 316 | Gt.15 | Huai Sai at Ban Suan Son Huai Sai, Prachuap Khiri Khan   | 632 |
| 317 | Gt.16 | Khlong Hin Chuang at Ban Hin Chuang, Prachuap Khiri Khan | 634 |
| 318 | Gt.17 | Huai Yang at Ban Huai Yang, Prachuap Khiri Khan          | 636 |
| 319 | Gt.18 | Khlong Cha Kra at Ban Cha Kra Bon, Prachuap Khiri Khan   | 638 |
| 320 | Gt.19 | Khlong Ang Thong at Ban Ang Thong, Prachuap Khiri Khan   | 640 |

#### KUI BURI RIVER BASIN

|     |      |                                                       |     |
|-----|------|-------------------------------------------------------|-----|
| 321 | Ky.3 | Kui Buri River at Ban Thung Faek, Prachuap Khiri Khan | 642 |
|-----|------|-------------------------------------------------------|-----|

**SOUTHERN PENINSULA EAST COAST**

|     |        |                                                          |     |
|-----|--------|----------------------------------------------------------|-----|
| 322 | X.53A  | Khlong Chumphon at Ban Wang Phai, Chumphon               | 644 |
| 323 | X.55   | Khlong Tha Di at Ban Tha Yai, Nakhon Si Thammarat        | 646 |
| 324 | X.64   | Khlong Tha Sae at Ban Tha Sae, Chumphon                  | 648 |
| 325 | X.70   | Khlong Ban Tan at Ban Wang Kong, Nakhon Si Thammarat     | 650 |
| 326 | X.119  | Kolok River at Ban Mu No, Narathiwat                     | 652 |
| 327 | X.119A | Kolok River at Lantu Bridge, Narathiwat                  | 654 |
| 328 | X.149  | Khlong Klai at Ban Hua Na , Nakhon Si Thammarat          | 656 |
| 329 | X.158  | Khlong Tha Taphao at Ban Wang Khrok, Chumphon            | 658 |
| 330 | X.167  | Khlong Sao Thong at Ban Sao Thong, Nakhon Si Thammarat   | 660 |
| 331 | X.180  | Khlong Tha Taphao at Mueang , Chumphon                   | 662 |
| 332 | X.200  | Upper Khlong Thadee at Ban Wang Sai, Nakhon Si Thammarat | 664 |
| 333 | X.203  | Khlong Thadee at Ban Na Pa, Nakhon Si Thammarat          | 666 |
| 334 | X.247  | Khlong Tha Sae at Ban Wang Maprang, Chumphon             | 668 |
| 335 | X.248  | Khlong Rap Ro at Ban Hat Nai, Chumphon                   | 670 |
| 336 | X.274  | Kolok River at Ban Bu Kae Ta, Narathiwat                 | 672 |

**TAPI RIVER BASIN**

|     |       |                                                  |     |
|-----|-------|--------------------------------------------------|-----|
| 337 | X.36  | Khlong Phum Duang at Ban Tha Khanon, Surat Thani | 674 |
| 338 | X.37A | Tapi River at Ban Yan Din Daeng, Surat Thani     | 676 |
| 339 | X.195 | Tapi River at Ban Tha Pho, Nakhon Si Thammarat   | 678 |
| 340 | X.198 | Khlong Sin Pun at Ban Bang Rup, Surat Thani      | 680 |
| 341 | X.217 | Tapi River at Ban Khian Sa, Surat Thani          | 682 |
| 342 | X.259 | Khlong Trom at Ban Trom, Surat Thani             | 684 |
| 343 | X.260 | Lower Khlong I - Pan at Ban Arpart, Surat Thani  | 686 |

**THALE SAP SONGKHLA BASIN**

|     |       |                                                      |     |
|-----|-------|------------------------------------------------------|-----|
| 344 | X.44  | Khlong U - Taphao at Ban Hat Yai Nai, Songkhla       | 688 |
| 345 | X.67A | Khlong Rattaphum at Ban Nasithong, Songkhla          | 690 |
| 346 | X.68  | Khlong Tha Khae at Ban Tha Khae, Phatthalung         | 692 |
| 347 | X.71B | Khlong Tam at Ban Khuan Lang, Songkhla               | 694 |
| 348 | X.90  | Khlong U - Taphao at Ban Bang Sala, Songkhla         | 696 |
| 349 | X.109 | Khlong Bang Kaeo at Ban Khuan In No Mo , Phutthalung | 698 |
| 350 | X.112 | Khlong Sadao at Ban Takian Pao, Songkhla             | 700 |
| 351 | X.113 | Khlong La Pang at Ban Thung Prap, Songkhla           | 702 |
| 352 | X.170 | Khlong Lam at Ban Khlong Lam, Phatthalung            | 704 |

|     |        |                                                  |     |
|-----|--------|--------------------------------------------------|-----|
| 353 | X.173A | Khlong U - Taphao at Ban Muang Kong, Songkhla    | 706 |
| 354 | X.174  | Khlong Wa at Ban Khlong Wa, Songkhla             | 708 |
| 355 | X.266  | Khlong Pa Bon at Lo Han, Phatthalung             | 710 |
| 356 | X.267  | Khlong Tamot at Ban Mae Khree, Phatthalung       | 712 |
| 357 | X.276  | Upper Khlong Tha Nae at Ban Khao Pu, Phatthalung | 714 |

#### **SOUTHERN PENINSULA WEST COAST**

|     |        |                                                 |     |
|-----|--------|-------------------------------------------------|-----|
| 358 | X.139A | Khlong Palian at Ban Palian Nai, Trang          | 716 |
| 359 | X.150  | Khlong Langu at Ban Wang Pa Khian, Satun        | 718 |
| 360 | X.186  | Khlong Ta Kuaw Pa at Ban Talat Kao, Phangnga    | 720 |
| 361 | X.187  | Khlong Ta Kuaw Pa at Ban Hin Dan, Phangnga      | 722 |
| 362 | X.188A | Khlong Rommanee at Ban Rommanee, Phangnga       | 724 |
| 363 | X.190A | Khlong Bang Yai at Ban Ket Ho, Phuket           | 726 |
| 364 | X.191  | Khlong Bang Yai at Satree Phuket school, Phuket | 728 |
| 365 | X.234  | Lower Trang River at Ban Pa Mak, Trang          | 730 |
| 366 | X.236  | Lower Khlong Palian at Ban Yan Ta Khaow, Trang  | 732 |
| 367 | X.245  | Khlong Phangnga at Ban Bang Tong, Phangnga      | 734 |
| 368 | X.261  | Upper Khlong Tha Prae at Ban Karakat, Satun     | 736 |
| 369 | X.279  | Khlong Duson at Ban Panjor, Satun               | 738 |

LOCATION MAP OF HYDROLOGIC OBSERVATION STATIONS IN 2013 WATER YEAR

## SUSPENDED SEDIMENT STATIONS

Page

### KHONG RIVER BASIN

|    |        |                                                   |     |
|----|--------|---------------------------------------------------|-----|
| 1  | Kh.18  | Huai Mong at Ban Na Ang, Udon Thani               | 742 |
| 2  | Kh.28A | Loei River at Ban Na Lak, Loei                    | 743 |
| 3  | Kh.58A | Loei River at Ban Fak Loei, Loei                  | 744 |
| 4  | Kh.61  | Loei River at Ban Keng Bong, Loei                 | 745 |
| 5  | Kh.74  | Songkhram River at Ban Tha Huai Lua, Sakon Nakhon | 746 |
| 6  | Kh.90  | Lam Nam Phung at Ban Tong Khop, Sakon Nakhon      | 747 |
| 7  | Kh.91  | Huai Chanot at Ban Don Sawan, Nakhon Phanom       | 748 |
| 8  | Kh.92  | Huai Bang Sai at Ban Kan Luang Dong, Muk Dahan    | 749 |
| 9  | Kh.93  | Songkhram River at Ban Khok Kham Lai, Udon Thani  | 750 |
| 10 | Kh.98  | Songkhram River at Ban Tha Kok Daeng, Bueng Kan   | 751 |
| 11 | Kh.103 | Huai Luang at Ban Non Toom, Udon Thani            | 752 |

### NAM MAE ING BASIN

|    |      |                                        |     |
|----|------|----------------------------------------|-----|
| 12 | I.14 | Nam Mae Ing at Ban Nam Ing, Chiang Rai | 753 |
|----|------|----------------------------------------|-----|

### NAM MAE KOK BASIN

|    |     |                                                     |     |
|----|-----|-----------------------------------------------------|-----|
| 13 | G.8 | Nam Mae Lao at Ban Ton Yang, Chiang Rai             | 754 |
| 14 | G.9 | Nam Mae Suai at Ban Kariang Thung Phrao, Chiang Rai | 755 |

### CHI RIVER BASIN

|    |       |                                            |     |
|----|-------|--------------------------------------------|-----|
| 15 | E.5   | Chi River at Ban Non Puai, Chaiyaphum      | 756 |
| 16 | E.22B | Lam Nam Phong at Ban Tha Mao, Khon Kaen    | 757 |
| 17 | E.23  | Chi River at Ban Khai, Chaiyaphum          | 758 |
| 18 | E.54  | Nam Yang at Ban Kaeng Yao, Kalasin         | 759 |
| 19 | E.66A | Chi River at Ban Muang Lat, Roi Et         | 760 |
| 20 | E.72  | Lam Chiang at Ban Chiang, Chaiyaphum       | 761 |
| 21 | E.83  | Lam Saphung at Ban Na Charoen, Chaiyaphum  | 762 |
| 22 | E.84  | Chi River at Ban Nang Dad Khok, Chaiyaphum | 763 |
| 23 | E.85  | Lam Nam Choen at Ban Non Han, Khon Kaen    | 764 |
| 24 | E.87  | Lam Pao at Ban Wang Hin, Kalasin           | 765 |
| 25 | E.91  | Chi River at Ban Kui Chuak, Maha Sarakham  | 766 |

**MUN RIVER BASIN**

|    |        |                                                              |     |
|----|--------|--------------------------------------------------------------|-----|
| 26 | M.2A   | Mun River at Ban Dan Taka, Nakhon Ratchasima                 | 767 |
| 27 | M.4    | Mun River at Ban Phong Sawai, Surin                          | 768 |
| 28 | M.5    | Mun River at Ban Mueang Kong, Si Sa Ket                      | 769 |
| 29 | M.6A   | Mun River at Ban Satuk, Buri Ram                             | 770 |
| 30 | M.7    | Mun River at Ban Chumchondeengam, Ubon Ratchathani           | 771 |
| 31 | M.9    | Huai Samran at Ban Nongyaplong, Si Sa ket                    | 772 |
| 32 | M.26A  | Lam Chi at Ban La Loon, Surin                                | 773 |
| 33 | M.42   | Huai Thap Than at Ban Huai Thap Than, Si Sa Ket              | 774 |
| 34 | M.89   | Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima       | 775 |
| 35 | M.104  | Mun River at Ban Wang Prat, Buri Ram                         | 776 |
| 36 | M.127  | Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani                | 777 |
| 37 | M.145  | Lam Phra Phloeng at Ban Wang Takian Thong, Nakhon Ratchasima | 778 |
| 38 | M.164  | Lam Ta Khong at Ban Send Mari, Nakhon Ratchasima             | 779 |
| 39 | M.170  | Lam Dom Yai at Ban Kham Samran, Ubon Ratchathani             | 780 |
| 40 | M.171  | Lam Phra Phloeng at Ban Non Sao - E, Nakhon Ratchasima       | 781 |
| 41 | M.176  | Huai Khayung at Ban Non Si Khlai, Si Sa Ket                  | 782 |
| 42 | M.179A | Lam Sa Bai at Ban Pa Kor, Ubon Ratchathani                   | 783 |
| 43 | M.183  | Huai Hin Lap at Ban Khlong Hin Lap, Nakhon Ratchasima        | 784 |
| 44 | M.184  | Mun River at Ban Cum, Nakhon Ratchasima                      | 785 |
| 45 | M.185  | Lam Plai Mat at Ban Phai Noi, Nakhon Ratchasima              | 786 |
| 46 | M.191  | Lam Ta Khong at Ban Kok Kruad, Nakhon Ratchasima             | 787 |

**PING RIVER BASIN**

|    |       |                                                  |     |
|----|-------|--------------------------------------------------|-----|
| 47 | P.1   | Ping River at Nawarat Bridge, Chiang Mai         | 788 |
| 48 | P.4A  | Nam Mae Taeng at Ban Mae Taeng, Chiang Mai       | 789 |
| 49 | P.5   | Nam Mae Kuang at Tha Nang Bridge, Lamphun        | 790 |
| 50 | P.17  | Ping River at Ban Tha Ngiu, Nakhon Sawan         | 791 |
| 51 | P.21  | Nam Mae Rim at Mae Rim Tai, Chiang Mai           | 792 |
| 52 | P.56A | Nam Mae Ngat at Ban Sahakorn Romklao, Chiang Mai | 793 |
| 53 | P.67  | Ping River at Ban Mae Tae, Chiang Mai            | 794 |
| 54 | P.73  | Ping River at Ban Sop Soi, Chiang Mai            | 795 |
| 55 | P.75  | Ping River at Ban Cho Lae, Chiang Mai            | 796 |
| 56 | P.76  | Nam Mae Li at Ban Mae E - Hai, Lamphun           | 797 |
| 57 | P.77  | Nam Mae Tha at Ban Sop Mae Sapuad, Lamphun       | 798 |



## XVIII

|    |      |                                                |     |
|----|------|------------------------------------------------|-----|
| 58 | P.78 | Khlung Khlung at Ban Sam Ruean, Kamphaeng Phet | 799 |
| 59 | P.79 | Nam Mae Kuang at Ban Mae Wan, Chiang Mai       | 800 |
| 60 | P.80 | Nam Mae Lai at Ban Pong Din, Chiang Mai        | 801 |
| 61 | P.84 | Nam Mae Wang at Ban Phan Ton, Chiang Mai       | 802 |

### WANG RIVER BASIN

|    |      |                                         |     |
|----|------|-----------------------------------------|-----|
| 62 | W.1C | Wang River at Setuwaree Bridge, Lampang | 803 |
| 63 | W.3A | Wang River at Ban Don Chai, Lampang     | 804 |
| 64 | W.4A | Wang River at Ban Wang Man, Tak         | 805 |
| 65 | W.17 | Nam Mae Soi at Ban Nong Nao, Lampang    | 806 |
| 66 | W.23 | Wang River at Ban Chiang Rai, Tak       | 807 |
| 67 | W.25 | Wang River at Ban Huai Kod, Lampang     | 808 |

### YOM RIVER BASIN

|    |      |                                   |     |
|----|------|-----------------------------------|-----|
| 68 | Y.1C | Yom River at Ban Nam Khong, Phrae | 809 |
| 69 | Y.20 | Yom River at Ban Huai Sak, Phrae  | 810 |
| 70 | Y.37 | Yom River at Ban Wang Chin, Phrae | 811 |

### NAN RIVER BASIN

|    |       |                                                 |     |
|----|-------|-------------------------------------------------|-----|
| 71 | N.1   | Nan River at Forestry Office, Nan               | 812 |
| 72 | N.8A  | Nan River at Ban Hor Krai, Phichit              | 813 |
| 73 | N.24A | Khek River at Ban Wang Nok Aen, Phitsanulok     | 814 |
| 74 | N.36  | Nam Khwae Noi at Ban Nong Krathao, Phitsanulok  | 815 |
| 75 | N.55  | Nam Phak at Ban Tha Sakae, Phitsanulok          | 816 |
| 76 | N.58  | Nam Fua at Ban Nam Fua, Phitsanulok             | 817 |
| 77 | N.59  | Lam Nam Khan at Ban Na Pho Na Chan, Phitsanulok | 818 |
| 78 | N.64  | Nan River at Ban Pha Khwang, Nan                | 819 |
| 79 | N.65  | Nam Yao at Ban Pang Sa, Nan                     | 820 |
| 80 | N.66  | Huai Om Sing at Ban Noen Phoem, Phitsanulok     | 821 |
| 81 | N.72  | Khlung Tron at Ban Wang Pla Kod, Uttaradit      | 822 |

### CHAO PHRAYA RIVER BASIN

|    |      |                                                      |     |
|----|------|------------------------------------------------------|-----|
| 82 | C.2  | Chao Phraya River at Khai Chira Prawat, Nakhon Sawan | 823 |
| 83 | C.3  | Chao Phraya River at Ban Bang Phutsa, Sing Buri      | 824 |
| 84 | C.7A | Chao Phraya River at Ban Bang Kaeo, Ang Thong        | 825 |
| 85 | C.13 | Chao Phraya River at Ban Bang Luang, Chai Nat        | 826 |

**SAKAE KRANG RIVER BASIN**

|    |       |                                                    |     |
|----|-------|----------------------------------------------------|-----|
| 86 | Ct.5A | Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet     | 827 |
| 87 | Ct.7  | Khlong Pho at Ban Mai Khlong Charoen, Nakhon Sawan | 828 |
| 88 | Ct.19 | Huai Tak Dad at Ban Don Yai, Uthai Thani           | 829 |

**PASAK RIVER BASIN**

|    |      |                                            |     |
|----|------|--------------------------------------------|-----|
| 89 | S.9  | Pasak River at Ban Pa, Saraburi            | 830 |
| 90 | S.28 | Pasak River at Ban Nong Bua, Lop Buri      | 831 |
| 91 | S.33 | Pasak River at Ban Tha Hi Yong, Phetchabun | 832 |

**THACHIN RIVER BASIN**

|    |       |                                                  |     |
|----|-------|--------------------------------------------------|-----|
| 92 | T.12A | Lower Huai Kra Sieo at Ban Thap Man, Suphan Buri | 833 |
|----|-------|--------------------------------------------------|-----|

**MAE KLONG RIVER BASIN**

|     |       |                                                     |     |
|-----|-------|-----------------------------------------------------|-----|
| 93  | K.12  | Lam Ta Phoen at Ban Thung Na Nang Rok, Kanchanaburi | 834 |
| 94  | K.17  | Lam Phachi at Ban Bo, Ratchaburi                    | 835 |
| 95  | K.31  | Huai Mae Nam Noi at Ban Nam Chon, Kanchanaburi      | 836 |
| 96  | K.32A | Huai Bong Ti at Ban Bong Ti, Kanchanaburi           | 837 |
| 97  | K.37  | Khwaee Noi River at Ban Wang Yen, Kanchanaburi      | 838 |
| 98  | K.38A | Huai Lin Thin at Ban Nong Bang, Kanchanaburi        | 839 |
| 99  | K.39  | Huai Ong Thi at Ban Ong Thi, Kanchanaburi           | 840 |
| 100 | K.50  | Huai Diso at Ban Hin Laem, Kanchanaburi             | 841 |
| 101 | K.53  | Huai Mae Kraban at Ban Si Mong Khon, Kanchanaburi   | 842 |
| 102 | K.60  | Huai Kui Mang at Ban Kui Mang, Kanchanaburi         | 843 |
| 103 | K.61  | Lam Phachi at Ban Dan Thaptako, Ratchaburi          | 844 |

**PRACHIN BURI RIVER BASIN**

|     |        |                                                 |     |
|-----|--------|-------------------------------------------------|-----|
| 104 | Kgt.9  | Khlong Phra Sathung at Ban Khao Chakan, Sa Kaeo | 845 |
| 105 | Kgt.12 | Khlong Phra Prong at Ban Kaeng, Sa Kaeo         | 846 |

**BANG PAKONG RIVER BASIN**

|     |      |                                                 |     |
|-----|------|-------------------------------------------------|-----|
| 106 | Ny.3 | Lower Khlong Ban Na at Ban Pa Kha, Nakhon Nayok | 847 |
| 107 | Ny.6 | Upper Khlong Ban Na at Ban Cha Om, Saraburi     | 848 |

**EAST COAST-GULF BASIN**

|     |      |                                    |     |
|-----|------|------------------------------------|-----|
| 108 | Z.18 | Khlong Phlo at Ban Chamkho, Rayong | 849 |
| 109 | Z.45 | Khlong Aeng at Ban Kho Lae, Trat   | 850 |

**PETCHABURI RIVER BASIN**

|     |      |                                                     |     |
|-----|------|-----------------------------------------------------|-----|
| 110 | B.3A | Phetchaburi River at Ban Song Phi Nong, Phetchaburi | 851 |
| 111 | B.8A | Huai Phak at Ban Prong Khae, Phetchaburi            | 852 |
| 112 | B.9  | Phetchaburi River at Ban Sarahed, Phetchaburi       | 853 |
| 113 | B.10 | Phetchaburi River at Ban Tha Yang, Phetchaburi      | 854 |

**WEST COAST-GULF BASIN**

|     |       |                                                        |     |
|-----|-------|--------------------------------------------------------|-----|
| 114 | Gt.9  | Khlomg Thap Sakae at Ban Klang, Prachuap Khiri Khan    | 855 |
| 115 | Gt.10 | Khlomg Krut at Ban Nong Ya Plong, Prachuap Khiri Khan  | 856 |
| 116 | Gt.11 | Khlomg Yai at Ban Chang Laek, Prachuap Khiri Khan      | 857 |
| 117 | Gt.15 | Huai Sai at Ban Suan Son Huai Sai, Prachuap Khiri Khan | 858 |

**SOUTHERN PENINSULA EAST COAST**

|     |       |                                                        |     |
|-----|-------|--------------------------------------------------------|-----|
| 118 | X.53A | Khlomg Chumphon at Ban Wang Phai, Chumphon             | 859 |
| 119 | X.55  | Khlomg Tha Di at Ban Tha Yai, Nakhon Si Thammarat      | 860 |
| 120 | X.149 | Khlomg Klai at Ban Hua Na , Nakhon Si Thammarat        | 861 |
| 121 | X.158 | Khlomg Tha Taphao at Ban Wang Khrok, Chumphon          | 862 |
| 122 | X.167 | Khlomg Sao Thong at Ban Sao Thong, Nakhon Si Thammarat | 863 |
| 123 | X.247 | Khlomg Tha Sae at Ban Wang Maprang, Chumphon           | 864 |
| 124 | X.248 | Khlomg Rap Ro at Ban Hat Nai, Chumphon                 | 865 |

**TAPI RIVER BASIN**

|     |       |                                                  |     |
|-----|-------|--------------------------------------------------|-----|
| 125 | X.36  | Khlomg Phum Duang at Ban Tha Khanon, Surat Thani | 866 |
| 126 | X.37A | Tapi River at Ban Yan Din Daeng, Surat Thani     | 867 |
| 127 | X.195 | Tapi River at Ban Tha Pho, Nakhon Si Thammarat   | 868 |
| 128 | X.198 | Khlomg Sin Pun at Ban Bang Rup, Surat Thani      | 869 |
| 129 | X.260 | Lower Khlomg I - Pan at Ban Arpart, Surat Thani  | 870 |

**THALE SAP SONGKHLA BASIN**

|     |       |                                                  |     |
|-----|-------|--------------------------------------------------|-----|
| 130 | X.67A | Khlomg Ratthaphum at Ban Nasithong, Songkhla     | 871 |
| 131 | X.71B | Khlomg Tam at Ban Khuan Lang, Songkhla           | 872 |
| 132 | X.90  | Khlomg U - Taphao at Ban Bang Sala, Songkhla     | 873 |
| 133 | X.113 | Khlomg La Pang at Ban Thung Prap, Songkhla       | 874 |
| 134 | X.170 | Khlomg Lam at Ban Khlomg Lam, Phatthalung        | 875 |
| 135 | X.267 | Khlomg Tamot at Ban Mae Khree, Phatthalung       | 876 |
| 136 | X.276 | Upper Khlomg Tha Nae at Ban Khao Pu, Phatthalung | 877 |

**SOUTHERN PENINSULA WEST COAST**

|     |       |                                                 |     |
|-----|-------|-------------------------------------------------|-----|
| 137 | X.150 | Khlong Langu at Ban Wang Pa Khian, Satun        | 878 |
| 138 | X.187 | Khlong Ta Kuaw Pa at Ban Hin Dan, Phangnga      | 879 |
| 139 | X.191 | Khlong Bang Yai at Satree Phuket School, Phuket | 880 |
| 140 | X.236 | Lower Khlong Palian at Ban Yan Ta Khaow, Trang  | 881 |
| 141 | X.245 | Khlong Phangnga at Ban Bang Tong, Phangnga      | 882 |
| 142 | X.279 | Khlong Duson at Ban Panjor, Satun               | 883 |

**APPENDIX**

Flow Duration Curve for Daily Discharge ( 2004-2013 )

## HYDROLOGICAL YEAR BOOK PUBLICATION

\* \*\*\*\* \*\* \*\*\*\* \*

Introduction

Great Attempt has been made all along to expedite the engineering processing of the stream flow data to be ready for publication, and to translate the publication plan into implementation. Efforts from various working units as well as personnel concerned pulled together to drive this work into reality. Publication of stream flow data has begun since 1966. The first yearbook publication came out as Volume 8 for the 1965 water year. It presents records of stage and discharge of 113 gauging stations in 59 streams.

Definition of terms and abbreviations

Table for converting Metric Units to English Units is on page XXX. Terms related to stream flow and other hydrologic data, as used in this report, are defined as follows:

CMS-day is the volume of water represented by a flow of 1 cubic meter per second for 24 hours. It is equivalent to 86,400 cubic meters, 0.0864 million cubic meter, or 3,050,784 cubic feet, or 70.07 acre-feet, and represents a runoff of 86.4 millimeters from 1 square kilometer.

Control designates of feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic meter per second (cms.) is the rate of stream discharge expressed in volume per a unit of time, One cubic meter per second is the rate of discharge representing a volume of 1 cubic meter passing a given point during 1 second.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharge during a specific period.

Momentary peak discharge is the peak discharge at a particular instant of time, at least once a year.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from rainfall would normally drains by gravity into the stream above the specified point. Figures of drainage area given herein are determined from Royal Thai Survey Department AMS map with scale of 1 to 50,000, unless otherwise noted. They include all closed basins, or noncontributing areas, with in the area unless otherwise noted.

Gage height (G.H.) is the water surface elevation above some arbitrary gage datum to which, in most cases, referred the Mean Sea Level (M.S.L.) Ko Lak datum, otherwise the arbitrary assumed datum (A.D.) being used.

Gauging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. The term "Staff gauging station" is applied only those gauging stations where only a gage height record is observed at an installed staff gage. If a water stage recorder is also installed, such a gauging station is referred as recording gauging station. In case of discharge measurements being practiced, it is referred as stream flow calibration or rating station.

Million cubic meter (mcm.) is the volume of water expressed in millions of cubic meter.

One million cubic meter is the quantity of water required to cover 1 square kilometer to a depth of 1 meter and is equivalent to 811 acre-feet, or 408.6 cfs.-day, or 264.2 million gallons.

Runoff in mcm. shows the volume of approximately effective runoff from rainfall, passing a given point for a given period of time.

Annual runoff is the volume of approximately effective runoff from rainfall accumulated during the water year.

Stage-discharge relation is the relation between gage height and the volume of water per unit of time, flowing in a channel.

Rating tables giving the discharge for any gage height are prepared from stage-discharge relation curves or rating curves.

Water year is the 12-month period, April 1 through March 31, related to annual cycle of river flow during which the river begins to rise, reaching its flood stage and subsiding toward its cyclic minimum

The water year is designated by the calendar year in which it begins and which includes 3 of 12 months. Thus, the year began April 1, 1969 is called the "1969 water year".

#### Order of listing of gauging data

In this format, gauging data are listed according to their code running number order. It has been found more convenient in locating the required data when the list is arranged in such manner. The station code name contains the letters standing for river name and number in running order according to the age of the station installed in that river. The station code, for example, for the Chao Phraya River at Wat Tha Hat installed in 1905 is C. 1, which is the first stream flow rating station ever built in this river.

Series of yearbook publications

The yearbook series in which the stream flow data had been published was issued as follows :

| <u>Volume</u> | <u>Water Years</u> | <u>No. of station – years</u> | <u>Date of Issuance</u> |
|---------------|--------------------|-------------------------------|-------------------------|
| 1             | 1912 – 1937        | 112                           | September 1976          |
| 2             | 1938 – 1947        | 103                           | September 1976          |
| 3             | 1948 – 1953        | 146                           | September 1976          |
| 4             | 1954 – 1956        | 178                           | September 1976          |
| 5             | 1957 – 1959        | 203                           | May 1974                |
| 6             | 1960 – 1962        | 213                           | October 1973            |
| 7             | 1963 – 1964        | 182                           | July 1969               |
| 8             | 1965               | 113                           | May 1967                |
| 9             | 1966               | 129                           | June 1975               |
| 10            | 1967               | 172                           | September 1976          |
| 11            | 1968               | 187                           | September 1976          |
| 12            | 1969               | 182                           | March 1979              |
| 13            | 1970               | 182                           | March 1979              |
| 14            | 1971               | 182                           | June 1979               |
| 15            | 1972               | 184                           | October 1979            |
| 16            | 1973               | 187                           | January 1980            |
| 17            | 1974               | 191                           | March 1980              |
| 18            | 1975               | 182                           | August 1980             |
| 19            | 1976               | 184                           | November 1980           |
| 20            | 1977               | 192                           | February 1981           |
| 21            | 1978               | 210                           | May 1982                |
| 22            | 1979               | 237                           | July 1981               |
| 23            | 1980               | 231                           | August 1982             |
| 24            | 1981               | 213                           | November 1983           |
| 25            | 1982               | 224                           | June 1986               |
| 26            | 1983               | 235                           | October 1986            |
| 27            | 1984               | 242                           | February 1988           |
| 28            | 1985               | 232                           | January 1989            |
| 29            | 1986               | 245                           | June 1989               |
| 30            | 1987               | 271                           | July 1990               |
| 31            | 1988               | 267                           | February 1990           |
| 32            | 1989               | 224                           | July 1991               |
| 33            | 1990               | 225                           | July 1992               |

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| <u>Volume</u> | <u>Water Years</u> | <u>No. of station – years</u> | <u>Date of Issuance</u> |
|---------------|--------------------|-------------------------------|-------------------------|
| 34            | 1991               | 227                           | July 1993               |
| 35            | 1992               | 220                           | May 1994                |
| 36            | 1993               | 228                           | April 1995              |
| 37            | 1994               | 224                           | August 1996             |
| 38            | 1995               | 232                           | July 1997               |
| 39            | 1996               | 244                           | August 1998             |
| 40            | 1997               | 269                           | August 1999             |
| 41            | 1998               | 258                           | August 2000             |
| 42            | 1999               | 291                           | August 2001             |
| 43            | 2000               | 316                           | September 2002          |
| 44            | 2001               | 330                           | September 2003          |
| 45            | 2002               | 316                           | October 2004            |
| 46            | 2003               | 334                           | October 2005            |
| 47            | 2004               | 338                           | November 2006           |
| 48            | 2005               | 340                           | December 2007           |
| 49            | 2006               | 362                           | February 2009           |
| 50            | 2007               | 361                           | May 2010                |
| 51            | 2008               | 372                           | February 2011           |
| 52            | 2009               | 368                           | December 2012           |
| 53            | 2010               | 347                           | February 2013           |
| 54            | 2011               | 360                           | April 2013              |
| 55            | 2012               | 348                           | October 2013            |
| 56            | 2013               | 369                           | October 2014            |

The preparation of the manuscripts of the further Volume is in progress. It is expected that they would be issued in serial order in the very near future.



## STANDARD OF STREAMFLOW DATA PROCUREMENT

\*\*\*\*\* \*\* \*\*\*\*\*

### Network design

The location of stream gauging stations is primarily based upon the urgent need at various dam sites which is accessible. By the time of expansion of the network at later date, the area or basin of "blind spot" is put at first priority backing up by the following conditions:

- (a) Accessibility.
- (b) Geographical location.
- (c) Mean annual rainfall.
- (d) Vegetation cover determined from Army Map Service topographic map with 1:50,000 or 1:250,000 scale.
- (e) Basin soil type.
- ( f ) Type of surface rock.

### Field work

The minimum standard of basic hydrologic data for observations and measurements are equal to those recommended in the United Nations ECAFE Flood Control series No.6.

Water stage data are obtained by staff gage and by water stage recorder. Normally a vertical section staff gage is installed for manual observation with usual frequency of reading varies from 1 to 5 times of equal interval during the daytime. At some specific station where stream flow measurement camps are situated, the reading of water stage by night is also made, in addition, usually 1 to 3 times of equal interval. The standard bench mark is also established near the gage site. The 1.00 - m standard enameled staff gage section with 1 cm graduation are used with zero reading, in most cases, referred to Mean Sea Level (M.S.L.) Ko Lak datum, otherwise the assumed datum begin used. Few wire - weight gages are also adopted on highway bridges.

In some mountainous headwater area as well as in the estuary, additional installation of water stage recorder is made. A continuous record of water stage is obtained at such station. The German A. Ott type X has so far been adopted as our standard equipment. Some pneumatic recorder is also being used. Weekly visit to the gage for inspection and changing chart paper by the crew or gage observer is under practice.

At the stream flow gauging station, flow measurement by a current meter is periodically performed so that the calibration of stream section related to flow can be made through the development of stage - flow relationship or simply called " rating curve ". Two types of the stream flow gauging station are under operation: with and without crew camp. Those without crew camp are under moving team and are capable for flow measurements of several stations. Those with crew camp are subject to less accessibility.

At station operated by a moving crew, at least twice a month during the monsoon period and once a month during the low flow period are expected for flow rating performance. The moving crew frequently fails to reach the stations while at their crest stages because of road damage and time available. At station with crew camp, daily rating performance may be expected, at least once whenever change of stage per day is over 30 centimeters. Fixed boat by cable way across the river is one of typical means of flow measurement by current meter for medium river, 100 m wide. Flow wider river, the boat is fixed in position by anchors.

The river cross section is requested to be made simultaneously during flow velocity measurement, so that shifting of the section could be determined. This request is lawful because there had been in the older day fashion of using cross section made during dry season for discharge computation.

The German A. Ott current meter has so far been adopted as standard equipment. The multiple - point method has been used as velocity measurement practice. At present the two - point method is carefully practiced.

#### Office data processing

The standard techniques used overseas are adopted in processing the data. In fact the standard methods of U.S. Geological Survey and U.S. Department of Agriculture (for small streams) are adopted as general basis.

Development of rating curve - Yearly mean rating curve is generally used as a tool in determining the daily flow. Periodically developed rating is frequently used when dictated by the conditions, so that the shifting control could be eliminated or reduced. Zero flow elevation of the rating section is determined by trial and error method with logarithmic plotting of the rating curve. Extension of the logarithmic rating line is frequently used to determine the channel flow at the over bank flow stage. The over bank flow is assessed by either direct velocity measurement or slope - area method whenever applicable.

Determination of daily mean flow - Application of the adjusted daily mean gage height to rating table gives the corresponding daily mean discharge from which the monthly and the yearly mean discharges are computed. Shifting adjustment for observed gage height is made when necessary. Shifting design is made basing on flood stages and times, if any. Other adjustments such as back water, rise and fall of flood, etc., which necessitate the use of other parametric factors, are also made, if any.

At some gauging stations where rises and falls of floods are immediate, hourly basis of gage height application to the rating curve is used to determine daily mean discharge.

At stations where rises and falls of streams are gentle, gage height data are usually obtained by manual reading.

It has been found that application of 1 to 5 times average reading (for daytime) gives an error of daily mean flow not more than 15% for mountainous streams, less than 10% for larger valley streams and not more than 5% for lower deltaic streams. Most of mountainous and valley streams are under recording operation, only deltaic streams that daytime reading are still used.

## XXVIII

The daily mean gage heights are obtained by arithmetic mean of the observed data available. Adjusted gage heights due to shifting, which are applicable to rating curve for daily mean flow computation, are practically made.

It is noted that the daily mean flow are mostly subject to upstream diversion. Headwater utilization of water by people diversions and state-owned diversions are expected in many river basins in this country. Consequently, the virgin flow is hardly determined. Daily mean values may be replaced by the monthly mean in the case of flow measured at tail waters of existing reservoirs.

Time basis used for daily mean flow is from midnight to midnight.

Review of procedure for stream flow data processing.

Following are steps used for review the overall data before finalizing the process:

1) Checking of gage height data which are obtained either from staff gage or from water stage recorder, for the following cases:

a) Representability of daytime observation for the daily mean value, if the data are from staff gage reading.

b) Discrepancies of recording charts, if any.

c) Desirability of hourly-basis process for daily mean flow.

d) Datum's of gage observation and of the rating curve used.

e) Location of gage from which data are taken and location of gage at which the rating curve is developed.

2) Checking of availability and goodness of field measurement notes.

3) Checking of differential magnitude of gage height during discharge measurement as to which arithmetic average or weighted average is desirable.

4) Checking stability of rating curve used.

5) Review of shifting control sample and design shifting, if any.

6) Adjustment of backwater, flood wave, etc., by rate of change of falls as index, if any.

7) Overall review of daily mean flow data as an end product.

8) Checking consistency of runoff volume among those observed at the upstream and downstream stations, taking into account intervening diversions of flow, if any.

Classification of stream flow data

The station description states the degree of accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good", less than 10 percent; "fair", less than 15 percent; "poor", probably more than 15 percent.

#### Future plan for computerization

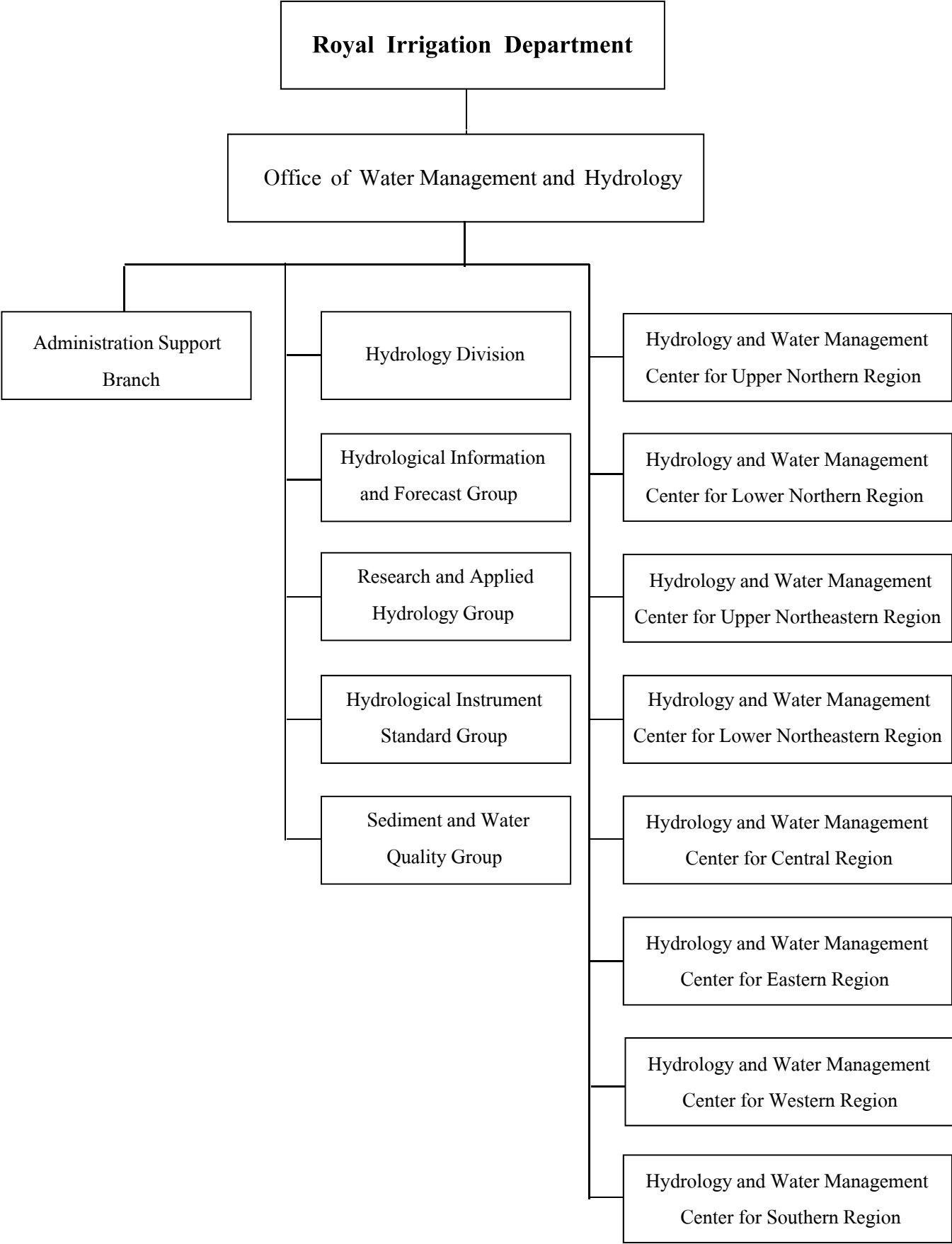
The Royal Irrigation Department (RID) has developed data system which include computerization of storage, Processing and retrieval of rainfall data since 1969. During the stream flow data system was being developed at RID in 1976, the National Economic and Social Development Board has made in agreement with the Asian Institute of Technology (AIT) to study on "Development of Water Resources Information System for Thailand". In the Contract AIT will recommend a standardized procedure to various agencies for collecting and recording hydrometeorological and hydrological data and develop a computer based data storage and retrieval system to process, store, analyze and publish the data furnished by various agencies involved in data collection.

The Water Resources Information System for Thailand (WRIST) package has been designed to provide permanent computer media storage of hydrometeorological and hydrological data in such a form that it can be readily added, to, altered or deleted and also called for analysis and presentation as required. The Indexed Sequential Method has been used for mass storage of the data and the processing and storing system have been designed taking into consideration the data processing schemes followed by the agencies, the probable frequency of retrieval expected and also the order or grouping of data elements differently for different agencies so that the system is best suited and efficient in operation for the current requirements and anticipated uses by the agencies in Thailand. The system will process and store data agency wise. The system is also designed to allow for the inclusion of additional data types if the need arise in the future. IBM 370/145 Computer facility at the AIT Bangkok will be used to develop the WRIST package. Operating programs will be written in ANS COBOL language independent of machine hardware to facilitate machine to machine transferability of the package for medium scale computers. The system has the data retrieval facility in the form of monthly and yearly publication agency wise; raw data and analysis data either in the form of computer printouts or in the direct accessible forms like cards or tapes controlled by basin, Sub-basin, region, station and data type. Data stored can also be available in the form of punched cards or punched card image on magnetic tapes so that they can be accessed by FORTRAN programs.

#### Organization

Stream flow data presented herein are from the hydrologic network operating by the Hydrology Division of the Royal Irrigation Department (RID). Field data collection and office data processing as well as yearbook publication are hydrologic activities undertaken by the Division.

The organization structure of the Division is diagrammatically shown below :-



## PARTICIPATION IN STREAM GAUGING WORKS

\* \* \* \* \*

Among 22 water related government agencies, several of them operate stream flow gauging works according to their own purposes. In early 1949 the Hydrology Section was established in the Survey Division of the Royal Irrigation Department. The Section is responsible for its activity in hydrology as prerequisite for water resources development. The activity includes:

- (1) Procurement of basic hydrologic data including precipitation, stream flow, sediment, evaporation, etc.
- (2) Analyses and research to produce the facts governing the behavior of water, their occurrences, circulation and distribution in its varied forms, their properties and their interaction with other allied factors.
- (3) Application to water resources development and management, utilizing basic data and the facts disclosed by analyses and research.

Just one year after the beginning of water storage work, in 1953 there were only 49 discharge stations and 114 stage stations as operated by the Hydrology Section. In February 1975 the Section was separated from the Survey Division and was raised the status to be the Hydrology Division of the Royal Irrigation Department. The present network of stream gauging works contains 221 discharge stations of which 147 are currently operated and 74 are previously calibrated with continuous stage observation while 145 were abandoned, and 315 stage station are currently operated while 232 were abandoned.

After the onset of the Lower Mekong River Basin Development Scheme, the Hydrology Section was also established in the Investigation and Planning Division of the National Energy Administration which is a representative agency of Thai Government in the Lower Mekong Committee. During the period of November 1958 – May 1962, seven hydrologic stations were installed and operated by the Harza Engineering Company contracted by the Agency for International Development of the United States Government. At present the NEA operates about 90 discharge stations and 140 stage stations. A series of yearbooks has also been published.

The third agency which operates the stream gauging works is the Hydrometeorology Division of the Meteorological Department. With the technical and financial support from the World Meteorological Organization, this agency began the stream gauging works in 1967. Up till now, about 11 discharge stations and 32 stage stations are under operation. The stream gauging data are also included in their yearbook.

The last agency which operates the stream gauging works for the planning purpose is the Electricity Generating Authority of Thailand. They began to operate 15 discharge stations and 4 stage stations in 1971.

In addition, there are other agencies operating the stream gauging works for their own purposes such as watershed management and conservation program of the Royal Forestry Department. The Port Authority of Thailand carries on discharge measurement along the estuary of the Chao Phraya River for studying the sedimentation in the vicinity of the service area.

## UNITS OF MEASURE AND CONVERSION FACTORS

The following factors may be used to convert the metric and Thai unit published here in to the English units.

| <u>Multiply metric or Thai units</u>  | <u>By</u>                | <u>To obtain English Unit</u>         |
|---------------------------------------|--------------------------|---------------------------------------|
| <u>Length</u>                         |                          |                                       |
| millimeters (mm.)                     | .03973                   | inches (in)                           |
| meters (m.)                           | 39.73                    | inches (in)                           |
|                                       | 3.2808                   | feet (ft)                             |
|                                       | 1.0936                   | yards (yd)                            |
|                                       | .1988                    | rods                                  |
| kilometers (km)                       | .6214                    | miles (mi)                            |
| <u>Area</u>                           |                          |                                       |
| square meters (m <sup>2</sup> )       | 10.76                    | square feet (ft <sup>2</sup> )        |
|                                       | 1.196                    | square yards (yd <sup>2</sup> )       |
|                                       | 2.47 x 10 <sup>-4</sup>  | acres                                 |
| rai (1,600 m <sup>2</sup> - Thai)     | .3952                    | acres                                 |
| hectares (ha)                         | 2.4709                   | acres                                 |
| square hectometers (hm <sup>2</sup> ) | 2.4709                   | acres                                 |
| square kilometers (km <sup>2</sup> )  | 247.1                    | acres                                 |
|                                       | .3861                    | square miles (mi <sup>2</sup> )       |
| <u>Volume</u>                         |                          |                                       |
| liters (l)                            | .2642                    | gallons (gal)                         |
| Cubic decimeters (dm <sup>3</sup> )   | .2642                    | gallons (gal)                         |
|                                       | .03531                   | cubic feet (ft <sup>3</sup> )         |
| cubic meters (m <sup>3</sup> )        | 264.2                    | gallons (gal)                         |
|                                       | 2.642 x 10 <sup>-4</sup> | million gallons (10 <sup>6</sup> gal) |
|                                       | 35.31                    | cubic feet (ft <sup>3</sup> )         |
|                                       | 4.086 x 10 <sup>-4</sup> | cfs - day (ft <sup>3</sup> / s - day) |
|                                       | 8.11 x 10 <sup>-4</sup>  | acre - feet (acre - ft)               |
| cubic hectometers (hm <sup>3</sup> )  | 264.2                    | million gallons (10 <sup>6</sup> gal) |
|                                       | 408.6                    | cfs - day (ft <sup>3</sup> / s - day) |
|                                       | 811                      | acre - feet (acre - ft)               |
| million cubic meters (mcm)            | 811                      | acre - feet (acre - ft)               |
| cubic kilometers (km <sup>3</sup> )   | 811 x 10 <sup>3</sup>    | acre - feet (acre - ft)               |

# XXXIII

Multiply metric or Thai units

By

To obtain English Unit

Flow

liters per second (l/s)

.03531

cubic feet per second (ft<sup>3</sup> / s)

15.85

gallons per minute (gpm)

cubic decimeters per second (dm<sup>3</sup> / s)

.03531

cubic feet per second (ft<sup>3</sup> / s)

15.85

gallons per minute (gpm)

22.82 x 10<sup>-3</sup>

million gallons per day (mgd)

cubic meters per second (m<sup>3</sup> / s)

35.31

cubic feet per second (ft<sup>3</sup> / s)

15,850

gallons per minute (gpm)

22.82

million gallons per day (mgd)

\* \* \* \* \*



# Stream Gauging Data

## Water Year 2013

**WATER YEAR : 2013**

## SALAWIN RIVER BASIN

**Nam Mae Pai at Ban Tha Pong Daeng , Mae Hong Son (Sw.5A)**

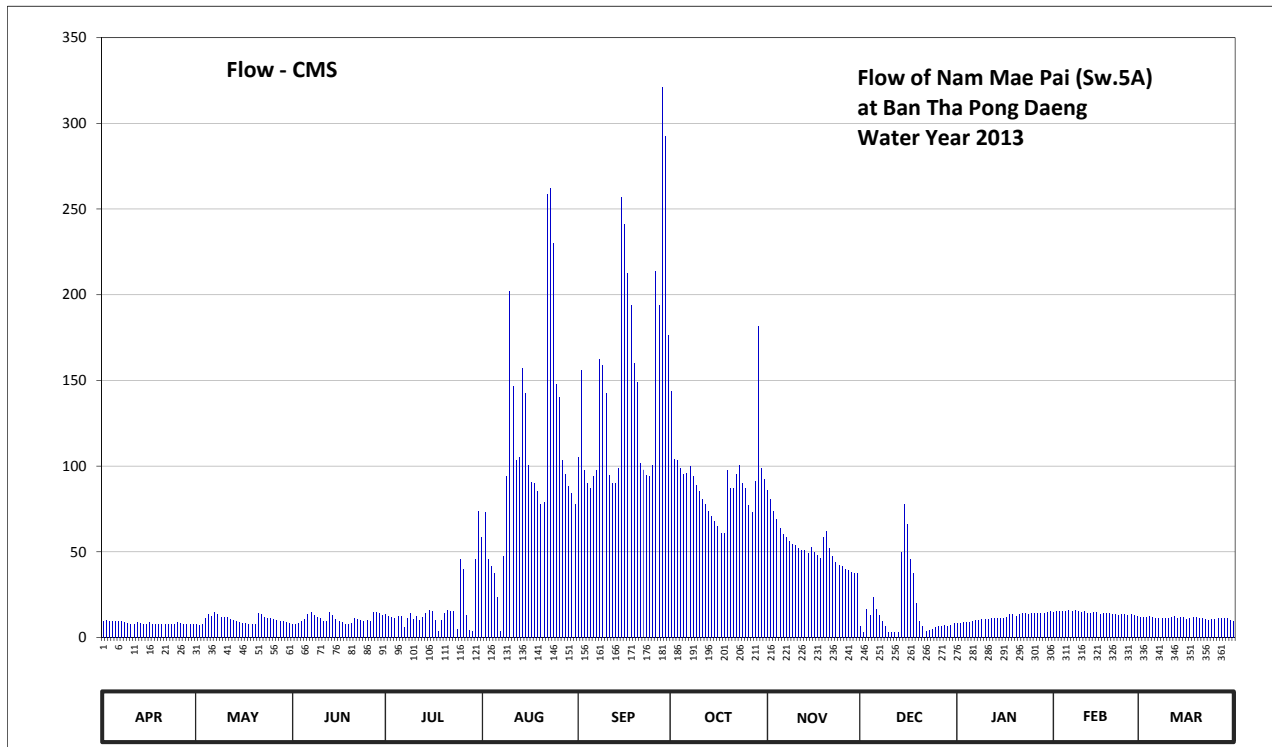
Lat 19 - 16 - 06 N    Long 97 - 56 - 55 E

**Location : on left bank at Ban Tha Pong Daeng.**

|                                         |                                                                                            |                |               |        |                  |                    |
|-----------------------------------------|--------------------------------------------------------------------------------------------|----------------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                 | Tha Pong Daeng | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Mae Hong Son       |
| <b>Drainage Area</b>                    | 4,470                                                                                      | sq.km.         |               |        |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                 |                |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +175.757                                                                                   | m. (MSL.)      |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                  |                |               |        |                  |                    |
| <b>Location BM</b>                      | On left bank near the station office.                                                      |                |               |        | <b>Elevation</b> | +187.423 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                     |                |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                              |                |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1980 to date                                                                               |                |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                            |                |               |        |                  |                    |
| <b>Period of Rating</b>                 | 1984 to date                                                                               |                |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                          |                |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                               |                |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                             |                |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                          |                |               |        |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 143 discharge measurements made in 2013. |                |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 175.49 | 175.45 | 175.46                                           | 175.56 | 176.14 | 176.90 | 176.94 | 176.45 | 175.81 | 175.72 | 175.62 | 175.53 |        |
| 2                                | 175.50 | 175.44 | 175.45                                           | 175.54 | 176.29 | 177.04 | 176.88 | 176.37 | 175.80 | 175.72 | 175.61 | 175.53 |        |
| 3                                | 175.49 | 175.46 | 175.47                                           | 175.53 | 176.00 | 176.72 | 176.87 | 176.30 | 175.84 | 175.71 | 175.61 | 175.53 |        |
| 4                                | 175.49 | 175.52 | 175.49                                           | 175.52 | 175.95 | 176.54 | 176.76 | 176.25 | 175.83 | 175.71 | 175.61 | 175.54 |        |
| 5                                | 175.49 | 175.56 | 175.51                                           | 175.54 | 175.90 | 176.47 | 176.67 | 176.20 | 175.86 | 175.71 | 175.61 | 175.53 |        |
| 6                                | 175.49 | 175.54 | 175.56                                           | 175.54 | 175.86 | 176.65 | 176.68 | 176.16 | 175.84 | 175.70 | 175.60 | 175.52 |        |
| 7                                | 175.49 | 175.58 | 175.58                                           | 175.75 | 175.79 | 176.72 | 176.78 | 176.14 | 175.83 | 175.69 | 175.59 | 175.52 |        |
| 8                                | 175.48 | 175.56 | 175.55                                           | 175.67 | 176.02 | 177.09 | 176.64 | 176.12 | 175.82 | 175.69 | 175.60 | 175.52 |        |
| 9                                | 175.47 | 175.53 | 175.53                                           | 175.63 | 176.64 | 177.06 | 176.52 | 176.10 | 175.81 | 175.68 | 175.59 | 175.52 |        |
| 10                               | 175.46 | 175.53 | 175.52                                           | 175.68 | 177.39 | 176.93 | 176.44 | 176.09 | 175.80 | 175.68 | 175.58 | 175.52 |        |
| 11                               | 175.46 | 175.53 | 175.49                                           | 175.65 | 176.96 | 176.66 | 176.37 | 176.07 | 175.80 | 175.68 | 175.59 | 175.53 |        |
| 12                               | 175.48 | 175.51 | 175.70                                           | 175.69 | 176.87 | 176.55 | 176.34 | 176.06 | 175.80 | 175.67 | 175.57 | 175.54 |        |
| 13                               | 175.47 | 175.50 | 175.62                                           | 175.66 | 176.90 | 176.54 | 176.30 | 176.06 | 175.80 | 175.67 | 175.57 | 175.52 |        |
| 14                               | 175.46 | 175.49 | 175.55                                           | 175.63 | 177.05 | 176.76 | 176.27 | 176.04 | 176.05 | 175.67 | 175.58 | 175.53 |        |
| 15                               | 175.46 | 175.48 | 175.51                                           | 175.60 | 176.93 | 177.80 | 176.24 | 176.08 | 176.34 | 175.67 | 175.58 | 175.53 |        |
| 16                               | 175.48 | 175.47 | 175.49                                           | 175.59 | 176.80 | 177.68 | 176.21 | 176.05 | 176.22 | 175.67 | 175.56 | 175.51 |        |
| 17                               | 175.46 | 175.47 | 175.48                                           | 175.69 | 176.56 | 177.47 | 176.17 | 176.03 | 176.00 | 175.66 | 175.57 | 175.52 |        |
| 18                               | 175.46 | 175.46 | 175.45                                           | 175.79 | 176.54 | 177.33 | 176.17 | 176.01 | 175.90 | 175.64 | 175.57 | 175.53 |        |
| 19                               | 175.46 | 175.46 | 175.45                                           | 175.69 | 176.43 | 177.07 | 176.73 | 176.14 | 175.85 | 175.64 | 175.57 | 175.53 |        |
| 20                               | 175.46 | 175.46 | 175.47                                           | 175.63 | 176.34 | 176.98 | 176.47 | 176.18 | 175.82 | 175.65 | 175.56 | 175.52 |        |
| 21                               | 175.46 | 175.57 | 175.52                                           | 175.60 | 176.35 | 176.82 | 176.48 | 176.07 | 175.81 | 175.64 | 175.56 | 175.52 |        |
| 22                               | 175.45 | 175.56 | 175.51                                           | 175.59 | 177.81 | 176.73 | 176.67 | 176.02 | 175.79 | 175.63 | 175.55 | 175.51 |        |
| 23                               | 175.46 | 175.53 | 175.50                                           | 175.61 | 177.83 | 176.66 | 176.80 | 175.98 | 175.78 | 175.63 | 175.56 | 175.50 |        |
| 24                               | 175.46 | 175.52 | 175.49                                           | 175.77 | 177.60 | 176.64 | 176.55 | 175.96 | 175.77 | 175.64 | 175.56 | 175.51 |        |
| 25                               | 175.48 | 175.52 | 175.50                                           | 176.00 | 176.97 | 176.79 | 176.47 | 175.95 | 175.75 | 175.63 | 175.55 | 175.51 |        |
| 26                               | 175.47 | 175.51 | 175.49                                           | 175.93 | 176.91 | 177.48 | 176.33 | 175.93 | 175.74 | 175.63 | 175.56 | 175.52 |        |
| 27                               | 175.46 | 175.50 | 175.58                                           | 175.83 | 176.86 | 177.33 | 176.29 | 175.92 | 175.74 | 175.63 | 175.55 | 175.52 |        |
| 28                               | 175.45 | 175.49 | 175.58                                           | 175.78 | 176.67 | 178.20 | 176.57 | 175.91 | 175.73 | 175.63 | 175.54 | 175.52 |        |
| 29                               | 175.45 | 175.49 | 175.57                                           | 175.79 | 176.50 | 178.02 | 177.24 | 175.90 | 175.74 | 175.63 |        | 175.52 |        |
| 30                               | 175.46 | 175.48 | 175.55                                           | 176.00 | 176.40 | 177.20 | 176.76 | 175.90 | 175.73 | 175.62 |        | 175.50 |        |
| 31                               |        | 175.47 |                                                  | 176.30 | 176.34 |        | 176.60 |        | 175.72 | 175.61 |        | 175.49 |        |
| Mean                             | 175.47 | 175.50 | 175.52                                           | 175.70 | 176.63 | 177.03 | 176.56 | 176.08 | 175.84 | 175.66 | 175.58 | 175.52 |        |
| Max                              | 175.50 | 175.58 | 175.70                                           | 176.30 | 177.83 | 178.20 | 177.24 | 176.45 | 176.34 | 175.72 | 175.62 | 175.54 | 178.20 |
| Min                              | 175.45 | 175.44 | 175.45                                           | 175.52 | 175.79 | 176.47 | 176.17 | 175.90 | 175.72 | 175.61 | 175.54 | 175.49 | 175.44 |
| Annual Max Momentary Gage Height | 178.56 |        | m. (MSL.) , at 20.00 Hours , on Sep 28 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 175.76 |        | m. (MSL.) , River Bed 174.74 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 183.88 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 181.48 |        | m. (MSL.) , Drainage Area 4470 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 9.52                                                              | 7.60                     | 8.08   | 13.60  | 58.45                | 105.00  | 143.80  | 86.10   | 6.45                     | 8.20   | 14.70  | 11.80  |          |        |
| 2              | 10.00                                                             | 7.12                     | 7.60   | 12.40  | 73.00                | 156.00  | 104.16  | 81.00   | 3.00                     | 8.20   | 15.35  | 11.80  |          |        |
| 3              | 9.52                                                              | 8.08                     | 8.56   | 11.80  | 45.50                | 97.44   | 103.74  | 74.00   | 16.80                    | 8.85   | 15.35  | 11.80  |          |        |
| 4              | 9.52                                                              | 11.20                    | 9.52   | 11.20  | 41.50                | 89.88   | 99.12   | 69.00   | 13.35                    | 8.85   | 15.35  | 12.40  |          |        |
| 5              | 9.52                                                              | 13.60                    | 10.60  | 12.40  | 37.50                | 86.94   | 95.34   | 64.00   | 23.70                    | 8.85   | 15.35  | 11.80  |          |        |
| 6              | 9.52                                                              | 12.40                    | 13.60  | 12.40  | 23.70                | 94.50   | 95.76   | 60.30   | 16.80                    | 9.50   | 16.00  | 11.20  |          |        |
| 7              | 9.52                                                              | 14.80                    | 14.80  | 6.25   | 3.65                 | 97.44   | 99.96   | 58.45   | 13.35                    | 10.15  | 15.40  | 11.20  |          |        |
| 8              | 9.04                                                              | 13.60                    | 13.00  | 11.45  | 47.35                | 162.25  | 94.08   | 56.60   | 9.90                     | 10.15  | 16.00  | 11.20  |          |        |
| 9              | 8.56                                                              | 11.80                    | 11.80  | 14.05  | 94.08                | 158.50  | 89.04   | 54.75   | 6.45                     | 10.80  | 15.40  | 11.20  |          |        |
| 10             | 8.08                                                              | 11.80                    | 11.20  | 10.80  | 201.65               | 142.60  | 85.68   | 53.82   | 3.00                     | 10.80  | 14.80  | 11.20  |          |        |
| 11             | 8.08                                                              | 11.80                    | 9.52   | 12.75  | 146.20               | 94.92   | 81.00   | 51.98   | 3.00                     | 10.80  | 15.40  | 11.80  |          |        |
| 12             | 9.04                                                              | 10.60                    | 9.50   | 10.15  | 103.74               | 90.30   | 78.00   | 51.05   | 3.00                     | 11.45  | 14.20  | 12.40  |          |        |
| 13             | 8.56                                                              | 10.00                    | 14.70  | 12.10  | 105.00               | 89.88   | 74.00   | 51.05   | 3.00                     | 11.45  | 14.20  | 11.20  |          |        |
| 14             | 8.08                                                              | 9.52                     | 13.00  | 14.05  | 157.25               | 99.12   | 71.00   | 49.20   | 50.13                    | 11.45  | 14.80  | 11.80  |          |        |
| 15             | 8.08                                                              | 9.04                     | 10.60  | 16.00  | 142.60               | 257.00  | 68.00   | 52.90   | 78.00                    | 11.45  | 14.80  | 11.80  |          |        |
| 16             | 9.04                                                              | 8.56                     | 9.52   | 15.40  | 100.80               | 240.80  | 65.00   | 50.13   | 66.00                    | 11.45  | 13.60  | 10.60  |          |        |
| 17             | 8.08                                                              | 8.56                     | 9.04   | 10.15  | 90.72                | 212.45  | 61.23   | 48.27   | 45.50                    | 12.10  | 14.20  | 11.20  |          |        |
| 18             | 8.08                                                              | 8.08                     | 7.60   | 3.65   | 89.88                | 193.55  | 61.23   | 46.42   | 37.50                    | 13.40  | 14.20  | 11.80  |          |        |
| 19             | 8.08                                                              | 8.08                     | 7.60   | 10.15  | 85.26                | 159.75  | 97.86   | 58.45   | 20.25                    | 13.40  | 14.20  | 11.80  |          |        |
| 20             | 8.08                                                              | 8.08                     | 8.56   | 14.05  | 78.00                | 148.60  | 86.94   | 62.15   | 9.90                     | 12.75  | 13.60  | 11.20  |          |        |
| 21             | 8.08                                                              | 14.20                    | 11.20  | 16.00  | 79.00                | 101.64  | 87.36   | 51.98   | 6.45                     | 13.40  | 13.60  | 11.20  |          |        |
| 22             | 7.60                                                              | 13.60                    | 10.60  | 15.40  | 258.60               | 97.86   | 95.34   | 47.35   | 3.65                     | 14.05  | 13.00  | 10.60  |          |        |
| 23             | 8.08                                                              | 11.80                    | 10.00  | 15.35  | 261.80               | 94.92   | 100.80  | 43.90   | 4.30                     | 14.05  | 13.60  | 10.00  |          |        |
| 24             | 8.08                                                              | 11.20                    | 9.52   | 4.95   | 230.00               | 94.08   | 90.30   | 42.30   | 4.95                     | 13.40  | 13.60  | 10.60  |          |        |
| 25             | 9.04                                                              | 11.20                    | 10.00  | 45.50  | 147.40               | 100.38  | 86.94   | 41.50   | 6.25                     | 14.05  | 13.00  | 10.60  |          |        |
| 26             | 8.56                                                              | 10.60                    | 9.52   | 39.90  | 140.20               | 213.80  | 77.00   | 39.90   | 6.90                     | 14.05  | 13.60  | 11.20  |          |        |
| 27             | 8.08                                                              | 10.00                    | 14.80  | 13.35  | 103.32               | 193.55  | 73.00   | 39.10   | 6.90                     | 14.05  | 13.00  | 11.20  |          |        |
| 28             | 7.60                                                              | 9.52                     | 14.80  | 4.30   | 95.34                | 321.00  | 91.14   | 38.30   | 7.55                     | 14.05  | 12.40  | 11.20  |          |        |
| 29             | 7.60                                                              | 9.52                     | 14.20  | 3.65   | 88.20                | 292.20  | 181.40  | 37.50   | 6.90                     | 14.05  |        | 11.20  |          |        |
| 30             | 8.08                                                              | 9.04                     | 13.00  | 45.50  | 84.00                | 176.00  | 99.12   | 37.50   | 7.55                     | 14.70  |        | 10.00  |          |        |
| 31             |                                                                   | 8.56                     |        | 74.00  | 78.00                |         | 92.40   |         | 8.20                     | 15.35  |        | 9.52   |          |        |
| Total          | 256.80                                                            | 323.56                   | 326.04 | 512.70 | 3291.69              | 4462.35 | 2829.74 | 1598.95 | 498.68                   | 369.25 | 402.70 | 348.52 | 15220.98 | CMSDAY |
| Mean           | 8.56                                                              | 10.44                    | 10.87  | 16.54  | 106.18               | 148.75  | 91.28   | 53.30   | 16.09                    | 11.91  | 14.38  | 11.24  | 41.70    | CMS    |
| Max            | 10.00                                                             | 14.80                    | 14.80  | 74.00  | 261.80               | 321.00  | 181.40  | 86.10   | 78.00                    | 15.35  | 16.00  | 12.40  | 321.00   | CMS    |
| Min            | 7.60                                                              | 7.12                     | 7.60   | 3.65   | 3.65                 | 86.94   | 61.23   | 37.50   | 3.00                     | 8.20   | 12.40  | 9.52   | 3.00     | CMS    |
| Runoff         | 22.19                                                             | 27.96                    | 28.17  | 44.30  | 284.40               | 385.55  | 244.49  | 138.15  | 43.09                    | 31.90  | 34.79  | 30.11  | 1315.09  | MCM    |
| Momentary Peak | 384.00 CMS. at 178.56 m. (MSL.) at 20.00 Hours , on Sep 28 , 2013 |                          |        |        |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 9.33                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 85.906  | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013****SALAWIN RIVER BASIN****Huai Mae Lamao at Ban Mae Lamao , Tak (Sw.6)**

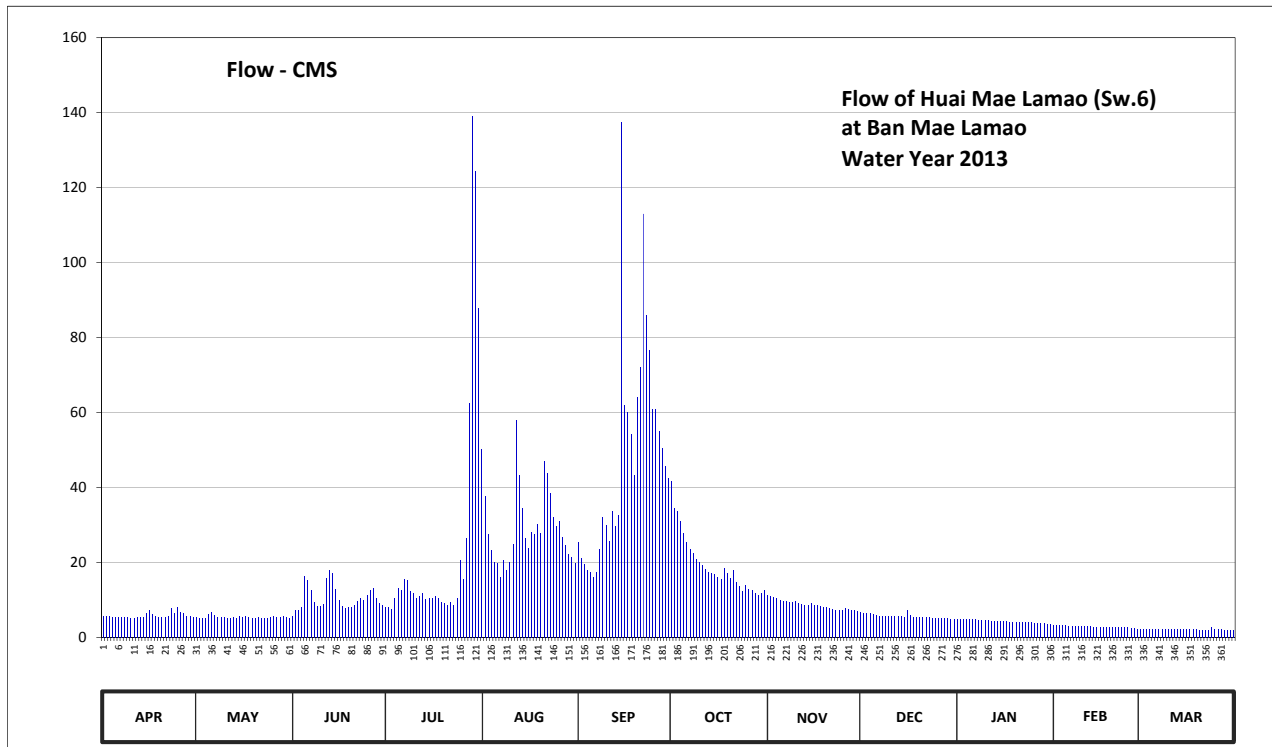
Lat 16 - 45 - 36 N Long 98 - 45 - 16 E

**Location : on left bank downstream from the bridge on highway.**

|                                         |                                                                                           |                  |               |                |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Mae Lamao</b> | <b>Amphoe</b> | <b>Mae Sot</b> | <b>Changwat</b>  | <b>Tak</b>         |
| <b>Drainage Area</b>                    | 1,009                                                                                     | sq.km.           |               |                |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |                  |               |                |                  |                    |
| <b>Zero Gage at Bottom</b>              | +268.470                                                                                  | m. (MSL.)        |               |                |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                  |               |                |                  |                    |
| <b>Location BM</b>                      | About 6.25 meters from the automatic gage buiding.                                        |                  |               |                | <b>Elevation</b> | +278.846 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                  |               |                |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                  |               |                |                  |                    |
| <b>Period of Available Gage Records</b> | 1971 to date                                                                              |                  |               |                |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |                |                  |                    |
| <b>Period of Rating</b>                 | 1971 to date                                                                              |                  |               |                |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |                |                  |                    |
| <b>Rated by Current Meter</b>           | 1971 to date                                                                              |                  |               |                |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                  |               |                |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |                |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 20 discharge measurements made in 2013. |                  |               |                |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct    | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|--------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 268.88 | 268.86 | 268.89      | 269.01 | 270.27                            | 269.64 | 270.07 | 269.17 | 268.94            | 268.83 | 268.73 | 268.66 |        |
| 2                                | 268.88 | 268.85 | 268.97      | 269.00 | 269.97                            | 269.51 | 269.89 | 269.15 | 268.93            | 268.82 | 268.73 | 268.66 |        |
| 3                                | 268.88 | 268.85 | 268.97      | 268.98 | 269.70                            | 269.45 | 269.87 | 269.14 | 268.92            | 268.82 | 268.73 | 268.66 |        |
| 4                                | 268.87 | 268.85 | 269.01      | 269.13 | 269.58                            | 269.40 | 269.80 | 269.12 | 268.92            | 268.82 | 268.72 | 268.66 |        |
| 5                                | 268.87 | 268.91 | 269.35      | 269.24 | 269.47                            | 269.38 | 269.71 | 269.10 | 268.91            | 268.82 | 268.72 | 268.66 |        |
| 6                                | 268.87 | 268.94 | 269.31      | 269.22 | 269.46                            | 269.34 | 269.64 | 269.09 | 268.90            | 268.82 | 268.71 | 268.66 |        |
| 7                                | 268.86 | 268.90 | 269.22      | 269.32 | 269.34                            | 269.38 | 269.59 | 269.08 | 268.89            | 268.82 | 268.70 | 268.66 |        |
| 8                                | 268.86 | 268.87 | 269.07      | 269.31 | 269.49                            | 269.59 | 269.55 | 269.07 | 268.88            | 268.81 | 268.70 | 268.66 |        |
| 9                                | 268.86 | 268.86 | 269.02      | 269.21 | 269.40                            | 269.83 | 269.50 | 269.07 | 268.88            | 268.81 | 268.70 | 268.66 |        |
| 10                               | 268.85 | 268.86 | 269.02      | 269.19 | 269.47                            | 269.77 | 269.47 | 269.09 | 268.88            | 268.81 | 268.70 | 268.66 |        |
| 11                               | 268.85 | 268.85 | 269.05      | 269.13 | 269.63                            | 269.65 | 269.44 | 269.06 | 268.88            | 268.81 | 268.70 | 268.66 |        |
| 12                               | 268.86 | 268.85 | 269.33      | 269.15 | 270.44                            | 269.87 | 269.41 | 269.05 | 268.88            | 268.80 | 268.70 | 268.66 |        |
| 13                               | 268.87 | 268.87 | 269.40      | 269.19 | 270.11                            | 269.76 | 269.38 | 269.04 | 268.88            | 268.80 | 268.70 | 268.66 |        |
| 14                               | 268.87 | 268.84 | 269.37      | 269.11 | 269.89                            | 269.84 | 269.37 | 269.03 | 268.88            | 268.80 | 268.69 | 268.66 |        |
| 15                               | 268.92 | 268.88 | 269.23      | 269.12 | 269.67                            | 271.85 | 269.36 | 269.06 | 268.87            | 268.80 | 268.69 | 268.66 |        |
| 16                               | 268.96 | 268.86 | 269.10      | 269.13 | 269.60                            | 270.52 | 269.34 | 269.04 | 268.97            | 268.79 | 268.69 | 268.66 |        |
| 17                               | 268.91 | 268.89 | 269.02      | 269.15 | 269.72                            | 270.48 | 269.32 | 269.03 | 268.90            | 268.79 | 268.69 | 268.66 |        |
| 18                               | 268.88 | 268.87 | 268.99      | 269.12 | 269.70                            | 270.36 | 269.42 | 269.02 | 268.87            | 268.78 | 268.69 | 268.66 |        |
| 19                               | 268.87 | 268.85 | 269.01      | 269.07 | 269.78                            | 270.11 | 269.37 | 269.01 | 268.86            | 268.78 | 268.69 | 268.65 |        |
| 20                               | 268.86 | 268.85 | 269.01      | 269.06 | 269.71                            | 270.56 | 269.33 | 269.00 | 268.86            | 268.78 | 268.69 | 268.64 |        |
| 21                               | 268.87 | 268.86 | 269.04      | 269.04 | 270.20                            | 270.72 | 269.40 | 268.99 | 268.86            | 268.77 | 268.69 | 268.63 |        |
| 22                               | 268.89 | 268.85 | 269.08      | 269.07 | 270.12                            | 271.45 | 269.29 | 268.98 | 268.86            | 268.77 | 268.69 | 268.63 |        |
| 23                               | 268.99 | 268.84 | 269.13      | 269.03 | 269.99                            | 271.00 | 269.26 | 268.97 | 268.86            | 268.77 | 268.69 | 268.63 |        |
| 24                               | 268.93 | 268.84 | 269.10      | 269.12 | 269.83                            | 270.81 | 269.21 | 268.97 | 268.85            | 268.77 | 268.68 | 268.68 |        |
| 25                               | 269.00 | 268.86 | 269.16      | 269.49 | 269.76                            | 270.50 | 269.27 | 268.97 | 268.85            | 268.77 | 268.68 | 268.66 |        |
| 26                               | 268.94 | 268.88 | 269.22      | 269.32 | 269.80                            | 270.50 | 269.23 | 268.99 | 268.85            | 268.76 | 268.67 | 268.65 |        |
| 27                               | 268.92 | 268.87 | 269.24      | 269.67 | 269.68                            | 270.38 | 269.22 | 268.98 | 268.85            | 268.76 | 268.67 | 268.65 |        |
| 28                               | 268.89 | 268.86 | 269.12      | 270.53 | 269.62                            | 270.28 | 269.20 | 268.97 | 268.84            | 268.75 | 268.66 | 268.64 |        |
| 29                               | 268.88 | 268.88 | 269.06      | 271.87 | 269.54                            | 270.17 | 269.17 | 268.96 | 268.84            | 268.75 |        | 268.64 |        |
| 30                               | 268.87 | 268.86 | 269.03      | 271.64 | 269.52                            | 270.09 | 269.20 | 268.95 | 268.83            | 268.74 |        | 268.64 |        |
| 31                               |        | 268.85 |             | 271.03 | 269.46                            |        | 269.22 |        | 268.83            | 268.74 |        | 268.63 |        |
| Mean                             | 268.89 | 268.86 | 269.12      | 269.44 | 269.74                            | 270.14 | 269.44 | 269.04 | 268.88            | 268.79 | 268.70 | 268.65 |        |
| Max                              | 269.00 | 268.94 | 269.40      | 271.87 | 270.44                            | 271.85 | 270.07 | 269.17 | 268.97            | 268.83 | 268.73 | 268.68 | 271.87 |
| Min                              | 268.85 | 268.84 | 268.89      | 268.98 | 269.34                            | 269.34 | 269.17 | 268.95 | 268.83            | 268.74 | 268.66 | 268.63 | 268.63 |
| Annual Max Momentary Gage Height | 272.34 |        | m. (MSL.) , |        | at 06.00 Hours , on Sep 15 , 2013 |        |        |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 268.47 |        | m. (MSL.) , |        | River Bed                         |        | 268.43 |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 278.19 |        | m. (MSL.) , |        |                                   |        |        |        |                   |        |        |        |        |
| Right Bank Elevation             | 275.04 |        | m. (MSL.) , |        | Drainage Area                     |        | 1009   |        | Square Kilometers |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|--------|-------|-------|----------------|
| 1              | 5.70                                                              | 5.40                     | 5.85   | 8.20                 | 50.15  | 25.40   | 41.80                    | 11.40  | 6.80   | 4.95   | 3.45  | 2.40  |                |
| 2              | 5.70                                                              | 5.25                     | 7.40   | 8.00                 | 37.80  | 21.30   | 34.60                    | 11.00  | 6.60   | 4.80   | 3.45  | 2.40  |                |
| 3              | 5.70                                                              | 5.25                     | 7.40   | 7.60                 | 27.50  | 19.50   | 33.80                    | 10.80  | 6.40   | 4.80   | 3.45  | 2.40  |                |
| 4              | 5.55                                                              | 5.25                     | 8.20   | 10.60                | 23.40  | 18.00   | 31.00                    | 10.40  | 6.40   | 4.80   | 3.30  | 2.40  |                |
| 5              | 5.55                                                              | 6.20                     | 16.50  | 13.20                | 20.10  | 17.40   | 27.85                    | 10.00  | 6.20   | 4.80   | 3.30  | 2.40  |                |
| 6              | 5.55                                                              | 6.80                     | 15.30  | 12.60                | 19.80  | 16.20   | 25.40                    | 9.80   | 6.00   | 4.80   | 3.15  | 2.40  |                |
| 7              | 5.40                                                              | 6.00                     | 12.60  | 15.60                | 16.20  | 17.40   | 23.70                    | 9.60   | 5.85   | 4.80   | 3.00  | 2.40  |                |
| 8              | 5.40                                                              | 5.55                     | 9.40   | 15.30                | 20.70  | 23.70   | 22.50                    | 9.40   | 5.70   | 4.65   | 3.00  | 2.40  |                |
| 9              | 5.40                                                              | 5.40                     | 8.40   | 12.30                | 18.00  | 32.20   | 21.00                    | 9.40   | 5.70   | 4.65   | 3.00  | 2.40  |                |
| 10             | 5.25                                                              | 5.40                     | 8.40   | 11.80                | 20.10  | 29.95   | 20.10                    | 9.80   | 5.70   | 4.65   | 3.00  | 2.40  |                |
| 11             | 5.25                                                              | 5.25                     | 9.00   | 10.60                | 25.05  | 25.75   | 19.20                    | 9.20   | 5.70   | 4.65   | 3.00  | 2.40  |                |
| 12             | 5.40                                                              | 5.25                     | 15.90  | 11.00                | 58.00  | 33.80   | 18.30                    | 9.00   | 5.70   | 4.50   | 3.00  | 2.40  |                |
| 13             | 5.55                                                              | 5.55                     | 18.00  | 11.80                | 43.40  | 29.60   | 17.40                    | 8.80   | 5.70   | 4.50   | 3.00  | 2.40  |                |
| 14             | 5.55                                                              | 5.10                     | 17.10  | 10.20                | 34.60  | 32.60   | 17.10                    | 8.60   | 5.70   | 4.50   | 2.85  | 2.40  |                |
| 15             | 6.40                                                              | 5.70                     | 12.90  | 10.40                | 26.45  | 137.50  | 16.80                    | 9.20   | 5.55   | 4.50   | 2.85  | 2.40  |                |
| 16             | 7.20                                                              | 5.40                     | 10.00  | 10.60                | 24.00  | 62.00   | 16.20                    | 8.80   | 7.40   | 4.35   | 2.85  | 2.40  |                |
| 17             | 6.20                                                              | 5.85                     | 8.40   | 11.00                | 28.20  | 60.00   | 15.60                    | 8.60   | 6.00   | 4.35   | 2.85  | 2.40  |                |
| 18             | 5.70                                                              | 5.55                     | 7.80   | 10.40                | 27.50  | 54.20   | 18.60                    | 8.40   | 5.55   | 4.20   | 2.85  | 2.40  |                |
| 19             | 5.55                                                              | 5.25                     | 8.20   | 9.40                 | 30.30  | 43.40   | 17.10                    | 8.20   | 5.40   | 4.20   | 2.85  | 2.25  |                |
| 20             | 5.40                                                              | 5.25                     | 8.20   | 9.20                 | 27.85  | 64.00   | 15.90                    | 8.00   | 5.40   | 4.20   | 2.85  | 2.10  |                |
| 21             | 5.55                                                              | 5.40                     | 8.80   | 8.80                 | 47.00  | 72.00   | 18.00                    | 7.80   | 5.40   | 4.05   | 2.85  | 1.95  |                |
| 22             | 5.85                                                              | 5.25                     | 9.60   | 9.40                 | 43.80  | 113.00  | 14.70                    | 7.60   | 5.40   | 4.05   | 2.85  | 1.95  |                |
| 23             | 7.80                                                              | 5.10                     | 10.60  | 8.60                 | 38.60  | 86.00   | 13.80                    | 7.40   | 5.40   | 4.05   | 2.85  | 1.95  |                |
| 24             | 6.60                                                              | 5.10                     | 10.00  | 10.40                | 32.20  | 76.50   | 12.30                    | 7.40   | 5.25   | 4.05   | 2.70  | 2.70  |                |
| 25             | 8.00                                                              | 5.40                     | 11.20  | 20.70                | 29.60  | 61.00   | 14.10                    | 7.40   | 5.25   | 4.05   | 2.70  | 2.40  |                |
| 26             | 6.80                                                              | 5.70                     | 12.60  | 15.60                | 31.00  | 61.00   | 12.90                    | 7.80   | 5.25   | 3.90   | 2.55  | 2.25  |                |
| 27             | 6.40                                                              | 5.55                     | 13.20  | 26.45                | 26.80  | 55.10   | 12.60                    | 7.60   | 5.25   | 3.90   | 2.55  | 2.25  |                |
| 28             | 5.85                                                              | 5.40                     | 10.40  | 62.50                | 24.70  | 50.60   | 12.00                    | 7.40   | 5.10   | 3.75   | 2.40  | 2.10  |                |
| 29             | 5.70                                                              | 5.70                     | 9.20   | 138.90               | 22.20  | 45.80   | 11.40                    | 7.20   | 5.10   | 3.75   |       | 2.10  |                |
| 30             | 5.55                                                              | 5.40                     | 8.60   | 124.40               | 21.60  | 42.60   | 12.00                    | 7.00   | 4.95   | 3.60   |       | 2.10  |                |
| 31             |                                                                   | 5.25                     |        | 87.80                | 19.80  |         | 12.60                    |        | 4.95   | 3.60   |       | 1.95  |                |
| Total          | 177.50                                                            | 169.90                   | 319.15 | 733.35               | 916.40 | 1427.50 | 600.35                   | 263.00 | 176.75 | 134.40 | 82.50 | 71.25 | 5072.05 CMSDAY |
| Mean           | 5.92                                                              | 5.48                     | 10.64  | 23.66                | 29.56  | 47.58   | 19.37                    | 8.77   | 5.70   | 4.34   | 2.95  | 2.30  | 13.90 CMS      |
| Max            | 8.00                                                              | 6.80                     | 18.00  | 138.90               | 58.00  | 137.50  | 41.80                    | 11.40  | 7.40   | 4.95   | 3.45  | 2.70  | 138.90 CMS     |
| Min            | 5.25                                                              | 5.10                     | 5.85   | 7.60                 | 16.20  | 16.20   | 11.40                    | 7.00   | 4.95   | 3.60   | 2.40  | 1.95  | 1.95 CMS       |
| Runoff         | 15.34                                                             | 14.68                    | 27.58  | 63.36                | 79.18  | 123.34  | 51.87                    | 22.72  | 15.27  | 11.61  | 7.13  | 6.16  | 438.23 MCM     |
| Momentary Peak | 173.20 CMS. at 272.34 m. (MSL.) at 06.00 Hours , on Sep 15 , 2013 |                          |        |                      |        |         |                          |        |        |        |       |       |                |
| Runoff Yield   | 13.77                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 171.655 | Liters/Second/Square KM. |        |        |        |       |       |                |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Huai Mong at Ban Na Ang , Udon Thani (Kh.18)**

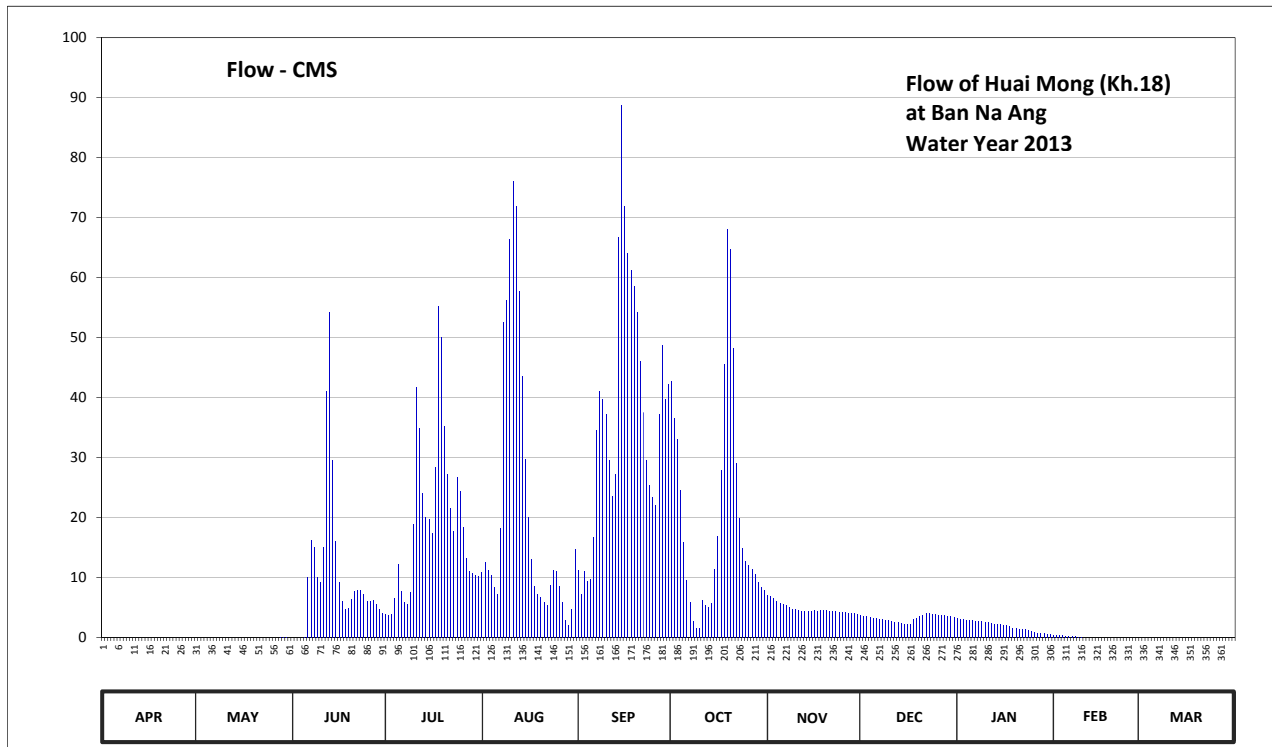
Lat 17 - 34 - 41 N    Long 102 - 20 - 22 E

**Location : on right bank between Phu Pha Dang and Phu Phan about 2 kilometers from Ban Na Ang.**

|                                         |                                                                                           |           |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Na Ang    | <b>Amphoe</b> | Ban Phu | <b>Changwat</b>  | Udon Thani         |
| <b>Drainage Area</b>                    | 1,309                                                                                     | sq.km.    |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |           |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +183.430                                                                                  | m. (MSL.) |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |         |                  |                    |
| <b>Location BM</b>                      | On right bank at the automatic gage building.                                             |           |               |         | <b>Elevation</b> | +191.432 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1957 to date                                                                              |           |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1957 - 1959 , 1965 - 1966 , 1974 - 1980 , 1997 to date                                    |           |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1957 - 1959 , 1965 - 1966 , 1974 - 1980 , 1997 to date                                    |           |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |         |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |           |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 182.48 | 182.60 | 185.04                                           | 186.30 | 186.99 | 187.02 | 188.83 | 186.65 | 186.29 | 186.23 | 185.61 | 184.55 |        |
| 2                                | 182.48 | 182.61 | 184.94                                           | 186.28 | 187.13 | 186.67 | 188.57 | 186.64 | 186.27 | 186.21 | 185.60 | 184.52 |        |
| 3                                | 182.49 | 182.57 | 184.90                                           | 186.30 | 187.02 | 187.01 | 188.41 | 186.60 | 186.26 | 186.20 | 185.59 | 184.50 |        |
| 4                                | 182.49 | 182.54 | 184.88                                           | 186.61 | 186.95 | 186.87 | 187.97 | 186.55 | 186.25 | 186.18 | 185.58 | 184.48 |        |
| 5                                | 182.50 | 182.55 | 185.46                                           | 187.11 | 186.78 | 186.89 | 187.39 | 186.52 | 186.23 | 186.17 | 185.56 | 184.46 |        |
| 6                                | 182.51 | 182.64 | 186.92                                           | 186.71 | 186.66 | 187.45 | 186.88 | 186.50 | 186.22 | 186.17 | 185.54 | 184.45 |        |
| 7                                | 182.52 | 182.72 | 187.42                                           | 186.53 | 187.55 | 188.48 | 186.53 | 186.48 | 186.21 | 186.16 | 185.51 | 184.43 |        |
| 8                                | 182.53 | 182.72 | 187.33                                           | 186.49 | 189.22 | 188.76 | 186.15 | 186.44 | 186.20 | 186.15 | 185.49 | 184.40 |        |
| 9                                | 182.53 | 182.74 | 186.92                                           | 186.70 | 189.37 | 188.70 | 185.91 | 186.41 | 186.18 | 186.14 | 185.46 | 184.39 |        |
| 10                               | 182.54 | 182.74 | 186.84                                           | 187.60 | 189.77 | 188.60 | 185.93 | 186.40 | 186.17 | 186.12 | 185.43 | 184.36 |        |
| 11                               | 182.54 | 182.77 | 187.33                                           | 188.79 | 190.10 | 188.25 | 186.58 | 186.38 | 186.15 | 186.10 | 185.40 | 184.32 |        |
| 12                               | 182.55 | 182.78 | 188.76                                           | 188.49 | 189.96 | 187.90 | 186.47 | 186.37 | 186.12 | 186.09 | 185.38 | 184.28 |        |
| 13                               | 182.55 | 182.80 | 189.29                                           | 187.94 | 189.43 | 188.13 | 186.44 | 186.36 | 186.10 | 186.06 | 185.37 | 184.23 |        |
| 14                               | 182.56 | 182.80 | 188.25                                           | 187.67 | 188.86 | 189.78 | 186.52 | 186.36 | 186.07 | 186.04 | 185.35 | 184.19 |        |
| 15                               | 182.56 | 182.79 | 187.41                                           | 187.65 | 188.26 | 190.50 | 187.03 | 186.37 | 186.06 | 186.04 | 185.32 | 184.15 |        |
| 16                               | 182.57 | 182.79 | 186.85                                           | 187.49 | 187.67 | 189.96 | 187.46 | 186.38 | 186.04 | 186.03 | 185.29 | 184.13 |        |
| 17                               | 182.57 | 182.78 | 186.56                                           | 188.20 | 187.17 | 189.68 | 188.17 | 186.37 | 186.06 | 186.01 | 185.25 | 184.10 |        |
| 18                               | 182.58 | 182.79 | 186.41                                           | 189.33 | 186.79 | 189.57 | 188.94 | 186.39 | 186.21 | 185.98 | 185.19 | 184.07 |        |
| 19                               | 182.59 | 182.82 | 186.42                                           | 189.12 | 186.67 | 189.46 | 189.83 | 186.38 | 186.23 | 185.93 | 185.13 | 184.05 |        |
| 20                               | 182.59 | 182.84 | 186.59                                           | 188.51 | 186.63 | 189.29 | 189.70 | 186.38 | 186.26 | 185.91 | 185.10 | 184.03 |        |
| 21                               | 182.60 | 182.87 | 186.71                                           | 188.13 | 186.54 | 188.96 | 189.05 | 186.37 | 186.29 | 185.90 | 185.04 | 184.02 |        |
| 22                               | 182.60 | 183.26 | 186.73                                           | 187.77 | 186.48 | 188.61 | 188.23 | 186.37 | 186.32 | 185.89 | 184.97 | 183.98 |        |
| 23                               | 182.60 | 185.00 | 186.73                                           | 187.52 | 186.80 | 188.25 | 187.66 | 186.36 | 186.33 | 185.88 | 184.83 | 183.94 |        |
| 24                               | 182.61 | 185.02 | 186.67                                           | 188.10 | 187.02 | 188.02 | 187.32 | 186.35 | 186.30 | 185.85 | 184.77 | 183.94 |        |
| 25                               | 182.61 | 184.98 | 186.56                                           | 187.96 | 187.01 | 187.89 | 187.14 | 186.35 | 186.30 | 185.81 | 184.70 | 183.92 |        |
| 26                               | 182.61 | 185.01 | 186.55                                           | 187.56 | 186.79 | 187.81 | 187.09 | 186.34 | 186.29 | 185.77 | 184.65 | 183.91 |        |
| 27                               | 182.60 | 185.35 | 186.58                                           | 187.19 | 186.54 | 188.60 | 187.04 | 186.33 | 186.28 | 185.73 | 184.61 | 183.90 |        |
| 28                               | 182.60 | 185.46 | 186.50                                           | 187.01 | 186.19 | 189.07 | 186.96 | 186.32 | 186.28 | 185.72 | 184.56 | 183.89 |        |
| 29                               | 182.60 | 185.48 | 186.41                                           | 186.97 | 186.01 | 188.70 | 186.85 | 186.32 | 186.27 | 185.70 |        | 183.87 |        |
| 30                               | 182.60 | 185.47 | 186.32                                           | 186.95 | 186.40 | 188.81 | 186.78 | 186.31 | 186.26 | 185.67 |        | 183.85 |        |
| 31                               |        | 185.33 |                                                  | 186.94 | 187.30 |        | 186.73 |        | 186.25 | 185.63 |        | 183.83 |        |
| Mean                             | 182.56 | 183.47 | 186.68                                           | 187.48 | 187.49 | 188.46 | 187.44 | 186.41 | 186.22 | 185.98 | 185.22 | 184.17 |        |
| Max                              | 182.61 | 185.48 | 189.29                                           | 189.33 | 190.10 | 190.50 | 189.83 | 186.65 | 186.33 | 186.23 | 185.61 | 184.55 | 190.50 |
| Min                              | 182.48 | 182.54 | 184.88                                           | 186.28 | 186.01 | 186.67 | 185.91 | 186.31 | 186.04 | 185.63 | 184.56 | 183.83 | 182.48 |
| Annual Max Momentary Gage Height | 190.79 |        | m. (MSL.) , at 24.00 Hours , on Sep 14 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 183.43 |        | m. (MSL.) , River Bed 182.52 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 192.62 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 192.32 |        | m. (MSL.) , Drainage Area 1309 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|------|------|----------------|
| 1              | 0.00                                                             | 0.00                     | 0.00   | 3.85                 | 10.89  | 11.24   | 42.75                    | 7.05   | 3.76   | 3.25  | 0.43 | 0.00 |                |
| 2              | 0.00                                                             | 0.00                     | 0.00   | 3.68                 | 12.56  | 7.27    | 36.63                    | 6.94   | 3.60   | 3.09  | 0.40 | 0.00 |                |
| 3              | 0.00                                                             | 0.00                     | 0.00   | 3.85                 | 11.24  | 11.12   | 33.03                    | 6.50   | 3.51   | 3.00  | 0.38 | 0.00 |                |
| 4              | 0.00                                                             | 0.00                     | 0.00   | 6.61                 | 10.42  | 9.50    | 24.55                    | 6.05   | 3.43   | 2.90  | 0.36 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 0.12   | 12.32                | 8.48   | 9.73    | 15.87                    | 5.78   | 3.25   | 2.85  | 0.32 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 10.08  | 7.71                 | 7.16   | 16.75   | 9.62                     | 5.60   | 3.17   | 2.85  | 0.28 | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 16.30  | 5.87                 | 18.25  | 34.60   | 5.87                     | 5.42   | 3.09   | 2.80  | 0.22 | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 15.09  | 5.51                 | 52.50  | 41.06   | 2.75                     | 5.06   | 3.00   | 2.75  | 0.18 | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 10.08  | 7.60                 | 56.25  | 39.65   | 1.55                     | 4.79   | 2.90   | 2.70  | 0.12 | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 9.16   | 19.00                | 66.42  | 37.30   | 1.65                     | 4.70   | 2.85   | 2.60  | 0.06 | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 15.09  | 41.76                | 76.00  | 29.58   | 6.32                     | 4.53   | 2.75   | 2.50  | 0.00 | 0.00 |                |
| 12             | 0.00                                                             | 0.00                     | 41.06  | 34.83                | 71.84  | 23.50   | 5.33                     | 4.45   | 2.60   | 2.45  | 0.00 | 0.00 |                |
| 13             | 0.00                                                             | 0.00                     | 54.25  | 24.10                | 57.75  | 27.28   | 5.06                     | 4.36   | 2.50   | 2.30  | 0.00 | 0.00 |                |
| 14             | 0.00                                                             | 0.00                     | 29.58  | 20.05                | 43.50  | 66.68   | 5.78                     | 4.36   | 2.35   | 2.20  | 0.00 | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 16.15  | 19.75                | 29.79  | 88.75   | 11.36                    | 4.45   | 2.30   | 2.20  | 0.00 | 0.00 |                |
| 16             | 0.00                                                             | 0.00                     | 9.28   | 17.35                | 20.05  | 71.84   | 16.90                    | 4.53   | 2.20   | 2.15  | 0.00 | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 6.14   | 28.50                | 13.04  | 64.08   | 27.98                    | 4.45   | 2.30   | 2.05  | 0.00 | 0.00 |                |
| 18             | 0.00                                                             | 0.00                     | 4.79   | 55.25                | 8.59   | 61.25   | 45.50                    | 4.62   | 3.09   | 1.90  | 0.00 | 0.00 |                |
| 19             | 0.00                                                             | 0.00                     | 4.88   | 50.00                | 7.27   | 58.50   | 68.07                    | 4.53   | 3.25   | 1.65  | 0.00 | 0.00 |                |
| 20             | 0.00                                                             | 0.00                     | 6.41   | 35.27                | 6.83   | 54.25   | 64.60                    | 4.53   | 3.51   | 1.55  | 0.00 | 0.00 |                |
| 21             | 0.00                                                             | 0.00                     | 7.71   | 27.28                | 5.96   | 46.00   | 48.25                    | 4.45   | 3.76   | 1.50  | 0.00 | 0.00 |                |
| 22             | 0.00                                                             | 0.00                     | 7.93   | 21.55                | 5.42   | 37.53   | 29.14                    | 4.45   | 4.02   | 1.45  | 0.00 | 0.00 |                |
| 23             | 0.00                                                             | 0.00                     | 7.93   | 17.80                | 8.70   | 29.58   | 19.90                    | 4.36   | 4.11   | 1.40  | 0.00 | 0.00 |                |
| 24             | 0.00                                                             | 0.00                     | 7.27   | 26.75                | 11.24  | 25.35   | 14.96                    | 4.28   | 3.85   | 1.25  | 0.00 | 0.00 |                |
| 25             | 0.00                                                             | 0.00                     | 6.14   | 24.40                | 11.12  | 23.35   | 12.68                    | 4.28   | 3.85   | 1.05  | 0.00 | 0.00 |                |
| 26             | 0.00                                                             | 0.00                     | 6.05   | 18.40                | 8.59   | 22.15   | 12.08                    | 4.19   | 3.76   | 0.91  | 0.00 | 0.00 |                |
| 27             | 0.00                                                             | 0.00                     | 6.32   | 13.28                | 5.96   | 37.30   | 11.48                    | 4.11   | 3.68   | 0.79  | 0.00 | 0.00 |                |
| 28             | 0.00                                                             | 0.12                     | 5.60   | 11.12                | 2.95   | 48.75   | 10.54                    | 4.02   | 3.68   | 0.76  | 0.00 | 0.00 |                |
| 29             | 0.00                                                             | 0.16                     | 4.79   | 10.66                | 2.05   | 39.65   | 9.28                     | 4.02   | 3.60   | 0.70  |      | 0.00 |                |
| 30             | 0.00                                                             | 0.14                     | 4.02   | 10.42                | 4.70   | 42.25   | 8.48                     | 3.94   | 3.51   | 0.61  |      | 0.00 |                |
| 31             |                                                                  | 0.00                     |        | 10.31                | 14.70  |         | 7.93                     |        | 3.43   | 0.49  |      | 0.00 |                |
| Total          | 0.00                                                             | 0.42                     | 312.22 | 594.83               | 670.22 | 1115.84 | 615.89                   | 144.80 | 100.66 | 60.65 | 2.75 | 0.00 | 3618.28 CMSDAY |
| Mean           | 0.00                                                             | 0.01                     | 10.41  | 19.19                | 21.62  | 37.19   | 19.87                    | 4.83   | 3.25   | 1.96  | 0.10 | 0.00 | 9.91 CMS       |
| Max            | 0.00                                                             | 0.16                     | 54.25  | 55.25                | 76.00  | 88.75   | 68.07                    | 7.05   | 4.11   | 3.25  | 0.43 | 0.00 | 88.75 CMS      |
| Min            | 0.00                                                             | 0.00                     | 0.00   | 3.68                 | 2.05   | 7.27    | 1.55                     | 3.94   | 2.20   | 0.49  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                             | 0.04                     | 26.98  | 51.39                | 57.91  | 96.41   | 53.21                    | 12.51  | 8.70   | 5.24  | 0.24 | 0.00 | 312.62 MCM     |
| Momentary Peak | 98.17 CMS. at 190.79 m. (MSL.) at 24.00 Hours , on Sep 14 , 2013 |                          |        |                      |        |         |                          |        |        |       |      |      |                |
| Runoff Yield   | 7.57                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 74.996  | Liters/Second/Square KM. |        |        |       |      |      |                |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Loei River at Ban Na Lak , Loei (Kh.28A)**

Lat 17 - 18 - 32 N    Long 101 - 46 - 25 E

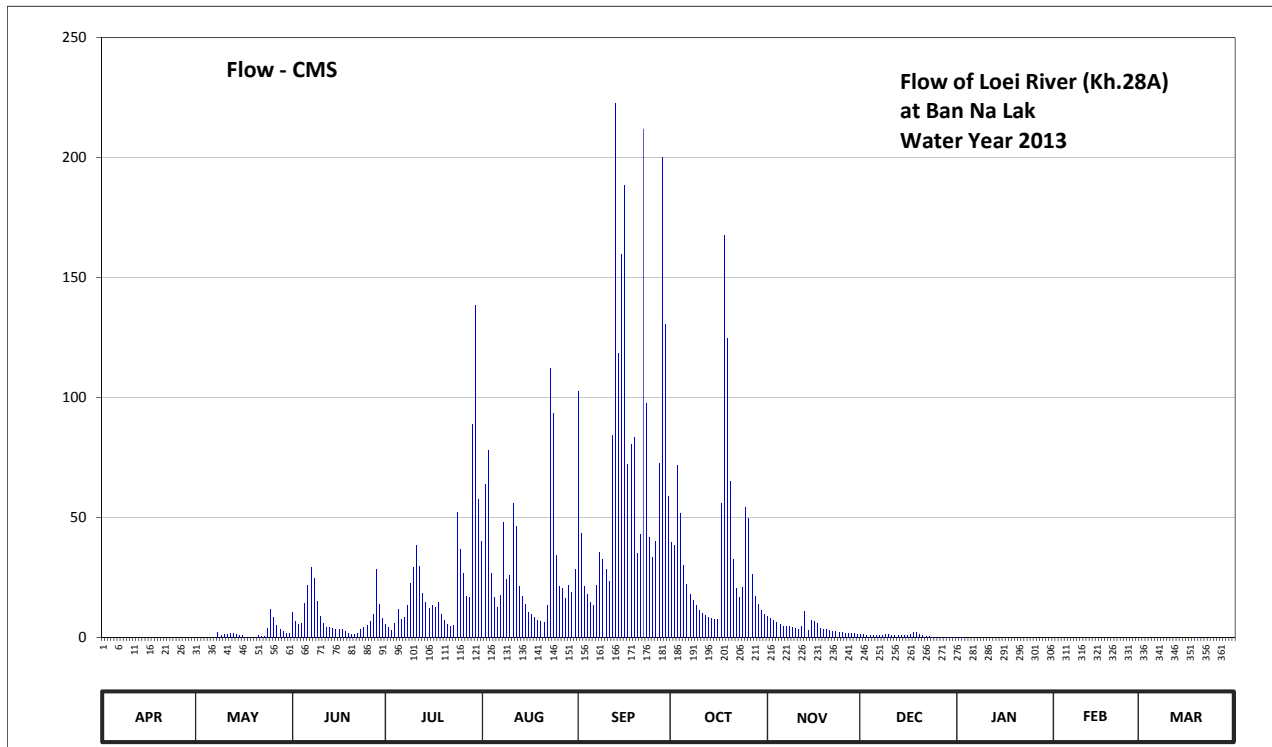
**Location :** on right bank at the bridge of Wang Saphung - Loei Highway.

|                                         |                                                                                           |           |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Na Lak    | <b>Amphoe</b> | Wang Saphung | <b>Changwat</b>  | Loei               |
| <b>Drainage Area</b>                    | 1,271                                                                                     | sq.km.    |               |              |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |           |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +239.620                                                                                  | m. (MSL.) |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                      |           |               |              |                  |                    |
| <b>Location BM</b>                      | On right bank upstream at the footpath of the bridge.                                     |           |               |              | <b>Elevation</b> | +252.730 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 1994 to date                                                                              |           |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |              |                  |                    |
| <b>Period of Rating</b>                 | 1994 to date                                                                              |           |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 1994 to date                                                                              |           |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |              |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 20 discharge measurements made in 2013. |           |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 239.22 | 239.37 | 240.03                                           | 239.79 | 241.06 | 242.45 | 241.05 | 239.95 | 239.53 | 239.42 | 239.30 | 239.24 |        |
| 2                                | 239.22 | 239.39 | 239.85                                           | 239.71 | 241.66 | 241.15 | 241.01 | 239.91 | 239.52 | 239.42 | 239.29 | 239.22 |        |
| 3                                | 239.23 | 239.38 | 239.79                                           | 239.65 | 241.98 | 240.48 | 241.84 | 239.87 | 239.51 | 239.41 | 239.29 | 239.18 |        |
| 4                                | 239.22 | 239.35 | 239.81                                           | 239.80 | 240.65 | 240.33 | 241.37 | 239.82 | 239.50 | 239.40 | 239.29 | 239.19 |        |
| 5                                | 239.22 | 239.35 | 240.18                                           | 240.07 | 240.28 | 240.20 | 240.76 | 239.79 | 239.49 | 239.39 | 239.29 | 239.21 |        |
| 6                                | 239.23 | 239.36 | 240.50                                           | 239.88 | 240.12 | 240.15 | 240.51 | 239.74 | 239.49 | 239.39 | 239.29 | 239.18 |        |
| 7                                | 239.28 | 239.38 | 240.73                                           | 239.92 | 240.32 | 240.50 | 240.34 | 239.74 | 239.50 | 239.39 | 239.29 | 239.19 |        |
| 8                                | 239.26 | 239.58 | 240.59                                           | 240.15 | 241.27 | 240.93 | 240.23 | 239.73 | 239.51 | 239.39 | 239.29 | 239.21 |        |
| 9                                | 239.26 | 239.49 | 240.21                                           | 240.52 | 240.58 | 240.84 | 240.14 | 239.72 | 239.53 | 239.39 | 239.28 | 239.21 |        |
| 10                               | 239.24 | 239.53 | 239.94                                           | 240.73 | 240.62 | 240.70 | 240.06 | 239.70 | 239.52 | 239.39 | 239.27 | 239.24 |        |
| 11                               | 239.23 | 239.54 | 239.80                                           | 241.02 | 241.47 | 240.55 | 240.01 | 239.68 | 239.51 | 239.39 | 239.26 | 239.27 |        |
| 12                               | 239.22 | 239.55 | 239.72                                           | 240.74 | 241.22 | 242.10 | 239.97 | 239.73 | 239.51 | 239.38 | 239.26 | 239.26 |        |
| 13                               | 239.22 | 239.56 | 239.72                                           | 240.36 | 240.48 | 244.24 | 239.93 | 240.04 | 239.51 | 239.38 | 239.25 | 239.24 |        |
| 14                               | 239.22 | 239.52 | 239.70                                           | 240.19 | 240.31 | 242.73 | 239.90 | 239.65 | 239.50 | 239.37 | 239.22 | 239.23 |        |
| 15                               | 239.22 | 239.50 | 239.68                                           | 240.10 | 240.17 | 243.40 | 239.88 | 239.86 | 239.49 | 239.37 | 239.21 | 239.23 |        |
| 16                               | 239.22 | 239.49 | 239.68                                           | 240.14 | 240.03 | 243.80 | 239.88 | 239.85 | 239.49 | 239.36 | 239.21 | 239.23 |        |
| 17                               | 239.23 | 239.43 | 239.66                                           | 240.12 | 239.98 | 241.85 | 241.47 | 239.81 | 239.54 | 239.35 | 239.25 | 239.29 |        |
| 18                               | 239.24 | 239.40 | 239.62                                           | 240.19 | 239.92 | 242.03 | 243.52 | 239.70 | 239.59 | 239.35 | 239.26 | 239.26 |        |
| 19                               | 239.24 | 239.40 | 239.57                                           | 239.99 | 239.87 | 242.09 | 242.84 | 239.67 | 239.58 | 239.36 | 239.26 | 239.22 |        |
| 20                               | 239.29 | 239.40 | 239.54                                           | 239.87 | 239.85 | 240.91 | 241.69 | 239.66 | 239.54 | 239.36 | 239.24 | 239.42 |        |
| 21                               | 239.29 | 239.49 | 239.54                                           | 239.79 | 239.83 | 241.13 | 240.84 | 239.63 | 239.50 | 239.35 | 239.25 | 239.33 |        |
| 22                               | 239.29 | 239.46 | 239.57                                           | 239.73 | 240.14 | 244.11 | 240.44 | 239.60 | 239.48 | 239.34 | 239.23 | 239.29 |        |
| 23                               | 239.29 | 239.48 | 239.67                                           | 239.75 | 242.62 | 242.36 | 240.28 | 239.60 | 239.47 | 239.34 | 239.22 | 239.28 |        |
| 24                               | 239.28 | 239.70 | 239.71                                           | 241.38 | 242.28 | 241.10 | 240.46 | 239.59 | 239.44 | 239.34 | 239.22 | 239.27 |        |
| 25                               | 239.32 | 240.07 | 239.75                                           | 240.97 | 240.89 | 240.86 | 241.43 | 239.58 | 239.43 | 239.34 | 239.24 | 239.26 |        |
| 26                               | 239.31 | 239.92 | 239.85                                           | 240.65 | 240.48 | 241.06 | 241.31 | 239.57 | 239.42 | 239.33 | 239.24 | 239.26 |        |
| 27                               | 239.36 | 239.77 | 239.98                                           | 240.31 | 240.45 | 241.86 | 240.64 | 239.57 | 239.42 | 239.33 | 239.24 | 239.26 |        |
| 28                               | 239.38 | 239.68 | 240.71                                           | 240.29 | 240.26 | 243.96 | 240.31 | 239.55 | 239.42 | 239.31 | 239.24 | 239.26 |        |
| 29                               | 239.38 | 239.60 | 240.16                                           | 242.19 | 240.50 | 242.94 | 240.16 | 239.55 | 239.42 | 239.29 |        | 239.26 |        |
| 30                               | 239.38 | 239.57 | 239.91                                           | 243.07 | 240.37 | 241.54 | 240.06 | 239.54 | 239.42 | 239.28 |        | 239.26 |        |
| 31                               |        | 239.57 |                                                  | 241.52 | 240.70 |        | 239.99 |        | 239.42 | 239.27 |        | 239.26 |        |
| Mean                             | 239.27 | 239.53 | 239.91                                           | 240.41 | 240.66 | 241.74 | 240.72 | 239.71 | 239.49 | 239.36 | 239.26 | 239.25 |        |
| Max                              | 239.38 | 240.07 | 240.73                                           | 243.07 | 242.62 | 244.24 | 243.52 | 240.04 | 239.59 | 239.42 | 239.30 | 239.42 | 244.24 |
| Min                              | 239.22 | 239.35 | 239.54                                           | 239.65 | 239.83 | 240.15 | 239.88 | 239.54 | 239.42 | 239.27 | 239.21 | 239.18 | 239.18 |
| Annual Max Momentary Gage Height |        | 244.78 | m. (MSL.) , at 05.00 Hours , on Sep 13 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 239.62 | m. (MSL.) , River Bed 237.31 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 246.26 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 246.01 | m. (MSL.) , Drainage Area 1271 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

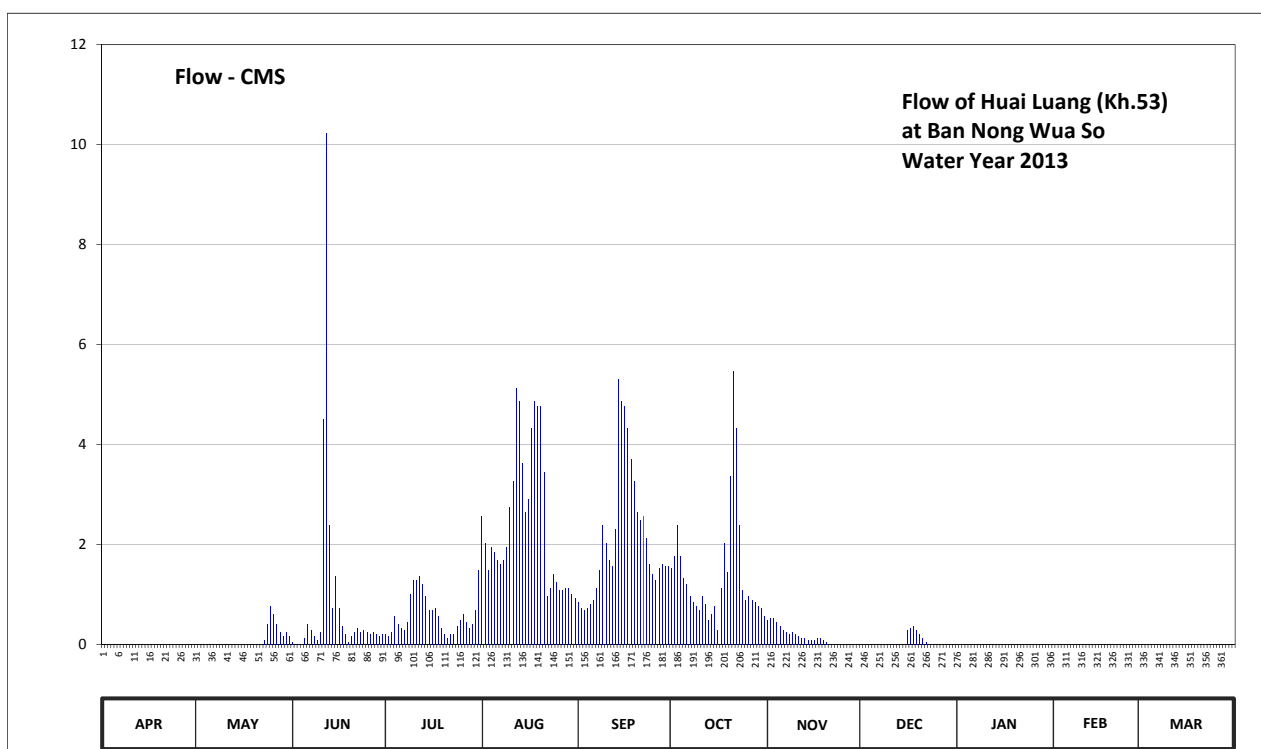




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|-------|------|------|------|----------------|
| 1              | 0.00                                                              | 0.00                     | 10.72  | 5.80                 | 40.28  | 102.40  | 39.90                    | 9.00   | 1.45  | 0.20 | 0.00 | 0.00 |                |
| 2              | 0.00                                                              | 0.00                     | 7.00   | 4.20                 | 64.04  | 43.70   | 38.38                    | 8.20   | 1.30  | 0.20 | 0.00 | 0.00 |                |
| 3              | 0.00                                                              | 0.00                     | 5.80   | 3.25                 | 78.12  | 21.52   | 71.96                    | 7.40   | 1.15  | 0.10 | 0.00 | 0.00 |                |
| 4              | 0.00                                                              | 0.00                     | 6.20   | 6.00                 | 26.80  | 17.92   | 52.06                    | 6.40   | 1.00  | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                              | 0.00                     | 14.32  | 11.68                | 16.72  | 14.80   | 30.32                    | 5.80   | 0.90  | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                              | 0.00                     | 22.00  | 7.60                 | 12.88  | 13.60   | 22.32                    | 4.80   | 0.90  | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                              | 0.00                     | 29.36  | 8.40                 | 17.68  | 22.00   | 18.16                    | 4.80   | 1.00  | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                              | 2.20                     | 24.88  | 13.60                | 48.26  | 35.76   | 15.52                    | 4.60   | 1.15  | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                              | 0.90                     | 15.04  | 22.64                | 24.56  | 32.88   | 13.36                    | 4.40   | 1.45  | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                              | 1.45                     | 8.80   | 29.36                | 25.84  | 28.40   | 11.44                    | 4.00   | 1.30  | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                              | 1.60                     | 6.00   | 38.76                | 55.86  | 23.60   | 10.24                    | 3.70   | 1.15  | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                              | 1.75                     | 4.40   | 29.68                | 46.36  | 84.20   | 9.40                     | 4.60   | 1.15  | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                              | 1.90                     | 4.40   | 18.64                | 21.52  | 222.68  | 8.60                     | 10.96  | 1.15  | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                              | 1.30                     | 4.00   | 14.56                | 17.44  | 118.34  | 8.00                     | 3.25   | 1.00  | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                              | 1.00                     | 3.70   | 12.40                | 14.08  | 159.60  | 7.60                     | 7.20   | 0.90  | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                              | 0.90                     | 3.70   | 13.36                | 10.72  | 188.20  | 7.60                     | 7.00   | 0.90  | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                              | 0.30                     | 3.40   | 12.88                | 9.60   | 72.40   | 55.86                    | 6.20   | 1.60  | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                              | 0.00                     | 2.80   | 14.56                | 8.40   | 80.56   | 167.48                   | 4.00   | 2.35  | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                              | 0.00                     | 2.05   | 9.80                 | 7.40   | 83.68   | 124.72                   | 3.55   | 2.20  | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                              | 0.00                     | 1.60   | 7.40                 | 7.00   | 35.12   | 65.36                    | 3.40   | 1.60  | 0.00 | 0.00 | 0.20 |                |
| 21             | 0.00                                                              | 0.90                     | 1.60   | 5.80                 | 6.60   | 42.94   | 32.88                    | 2.95   | 1.00  | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                              | 0.60                     | 2.05   | 4.60                 | 13.36  | 212.02  | 20.56                    | 2.50   | 0.80  | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                              | 0.80                     | 3.55   | 5.00                 | 111.96 | 97.72   | 16.72                    | 2.50   | 0.70  | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                              | 4.00                     | 4.20   | 52.44                | 93.56  | 41.80   | 21.04                    | 2.35   | 0.40  | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                              | 11.68                    | 5.00   | 37.04                | 34.48  | 33.52   | 54.34                    | 2.20   | 0.30  | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                              | 8.40                     | 7.00   | 26.80                | 21.52  | 40.28   | 49.78                    | 2.05   | 0.20  | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                              | 5.40                     | 9.60   | 17.44                | 20.80  | 72.84   | 26.48                    | 2.05   | 0.20  | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                              | 3.70                     | 28.72  | 16.96                | 16.24  | 200.04  | 17.44                    | 1.75   | 0.20  | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                              | 2.50                     | 13.84  | 88.88                | 22.00  | 130.52  | 13.84                    | 1.75   | 0.20  | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                              | 2.05                     | 8.20   | 138.48               | 18.88  | 58.76   | 11.44                    | 1.60   | 0.20  | 0.00 |      | 0.00 |                |
| 31             |                                                                   | 2.05                     |        | 57.88                | 28.40  |         | 9.80                     |        | 0.20  | 0.00 |      | 0.00 |                |
| Total          | 0.00                                                              | 55.38                    | 263.93 | 735.89               | 941.36 | 2331.80 | 1052.60                  | 134.96 | 30.00 | 0.50 | 0.00 | 0.20 | 5546.62 CMSDAY |
| Mean           | 0.00                                                              | 1.79                     | 8.80   | 23.74                | 30.37  | 77.73   | 33.95                    | 4.50   | 0.97  | 0.02 | 0.00 | 0.01 | 15.20 CMS      |
| Max            | 0.00                                                              | 11.68                    | 29.36  | 138.48               | 111.96 | 222.68  | 167.48                   | 10.96  | 2.35  | 0.20 | 0.00 | 0.20 | 222.68 CMS     |
| Min            | 0.00                                                              | 0.00                     | 1.60   | 3.25                 | 6.60   | 13.60   | 7.60                     | 1.60   | 0.20  | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                              | 4.79                     | 22.80  | 63.58                | 81.33  | 201.47  | 90.95                    | 11.66  | 2.59  | 0.04 | 0.00 | 0.02 | 479.23 MCM     |
| Momentary Peak | 270.32 CMS. at 244.78 m. (MSL.) at 05.00 Hours , on Sep 13 , 2013 |                          |        |                      |        |         |                          |        |       |      |      |      |                |
| Runoff Yield   | 11.96                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 212.683 | Liters/Second/Square KM. |        |       |      |      |      |                |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug   | Sep    | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|-------|--------|--------------------------|------|------|------|------|------|---------------|
| 1              | 0.00                                                             | 0.00                     | 0.04  | 0.20                 | 2.57  | 0.84   | 1.52                     | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 2              | 0.00                                                             | 0.00                     | 0.00  | 0.16                 | 2.04  | 0.72   | 1.78                     | 0.52 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 3              | 0.00                                                             | 0.00                     | 0.00  | 0.24                 | 1.48  | 0.68   | 2.39                     | 0.52 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 4              | 0.00                                                             | 0.00                     | 0.00  | 0.56                 | 1.95  | 0.72   | 1.78                     | 0.44 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 5              | 0.00                                                             | 0.00                     | 0.12  | 0.40                 | 1.86  | 0.80   | 1.32                     | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 6              | 0.00                                                             | 0.00                     | 0.40  | 0.32                 | 1.69  | 0.88   | 1.20                     | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 7              | 0.00                                                             | 0.00                     | 0.28  | 0.28                 | 1.60  | 1.12   | 0.96                     | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 8              | 0.00                                                             | 0.00                     | 0.16  | 0.44                 | 1.69  | 1.48   | 0.84                     | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 9              | 0.00                                                             | 0.00                     | 0.08  | 1.00                 | 1.95  | 2.39   | 0.76                     | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 10             | 0.00                                                             | 0.00                     | 0.24  | 1.28                 | 2.74  | 2.04   | 0.68                     | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 11             | 0.00                                                             | 0.00                     | 4.50  | 1.28                 | 3.27  | 1.69   | 0.96                     | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 12             | 0.00                                                             | 0.00                     | 10.22 | 1.36                 | 5.12  | 1.56   | 0.80                     | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 13             | 0.00                                                             | 0.00                     | 2.39  | 1.20                 | 4.86  | 2.30   | 0.48                     | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 14             | 0.00                                                             | 0.00                     | 0.72  | 0.96                 | 3.62  | 5.30   | 0.60                     | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 15             | 0.00                                                             | 0.00                     | 1.36  | 0.68                 | 2.66  | 4.86   | 0.76                     | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 16             | 0.00                                                             | 0.00                     | 0.72  | 0.68                 | 2.92  | 4.77   | 0.28                     | 0.08 | 0.28 | 0.00 | 0.00 | 0.00 |               |
| 17             | 0.00                                                             | 0.00                     | 0.36  | 0.72                 | 4.33  | 4.33   | 1.12                     | 0.12 | 0.32 | 0.00 | 0.00 | 0.00 |               |
| 18             | 0.00                                                             | 0.00                     | 0.20  | 0.56                 | 4.86  | 3.71   | 2.04                     | 0.12 | 0.36 | 0.00 | 0.00 | 0.00 |               |
| 19             | 0.00                                                             | 0.00                     | 0.04  | 0.32                 | 4.77  | 3.27   | 1.44                     | 0.08 | 0.28 | 0.00 | 0.00 | 0.00 |               |
| 20             | 0.00                                                             | 0.00                     | 0.16  | 0.20                 | 4.77  | 2.66   | 3.36                     | 0.04 | 0.20 | 0.00 | 0.00 | 0.00 |               |
| 21             | 0.00                                                             | 0.00                     | 0.24  | 0.12                 | 3.45  | 2.48   | 5.47                     | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 |               |
| 22             | 0.00                                                             | 0.00                     | 0.32  | 0.20                 | 0.96  | 2.57   | 4.33                     | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 |               |
| 23             | 0.00                                                             | 0.08                     | 0.24  | 0.20                 | 1.12  | 2.13   | 2.39                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 24             | 0.00                                                             | 0.40                     | 0.28  | 0.36                 | 1.40  | 1.60   | 1.08                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 25             | 0.00                                                             | 0.76                     | 0.24  | 0.48                 | 1.24  | 1.40   | 0.88                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 26             | 0.00                                                             | 0.60                     | 0.20  | 0.60                 | 1.08  | 1.28   | 0.96                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 27             | 0.00                                                             | 0.40                     | 0.24  | 0.44                 | 1.08  | 1.52   | 0.88                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 28             | 0.00                                                             | 0.24                     | 0.20  | 0.32                 | 1.12  | 1.60   | 0.84                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 29             | 0.00                                                             | 0.16                     | 0.16  | 0.40                 | 1.12  | 1.56   | 0.76                     | 0.00 | 0.00 | 0.00 |      | 0.00 |               |
| 30             | 0.00                                                             | 0.24                     | 0.20  | 0.68                 | 1.00  | 1.56   | 0.72                     | 0.00 | 0.00 | 0.00 |      | 0.00 |               |
| 31             |                                                                  | 0.16                     |       | 1.48                 | 0.92  |        | 0.56                     |      | 0.00 | 0.00 |      | 0.00 |               |
| Total          | 0.00                                                             | 3.04                     | 24.31 | 18.12                | 75.24 | 63.82  | 43.94                    | 4.48 | 1.60 | 0.00 | 0.00 | 0.00 | 234.55 CMSDAY |
| Mean           | 0.00                                                             | 0.10                     | 0.81  | 0.58                 | 2.43  | 2.13   | 1.42                     | 0.15 | 0.05 | 0.00 | 0.00 | 0.00 | 0.64 CMS      |
| Max            | 0.00                                                             | 0.76                     | 10.22 | 1.48                 | 5.12  | 5.30   | 5.47                     | 0.52 | 0.36 | 0.00 | 0.00 | 0.00 | 10.22 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00  | 0.12                 | 0.92  | 0.68   | 0.28                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 0.00                                                             | 0.26                     | 2.10  | 1.57                 | 6.50  | 5.51   | 3.80                     | 0.39 | 0.14 | 0.00 | 0.00 | 0.00 | 20.27 MCM     |
| Momentary Peak | 14.33 CMS. at 205.63 m. (MSL.) at 07.00 Hours , on Jun 12 , 2013 |                          |       |                      |       |        |                          |      |      |      |      |      |               |
| Runoff Yield   | 1.53                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 34.038 | Liters/Second/Square KM. |      |      |      |      |      |               |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Nam Un at Ban Na Wa , Nakhon Phanom (Kh.54)**

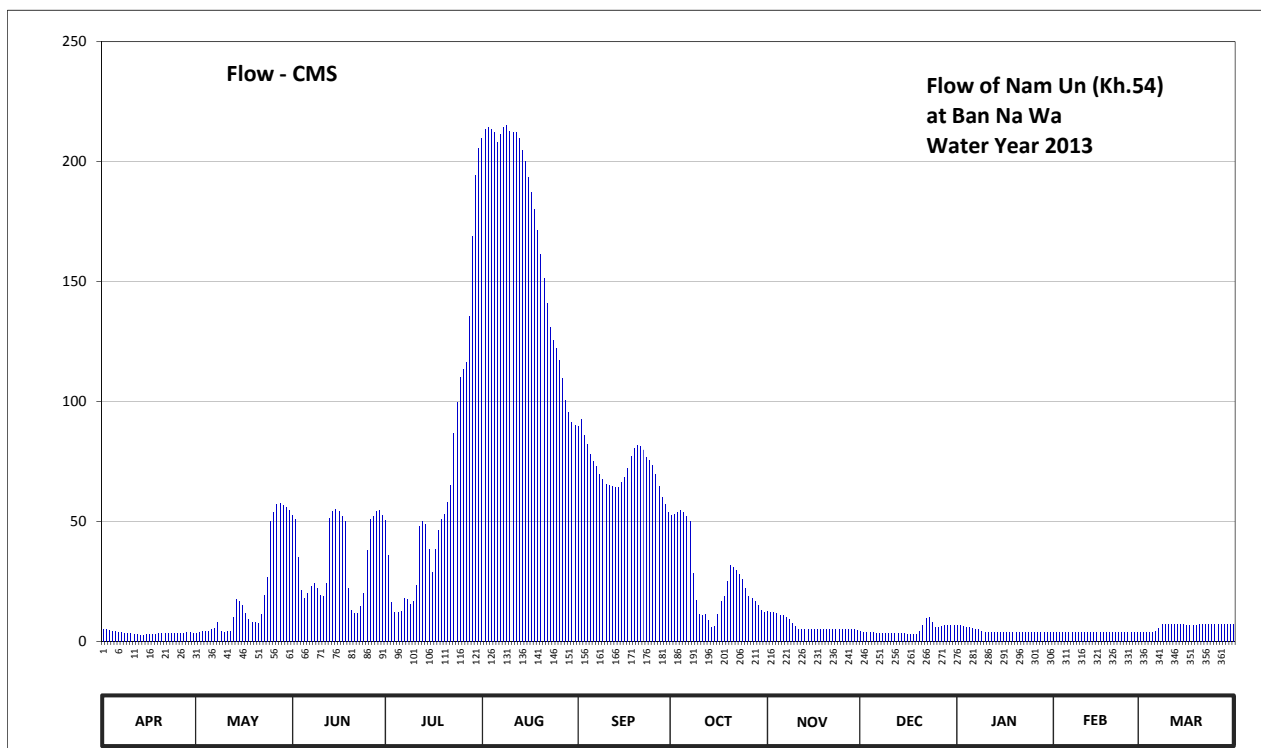
Lat 17 - 29 - 33 N    Long 104 - 06 - 50 E

**Location :** on left bank at Ban Na Wa.

|                                         |                                                                                           |           |               |       |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Na Wa     | <b>Amphoe</b> | Na Wa | <b>Changwat</b>  | Nakhon Phanom      |
| <b>Drainage Area</b>                    | 3,123                                                                                     | sq.km.    |               |       |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |           |               |       |                  |                    |
| <b>Zero Gage at Bottom</b>              | +138.050                                                                                  | m. (MSL.) |               |       |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |           |               |       |                  |                    |
| <b>Location BM</b>                      | On left bank at the footpath of the bridge.                                               |           |               |       | <b>Elevation</b> | +149.914 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |       |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |       |                  |                    |
| <b>Period of Available Gage Records</b> | 1970 to date                                                                              |           |               |       |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |       |                  |                    |
| <b>Period of Rating</b>                 | 1970 to date                                                                              |           |               |       |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |       |                  |                    |
| <b>Rated by Current Meter</b>           | 1970 to date                                                                              |           |               |       |                  |                    |
| <b>Stability of Channel Regimes</b>     | Rather unstable because of backwater effect.                                              |           |               |       |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |       |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |           |               |       |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 140.76 | 140.68 | 142.64                                           | 142.17 | 146.82 | 144.76 | 142.62 | 141.05 | 140.72 | 140.84 | 140.69 | 140.69 |        |
| 2                                | 140.75 | 140.69 | 142.25                                           | 141.72 | 146.87 | 144.86 | 142.66 | 141.04 | 140.70 | 140.84 | 140.69 | 140.69 |        |
| 3                                | 140.73 | 140.71 | 141.70                                           | 141.18 | 146.88 | 144.64 | 142.85 | 141.04 | 140.70 | 140.83 | 140.69 | 140.69 |        |
| 4                                | 140.72 | 140.71 | 141.35                                           | 141.04 | 146.87 | 144.51 | 142.94 | 141.03 | 140.70 | 140.81 | 140.69 | 140.69 |        |
| 5                                | 140.71 | 140.72 | 141.24                                           | 141.04 | 146.85 | 144.37 | 142.82 | 141.00 | 140.69 | 140.81 | 140.69 | 140.70 |        |
| 6                                | 140.70 | 140.76 | 141.30                                           | 141.06 | 146.80 | 144.27 | 142.52 | 141.00 | 140.68 | 140.79 | 140.69 | 140.72 |        |
| 7                                | 140.69 | 140.79 | 141.40                                           | 141.23 | 146.84 | 144.20 | 142.09 | 140.97 | 140.68 | 140.77 | 140.69 | 140.79 |        |
| 8                                | 140.67 | 140.90 | 141.44                                           | 141.22 | 146.88 | 144.09 | 141.56 | 140.94 | 140.68 | 140.76 | 140.69 | 140.87 |        |
| 9                                | 140.67 | 140.71 | 141.37                                           | 141.15 | 146.89 | 143.98 | 141.21 | 140.89 | 140.68 | 140.72 | 140.69 | 140.87 |        |
| 10                               | 140.67 | 140.70 | 141.28                                           | 141.20 | 146.86 | 143.88 | 141.02 | 140.82 | 140.67 | 140.69 | 140.69 | 140.86 |        |
| 11                               | 140.66 | 140.71 | 141.27                                           | 141.42 | 146.85 | 143.85 | 141.00 | 140.75 | 140.67 | 140.69 | 140.69 | 140.86 |        |
| 12                               | 140.65 | 140.72 | 141.44                                           | 141.96 | 146.85 | 143.83 | 141.02 | 140.75 | 140.67 | 140.69 | 140.69 | 140.86 |        |
| 13                               | 140.64 | 140.98 | 142.33                                           | 142.03 | 146.82 | 143.82 | 140.93 | 140.76 | 140.67 | 140.69 | 140.69 | 140.86 |        |
| 14                               | 140.64 | 141.22 | 142.87                                           | 141.98 | 146.76 | 143.81 | 140.81 | 140.76 | 140.67 | 140.69 | 140.69 | 140.86 |        |
| 15                               | 140.65 | 141.20 | 143.00                                           | 141.77 | 146.70 | 143.93 | 140.82 | 140.76 | 140.67 | 140.69 | 140.70 | 140.86 |        |
| 16                               | 140.66 | 141.14 | 142.88                                           | 141.57 | 146.62 | 144.03 | 141.02 | 140.76 | 140.66 | 140.69 | 140.70 | 140.85 |        |
| 17                               | 140.66 | 141.03 | 142.57                                           | 141.77 | 146.54 | 144.18 | 141.19 | 140.75 | 140.66 | 140.69 | 140.70 | 140.85 |        |
| 18                               | 140.66 | 140.95 | 142.02                                           | 141.93 | 146.45 | 144.34 | 141.27 | 140.75 | 140.66 | 140.69 | 140.70 | 140.85 |        |
| 19                               | 140.68 | 140.90 | 141.37                                           | 142.30 | 146.33 | 144.45 | 141.48 | 140.75 | 140.66 | 140.69 | 140.70 | 140.85 |        |
| 20                               | 140.68 | 140.90 | 141.07                                           | 142.69 | 146.19 | 144.49 | 141.64 | 140.75 | 140.71 | 140.69 | 140.70 | 140.86 |        |
| 21                               | 140.68 | 140.89 | 141.03                                           | 143.31 | 146.02 | 144.48 | 141.62 | 140.75 | 140.85 | 140.69 | 140.70 | 140.86 |        |
| 22                               | 140.68 | 141.01 | 141.03                                           | 143.85 | 145.85 | 144.43 | 141.59 | 140.75 | 140.96 | 140.69 | 140.70 | 140.86 |        |
| 23                               | 140.68 | 141.28 | 141.12                                           | 144.66 | 145.68 | 144.33 | 141.55 | 140.76 | 140.97 | 140.69 | 140.69 | 140.86 |        |
| 24                               | 140.68 | 141.52 | 141.30                                           | 145.04 | 145.57 | 144.29 | 141.50 | 140.76 | 140.90 | 140.69 | 140.69 | 140.86 |        |
| 25                               | 140.68 | 142.09 | 141.76                                           | 145.26 | 145.50 | 144.22 | 141.38 | 140.75 | 140.80 | 140.69 | 140.69 | 140.87 |        |
| 26                               | 140.68 | 142.81 | 142.25                                           | 145.33 | 145.40 | 144.08 | 141.27 | 140.75 | 140.80 | 140.69 | 140.69 | 140.87 |        |
| 27                               | 140.68 | 143.22 | 142.57                                           | 145.39 | 145.25 | 143.84 | 141.23 | 140.75 | 140.82 | 140.69 | 140.69 | 140.87 |        |
| 28                               | 140.69 | 143.28 | 142.91                                           | 145.76 | 145.06 | 143.53 | 141.19 | 140.75 | 140.85 | 140.69 | 140.69 | 140.87 |        |
| 29                               | 140.69 | 143.20 | 142.95                                           | 146.30 | 144.94 | 143.22 | 141.14 | 140.75 | 140.85 | 140.69 |        | 140.87 |        |
| 30                               | 140.68 | 143.10 | 142.62                                           | 146.63 | 144.82 | 142.85 | 141.07 | 140.74 | 140.85 | 140.69 |        | 140.87 |        |
| 31                               |        | 142.98 |                                                  | 146.77 | 144.77 |        | 141.04 |        | 140.85 | 140.69 |        | 140.87 |        |
| Mean                             | 140.68 | 141.37 | 141.88                                           | 142.93 | 146.24 | 144.12 | 141.55 | 140.83 | 140.75 | 140.72 | 140.69 | 140.83 |        |
| Max                              | 140.76 | 143.28 | 143.00                                           | 146.77 | 146.89 | 144.86 | 142.94 | 141.05 | 140.97 | 140.84 | 140.70 | 140.87 | 146.89 |
| Min                              | 140.64 | 140.68 | 141.03                                           | 141.04 | 144.77 | 142.85 | 140.81 | 140.74 | 140.66 | 140.69 | 140.69 | 140.69 | 140.64 |
| Annual Max Momentary Gage Height | 146.90 |        | m. (MSL.) , at 01.00 Hours , on Aug 9 , 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 138.05 |        | m. (MSL.) , River Bed 138.67 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 149.74 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 148.74 |        | m. (MSL.) , Drainage Area 3123 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep     | Oct    | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|--------|--------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 5.20                                                            | 3.60                     | 52.84   | 50.68   | 209.60               | 89.80   | 52.72  | 12.50  | 4.40                     | 6.80   | 3.80   | 3.80   |          |        |
| 2              | 5.00                                                            | 3.80                     | 51.00   | 36.00   | 213.60               | 92.80   | 52.96  | 12.20  | 4.00                     | 6.80   | 3.80   | 3.80   |          |        |
| 3              | 4.60                                                            | 4.20                     | 35.00   | 16.40   | 214.40               | 86.20   | 54.10  | 12.20  | 4.00                     | 6.60   | 3.80   | 3.80   |          |        |
| 4              | 4.40                                                            | 4.20                     | 21.50   | 12.20   | 213.60               | 82.30   | 54.64  | 11.90  | 4.00                     | 6.20   | 3.80   | 3.80   |          |        |
| 5              | 4.20                                                            | 4.40                     | 18.20   | 12.20   | 212.00               | 78.10   | 53.92  | 11.00  | 3.80                     | 6.20   | 3.80   | 4.00   |          |        |
| 6              | 4.00                                                            | 5.20                     | 20.00   | 12.80   | 208.00               | 75.10   | 52.12  | 11.00  | 3.60                     | 5.80   | 3.80   | 4.40   |          |        |
| 7              | 3.80                                                            | 5.80                     | 23.00   | 17.90   | 211.20               | 73.00   | 50.36  | 10.10  | 3.60                     | 5.40   | 3.80   | 5.80   |          |        |
| 8              | 3.40                                                            | 8.00                     | 24.20   | 17.60   | 214.40               | 69.80   | 28.40  | 9.20   | 3.60                     | 5.20   | 3.80   | 7.40   |          |        |
| 9              | 3.40                                                            | 4.20                     | 22.10   | 15.50   | 215.20               | 67.60   | 17.30  | 7.80   | 3.60                     | 4.40   | 3.80   | 7.40   |          |        |
| 10             | 3.40                                                            | 4.00                     | 19.40   | 17.00   | 212.80               | 65.60   | 11.60  | 6.40   | 3.40                     | 3.80   | 3.80   | 7.20   |          |        |
| 11             | 3.20                                                            | 4.20                     | 19.10   | 23.60   | 212.00               | 65.00   | 11.00  | 5.00   | 3.40                     | 3.80   | 3.80   | 7.20   |          |        |
| 12             | 3.00                                                            | 4.40                     | 24.20   | 48.00   | 212.00               | 64.60   | 11.60  | 5.00   | 3.40                     | 3.80   | 3.80   | 7.20   |          |        |
| 13             | 2.80                                                            | 10.40                    | 51.32   | 50.12   | 209.60               | 64.40   | 8.90   | 5.20   | 3.40                     | 3.80   | 3.80   | 7.20   |          |        |
| 14             | 2.80                                                            | 17.60                    | 54.22   | 49.00   | 204.80               | 64.20   | 6.20   | 5.20   | 3.40                     | 3.80   | 3.80   | 7.20   |          |        |
| 15             | 3.00                                                            | 17.00                    | 55.00   | 38.50   | 200.00               | 66.60   | 6.40   | 5.20   | 3.40                     | 3.80   | 4.00   | 7.20   |          |        |
| 16             | 3.20                                                            | 15.20                    | 54.28   | 28.80   | 193.60               | 68.60   | 11.60  | 5.20   | 3.20                     | 3.80   | 4.00   | 7.00   |          |        |
| 17             | 3.20                                                            | 11.90                    | 52.42   | 38.50   | 187.20               | 72.40   | 16.70  | 5.00   | 3.20                     | 3.80   | 4.00   | 7.00   |          |        |
| 18             | 3.20                                                            | 9.50                     | 50.08   | 46.50   | 180.00               | 77.20   | 19.10  | 5.00   | 3.20                     | 3.80   | 4.00   | 7.00   |          |        |
| 19             | 3.60                                                            | 8.00                     | 22.10   | 51.20   | 171.10               | 80.50   | 25.40  | 5.00   | 3.20                     | 3.80   | 4.00   | 7.00   |          |        |
| 20             | 3.60                                                            | 8.00                     | 13.10   | 53.14   | 161.40               | 81.70   | 32.00  | 5.00   | 4.20                     | 3.80   | 4.00   | 7.20   |          |        |
| 21             | 3.60                                                            | 7.80                     | 11.90   | 58.10   | 151.20               | 81.40   | 31.00  | 5.00   | 7.00                     | 3.80   | 4.00   | 7.20   |          |        |
| 22             | 3.60                                                            | 11.30                    | 11.90   | 65.00   | 141.00               | 79.90   | 29.60  | 5.00   | 9.80                     | 3.80   | 4.00   | 7.20   |          |        |
| 23             | 3.60                                                            | 19.40                    | 14.60   | 86.80   | 131.00               | 76.90   | 28.00  | 5.20   | 10.10                    | 3.80   | 3.80   | 7.20   |          |        |
| 24             | 3.60                                                            | 26.80                    | 20.00   | 99.60   | 125.50               | 75.70   | 26.00  | 5.20   | 8.00                     | 3.80   | 3.80   | 7.20   |          |        |
| 25             | 3.60                                                            | 50.36                    | 38.00   | 110.00  | 122.00               | 73.60   | 22.40  | 5.00   | 6.00                     | 3.80   | 3.80   | 7.40   |          |        |
| 26             | 3.60                                                            | 53.86                    | 51.00   | 113.50  | 117.00               | 69.60   | 19.10  | 5.00   | 6.00                     | 3.80   | 3.80   | 7.40   |          |        |
| 27             | 3.60                                                            | 57.20                    | 52.42   | 116.50  | 109.50               | 64.80   | 17.90  | 5.00   | 6.40                     | 3.80   | 3.80   | 7.40   |          |        |
| 28             | 3.80                                                            | 57.80                    | 54.46   | 135.60  | 100.40               | 60.30   | 16.70  | 5.00   | 7.00                     | 3.80   | 3.80   | 7.40   |          |        |
| 29             | 3.80                                                            | 57.00                    | 54.70   | 169.00  | 95.60                | 57.20   | 15.20  | 5.00   | 7.00                     | 3.80   |        | 7.40   |          |        |
| 30             | 3.60                                                            | 56.00                    | 52.72   | 194.40  | 91.60                | 54.10   | 13.10  | 4.80   | 7.00                     | 3.80   |        | 7.40   |          |        |
| 31             |                                                                 | 54.88                    |         | 205.60  | 90.10                |         | 12.20  |        | 7.00                     | 3.80   |        | 7.40   |          |        |
| Total          | 109.40                                                          | 606.00                   | 1044.76 | 1989.74 | 5331.40              | 2179.00 | 808.22 | 205.30 | 153.30                   | 137.00 | 108.00 | 203.20 | 12875.32 | CMSDAY |
| Mean           | 3.65                                                            | 19.55                    | 34.83   | 64.19   | 171.98               | 72.63   | 26.07  | 6.84   | 4.95                     | 4.42   | 3.86   | 6.55   | 35.27    | CMS    |
| Max            | 5.20                                                            | 57.80                    | 55.00   | 205.60  | 215.20               | 92.80   | 54.64  | 12.50  | 10.10                    | 6.80   | 4.00   | 7.40   | 215.20   | CMS    |
| Min            | 2.80                                                            | 3.60                     | 11.90   | 12.20   | 90.10                | 54.10   | 6.20   | 4.80   | 3.20                     | 3.80   | 3.80   | 3.80   | 2.80     | CMS    |
| Runoff         | 9.45                                                            | 52.36                    | 90.27   | 171.91  | 460.63               | 188.27  | 69.83  | 17.74  | 13.25                    | 11.84  | 9.33   | 17.56  | 1112.43  | MCM    |
| Momentary Peak | 216.00 CMS. at 146.90 m. (MSL.) at 01.00 Hours , on Aug 9, 2013 |                          |         |         |                      |         |        |        |                          |        |        |        |          |        |
| Runoff Yield   | 11.30                                                           | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |        | 69.164 | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Songkhram River at Ban Pak Un , Nakhon Phanom (Kh.55)**

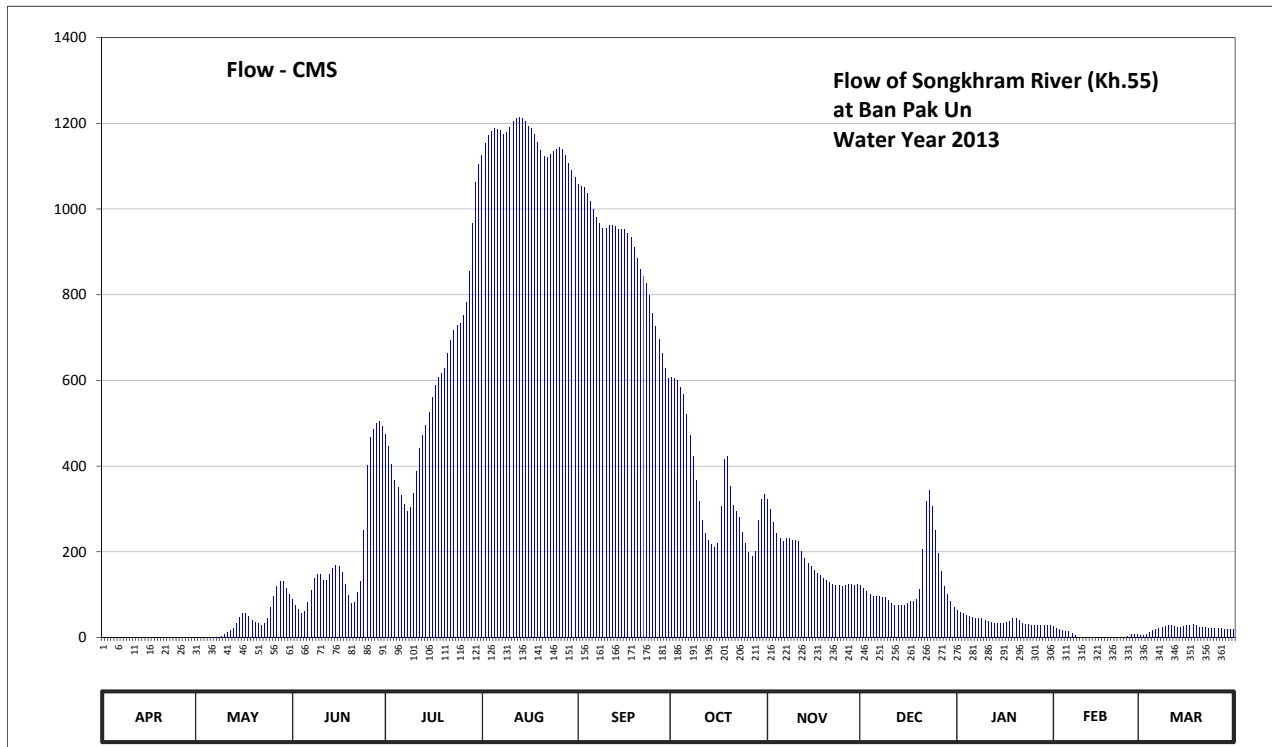
Lat 17 - 38 - 10 N      Long 104 - 15 - 04 E

**Location : on right bank at Ban Pak Un.**

|                                         |                                                                                           |           |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pak Un    | <b>Amphoe</b> | Si Songkhram | <b>Changwat</b>  | Nakhon Phanom      |
| <b>Drainage Area</b>                    | 12,328                                                                                    | sq.km.    |               |              |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |           |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +132.220                                                                                  | m. (MSL.) |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |           |               |              |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |           |               |              | <b>Elevation</b> | +147.734 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 1976 to date                                                                              |           |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |              |                  |                    |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |           |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |           |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +145.010 m.(MSL.), records are channel flow only.       |           |               |              |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2013. |           |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                               | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 134.08 | 134.72 | 136.13                                            | 139.70 | 144.46 | 143.98 | 140.74 | 138.45 | 136.53 | 135.82 | 135.36 | 135.09 |        |
| 2                                | 134.03 | 134.75 | 135.97                                            | 139.47 | 144.65 | 143.95 | 140.72 | 138.24 | 136.44 | 135.78 | 135.30 | 135.08 |        |
| 3                                | 134.04 | 134.79 | 135.85                                            | 139.14 | 144.78 | 143.93 | 140.68 | 137.97 | 136.37 | 135.74 | 135.25 | 135.11 |        |
| 4                                | 134.04 | 134.88 | 135.75                                            | 138.82 | 144.85 | 143.83 | 140.56 | 137.75 | 136.27 | 135.70 | 135.22 | 135.17 |        |
| 5                                | 134.03 | 134.97 | 135.79                                            | 138.68 | 144.89 | 143.70 | 140.44 | 137.62 | 136.22 | 135.65 | 135.20 | 135.22 |        |
| 6                                | 134.02 | 134.99 | 136.06                                            | 138.53 | 144.88 | 143.57 | 140.07 | 137.57 | 136.22 | 135.62 | 135.19 | 135.26 |        |
| 7                                | 134.02 | 135.01 | 136.39                                            | 138.34 | 144.86 | 143.44 | 139.69 | 137.62 | 136.22 | 135.61 | 135.15 | 135.29 |        |
| 8                                | 134.00 | 135.01 | 136.69                                            | 138.21 | 144.80 | 143.35 | 139.28 | 137.64 | 136.21 | 135.61 | 135.08 | 135.32 |        |
| 9                                | 133.99 | 135.05 | 136.80                                            | 138.29 | 144.83 | 143.26 | 138.82 | 137.58 | 136.19 | 135.59 | 134.98 | 135.35 |        |
| 10                               | 134.00 | 135.11 | 136.79                                            | 138.56 | 144.91 | 143.26 | 138.40 | 137.58 | 136.11 | 135.56 | 134.93 | 135.39 |        |
| 11                               | 134.02 | 135.17 | 136.66                                            | 139.01 | 145.01 | 143.32 | 138.02 | 137.57 | 136.03 | 135.52 | 134.87 | 135.39 |        |
| 12                               | 134.06 | 135.22 | 136.65                                            | 139.44 | 145.06 | 143.32 | 137.73 | 137.34 | 135.98 | 135.48 | 134.81 | 135.35 |        |
| 13                               | 134.12 | 135.29 | 136.81                                            | 139.69 | 145.07 | 143.30 | 137.59 | 137.17 | 135.98 | 135.47 | 134.78 | 135.33 |        |
| 14                               | 134.14 | 135.44 | 136.96                                            | 139.87 | 145.05 | 143.25 | 137.51 | 137.07 | 135.97 | 135.47 | 134.74 | 135.33 |        |
| 15                               | 134.13 | 135.62 | 137.02                                            | 140.12 | 145.00 | 143.24 | 137.44 | 136.99 | 135.98 | 135.47 | 134.73 | 135.36 |        |
| 16                               | 134.14 | 135.74 | 137.00                                            | 140.39 | 144.92 | 143.24 | 137.53 | 136.89 | 136.03 | 135.47 | 134.73 | 135.39 |        |
| 17                               | 134.18 | 135.74 | 136.85                                            | 140.60 | 144.89 | 143.18 | 138.31 | 136.83 | 136.07 | 135.49 | 134.71 | 135.41 |        |
| 18                               | 134.27 | 135.65 | 136.55                                            | 140.74 | 144.79 | 143.11 | 139.23 | 136.77 | 136.09 | 135.53 | 134.70 | 135.42 |        |
| 19                               | 134.40 | 135.55 | 136.25                                            | 140.81 | 144.67 | 142.95 | 139.28 | 136.71 | 136.14 | 135.59 | 134.69 | 135.39 |        |
| 20                               | 134.56 | 135.50 | 136.03                                            | 140.90 | 144.53 | 142.76 | 138.70 | 136.66 | 136.41 | 135.59 | 134.66 | 135.34 |        |
| 21                               | 134.69 | 135.45 | 136.06                                            | 141.16 | 144.43 | 142.57 | 138.32 | 136.60 | 137.39 | 135.55 | 134.68 | 135.32 |        |
| 22                               | 134.74 | 135.40 | 136.33                                            | 141.37 | 144.42 | 142.47 | 138.20 | 136.55 | 138.41 | 135.47 | 134.72 | 135.32 |        |
| 23                               | 134.70 | 135.44 | 136.62                                            | 141.55 | 144.47 | 142.34 | 138.07 | 136.52 | 138.63 | 135.43 | 134.81 | 135.31 |        |
| 24                               | 134.64 | 135.60 | 137.80                                            | 141.63 | 144.51 | 142.14 | 137.76 | 136.52 | 138.30 | 135.42 | 134.92 | 135.31 |        |
| 25                               | 134.58 | 135.91 | 139.12                                            | 141.67 | 144.55 | 141.84 | 137.53 | 136.51 | 137.80 | 135.41 | 135.04 | 135.30 |        |
| 26                               | 134.58 | 136.22 | 139.65                                            | 141.80 | 144.58 | 141.61 | 137.31 | 136.53 | 137.30 | 135.41 | 135.10 | 135.30 |        |
| 27                               | 134.60 | 136.49 | 139.79                                            | 142.03 | 144.55 | 141.39 | 137.22 | 136.54 | 136.88 | 135.41 | 135.10 | 135.30 |        |
| 28                               | 134.64 | 136.62 | 139.90                                            | 142.54 | 144.46 | 141.15 | 137.35 | 136.54 | 136.49 | 135.41 | 135.10 | 135.28 |        |
| 29                               | 134.67 | 136.62 | 139.94                                            | 143.34 | 144.32 | 140.90 | 138.02 | 136.53 | 136.27 | 135.41 |        | 135.27 |        |
| 30                               | 134.69 | 136.46 | 139.85                                            | 144.02 | 144.21 | 140.73 | 138.45 | 136.54 | 136.07 | 135.41 |        | 135.26 |        |
| 31                               |        | 136.28 |                                                   | 144.31 | 144.09 |        | 138.55 |        | 135.91 | 135.41 |        | 135.26 |        |
| Mean                             | 134.29 | 135.51 | 137.14                                            | 140.48 | 144.69 | 142.84 | 138.63 | 137.11 | 136.55 | 135.53 | 134.95 | 135.30 |        |
| Max                              | 134.74 | 136.62 | 139.94                                            | 144.31 | 145.07 | 143.98 | 140.74 | 138.45 | 138.63 | 135.82 | 135.36 | 135.42 | 145.07 |
| Min                              | 133.99 | 134.72 | 135.75                                            | 138.21 | 144.09 | 140.73 | 137.22 | 136.51 | 135.91 | 135.41 | 134.66 | 135.08 | 133.99 |
| Annual Max Momentary Gage Height |        | 145.07 | m. (MSL.) , at 01.00 Hours , on Aug 13 , 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 132.22 | m. (MSL.) , River Bed 131.46 m. (MSL.)            |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 145.00 | m. (MSL.) ,                                       |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 145.44 | m. (MSL.) , Drainage Area 12328 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

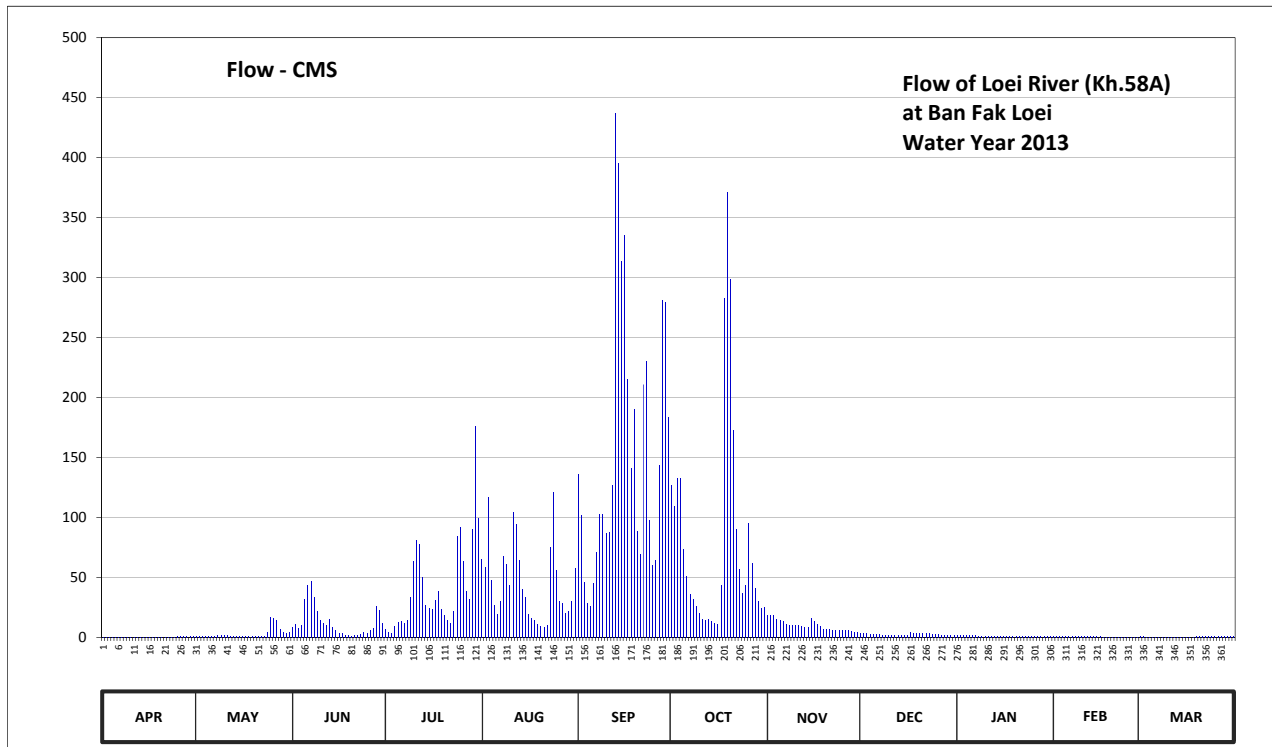


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                                | May                      | Jun     | Jul                  | Aug      | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb    | Mar    | Annual           |
|----------------|--------------------------------------------------------------------|--------------------------|---------|----------------------|----------|----------|--------------------------|---------|---------|---------|--------|--------|------------------|
| 1              | 0.00                                                               | 0.00                     | 88.90   | 474.80               | 1126.20  | 1057.10  | 607.20                   | 323.30  | 122.80  | 63.20   | 26.60  | 6.70   |                  |
| 2              | 0.00                                                               | 0.00                     | 75.50   | 446.30               | 1153.60  | 1052.80  | 604.50                   | 299.40  | 115.00  | 60.00   | 22.20  | 5.90   |                  |
| 3              | 0.00                                                               | 0.00                     | 65.70   | 405.40               | 1172.30  | 1049.90  | 599.10                   | 268.80  | 109.10  | 56.70   | 18.50  | 8.10   |                  |
| 4              | 0.00                                                               | 0.00                     | 57.50   | 366.80               | 1182.40  | 1035.50  | 583.00                   | 245.00  | 100.70  | 53.40   | 16.30  | 12.60  |                  |
| 5              | 0.00                                                               | 0.00                     | 60.80   | 350.20               | 1188.20  | 1016.80  | 567.40                   | 231.00  | 96.50   | 49.30   | 14.80  | 16.30  |                  |
| 6              | 0.00                                                               | 0.00                     | 83.00   | 332.50               | 1186.70  | 998.10   | 520.80                   | 225.60  | 96.50   | 46.80   | 14.10  | 19.20  |                  |
| 7              | 0.00                                                               | 0.70                     | 110.80  | 310.80               | 1183.80  | 979.60   | 473.60                   | 231.00  | 96.50   | 46.00   | 11.10  | 21.50  |                  |
| 8              | 0.00                                                               | 0.70                     | 137.90  | 295.90               | 1175.20  | 967.00   | 422.70                   | 233.10  | 95.60   | 46.00   | 5.90   | 23.70  |                  |
| 9              | 0.00                                                               | 3.70                     | 148.20  | 305.10               | 1179.50  | 954.40   | 366.80                   | 226.60  | 94.00   | 44.40   | 0.00   | 25.90  |                  |
| 10             | 0.00                                                               | 8.10                     | 147.30  | 336.10               | 1191.00  | 954.40   | 317.60                   | 226.60  | 87.20   | 41.90   | 0.00   | 28.90  |                  |
| 11             | 0.00                                                               | 12.60                    | 135.00  | 389.20               | 1205.40  | 962.80   | 274.30                   | 225.60  | 80.50   | 38.60   | 0.00   | 28.90  |                  |
| 12             | 0.00                                                               | 16.30                    | 134.10  | 442.60               | 1212.60  | 962.80   | 242.80                   | 201.70  | 76.40   | 35.50   | 0.00   | 25.90  |                  |
| 13             | 0.00                                                               | 21.50                    | 149.10  | 473.60               | 1214.10  | 960.00   | 227.70                   | 184.30  | 76.40   | 34.80   | 0.00   | 24.40  |                  |
| 14             | 0.00                                                               | 32.60                    | 163.20  | 495.90               | 1211.20  | 953.00   | 219.10                   | 174.10  | 75.50   | 34.80   | 0.00   | 24.40  |                  |
| 15             | 0.00                                                               | 46.80                    | 169.00  | 527.10               | 1204.00  | 951.60   | 211.90                   | 166.10  | 76.40   | 34.80   | 0.00   | 26.60  |                  |
| 16             | 0.00                                                               | 56.70                    | 167.00  | 561.10               | 1192.50  | 951.60   | 221.20                   | 156.70  | 80.50   | 34.80   | 0.00   | 28.90  |                  |
| 17             | 0.00                                                               | 56.70                    | 152.90  | 588.40               | 1188.20  | 943.20   | 307.30                   | 151.00  | 83.90   | 36.30   | 0.00   | 30.30  |                  |
| 18             | 0.00                                                               | 49.30                    | 124.70  | 607.20               | 1173.80  | 933.40   | 416.50                   | 145.40  | 85.60   | 39.50   | 0.00   | 31.10  |                  |
| 19             | 0.00                                                               | 41.10                    | 99.00   | 616.50               | 1156.50  | 911.00   | 422.70                   | 139.70  | 89.80   | 44.40   | 0.00   | 28.90  |                  |
| 20             | 0.00                                                               | 37.00                    | 80.50   | 628.60               | 1136.30  | 884.40   | 352.60                   | 135.00  | 112.40  | 44.40   | 0.00   | 25.20  |                  |
| 21             | 0.00                                                               | 33.30                    | 83.00   | 663.80               | 1121.90  | 857.80   | 308.50                   | 129.40  | 206.80  | 41.10   | 0.00   | 23.70  |                  |
| 22             | 0.00                                                               | 29.60                    | 105.70  | 692.30               | 1120.50  | 843.80   | 294.80                   | 124.70  | 318.70  | 34.80   | 0.00   | 23.70  |                  |
| 23             | 0.00                                                               | 32.60                    | 131.30  | 716.80               | 1127.70  | 825.60   | 280.00                   | 121.90  | 344.30  | 31.80   | 0.00   | 22.90  |                  |
| 24             | 0.00                                                               | 45.20                    | 250.40  | 727.70               | 1133.40  | 797.60   | 246.10                   | 121.90  | 306.20  | 31.10   | 0.00   | 22.90  |                  |
| 25             | 0.00                                                               | 70.60                    | 402.90  | 733.10               | 1139.20  | 756.20   | 221.20                   | 120.90  | 250.40  | 30.30   | 3.00   | 22.20  |                  |
| 26             | 0.00                                                               | 96.50                    | 468.60  | 750.80               | 1143.50  | 725.00   | 198.60                   | 122.80  | 197.60  | 30.30   | 7.40   | 22.20  |                  |
| 27             | 0.00                                                               | 119.20                   | 486.00  | 782.20               | 1139.20  | 695.00   | 189.40                   | 123.80  | 155.70  | 30.30   | 7.40   | 22.20  |                  |
| 28             | 0.00                                                               | 131.30                   | 499.60  | 853.60               | 1126.20  | 662.40   | 202.70                   | 123.80  | 119.20  | 30.30   | 7.40   | 20.70  |                  |
| 29             | 0.00                                                               | 131.30                   | 504.60  | 965.60               | 1106.10  | 628.60   | 274.30                   | 122.80  | 100.70  | 30.30   |        | 20.00  |                  |
| 30             | 0.00                                                               | 116.60                   | 493.40  | 1062.90              | 1090.20  | 605.80   | 323.30                   | 123.80  | 83.90   | 30.30   |        | 19.20  |                  |
| 31             |                                                                    | 101.50                   |         | 1104.60              | 1073.00  |          | 334.90                   |         | 70.60   | 30.30   |        | 19.20  |                  |
| Total          | 0.00                                                               | 1291.50                  | 5775.60 | 18007.50             | 35954.40 | 26877.20 | 10832.60                 | 5425.80 | 4005.40 | 1236.50 | 154.70 | 682.30 | 110243.50 CMSDAY |
| Mean           | 0.00                                                               | 41.70                    | 192.50  | 580.90               | 1159.80  | 895.90   | 349.40                   | 180.90  | 129.20  | 39.90   | 5.50   | 22.00  | 302.00 CMS       |
| Max            | 0.00                                                               | 131.30                   | 504.60  | 1104.60              | 1214.10  | 1057.10  | 607.20                   | 323.30  | 344.30  | 63.20   | 26.60  | 31.10  | 1214.10 CMS      |
| Min            | 0.00                                                               | 0.00                     | 57.50   | 295.90               | 1073.00  | 605.80   | 189.40                   | 120.90  | 70.60   | 30.30   | 0.00   | 5.90   | 0.00 CMS         |
| Runoff         | 0.00                                                               | 111.59                   | 499.01  | 1555.85              | 3106.46  | 2322.19  | 935.94                   | 468.79  | 346.07  | 106.83  | 13.37  | 58.95  | 9525.04 MCM      |
| Momentary Peak | 1214.08 CMS. at 145.07 m. (MSL.) at 01.00 Hours , on Aug 13 , 2013 |                          |         |                      |          |          |                          |         |         |         |        |        |                  |
| Runoff Yield   | 24.50                                                              | Liters/Second/Square KM. |         | Momentary Peak Yield |          | 98.482   | Liters/Second/Square KM. |         |         |         |        |        |                  |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 230.03 | 230.08 | 230.53      | 230.44 | 232.01                            | 233.15 | 233.01            | 230.94 | 230.30 | 230.19 | 230.11 | 230.07 |        |
| 2                                | 230.03 | 230.08 | 230.63      | 230.33 | 231.87                            | 232.61 | 232.73            | 230.95 | 230.28 | 230.19 | 230.11 | 230.07 |        |
| 3                                | 230.03 | 230.08 | 230.49      | 230.27 | 232.85                            | 231.63 | 233.10            | 230.95 | 230.27 | 230.18 | 230.11 | 230.06 |        |
| 4                                | 230.03 | 230.09 | 230.60      | 230.55 | 231.66                            | 231.22 | 233.10            | 230.82 | 230.26 | 230.18 | 230.11 | 230.04 |        |
| 5                                | 230.02 | 230.10 | 231.30      | 230.69 | 231.17                            | 231.15 | 232.15            | 230.78 | 230.24 | 230.18 | 230.10 | 230.03 |        |
| 6                                | 230.03 | 230.10 | 231.58      | 230.73 | 230.98                            | 231.61 | 231.73            | 230.73 | 230.23 | 230.18 | 230.09 | 230.01 |        |
| 7                                | 230.03 | 230.12 | 231.65      | 230.68 | 231.27                            | 232.11 | 231.40            | 230.63 | 230.23 | 230.17 | 230.09 | 230.01 |        |
| 8                                | 230.03 | 230.22 | 231.35      | 230.76 | 232.05                            | 232.63 | 231.31            | 230.60 | 230.22 | 230.16 | 230.09 | 230.00 |        |
| 9                                | 230.03 | 230.18 | 231.06      | 231.34 | 231.92                            | 232.63 | 231.16            | 230.60 | 230.22 | 230.16 | 230.09 | 230.00 |        |
| 10                               | 230.03 | 230.17 | 230.79      | 231.98 | 231.58                            | 232.37 | 231.00            | 230.59 | 230.22 | 230.15 | 230.09 | 229.99 |        |
| 11                               | 230.03 | 230.17 | 230.67      | 232.27 | 232.65                            | 232.38 | 230.81            | 230.58 | 230.22 | 230.15 | 230.09 | 229.99 |        |
| 12                               | 230.02 | 230.16 | 230.61      | 232.22 | 232.49                            | 233.01 | 230.77            | 230.56 | 230.21 | 230.15 | 230.08 | 229.99 |        |
| 13                               | 230.03 | 230.15 | 230.81      | 231.71 | 231.99                            | 236.67 | 230.82            | 230.52 | 230.21 | 230.15 | 230.08 | 229.99 |        |
| 14                               | 230.03 | 230.15 | 230.52      | 231.17 | 231.50                            | 236.25 | 230.73            | 230.54 | 230.20 | 230.14 | 230.08 | 229.99 |        |
| 15                               | 230.03 | 230.16 | 230.40      | 231.11 | 231.34                            | 235.39 | 230.68            | 230.85 | 230.20 | 230.13 | 230.07 | 229.99 |        |
| 16                               | 230.03 | 230.14 | 230.30      | 231.09 | 230.99                            | 235.63 | 230.64            | 230.72 | 230.21 | 230.13 | 230.07 | 229.99 |        |
| 17                               | 230.03 | 230.11 | 230.27      | 231.28 | 230.85                            | 234.22 | 231.57            | 230.62 | 230.33 | 230.13 | 230.06 | 230.00 |        |
| 18                               | 230.03 | 230.10 | 230.20      | 231.47 | 230.76                            | 233.22 | 235.04            | 230.55 | 230.30 | 230.13 | 230.06 | 230.04 |        |
| 19                               | 230.03 | 230.09 | 230.18      | 231.10 | 230.64                            | 233.90 | 236.00            | 230.47 | 230.27 | 230.13 | 230.06 | 230.09 |        |
| 20                               | 230.02 | 230.09 | 230.16      | 230.95 | 230.56                            | 232.39 | 235.22            | 230.44 | 230.27 | 230.12 | 230.05 | 230.09 |        |
| 21                               | 230.02 | 230.09 | 230.18      | 230.78 | 230.54                            | 232.07 | 233.67            | 230.44 | 230.27 | 230.12 | 230.05 | 230.11 |        |
| 22                               | 230.04 | 230.12 | 230.22      | 230.66 | 230.59                            | 234.17 | 232.43            | 230.42 | 230.27 | 230.12 | 230.04 | 230.11 |        |
| 23                               | 230.06 | 230.11 | 230.26      | 231.06 | 232.17                            | 234.42 | 231.85            | 230.41 | 230.27 | 230.12 | 230.03 | 230.10 |        |
| 24                               | 230.06 | 230.34 | 230.32      | 232.33 | 232.93                            | 232.55 | 231.43            | 230.40 | 230.26 | 230.12 | 230.02 | 230.09 |        |
| 25                               | 230.11 | 230.87 | 230.27      | 232.45 | 231.83                            | 231.91 | 231.58            | 230.39 | 230.25 | 230.12 | 230.03 | 230.09 |        |
| 26                               | 230.09 | 230.84 | 230.40      | 231.97 | 231.27                            | 231.99 | 232.51            | 230.39 | 230.23 | 230.12 | 230.06 | 230.08 |        |
| 27                               | 230.08 | 230.79 | 230.49      | 231.46 | 231.22                            | 233.26 | 231.94            | 230.40 | 230.22 | 230.12 | 230.05 | 230.08 |        |
| 28                               | 230.09 | 230.45 | 231.15      | 231.30 | 231.02                            | 235.02 | 231.52            | 230.37 | 230.21 | 230.12 | 230.05 | 230.08 |        |
| 29                               | 230.09 | 230.31 | 231.07      | 232.42 | 231.06                            | 235.00 | 231.25            | 230.34 | 230.21 | 230.12 |        | 230.08 |        |
| 30                               | 230.09 | 230.29 | 230.67      | 233.71 | 231.27                            | 233.81 | 231.12            | 230.32 | 230.20 | 230.11 |        | 230.08 |        |
| 31                               |        | 230.32 |             | 232.57 | 231.86                            |        | 231.14            |        | 230.19 | 230.11 |        | 230.07 |        |
| Mean                             | 230.04 | 230.23 | 230.64      | 231.38 | 231.51                            | 233.28 | 232.05            | 230.58 | 230.24 | 230.14 | 230.07 | 230.05 |        |
| Max                              | 230.11 | 230.87 | 231.65      | 233.71 | 232.93                            | 236.67 | 236.00            | 230.95 | 230.33 | 230.19 | 230.11 | 230.11 | 236.67 |
| Min                              | 230.02 | 230.08 | 230.16      | 230.27 | 230.54                            | 231.15 | 230.64            | 230.32 | 230.19 | 230.11 | 230.02 | 229.99 | 229.99 |
| Annual Max Momentary Gage Height | 237.10 |        | m. (MSL.) , |        | at 19.00 Hours , on Sep 13 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 229.00 |        | m. (MSL.) , |        | River Bed                         | 228.98 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 240.56 |        | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 240.40 |        | m. (MSL.) , |        | Drainage Area                     | 3093   | Square Kilometers |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|---------|--------------------------|-------|-------|-------|-------|-----------------|
| 1              | 0.65                                                              | 0.90                     | 8.72   | 6.80                 | 65.60   | 136.20  | 126.68  | 18.56                    | 4.00  | 1.90  | 1.10  | 0.85  |                 |
| 2              | 0.65                                                              | 0.90                     | 11.12  | 4.60                 | 58.50   | 101.82  | 109.26  | 18.80                    | 3.60  | 1.90  | 1.10  | 0.85  |                 |
| 3              | 0.65                                                              | 0.90                     | 7.80   | 3.40                 | 116.70  | 46.50   | 132.80  | 18.80                    | 3.40  | 1.80  | 1.10  | 0.80  |                 |
| 4              | 0.65                                                              | 0.95                     | 10.40  | 9.20                 | 48.00   | 28.80   | 132.80  | 15.68                    | 3.20  | 1.80  | 1.10  | 0.70  |                 |
| 5              | 0.60                                                              | 1.00                     | 32.00  | 12.56                | 26.80   | 26.00   | 74.00   | 14.72                    | 2.80  | 1.80  | 1.00  | 0.65  |                 |
| 6              | 0.65                                                              | 1.00                     | 44.00  | 13.52                | 19.52   | 45.50   | 51.50   | 13.52                    | 2.60  | 1.80  | 0.95  | 0.55  |                 |
| 7              | 0.65                                                              | 1.20                     | 47.50  | 12.32                | 30.80   | 71.60   | 36.00   | 11.12                    | 2.60  | 1.70  | 0.95  | 0.55  |                 |
| 8              | 0.65                                                              | 2.40                     | 34.00  | 14.24                | 68.00   | 103.06  | 32.40   | 10.40                    | 2.40  | 1.60  | 0.95  | 0.50  |                 |
| 9              | 0.65                                                              | 1.80                     | 22.40  | 33.60                | 61.00   | 103.06  | 26.40   | 10.40                    | 2.40  | 1.60  | 0.95  | 0.50  |                 |
| 10             | 0.65                                                              | 1.70                     | 14.96  | 64.00                | 44.00   | 87.20   | 20.00   | 10.16                    | 2.40  | 1.50  | 0.95  | 0.45  |                 |
| 11             | 0.65                                                              | 1.70                     | 12.08  | 81.20                | 104.30  | 87.80   | 15.44   | 9.92                     | 2.40  | 1.50  | 0.95  | 0.45  |                 |
| 12             | 0.60                                                              | 1.60                     | 10.64  | 78.20                | 94.40   | 126.68  | 14.48   | 9.44                     | 2.20  | 1.50  | 0.90  | 0.45  |                 |
| 13             | 0.65                                                              | 1.50                     | 15.44  | 50.50                | 64.50   | 436.66  | 15.68   | 8.48                     | 2.20  | 1.50  | 0.90  | 0.45  |                 |
| 14             | 0.65                                                              | 1.50                     | 8.48   | 26.80                | 40.00   | 395.50  | 13.52   | 8.96                     | 2.00  | 1.40  | 0.90  | 0.45  |                 |
| 15             | 0.65                                                              | 1.60                     | 6.00   | 24.40                | 33.60   | 313.32  | 12.32   | 16.40                    | 2.00  | 1.30  | 0.85  | 0.45  |                 |
| 16             | 0.65                                                              | 1.40                     | 4.00   | 23.60                | 19.76   | 335.48  | 11.36   | 13.28                    | 2.20  | 1.30  | 0.85  | 0.45  |                 |
| 17             | 0.65                                                              | 1.10                     | 3.40   | 31.20                | 16.40   | 214.72  | 43.50   | 10.88                    | 4.60  | 1.30  | 0.80  | 0.50  |                 |
| 18             | 0.65                                                              | 1.00                     | 2.00   | 38.80                | 14.24   | 140.96  | 282.52  | 9.20                     | 4.00  | 1.30  | 0.80  | 0.70  |                 |
| 19             | 0.65                                                              | 0.95                     | 1.80   | 24.00                | 11.36   | 190.40  | 371.00  | 7.40                     | 3.40  | 1.30  | 0.80  | 0.95  |                 |
| 20             | 0.60                                                              | 0.95                     | 1.60   | 18.80                | 9.44    | 88.40   | 298.36  | 6.80                     | 3.40  | 1.20  | 0.75  | 0.95  |                 |
| 21             | 0.60                                                              | 0.95                     | 1.80   | 14.72                | 8.96    | 69.20   | 172.92  | 6.80                     | 3.40  | 1.20  | 0.75  | 1.10  |                 |
| 22             | 0.70                                                              | 1.20                     | 2.40   | 11.84                | 10.16   | 210.92  | 90.80   | 6.40                     | 3.40  | 1.20  | 0.70  | 1.10  |                 |
| 23             | 0.80                                                              | 1.10                     | 3.20   | 22.40                | 75.20   | 229.92  | 57.50   | 6.20                     | 3.40  | 1.20  | 0.65  | 1.00  |                 |
| 24             | 0.80                                                              | 4.80                     | 4.40   | 84.80                | 121.66  | 98.10   | 37.20   | 6.00                     | 3.20  | 1.20  | 0.60  | 0.95  |                 |
| 25             | 1.10                                                              | 16.88                    | 3.40   | 92.00                | 56.50   | 60.50   | 44.00   | 5.80                     | 3.00  | 1.20  | 0.65  | 0.95  |                 |
| 26             | 0.95                                                              | 16.16                    | 6.00   | 63.50                | 30.80   | 64.50   | 95.62   | 5.80                     | 2.60  | 1.20  | 0.80  | 0.90  |                 |
| 27             | 0.90                                                              | 14.96                    | 7.80   | 38.40                | 28.80   | 143.68  | 62.00   | 6.00                     | 2.40  | 1.20  | 0.75  | 0.90  |                 |
| 28             | 0.95                                                              | 7.00                     | 26.00  | 32.00                | 20.80   | 280.76  | 41.00   | 5.40                     | 2.20  | 1.20  | 0.75  | 0.90  |                 |
| 29             | 0.95                                                              | 4.20                     | 22.80  | 90.20                | 22.40   | 279.00  | 30.00   | 4.80                     | 2.20  | 1.20  |       | 0.90  |                 |
| 30             | 0.95                                                              | 3.80                     | 12.08  | 175.96               | 30.80   | 183.56  | 24.80   | 4.40                     | 2.00  | 1.10  |       | 0.90  |                 |
| 31             |                                                                   | 4.40                     |        | 99.34                | 58.00   |         | 25.60   |                          | 1.90  | 1.10  |       | 0.85  |                 |
| Total          | 21.55                                                             | 101.50                   | 388.22 | 1296.90              | 1411.00 | 4699.80 | 2501.46 | 300.52                   | 87.50 | 44.00 | 24.30 | 22.65 | 10899.40 CMSDAY |
| Mean           | 0.72                                                              | 3.27                     | 12.94  | 41.84                | 45.52   | 156.66  | 80.69   | 10.02                    | 2.82  | 1.42  | 0.87  | 0.73  | 29.86 CMS       |
| Max            | 1.10                                                              | 16.88                    | 47.50  | 175.96               | 121.66  | 436.66  | 371.00  | 18.80                    | 4.60  | 1.90  | 1.10  | 1.10  | 436.66 CMS      |
| Min            | 0.60                                                              | 0.90                     | 1.60   | 3.40                 | 8.96    | 26.00   | 11.36   | 4.40                     | 1.90  | 1.10  | 0.60  | 0.45  | 0.45 CMS        |
| Runoff         | 1.86                                                              | 8.77                     | 33.54  | 112.05               | 121.91  | 406.06  | 216.13  | 25.97                    | 7.56  | 3.80  | 2.10  | 1.96  | 941.71 MCM      |
| Momentary Peak | 479.20 CMS. at 237.10 m. (MSL.) at 19.00 Hours , on Sep 13 , 2013 |                          |        |                      |         |         |         |                          |       |       |       |       |                 |
| Runoff Yield   | 9.65                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |         |         | 154.930 | Liters/Second/Square KM. |       |       |       |       |                 |

## WATER YEAR : 2013

**KHONG RIVER BASIN**

**Loei River at Ban Keng Bong , Loei (Kh.61)**

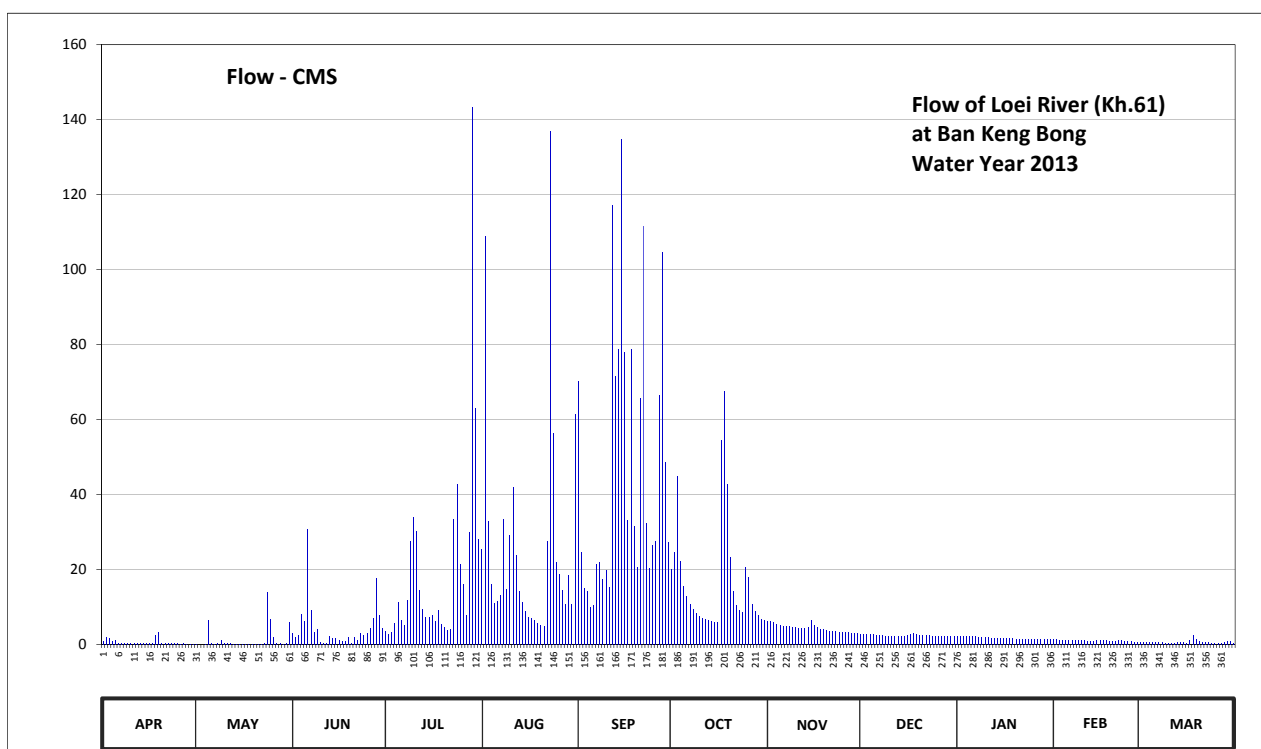
Lat 17 - 07 - 44 N    Long 101 - 40 - 56 E

**Location : on right bank at the bridge of Amphoe Wang Saphung - Ban Nong Khan Road.**

|                                         |                                                                                           |           |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Keng Bong | <b>Amphoe</b> | Phu Luang | <b>Changwat</b>  | Loei               |
| <b>Drainage Area</b>                    | 549                                                                                       | sq.km.    |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |           |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +258.361                                                                                  | m. (MSL.) |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                      |           |               |           |                  |                    |
| <b>Location BM</b>                      | On right bank downstream side at the footpath of the bridge.                              |           |               |           | <b>Elevation</b> | +272.020 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 1982 to date                                                                              |           |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                    |
| <b>Period of Rating</b>                 | 1993 to date                                                                              |           |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 1993 to date                                                                              |           |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 25 discharge measurements made in 2013. |           |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

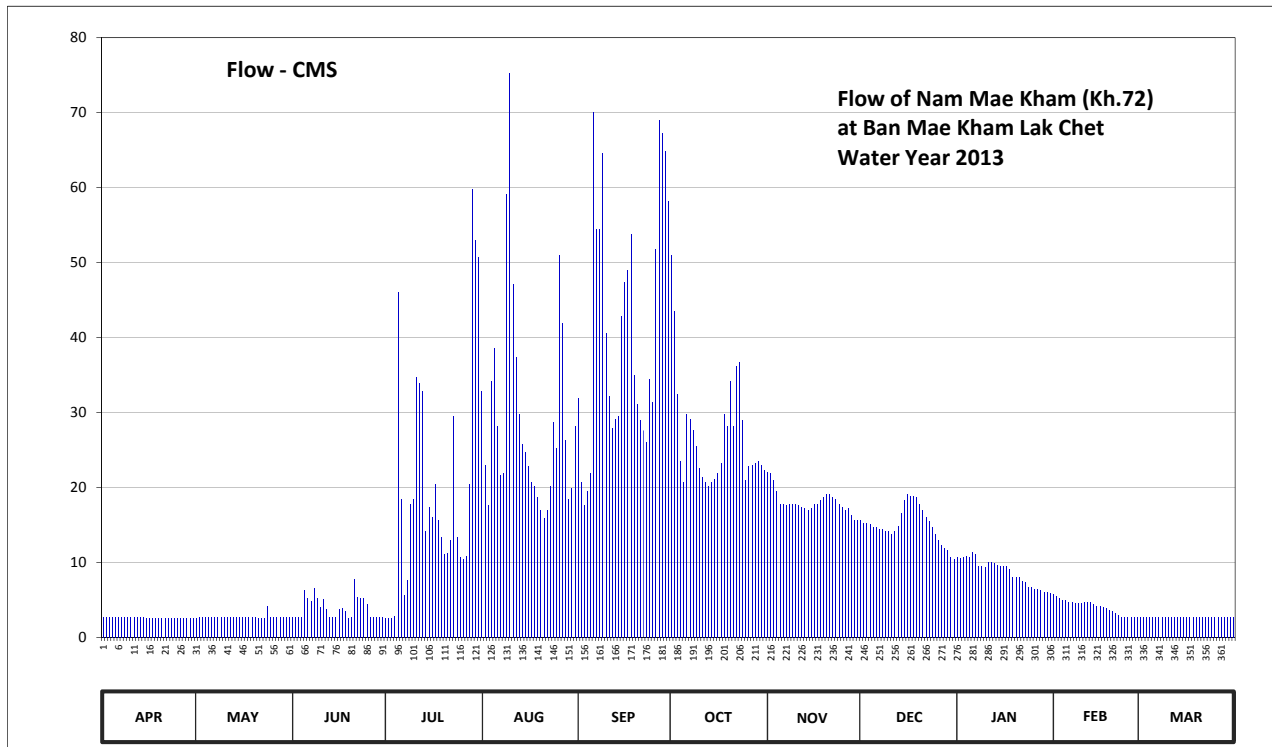
| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 259.05 | 258.63 | 259.30                                          | 259.34 | 260.55 | 261.62 | 260.37 | 259.63 | 259.27 | 259.20 | 259.11 | 259.03 |        |
| 2                                | 259.16 | 258.61 | 259.18                                          | 259.27 | 262.24 | 260.52 | 260.52 | 259.62 | 259.27 | 259.20 | 259.11 | 259.03 |        |
| 3                                | 259.14 | 258.59 | 259.23                                          | 259.31 | 260.77 | 260.15 | 261.07 | 259.59 | 259.26 | 259.20 | 259.10 | 259.03 |        |
| 4                                | 259.06 | 258.74 | 259.77                                          | 259.58 | 260.20 | 260.11 | 260.44 | 259.55 | 259.25 | 259.19 | 259.09 | 259.03 |        |
| 5                                | 259.08 | 259.66 | 259.63                                          | 259.96 | 259.95 | 259.90 | 260.18 | 259.51 | 259.25 | 259.19 | 259.09 | 259.02 |        |
| 6                                | 259.00 | 259.01 | 260.72                                          | 259.65 | 259.98 | 259.92 | 260.05 | 259.49 | 259.24 | 259.19 | 259.09 | 259.02 |        |
| 7                                | 258.92 | 258.81 | 259.85                                          | 259.52 | 260.06 | 260.42 | 259.94 | 259.49 | 259.23 | 259.19 | 259.09 | 259.03 |        |
| 8                                | 258.92 | 258.94 | 259.31                                          | 259.99 | 260.79 | 260.43 | 259.87 | 259.48 | 259.22 | 259.18 | 259.08 | 259.03 |        |
| 9                                | 258.92 | 259.08 | 259.41                                          | 260.62 | 260.14 | 260.27 | 259.80 | 259.46 | 259.21 | 259.17 | 259.08 | 259.00 |        |
| 10                               | 258.91 | 258.87 | 259.03                                          | 260.80 | 260.67 | 260.36 | 259.73 | 259.45 | 259.21 | 259.16 | 259.08 | 259.00 |        |
| 11                               | 258.90 | 258.93 | 258.95                                          | 260.71 | 261.00 | 260.17 | 259.70 | 259.44 | 259.21 | 259.16 | 259.07 | 259.01 |        |
| 12                               | 258.89 | 258.90 | 258.94                                          | 260.13 | 260.50 | 262.36 | 259.68 | 259.43 | 259.21 | 259.15 | 259.06 | 259.01 |        |
| 13                               | 258.97 | 258.79 | 259.20                                          | 259.86 | 260.11 | 261.64 | 259.66 | 259.42 | 259.21 | 259.14 | 259.05 | 259.02 |        |
| 14                               | 258.89 | 258.75 | 259.15                                          | 259.72 | 259.97 | 261.76 | 259.62 | 259.47 | 259.21 | 259.14 | 259.06 | 259.02 |        |
| 15                               | 258.90 | 258.71 | 259.13                                          | 259.72 | 259.83 | 262.61 | 259.60 | 259.66 | 259.21 | 259.14 | 259.07 | 259.04 |        |
| 16                               | 259.00 | 258.66 | 259.10                                          | 259.76 | 259.72 | 261.75 | 259.60 | 259.51 | 259.24 | 259.13 | 259.08 | 259.00 |        |
| 17                               | 258.93 | 258.67 | 259.06                                          | 259.63 | 259.71 | 260.78 | 261.31 | 259.47 | 259.27 | 259.13 | 259.08 | 259.07 |        |
| 18                               | 259.22 | 258.66 | 259.06                                          | 259.85 | 259.65 | 261.76 | 261.57 | 259.41 | 259.29 | 259.13 | 259.07 | 259.22 |        |
| 19                               | 259.32 | 258.80 | 259.17                                          | 259.55 | 259.57 | 260.74 | 261.02 | 259.39 | 259.25 | 259.13 | 259.06 | 259.11 |        |
| 20                               | 258.91 | 258.66 | 259.01                                          | 259.46 | 259.51 | 260.39 | 260.48 | 259.37 | 259.23 | 259.12 | 259.06 | 259.06 |        |
| 21                               | 258.94 | 258.68 | 259.17                                          | 259.38 | 259.50 | 261.53 | 260.11 | 259.36 | 259.22 | 259.12 | 259.05 | 259.03 |        |
| 22                               | 258.93 | 258.65 | 259.09                                          | 259.40 | 260.62 | 262.28 | 259.93 | 259.35 | 259.22 | 259.12 | 259.07 | 259.03 |        |
| 23                               | 258.92 | 258.96 | 259.29                                          | 260.79 | 262.64 | 260.76 | 259.84 | 259.34 | 259.22 | 259.12 | 259.07 | 259.02 |        |
| 24                               | 258.94 | 260.10 | 259.23                                          | 261.02 | 261.35 | 260.38 | 259.81 | 259.33 | 259.21 | 259.12 | 259.05 | 259.01 |        |
| 25                               | 258.98 | 259.69 | 259.30                                          | 260.42 | 260.43 | 260.58 | 260.39 | 259.32 | 259.21 | 259.12 | 259.05 | 259.01 |        |
| 26                               | 258.69 | 259.16 | 259.43                                          | 260.20 | 260.33 | 260.62 | 260.30 | 259.32 | 259.21 | 259.12 | 259.05 | 259.01 |        |
| 27                               | 258.96 | 258.94 | 259.71                                          | 259.76 | 260.12 | 261.55 | 259.94 | 259.31 | 259.20 | 259.12 | 259.04 | 259.01 |        |
| 28                               | 258.78 | 258.87 | 260.28                                          | 260.70 | 259.94 | 262.18 | 259.83 | 259.30 | 259.20 | 259.12 | 259.04 | 259.02 |        |
| 29                               | 258.69 | 258.81 | 259.75                                          | 262.73 | 260.32 | 261.17 | 259.75 | 259.29 | 259.20 | 259.12 |        | 259.06 |        |
| 30                               | 258.65 | 258.92 | 259.44                                          | 261.48 | 259.94 | 260.61 | 259.68 | 259.28 | 259.20 | 259.11 |        | 259.05 |        |
| 31                               |        | 259.60 |                                                 | 260.64 | 261.45 |        | 259.64 |        | 259.20 | 259.11 |        | 259.01 |        |
| Mean                             | 258.95 | 258.93 | 259.36                                          | 260.10 | 260.37 | 260.98 | 260.11 | 259.43 | 259.23 | 259.15 | 259.07 | 259.03 |        |
| Max                              | 259.32 | 260.10 | 260.72                                          | 262.73 | 262.64 | 262.61 | 261.57 | 259.66 | 259.29 | 259.20 | 259.11 | 259.22 | 262.73 |
| Min                              | 258.65 | 258.59 | 258.94                                          | 259.27 | 259.50 | 259.90 | 259.60 | 259.28 | 259.20 | 259.11 | 259.04 | 259.00 | 258.59 |
| Annual Max Momentary Gage Height | 263.39 |        | m. (MSL.) , at 13.00 Hours , on Jul 29 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 258.36 |        | m. (MSL.) , River Bed 258.73 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 271.87 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 266.94 |        | m. (MSL.) , Drainage Area 549 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date  | Apr   | May   | Jun    | Jul    | Aug    | Sep     | Oct    | Nov    | Dec   | Jan   | Feb   | Mar   | Annual    |
|-------|-------|-------|--------|--------|--------|---------|--------|--------|-------|-------|-------|-------|-----------|
| 1     | 0.86  | 0.03  | 3.16   | 3.53   | 25.50  | 70.20   | 20.10  | 6.30   | 2.88  | 2.24  | 1.41  | 0.68  |           |
| 2     | 1.87  | 0.01  | 2.06   | 2.88   | 108.80 | 24.60   | 24.60  | 6.20   | 2.88  | 2.24  | 1.41  | 0.68  |           |
| 3     | 1.69  | 0.00  | 2.52   | 3.25   | 32.80  | 15.00   | 44.80  | 5.90   | 2.79  | 2.24  | 1.32  | 0.68  |           |
| 4     | 0.95  | 0.14  | 8.05   | 5.80   | 16.00  | 14.20   | 22.20  | 5.50   | 2.70  | 2.15  | 1.23  | 0.68  |           |
| 5     | 1.14  | 6.60  | 6.30   | 11.20  | 11.00  | 10.00   | 15.60  | 5.10   | 2.70  | 2.15  | 1.23  | 0.58  |           |
| 6     | 0.40  | 0.49  | 30.80  | 6.50   | 11.60  | 10.40   | 13.00  | 4.91   | 2.61  | 2.15  | 1.23  | 0.58  |           |
| 7     | 0.32  | 0.21  | 9.25   | 5.20   | 13.20  | 21.60   | 10.80  | 4.91   | 2.52  | 2.15  | 1.23  | 0.68  |           |
| 8     | 0.32  | 0.34  | 3.25   | 11.80  | 33.60  | 21.90   | 9.55   | 4.82   | 2.42  | 2.06  | 1.14  | 0.68  |           |
| 9     | 0.32  | 1.14  | 4.17   | 27.60  | 14.80  | 17.40   | 8.50   | 4.63   | 2.33  | 1.96  | 1.14  | 0.40  |           |
| 10    | 0.31  | 0.27  | 0.68   | 34.00  | 29.10  | 19.80   | 7.45   | 4.54   | 2.33  | 1.87  | 1.14  | 0.40  |           |
| 11    | 0.30  | 0.33  | 0.35   | 30.40  | 42.00  | 15.40   | 7.00   | 4.45   | 2.33  | 1.87  | 1.04  | 0.49  |           |
| 12    | 0.29  | 0.30  | 0.34   | 14.60  | 24.00  | 117.20  | 6.80   | 4.36   | 2.33  | 1.78  | 0.95  | 0.49  |           |
| 13    | 0.37  | 0.19  | 2.24   | 9.40   | 14.20  | 71.40   | 6.60   | 4.26   | 2.33  | 1.69  | 0.86  | 0.58  |           |
| 14    | 0.29  | 0.15  | 1.78   | 7.30   | 11.40  | 78.60   | 6.20   | 4.72   | 2.33  | 1.69  | 0.95  | 0.58  |           |
| 15    | 0.30  | 0.11  | 1.60   | 7.30   | 8.95   | 134.70  | 6.00   | 6.60   | 2.33  | 1.69  | 1.04  | 0.77  |           |
| 16    | 0.40  | 0.06  | 1.32   | 7.90   | 7.30   | 78.00   | 6.00   | 5.10   | 2.61  | 1.60  | 1.14  | 0.40  |           |
| 17    | 0.33  | 0.07  | 0.95   | 6.30   | 7.15   | 33.20   | 54.50  | 4.72   | 2.88  | 1.60  | 1.14  | 1.04  |           |
| 18    | 2.42  | 0.06  | 0.95   | 9.25   | 6.50   | 78.60   | 67.50  | 4.17   | 3.07  | 1.60  | 1.04  | 2.42  |           |
| 19    | 3.34  | 0.20  | 1.96   | 5.50   | 5.70   | 31.60   | 42.80  | 3.99   | 2.70  | 1.60  | 0.95  | 1.41  |           |
| 20    | 0.31  | 0.06  | 0.49   | 4.63   | 5.10   | 20.70   | 23.40  | 3.80   | 2.52  | 1.50  | 0.95  | 0.95  |           |
| 21    | 0.34  | 0.08  | 1.96   | 3.90   | 5.00   | 65.50   | 14.20  | 3.71   | 2.42  | 1.50  | 0.86  | 0.68  |           |
| 22    | 0.33  | 0.05  | 1.23   | 4.08   | 27.60  | 111.60  | 10.60  | 3.62   | 2.42  | 1.50  | 1.04  | 0.68  |           |
| 23    | 0.32  | 0.36  | 3.07   | 33.60  | 136.80 | 32.40   | 9.10   | 3.53   | 2.42  | 1.50  | 1.04  | 0.58  |           |
| 24    | 0.34  | 14.00 | 2.52   | 42.80  | 56.50  | 20.40   | 8.65   | 3.44   | 2.33  | 1.50  | 0.86  | 0.49  |           |
| 25    | 0.38  | 6.90  | 3.16   | 21.60  | 21.90  | 26.40   | 20.70  | 3.34   | 2.33  | 1.50  | 0.86  | 0.49  |           |
| 26    | 0.09  | 1.87  | 4.36   | 16.00  | 18.90  | 27.60   | 18.00  | 3.34   | 2.33  | 1.50  | 0.86  | 0.49  |           |
| 27    | 0.36  | 0.34  | 7.15   | 7.90   | 14.40  | 66.50   | 10.80  | 3.25   | 2.24  | 1.50  | 0.77  | 0.49  |           |
| 28    | 0.18  | 0.27  | 17.60  | 30.00  | 10.80  | 104.60  | 8.95   | 3.16   | 2.24  | 1.50  | 0.77  | 0.58  |           |
| 29    | 0.09  | 0.21  | 7.75   | 143.40 | 18.60  | 48.80   | 7.75   | 3.07   | 2.24  | 1.50  |       | 0.95  |           |
| 30    | 0.05  | 0.32  | 4.45   | 63.00  | 10.80  | 27.30   | 6.80   | 2.98   | 2.24  | 1.41  |       | 0.86  |           |
| 31    |       | 6.00  |        | 28.20  | 61.50  |         | 6.40   |        | 2.24  | 1.41  |       | 0.49  |           |
| Total | 19.01 | 41.16 | 135.47 | 608.82 | 811.50 | 1415.60 | 525.35 | 132.42 | 77.04 | 54.15 | 29.60 | 21.95 | 3872.07</ |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                       | Jun    | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec    | Jan    | Feb    | Mar   | Annual         |
|----------------|-------|-----------------------------------------------------------|--------|----------------------|--------|---------|--------|--------------------------|--------|--------|--------|-------|----------------|
| 1              | 2.67  | 2.65                                                      | 2.68   | 2.64                 | 32.75  | 31.93   | 51.01  | 22.11                    | 15.70  | 10.75  | 5.82   | 2.69  |                |
| 2              | 2.67  | 2.66                                                      | 2.68   | 2.64                 | 23.05  | 20.70   | 43.45  | 21.88                    | 15.31  | 10.57  | 5.51   | 2.69  |                |
| 3              | 2.67  | 2.66                                                      | 2.68   | 2.64                 | 17.64  | 17.64   | 32.47  | 20.94                    | 15.31  | 10.75  | 5.20   | 2.68  |                |
| 4              | 2.67  | 2.67                                                      | 2.69   | 2.82                 | 34.12  | 19.57   | 23.52  | 19.57                    | 15.11  | 10.92  | 4.94   | 2.69  |                |
| 5              | 2.67  | 2.68                                                      | 6.28   | 46.05                | 38.50  | 21.88   | 20.70  | 17.85                    | 14.73  | 10.75  | 4.94   | 2.69  |                |
| 6              | 2.67  | 2.68                                                      | 5.20   | 18.49                | 28.14  | 70.02   | 29.74  | 17.85                    | 14.73  | 11.45  | 4.68   | 2.69  |                |
| 7              | 2.67  | 2.68                                                      | 4.81   | 5.67                 | 21.65  | 54.36   | 29.20  | 17.64                    | 14.53  | 11.10  | 4.68   | 2.69  |                |
| 8              | 2.66  | 2.68                                                      | 6.60   | 7.68                 | 21.88  | 54.36   | 27.61  | 17.85                    | 14.53  | 9.53   | 4.55   | 2.69  |                |
| 9              | 2.66  | 2.68                                                      | 5.20   | 17.85                | 59.12  | 64.56   | 25.50  | 17.85                    | 14.14  | 9.53   | 4.55   | 2.68  |                |
| 10             | 2.66  | 2.68                                                      | 4.03   | 18.49                | 75.20  | 40.60   | 22.58  | 17.85                    | 14.14  | 9.35   | 4.55   | 2.68  |                |
| 11             | 2.66  | 2.68                                                      | 5.07   | 34.68                | 47.03  | 32.20   | 21.41  | 17.64                    | 13.75  | 10.05  | 4.68   | 2.68  |                |
| 12             | 2.66  | 2.68                                                      | 3.78   | 33.85                | 37.30  | 27.88   | 20.70  | 17.42                    | 14.14  | 10.05  | 4.68   | 2.68  |                |
| 13             | 2.66  | 2.69                                                      | 2.67   | 32.75                | 29.74  | 29.20   | 20.24  | 17.21                    | 14.92  | 9.87   | 4.68   | 2.68  |                |
| 14             | 2.66  | 2.69                                                      | 2.67   | 14.14                | 25.76  | 29.47   | 20.70  | 16.99                    | 16.56  | 9.70   | 4.42   | 2.68  |                |
| 15             | 2.65  | 2.69                                                      | 2.67   | 17.42                | 24.70  | 42.80   | 21.17  | 17.21                    | 18.28  | 9.53   | 4.16   | 2.68  |                |
| 16             | 2.65  | 2.69                                                      | 3.78   | 16.13                | 22.82  | 47.35   | 21.88  | 17.85                    | 19.14  | 9.53   | 4.16   | 2.68  |                |
| 17             | 2.65  | 2.68                                                      | 3.90   | 20.47                | 20.70  | 49.00   | 23.29  | 17.85                    | 18.93  | 9.53   | 4.03   | 2.67  |                |
| 18             | 2.65  | 2.67                                                      | 3.54   | 15.70                | 20.24  | 53.70   | 29.74  | 18.28                    | 18.93  | 9.18   | 3.90   | 2.67  |                |
| 19             | 2.65  | 2.67                                                      | 2.65   | 13.36                | 18.71  | 34.95   | 28.14  | 18.71                    | 18.71  | 7.99   | 3.66   | 2.67  |                |
| 20             | 2.65  | 2.66                                                      | 2.68   | 11.10                | 16.99  | 31.10   | 34.12  | 19.14                    | 17.85  | 7.99   | 3.54   | 2.67  |                |
| 21             | 2.65  | 2.65                                                      | 7.83   | 11.28                | 15.92  | 28.94   | 28.14  | 19.14                    | 16.99  | 7.99   | 3.30   | 2.67  |                |
| 22             | 2.65  | 2.65                                                      | 5.35   | 12.97                | 16.99  | 27.61   | 36.10  | 18.71                    | 16.13  | 7.53   | 2.94   | 2.67  |                |
| 23             | 2.65  | 2.65                                                      | 5.20   | 29.47                | 20.24  | 26.02   | 36.70  | 18.49                    | 15.51  | 7.37   | 2.70   | 2.67  |                |
| 24             | 2.65  | 4.16                                                      | 5.20   | 13.36                | 28.68  | 34.40   | 28.94  | 17.85                    | 14.73  | 6.75   | 2.70   | 2.67  |                |
| 25             | 2.65  | 2.70                                                      | 4.42   | 10.75                | 25.23  | 31.38   | 20.94  | 17.42                    | 13.75  | 6.75   | 2.70   | 2.69  |                |
| 26             | 2.65  | 2.68                                                      | 2.66   | 10.40                | 51.01  | 51.68   | 22.82  | 16.99                    | 12.97  | 6.44   | 2.70   | 2.70  |                |
| 27             | 2.65  | 2.68                                                      | 2.66   | 10.92                | 41.83  | 68.99   | 23.05  | 17.21                    | 12.39  | 6.44   | 2.70   | 2.69  |                |
| 28             | 2.65  | 2.68                                                      | 2.66   | 20.47                | 26.29  | 67.28   | 23.29  | 16.34                    | 11.99  | 6.28   | 2.70   | 2.69  |                |
| 29             | 2.65  | 2.68                                                      | 2.66   | 59.80                | 18.49  | 64.90   | 23.52  | 15.70                    | 11.62  | 6.13   |        | 2.69  |                |
| 30             | 2.65  | 2.69                                                      | 2.66   | 53.02                | 20.00  | 58.10   | 23.05  | 15.70                    | 10.75  | 6.13   |        | 2.68  |                |
| 31             |       | 2.68                                                      |        | 50.68                | 28.14  |         | 22.35  |                          | 10.40  | 5.97   |        | 2.68  |                |
| Total          | 79.71 | 84.42                                                     | 117.56 | 617.69               | 908.86 | 1232.57 | 836.07 | 543.24                   | 466.67 | 271.90 | 113.77 | 83.13 | 5355.59 CMSDAY |
| Mean           | 2.66  | 2.72                                                      | 3.92   | 19.93                | 29.32  | 41.09   | 26.97  | 18.11                    | 15.05  | 8.77   | 4.06   | 2.68  | 14.67 CMS      |
| Max            | 2.67  | 4.16                                                      | 7.83   | 59.80                | 75.20  | 70.02   | 51.01  | 22.11                    | 19.14  | 11.45  | 5.82   | 2.70  | 75.20 CMS      |
| Min            | 2.65  | 2.65                                                      | 2.65   | 2.64                 | 15.92  | 17.64   | 20.24  | 15.70                    | 10.40  | 5.97   | 2.70   | 2.67  | 2.64 CMS       |
| Runoff         | 6.89  | 7.29                                                      | 10.16  | 53.37                | 78.53  | 106.49  | 72.24  | 46.94                    | 40.32  | 23.49  | 9.83   | 7.18  | 462.72 MCM     |
| Momentary Peak | 97.00 | CMS. at 397.40 m. (MSL.) at 11.00 Hours , on Jul 5 , 2013 |        |                      |        |         |        |                          |        |        |        |       |                |
| Runoff Yield   | 22.00 | Liters/Second/Square KM.                                  |        | Momentary Peak Yield |        | 145.427 |        | Liters/Second/Square KM. |        |        |        |       |                |

## WATER YEAR : 2013

**KHONG RIVER BASIN**

**Songkhram River at Ban Tha Huai Lua , Sakon Nakhon (Kh.74)**

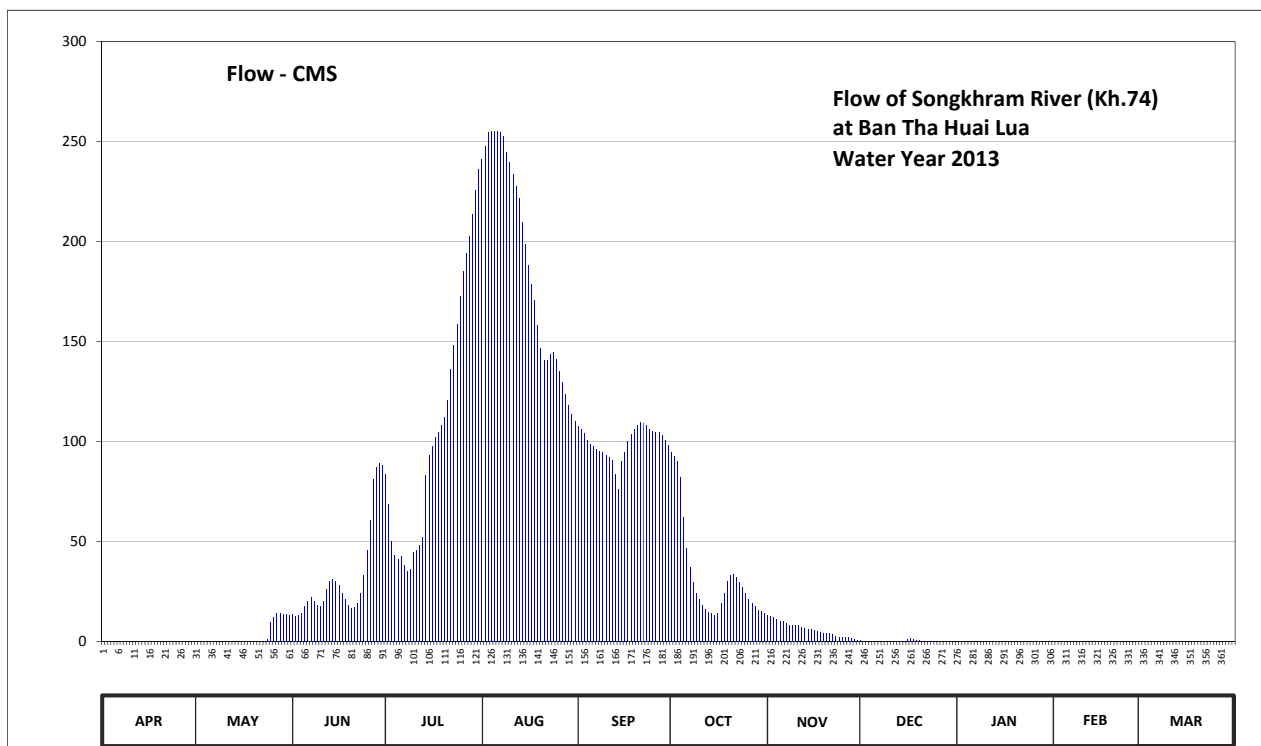
Lat 17 - 49 - 07 N    Long 103 - 23 - 16 E

**Location : on left bank at Ban Tha Huai Lua.**

|                                         |                                                                                           |                |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Tha Huai Lua   | <b>Amphoe</b> | Ban Muang | <b>Changwat</b>  | Sakon Nakhon       |
| <b>Drainage Area</b>                    | 2,199                                                                                     | sq.km.         |               |           |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |                |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +144.850                                                                                  | m. (MSL.)      |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |           |                  |                    |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |                |               |           | <b>Elevation</b> | +156.483 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                              |                |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |           |                  |                    |
| <b>Period of Rating</b>                 | 1984 to date                                                                              |                |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                              |                |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +150.970 m.(MSL.), records are channel flow only.       |                |               |           |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 24 discharge measurements made in 2013. |                |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 148.02 | 147.95 | 149.94                                           | 151.04 | 154.40 | 152.39 | 151.67 | 149.93 | 149.62 | 149.53 | 149.05 | 148.47 |        |
| 2                                | 148.02 | 147.95 | 149.92                                           | 150.86 | 154.45 | 152.32 | 151.46 | 149.92 | 149.60 | 149.53 | 149.01 | 148.42 |        |
| 3                                | 148.01 | 147.98 | 149.93                                           | 150.64 | 154.56 | 152.21 | 151.24 | 149.90 | 149.60 | 149.52 | 148.99 | 148.38 |        |
| 4                                | 148.00 | 148.02 | 149.95                                           | 150.52 | 154.61 | 152.05 | 151.01 | 149.88 | 149.60 | 149.52 | 148.97 | 148.35 |        |
| 5                                | 147.98 | 148.07 | 150.04                                           | 150.49 | 154.62 | 151.95 | 150.79 | 149.86 | 149.60 | 149.51 | 148.95 | 148.30 |        |
| 6                                | 147.97 | 148.08 | 150.11                                           | 150.51 | 154.60 | 151.89 | 150.58 | 149.85 | 149.60 | 149.50 | 148.93 | 148.24 |        |
| 7                                | 147.95 | 148.10 | 150.14                                           | 150.44 | 154.55 | 151.81 | 150.42 | 149.83 | 149.60 | 149.49 | 148.89 | 148.19 |        |
| 8                                | 147.95 | 148.12 | 150.11                                           | 150.39 | 154.49 | 151.74 | 150.29 | 149.81 | 149.59 | 149.47 | 148.88 | 148.17 |        |
| 9                                | 147.95 | 148.13 | 150.06                                           | 150.40 | 154.43 | 151.66 | 150.19 | 149.80 | 149.59 | 149.45 | 148.88 | 148.15 |        |
| 10                               | 147.94 | 148.16 | 150.04                                           | 150.55 | 154.39 | 151.55 | 150.12 | 149.80 | 149.58 | 149.43 | 148.88 | 148.16 |        |
| 11                               | 147.93 | 148.22 | 150.11                                           | 150.56 | 154.34 | 151.42 | 150.06 | 149.80 | 149.58 | 149.41 | 148.86 | 148.17 |        |
| 12                               | 147.92 | 148.26 | 150.22                                           | 150.60 | 154.29 | 151.25 | 150.01 | 149.78 | 149.58 | 149.39 | 148.86 | 148.16 |        |
| 13                               | 147.92 | 148.33 | 150.30                                           | 150.67 | 154.24 | 151.04 | 149.97 | 149.77 | 149.57 | 149.38 | 148.85 | 148.16 |        |
| 14                               | 147.91 | 148.39 | 150.32                                           | 151.03 | 154.14 | 150.94 | 149.95 | 149.76 | 149.57 | 149.36 | 148.83 | 148.16 |        |
| 15                               | 147.90 | 148.45 | 150.30                                           | 151.54 | 154.04 | 151.24 | 149.93 | 149.75 | 149.56 | 149.34 | 148.80 | 148.15 |        |
| 16                               | 147.90 | 148.50 | 150.26                                           | 151.88 | 153.94 | 151.70 | 149.96 | 149.74 | 149.63 | 149.32 | 148.79 | 148.16 |        |
| 17                               | 147.89 | 148.54 | 150.19                                           | 152.12 | 153.83 | 152.00 | 150.08 | 149.73 | 149.64 | 149.32 | 148.76 | 148.16 |        |
| 18                               | 147.89 | 148.61 | 150.12                                           | 152.25 | 153.73 | 152.19 | 150.19 | 149.72 | 149.63 | 149.31 | 148.75 | 148.15 |        |
| 19                               | 147.89 | 148.67 | 150.06                                           | 152.41 | 153.57 | 152.32 | 150.30 | 149.71 | 149.62 | 149.30 | 148.75 | 148.15 |        |
| 20                               | 147.90 | 148.73 | 150.02                                           | 152.57 | 153.41 | 152.41 | 150.35 | 149.70 | 149.62 | 149.29 | 148.73 | 148.15 |        |
| 21                               | 147.90 | 148.98 | 150.03                                           | 152.81 | 153.29 | 152.48 | 150.36 | 149.70 | 149.61 | 149.29 | 148.70 | 148.15 |        |
| 22                               | 147.90 | 149.19 | 150.08                                           | 153.20 | 153.29 | 152.47 | 150.34 | 149.69 | 149.61 | 149.28 | 148.65 | 148.15 |        |
| 23                               | 147.90 | 149.38 | 150.19                                           | 153.43 | 153.35 | 152.41 | 150.29 | 149.67 | 149.61 | 149.26 | 148.60 | 148.16 |        |
| 24                               | 147.90 | 149.63 | 150.35                                           | 153.58 | 153.37 | 152.31 | 150.24 | 149.66 | 149.61 | 149.24 | 148.58 | 148.16 |        |
| 25                               | 147.89 | 149.84 | 150.56                                           | 153.76 | 153.30 | 152.27 | 150.18 | 149.66 | 149.60 | 149.22 | 148.56 | 148.14 |        |
| 26                               | 147.89 | 149.91 | 150.77                                           | 153.91 | 153.18 | 152.25 | 150.12 | 149.65 | 149.60 | 149.21 | 148.54 | 148.10 |        |
| 27                               | 147.91 | 149.95 | 150.99                                           | 154.00 | 153.04 | 152.24 | 150.08 | 149.65 | 149.59 | 149.21 | 148.52 | 148.07 |        |
| 28                               | 147.92 | 149.96 | 151.13                                           | 154.08 | 152.89 | 152.16 | 150.04 | 149.64 | 149.58 | 149.19 | 148.50 | 148.02 |        |
| 29                               | 147.94 | 149.94 | 151.18                                           | 154.17 | 152.75 | 152.05 | 149.99 | 149.63 | 149.57 | 149.16 |        | 147.99 |        |
| 30                               | 147.95 | 149.94 | 151.15                                           | 154.27 | 152.62 | 151.90 | 149.98 | 149.62 | 149.56 | 149.13 |        | 147.98 |        |
| 31                               |        | 149.93 |                                                  | 154.36 | 152.51 |        | 149.95 |        | 149.55 | 149.10 |        | 147.97 |        |
| Mean                             | 147.93 | 148.77 | 150.29                                           | 152.03 | 153.81 | 151.95 | 150.33 | 149.75 | 149.60 | 149.34 | 148.79 | 148.17 |        |
| Max                              | 148.02 | 149.96 | 151.18                                           | 154.36 | 154.62 | 152.48 | 151.67 | 149.93 | 149.64 | 149.53 | 149.05 | 148.47 | 154.62 |
| Min                              | 147.89 | 147.95 | 149.92                                           | 150.39 | 152.51 | 150.94 | 149.93 | 149.62 | 149.55 | 149.10 | 148.50 | 147.97 | 147.89 |
| Annual Max Momentary Gage Height | 154.62 |        | m. (MSL.) , at 01.00 Hours , on Aug 5 , 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 144.85 |        | m. (MSL.) , River Bed 144.72 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 150.96 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 151.90 |        | m. (MSL.) , Drainage Area 2199 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun    | Jul     | Aug                  | Sep     | Oct     | Nov                      | Dec  | Jan  | Feb  | Mar  | Annual   |
|----------------|------------------------------------------------------------------|--------------------------|--------|---------|----------------------|---------|---------|--------------------------|------|------|------|------|----------|
| 1              | 0.00                                                             | 0.00                     | 13.60  | 83.60   | 241.00               | 107.80  | 94.70   | 13.20                    | 0.80 | 0.00 | 0.00 | 0.00 |          |
| 2              | 0.00                                                             | 0.00                     | 12.80  | 68.93   | 247.50               | 106.40  | 92.60   | 12.80                    | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 3              | 0.00                                                             | 0.00                     | 13.20  | 50.40   | 254.60               | 104.20  | 90.40   | 12.00                    | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 4              | 0.00                                                             | 0.00                     | 14.00  | 43.20   | 255.10               | 101.00  | 82.40   | 11.20                    | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 5              | 0.00                                                             | 0.00                     | 17.60  | 41.40   | 255.20               | 99.00   | 62.40   | 10.40                    | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 6              | 0.00                                                             | 0.00                     | 20.50  | 42.60   | 255.00               | 97.80   | 46.80   | 10.00                    | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 7              | 0.00                                                             | 0.00                     | 22.00  | 38.40   | 254.50               | 96.20   | 37.20   | 9.20                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 8              | 0.00                                                             | 0.00                     | 20.50  | 35.40   | 252.70               | 95.40   | 29.50   | 8.40                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 9              | 0.00                                                             | 0.00                     | 18.40  | 36.00   | 244.90               | 94.60   | 24.50   | 8.00                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 10             | 0.00                                                             | 0.00                     | 17.60  | 45.00   | 239.80               | 93.50   | 21.00   | 8.00                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 11             | 0.00                                                             | 0.00                     | 20.50  | 45.60   | 233.80               | 92.20   | 18.40   | 8.00                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 12             | 0.00                                                             | 0.00                     | 26.00  | 48.00   | 227.80               | 90.50   | 16.40   | 7.20                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 13             | 0.00                                                             | 0.00                     | 30.00  | 52.20   | 221.80               | 83.60   | 14.80   | 6.80                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 14             | 0.00                                                             | 0.00                     | 31.20  | 83.20   | 209.80               | 76.40   | 14.00   | 6.40                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 15             | 0.00                                                             | 0.00                     | 30.00  | 93.40   | 198.40               | 90.40   | 13.20   | 6.00                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 16             | 0.00                                                             | 0.00                     | 28.00  | 97.60   | 188.00               | 95.00   | 14.40   | 5.60                     | 1.20 | 0.00 | 0.00 | 0.00 |          |
| 17             | 0.00                                                             | 0.00                     | 24.50  | 102.40  | 178.40               | 100.00  | 19.20   | 5.20                     | 1.60 | 0.00 | 0.00 | 0.00 |          |
| 18             | 0.00                                                             | 0.00                     | 21.00  | 105.00  | 170.40               | 103.80  | 24.50   | 4.80                     | 1.20 | 0.00 | 0.00 | 0.00 |          |
| 19             | 0.00                                                             | 0.00                     | 18.40  | 108.20  | 157.90               | 106.40  | 30.00   | 4.40                     | 0.80 | 0.00 | 0.00 | 0.00 |          |
| 20             | 0.00                                                             | 0.00                     | 16.80  | 112.10  | 146.70               | 108.20  | 33.00   | 4.00                     | 0.80 | 0.00 | 0.00 | 0.00 |          |
| 21             | 0.00                                                             | 0.00                     | 17.20  | 120.40  | 140.50               | 109.60  | 33.60   | 4.00                     | 0.40 | 0.00 | 0.00 | 0.00 |          |
| 22             | 0.00                                                             | 0.00                     | 19.20  | 136.00  | 140.50               | 109.40  | 32.40   | 3.60                     | 0.40 | 0.00 | 0.00 | 0.00 |          |
| 23             | 0.00                                                             | 0.00                     | 24.50  | 148.10  | 143.50               | 108.20  | 29.50   | 2.80                     | 0.40 | 0.00 | 0.00 | 0.00 |          |
| 24             | 0.00                                                             | 1.20                     | 33.00  | 158.60  | 144.50               | 106.20  | 27.00   | 2.40                     | 0.40 | 0.00 | 0.00 | 0.00 |          |
| 25             | 0.00                                                             | 9.60                     | 45.60  | 172.80  | 141.00               | 105.40  | 24.00   | 2.40                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 26             | 0.00                                                             | 12.40                    | 60.53  | 185.00  | 135.20               | 105.00  | 21.00   | 2.00                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 27             | 0.00                                                             | 14.00                    | 81.07  | 194.00  | 129.60               | 104.80  | 19.20   | 2.00                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 28             | 0.00                                                             | 14.40                    | 87.20  | 202.80  | 123.60               | 103.20  | 17.60   | 1.60                     | 0.00 | 0.00 | 0.00 | 0.00 |          |
| 29             | 0.00                                                             | 13.60                    | 89.20  | 213.40  | 118.00               | 101.00  | 15.60   | 1.20                     | 0.00 | 0.00 |      | 0.00 |          |
| 30             | 0.00                                                             | 13.60                    | 88.00  | 225.40  | 113.60               | 98.00   | 15.20   | 0.80                     | 0.00 | 0.00 |      | 0.00 |          |
| 31             |                                                                  | 13.20                    |        | 236.20  | 110.30               |         | 14.00   |                          | 0.00 | 0.00 |      | 0.00 |          |
| Total          | 0.00                                                             | 92.00                    | 962.10 | 3325.33 | 5873.60              | 2993.20 | 1028.50 | 184.40                   | 8.00 | 0.00 | 0.00 | 0.00 | 14467.13 |
| Mean           | 0.00                                                             | 2.97                     | 32.07  | 107.27  | 189.47               | 99.77   | 33.18   | 6.15                     | 0.26 | 0.00 | 0.00 | 0.00 | 39.64    |
| Max            | 0.00                                                             | 14.40                    | 89.20  | 236.20  | 255.20               | 109.60  | 94.70   | 13.20                    | 1.60 | 0.00 | 0.00 | 0.00 | 255.20   |
| Min            | 0.00                                                             | 0.00                     | 12.80  | 35.40   | 110.30               | 76.40   | 13.20   | 0.80                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00     |
| Runoff         | 0.00                                                             | 7.95                     | 83.13  | 287.31  | 507.48               | 258.61  | 88.86   | 15.93                    | 0.69 | 0.00 | 0.00 | 0.00 | 1249.96  |
| Momentary Peak | 255.20 CMS. at 154.62 m. (MSL.) at 01.00 Hours , on Aug 5 , 2013 |                          |        |         |                      |         |         |                          |      |      |      |      |          |
| Runoff Yield   | 18.20                                                            | Liters/Second/Square KM. |        |         | Momentary Peak Yield |         | 116.053 | Liters/Second/Square KM. |      |      |      |      |          |

**WATER YEAR : 2013****KHONG RIVER BASIN****Nam Thop at Ban Kok So , Loei (Kh.77A)**

Lat 17 - 15 - 46 N Long 101 - 39 - 28 E

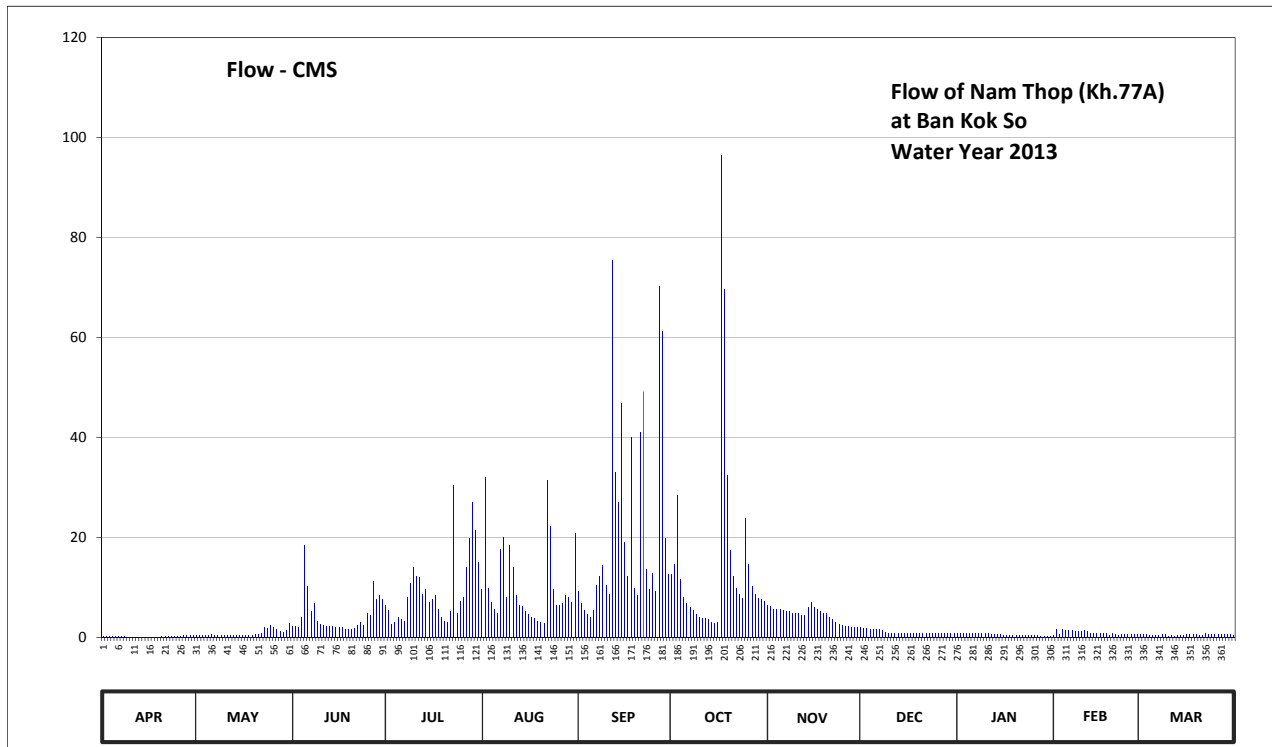
Location : on left bank at Ban Kok So.

|                                         |                                                                             |               |               |                     |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|---------------|---------------|---------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | <b>Kok So</b> | <b>Amphoe</b> | <b>Wang Saphung</b> | <b>Changwat</b>  | <b>Loei</b>        |
| <b>Drainage Area</b>                    | 156                                                                         | sq.km.        |               |                     |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                  |               |               |                     |                  |                    |
| <b>Zero Gage at Bottom</b>              | +260.980                                                                    | m. (MSL.)     |               |                     |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                        |               |               |                     |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                |               |               |                     | <b>Elevation</b> | +268.630 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                      |               |               |                     |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                               |               |               |                     |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                |               |               |                     |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |               |               |                     |                  |                    |
| <b>Period of Rating</b>                 | 1984 to date                                                                |               |               |                     |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |               |               |                     |                  |                    |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                |               |               |                     |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |               |               |                     |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |               |               |                     |                  |                    |
| <b>General Description</b>              | Records good. The cataract situated downstream from the gage site.          |               |               |                     |                  |                    |
|                                         | Stage-discharge relation defined by 23 discharge measurements made in 2013. |               |               |                     |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 261.25 | 261.29      | 261.53 | 261.78 | 261.92 | 261.91        | 262.02                            | 261.78            | 261.50 | 261.37 | 261.30 | 261.34 |        |
| 2                                | 261.25 | 261.28      | 261.52 | 261.72 | 262.50 | 261.79        | 262.09                            | 261.76            | 261.49 | 261.37 | 261.46 | 261.33 |        |
| 3                                | 261.25 | 261.29      | 261.51 | 261.57 | 261.93 | 261.72        | 262.43                            | 261.74            | 261.49 | 261.37 | 261.32 | 261.32 |        |
| 4                                | 261.24 | 261.28      | 261.66 | 261.60 | 261.80 | 261.68        | 261.99                            | 261.74            | 261.48 | 261.37 | 261.46 | 261.29 |        |
| 5                                | 261.23 | 261.31      | 262.19 | 261.66 | 261.74 | 261.66        | 261.86                            | 261.73            | 261.47 | 261.37 | 261.45 | 261.30 |        |
| 6                                | 261.22 | 261.32      | 261.94 | 261.63 | 261.69 | 261.72        | 261.79                            | 261.72            | 261.46 | 261.37 | 261.45 | 261.31 |        |
| 7                                | 261.21 | 261.30      | 261.71 | 261.62 | 262.17 | 261.95        | 261.75                            | 261.71            | 261.46 | 261.37 | 261.44 | 261.30 |        |
| 8                                | 261.20 | 261.27      | 261.79 | 261.86 | 262.23 | 262.01        | 261.72                            | 261.71            | 261.45 | 261.37 | 261.43 | 261.32 |        |
| 9                                | 261.19 | 261.27      | 261.61 | 261.96 | 261.86 | 262.08        | 261.68                            | 261.70            | 261.41 | 261.37 | 261.42 | 261.33 |        |
| 10                               | 261.18 | 261.27      | 261.57 | 262.07 | 262.19 | 261.95        | 261.65                            | 261.69            | 261.40 | 261.36 | 261.42 | 261.20 |        |
| 11                               | 261.17 | 261.30      | 261.54 | 262.01 | 262.07 | 261.88        | 261.64                            | 261.69            | 261.40 | 261.36 | 261.44 | 261.28 |        |
| 12                               | 261.16 | 261.29      | 261.52 | 262.00 | 261.87 | 263.25        | 261.64                            | 261.67            | 261.40 | 261.35 | 261.42 | 261.24 |        |
| 13                               | 261.15 | 261.29      | 261.53 | 261.88 | 261.78 | 262.52        | 261.63                            | 261.67            | 261.40 | 261.34 | 261.39 | 261.30 |        |
| 14                               | 261.14 | 261.28      | 261.52 | 261.92 | 261.76 | 262.40        | 261.60                            | 261.75            | 261.40 | 261.32 | 261.39 | 261.30 |        |
| 15                               | 261.14 | 261.29      | 261.50 | 261.80 | 261.71 | 262.78        | 261.59                            | 261.80            | 261.40 | 261.32 | 261.39 | 261.31 |        |
| 16                               | 261.13 | 261.30      | 261.50 | 261.83 | 261.68 | 262.20        | 261.60                            | 261.75            | 261.39 | 261.31 | 261.40 | 261.33 |        |
| 17                               | 261.15 | 261.31      | 261.50 | 261.87 | 261.66 | 262.01        | 263.55                            | 261.73            | 261.39 | 261.31 | 261.40 | 261.34 |        |
| 18                               | 261.19 | 261.30      | 261.48 | 261.73 | 261.64 | 262.66        | 263.16                            | 261.71            | 261.39 | 261.31 | 261.38 | 261.33 |        |
| 19                               | 261.19 | 261.31      | 261.46 | 261.66 | 261.62 | 261.93        | 262.51                            | 261.70            | 261.39 | 261.30 | 261.31 | 261.32 |        |
| 20                               | 261.22 | 261.35      | 261.46 | 261.62 | 261.60 | 261.87        | 262.16                            | 261.69            | 261.39 | 261.30 | 261.36 | 261.31 |        |
| 21                               | 261.22 | 261.34      | 261.49 | 261.60 | 261.59 | 262.68        | 262.01                            | 261.66            | 261.39 | 261.30 | 261.33 | 261.30 |        |
| 22                               | 261.25 | 261.38      | 261.55 | 261.71 | 262.49 | 262.82        | 261.93                            | 261.63            | 261.39 | 261.30 | 261.31 | 261.36 |        |
| 23                               | 261.25 | 261.50      | 261.60 | 262.47 | 262.28 | 262.06        | 261.88                            | 261.60            | 261.39 | 261.30 | 261.32 | 261.33 |        |
| 24                               | 261.25 | 261.49      | 261.54 | 261.69 | 261.92 | 261.92        | 261.84                            | 261.57            | 261.38 | 261.29 | 261.33 | 261.33 |        |
| 25                               | 261.25 | 261.54      | 261.69 | 261.81 | 261.78 | 262.03        | 262.32                            | 261.54            | 261.38 | 261.29 | 261.34 | 261.34 |        |
| 26                               | 261.26 | 261.50      | 261.67 | 261.85 | 261.78 | 261.91        | 262.09                            | 261.53            | 261.38 | 261.28 | 261.33 | 261.35 |        |
| 27                               | 261.29 | 261.46      | 261.98 | 262.07 | 261.79 | 263.17        | 261.94                            | 261.52            | 261.38 | 261.27 | 261.32 | 261.34 |        |
| 28                               | 261.30 | 261.43      | 261.83 | 262.22 | 261.87 | 263.02        | 261.88                            | 261.51            | 261.38 | 261.26 | 261.33 | 261.32 |        |
| 29                               | 261.30 | 261.41      | 261.87 | 262.40 | 261.86 | 262.22        | 261.84                            | 261.51            | 261.37 | 261.26 |        | 261.32 |        |
| 30                               | 261.29 | 261.44      | 261.83 | 262.26 | 261.80 | 262.02        | 261.83                            | 261.50            | 261.37 | 261.26 |        | 261.32 |        |
| 31                               |        | 261.58      |        | 262.10 | 262.25 |               | 261.81                            |                   | 261.37 | 261.26 |        | 261.31 |        |
| Mean                             | 261.22 | 261.35      | 261.64 | 261.87 | 261.90 | 262.19        | 261.98                            | 261.67            | 261.41 | 261.32 | 261.38 | 261.31 |        |
| Max                              | 261.30 | 261.58      | 262.19 | 262.47 | 262.50 | 263.25        | 263.55                            | 261.80            | 261.50 | 261.37 | 261.46 | 261.36 | 263.55 |
| Min                              | 261.13 | 261.27      | 261.46 | 261.57 | 261.59 | 261.66        | 261.59                            | 261.50            | 261.37 | 261.26 | 261.30 | 261.20 | 261.13 |
| Annual Max Momentary Gage Height | 264.31 | m. (MSL.) , |        |        |        |               | at 20.00 Hours , on Sep 21 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 260.98 | m. (MSL.) , |        |        |        | River Bed     | 260.90                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 268.69 | m. (MSL.) , |        |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             | 268.67 | m. (MSL.) , |        |        |        | Drainage Area | 156                               | Square Kilometers |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep      | Oct    | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|----------|--------|--------------------------|-------|-------|-------|-------|----------------|
| 1              | 0.35                                                              | 0.47                     | 2.30   | 6.60                 | 9.60   | 9.30     | 12.60  | 6.60                     | 2.00  | 0.85  | 0.50  | 0.70  |                |
| 2              | 0.35                                                              | 0.44                     | 2.20   | 5.40                 | 32.00  | 6.80     | 14.70  | 6.20                     | 1.90  | 0.85  | 1.60  | 0.65  |                |
| 3              | 0.35                                                              | 0.47                     | 2.10   | 2.70                 | 9.90   | 5.40     | 28.50  | 5.80                     | 1.90  | 0.85  | 0.60  | 0.60  |                |
| 4              | 0.32                                                              | 0.44                     | 4.20   | 3.00                 | 7.00   | 4.60     | 11.70  | 5.80                     | 1.80  | 0.85  | 1.60  | 0.47  |                |
| 5              | 0.29                                                              | 0.55                     | 18.60  | 4.20                 | 5.80   | 4.20     | 8.20   | 5.60                     | 1.70  | 0.85  | 1.50  | 0.50  |                |
| 6              | 0.26                                                              | 0.60                     | 10.20  | 3.60                 | 4.80   | 5.40     | 6.80   | 5.40                     | 1.60  | 0.85  | 1.50  | 0.55  |                |
| 7              | 0.23                                                              | 0.50                     | 5.20   | 3.40                 | 17.80  | 10.50    | 6.00   | 5.20                     | 1.60  | 0.85  | 1.40  | 0.50  |                |
| 8              | 0.20                                                              | 0.41                     | 6.80   | 8.20                 | 20.20  | 12.30    | 5.40   | 5.20                     | 1.50  | 0.85  | 1.30  | 0.60  |                |
| 9              | 0.18                                                              | 0.41                     | 3.20   | 10.80                | 8.20   | 14.40    | 4.60   | 5.00                     | 1.10  | 0.85  | 1.20  | 0.65  |                |
| 10             | 0.16                                                              | 0.41                     | 2.70   | 14.10                | 18.60  | 10.50    | 4.00   | 4.80                     | 1.00  | 0.80  | 1.20  | 0.20  |                |
| 11             | 0.14                                                              | 0.50                     | 2.40   | 12.30                | 14.10  | 8.60     | 3.80   | 4.80                     | 1.00  | 0.80  | 1.40  | 0.44  |                |
| 12             | 0.12                                                              | 0.47                     | 2.20   | 12.00                | 8.40   | 75.50    | 3.80   | 4.40                     | 1.00  | 0.75  | 1.20  | 0.32  |                |
| 13             | 0.10                                                              | 0.47                     | 2.30   | 8.60                 | 6.60   | 33.00    | 3.60   | 4.40                     | 1.00  | 0.70  | 0.95  | 0.50  |                |
| 14             | 0.08                                                              | 0.44                     | 2.20   | 9.60                 | 6.20   | 27.00    | 3.00   | 6.00                     | 1.00  | 0.60  | 0.95  | 0.50  |                |
| 15             | 0.08                                                              | 0.47                     | 2.00   | 7.00                 | 5.20   | 46.80    | 2.90   | 7.00                     | 1.00  | 0.60  | 0.95  | 0.55  |                |
| 16             | 0.06                                                              | 0.50                     | 2.00   | 7.60                 | 4.60   | 19.00    | 3.00   | 6.00                     | 0.95  | 0.55  | 1.00  | 0.65  |                |
| 17             | 0.10                                                              | 0.55                     | 2.00   | 8.40                 | 4.20   | 12.30    | 96.50  | 5.60                     | 0.95  | 0.55  | 1.00  | 0.70  |                |
| 18             | 0.18                                                              | 0.50                     | 1.80   | 5.60                 | 3.80   | 40.00    | 69.60  | 5.20                     | 0.95  | 0.55  | 0.90  | 0.65  |                |
| 19             | 0.18                                                              | 0.55                     | 1.60   | 4.20                 | 3.40   | 9.90     | 32.50  | 5.00                     | 0.95  | 0.50  | 0.55  | 0.60  |                |
| 20             | 0.26                                                              | 0.75                     | 1.60   | 3.40                 | 3.00   | 8.40     | 17.40  | 4.80                     | 0.95  | 0.50  | 0.80  | 0.55  |                |
| 21             | 0.26                                                              | 0.70                     | 1.90   | 3.00                 | 2.90   | 41.00    | 12.30  | 4.20                     | 0.95  | 0.50  | 0.65  | 0.50  |                |
| 22             | 0.35                                                              | 0.90                     | 2.50   | 5.20                 | 31.50  | 49.20    | 9.90   | 3.60                     | 0.95  | 0.50  | 0.55  | 0.80  |                |
| 23             | 0.35                                                              | 2.00                     | 3.00   | 30.50                | 22.20  | 13.80    | 8.60   | 3.00                     | 0.95  | 0.50  | 0.60  | 0.65  |                |
| 24             | 0.35                                                              | 1.90                     | 2.40   | 4.80                 | 9.60   | 9.60     | 7.80   | 2.70                     | 0.90  | 0.47  | 0.65  | 0.65  |                |
| 25             | 0.35                                                              | 2.40                     | 4.80   | 7.20                 | 6.60   | 12.90    | 23.80  | 2.40                     | 0.90  | 0.47  | 0.70  | 0.70  |                |
| 26             | 0.38                                                              | 2.00                     | 4.40   | 8.00                 | 6.60   | 9.30     | 14.70  | 2.30                     | 0.90  | 0.44  | 0.65  | 0.75  |                |
| 27             | 0.47                                                              | 1.60                     | 11.40  | 14.10                | 6.80   | 70.20    | 10.20  | 2.20                     | 0.90  | 0.41  | 0.60  | 0.70  |                |
| 28             | 0.50                                                              | 1.30                     | 7.60   | 19.80                | 8.40   | 61.20    | 8.60   | 2.10                     | 0.90  | 0.38  | 0.65  | 0.60  |                |
| 29             | 0.50                                                              | 1.10                     | 8.40   | 27.00                | 8.20   | 19.80    | 7.80   | 2.10                     | 0.85  | 0.38  |       | 0.60  |                |
| 30             | 0.47                                                              | 1.40                     | 7.60   | 21.40                | 7.00   | 12.60    | 7.60   | 2.00                     | 0.85  | 0.38  |       | 0.60  |                |
| 31             |                                                                   | 2.80                     |        | 15.00                | 21.00  |          | 7.20   |                          | 0.85  | 0.38  |       | 0.55  |                |
| Total          | 7.97                                                              | 28.00                    | 131.60 | 296.70               | 324.20 | 663.50   | 457.10 | 135.40                   | 35.75 | 19.36 | 27.15 | 17.98 | 2144.71 CMSDAY |
| Mean           | 0.27                                                              | 0.90                     | 4.39   | 9.57                 | 10.46  | 22.12    | 14.75  | 4.51                     | 1.15  | 0.62  | 0.97  | 0.58  | 5.88 CMS       |
| Max            | 0.50                                                              | 2.80                     | 18.60  | 30.50                | 32.00  | 75.50    | 96.50  | 7.00                     | 2.00  | 0.85  | 1.60  | 0.80  | 96.50 CMS      |
| Min            | 0.06                                                              | 0.41                     | 1.60   | 2.70                 | 2.90   | 4.20     | 2.90   | 2.00                     | 0.85  | 0.38  | 0.50  | 0.20  | 0.06 CMS       |
| Runoff         | 0.69                                                              | 2.42                     | 11.37  | 25.64                | 28.01  | 57.33    | 39.49  | 11.70                    | 3.09  | 1.67  | 2.35  | 1.55  | 185.30 MCM     |
| Momentary Peak | 157.90 CMS. at 264.31 m. (MSL.) at 20.00 Hours , on Sep 21 , 2013 |                          |        |                      |        |          |        |                          |       |       |       |       |                |
| Runoff Yield   | 37.67                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 1012.180 |        | Liters/Second/Square KM. |       |       |       |       |                |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Huai Nam Huai at Ban Nam Huai , Loei (Kh.78**

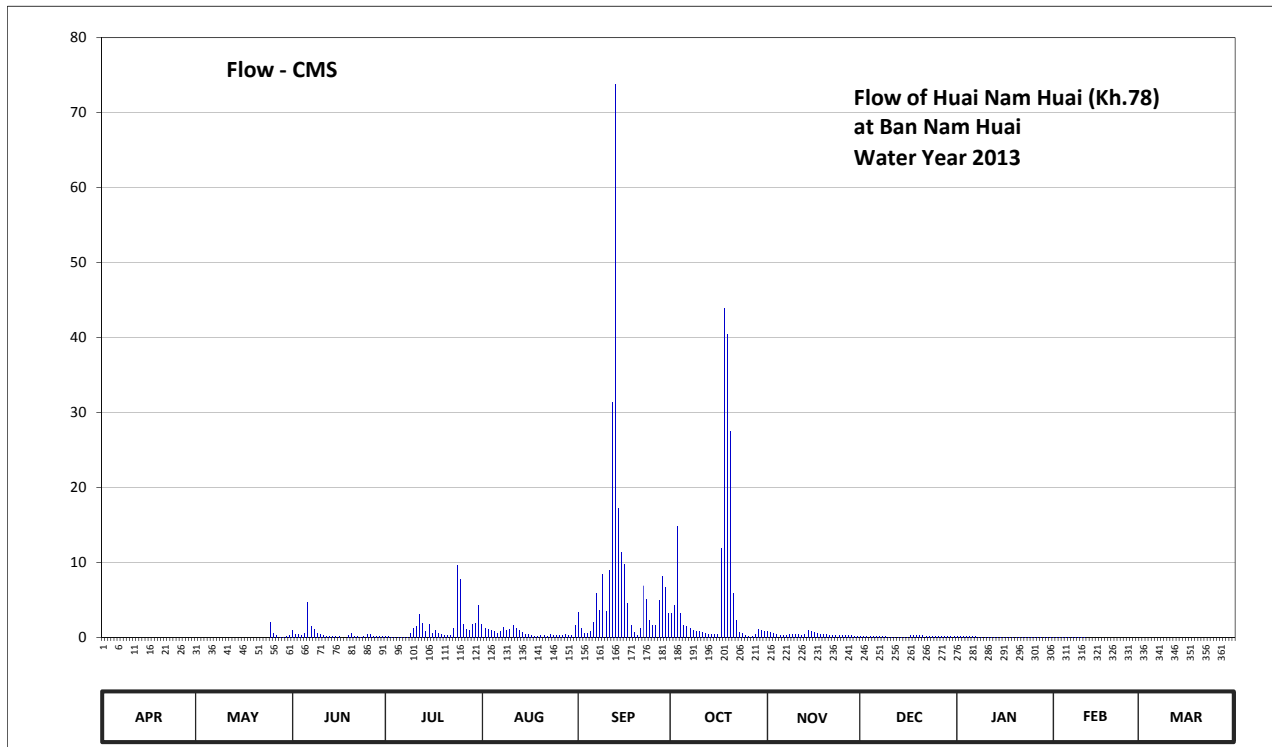
Lat 17 - 23 - 00 N    Long 101 - 42 - 40 E

**Location : on left bank at the bridge of Amphoe Wang Saphung - Amphoe Mueang Highway.**

|                                         |                                                                                          |                |               |        |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|----------------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | Nam Huai       | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Loei               |
| <b>Drainage Area</b>                    | 219                                                                                      | sq.km.         |               |        |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                               |                |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +246.224                                                                                 | m. (MSL.)      |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                    | Highways Dept. |               |        |                  |                    |
| <b>Location BM</b>                      | On left bank downstream side at the footpath of the bridge.                              |                |               |        | <b>Elevation</b> | +256.495 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                   |                |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                            |                |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                             |                |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |                |               |        |                  |                    |
| <b>Period of Rating</b>                 | 1993 to date                                                                             |                |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |                |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1993 to date                                                                             |                |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |                |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                |               |        |                  |                    |
| <b>General Description</b>              | Records good. The concrete weir situated about 700 meters downstream from the gage site. |                |               |        |                  |                    |
|                                         | Stage-discharge relation defined by 18 discharge measurements made in 2013.              |                |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 247.36 | 247.92 | 248.60                                          | 248.44 | 248.77 | 248.94 | 248.93 | 248.56 | 248.45 | 248.44 | 248.42 | 248.12 |        |
| 2                                | 247.37 | 247.92 | 248.49                                          | 248.43 | 248.65 | 248.66 | 249.04 | 248.54 | 248.45 | 248.44 | 248.42 | 248.12 |        |
| 3                                | 247.39 | 247.92 | 248.49                                          | 248.42 | 248.62 | 248.52 | 249.99 | 248.52 | 248.45 | 248.44 | 248.42 | 248.12 |        |
| 4                                | 247.43 | 247.92 | 248.46                                          | 248.42 | 248.59 | 248.51 | 248.93 | 248.50 | 248.45 | 248.44 | 248.42 | 248.12 |        |
| 5                                | 247.45 | 247.92 | 248.52                                          | 248.41 | 248.57 | 248.58 | 248.73 | 248.47 | 248.45 | 248.44 | 248.42 | 248.12 |        |
| 6                                | 247.46 | 247.92 | 249.07                                          | 248.42 | 248.52 | 248.81 | 248.71 | 248.47 | 248.45 | 248.44 | 248.42 | 248.12 |        |
| 7                                | 247.50 | 247.92 | 248.71                                          | 248.42 | 248.56 | 249.19 | 248.65 | 248.47 | 248.45 | 248.43 | 248.42 | 248.12 |        |
| 8                                | 247.53 | 247.92 | 248.64                                          | 248.42 | 248.67 | 248.97 | 248.60 | 248.50 | 248.44 | 248.42 | 248.42 | 248.11 |        |
| 9                                | 247.57 | 247.92 | 248.51                                          | 248.51 | 248.60 | 249.44 | 248.57 | 248.49 | 248.43 | 248.42 | 248.42 | 248.11 |        |
| 10                               | 247.60 | 247.93 | 248.49                                          | 248.66 | 248.64 | 248.95 | 248.57 | 248.48 | 248.42 | 248.42 | 248.42 | 248.11 |        |
| 11                               | 247.63 | 247.94 | 248.46                                          | 248.71 | 248.72 | 249.50 | 248.54 | 248.48 | 248.41 | 248.42 | 248.41 | 248.11 |        |
| 12                               | 247.66 | 247.95 | 248.44                                          | 248.91 | 248.65 | 250.99 | 248.51 | 248.47 | 248.41 | 248.42 | 248.40 | 248.11 |        |
| 13                               | 247.70 | 247.97 | 248.45                                          | 248.79 | 248.59 | 252.91 | 248.48 | 248.49 | 248.41 | 248.42 | 248.40 | 248.11 |        |
| 14                               | 247.74 | 247.98 | 248.45                                          | 248.57 | 248.55 | 250.14 | 248.50 | 248.59 | 248.41 | 248.42 | 248.40 | 248.10 |        |
| 15                               | 247.78 | 248.00 | 248.44                                          | 248.76 | 248.50 | 249.70 | 248.48 | 248.57 | 248.41 | 248.42 | 248.40 | 248.10 |        |
| 16                               | 247.81 | 248.03 | 248.43                                          | 248.52 | 248.48 | 249.57 | 248.48 | 248.55 | 248.42 | 248.42 | 248.40 | 248.10 |        |
| 17                               | 247.83 | 248.04 | 248.32                                          | 248.60 | 248.47 | 249.06 | 249.75 | 248.52 | 248.46 | 248.42 | 248.37 | 248.10 |        |
| 18                               | 247.84 | 248.04 | 248.15                                          | 248.53 | 248.45 | 248.73 | 251.63 | 248.50 | 248.47 | 248.42 | 248.37 | 248.09 |        |
| 19                               | 247.85 | 248.04 | 248.47                                          | 248.49 | 248.44 | 248.55 | 251.47 | 248.48 | 248.47 | 248.42 | 248.37 | 248.09 |        |
| 20                               | 247.87 | 248.04 | 248.52                                          | 248.47 | 248.47 | 248.47 | 250.77 | 248.48 | 248.46 | 248.42 | 248.37 | 248.09 |        |
| 21                               | 247.88 | 248.04 | 248.43                                          | 248.47 | 248.46 | 248.66 | 249.19 | 248.47 | 248.46 | 248.42 | 248.37 | 248.09 |        |
| 22                               | 247.89 | 248.04 | 248.45                                          | 248.46 | 248.45 | 249.29 | 248.83 | 248.47 | 248.45 | 248.42 | 248.37 | 248.10 |        |
| 23                               | 247.90 | 248.07 | 248.42                                          | 248.66 | 248.49 | 249.11 | 248.55 | 248.47 | 248.45 | 248.42 | 248.37 | 248.11 |        |
| 24                               | 247.91 | 248.19 | 248.43                                          | 249.56 | 248.47 | 248.83 | 248.51 | 248.46 | 248.44 | 248.42 | 248.37 | 248.11 |        |
| 25                               | 247.92 | 248.81 | 248.48                                          | 249.38 | 248.47 | 248.73 | 248.47 | 248.46 | 248.44 | 248.42 | 248.34 | 248.12 |        |
| 26                               | 247.92 | 248.51 | 248.49                                          | 248.77 | 248.47 | 248.73 | 248.45 | 248.46 | 248.44 | 248.42 | 248.19 | 248.12 |        |
| 27                               | 247.92 | 248.46 | 248.45                                          | 248.64 | 248.47 | 249.10 | 248.45 | 248.46 | 248.44 | 248.42 | 248.12 | 248.12 |        |
| 28                               | 247.92 | 248.42 | 248.44                                          | 248.61 | 248.48 | 249.42 | 248.50 | 248.46 | 248.44 | 248.42 | 248.12 | 248.12 |        |
| 29                               | 247.92 | 248.42 | 248.43                                          | 248.76 | 248.47 | 249.27 | 248.63 | 248.45 | 248.44 | 248.42 |        | 248.08 |        |
| 30                               | 247.92 | 248.45 | 248.45                                          | 248.78 | 248.47 | 248.92 | 248.59 | 248.45 | 248.44 | 248.42 |        | 248.04 |        |
| 31                               |        | 248.46 |                                                 | 249.04 | 248.73 |        | 248.57 |        | 248.44 | 248.42 |        | 248.02 |        |
| Mean                             | 247.72 | 248.10 | 248.49                                          | 248.65 | 248.55 | 249.21 | 248.97 | 248.49 | 248.44 | 248.42 | 248.37 | 248.10 |        |
| Max                              | 247.92 | 248.81 | 249.07                                          | 249.56 | 248.77 | 252.91 | 251.63 | 248.59 | 248.47 | 248.44 | 248.42 | 248.12 | 252.91 |
| Min                              | 247.36 | 247.92 | 248.15                                          | 248.41 | 248.44 | 248.47 | 248.45 | 248.45 | 248.41 | 248.42 | 248.12 | 248.02 | 247.36 |
| Annual Max Momentary Gage Height | 253.45 |        | m. (MSL.) , at 10.00 Hours , on Sep 13 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 246.22 |        | m. (MSL.) , River Bed 247.51 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 254.56 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 254.27 |        | m. (MSL.) , Drainage Area 219 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec  | Jan  | Feb  | Mar  | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|------|------|------|------|---------------|
| 1              | 0.00                                                             | 0.00                     | 1.00  | 0.20                 | 1.85  | 3.40    | 3.30                     | 0.80  | 0.25 | 0.20 | 0.10 | 0.00 |               |
| 2              | 0.00                                                             | 0.00                     | 0.45  | 0.15                 | 1.25  | 1.30    | 4.40                     | 0.70  | 0.25 | 0.20 | 0.10 | 0.00 |               |
| 3              | 0.00                                                             | 0.00                     | 0.45  | 0.10                 | 1.10  | 0.60    | 14.88                    | 0.60  | 0.25 | 0.20 | 0.10 | 0.00 |               |
| 4              | 0.00                                                             | 0.00                     | 0.30  | 0.10                 | 0.95  | 0.55    | 3.30                     | 0.50  | 0.25 | 0.20 | 0.10 | 0.00 |               |
| 5              | 0.00                                                             | 0.00                     | 0.60  | 0.05                 | 0.85  | 0.90    | 1.65                     | 0.35  | 0.25 | 0.20 | 0.10 | 0.00 |               |
| 6              | 0.00                                                             | 0.00                     | 4.70  | 0.10                 | 0.60  | 2.10    | 1.55                     | 0.35  | 0.25 | 0.20 | 0.10 | 0.00 |               |
| 7              | 0.00                                                             | 0.00                     | 1.55  | 0.10                 | 0.80  | 5.90    | 1.25                     | 0.35  | 0.25 | 0.15 | 0.10 | 0.00 |               |
| 8              | 0.00                                                             | 0.00                     | 1.20  | 0.10                 | 1.35  | 3.70    | 1.00                     | 0.50  | 0.20 | 0.10 | 0.10 | 0.00 |               |
| 9              | 0.00                                                             | 0.00                     | 0.55  | 0.55                 | 1.00  | 8.40    | 0.85                     | 0.45  | 0.15 | 0.10 | 0.10 | 0.00 |               |
| 10             | 0.00                                                             | 0.00                     | 0.45  | 1.30                 | 1.20  | 3.50    | 0.85                     | 0.40  | 0.10 | 0.10 | 0.10 | 0.00 |               |
| 11             | 0.00                                                             | 0.00                     | 0.30  | 1.55                 | 1.60  | 9.00    | 0.70                     | 0.40  | 0.05 | 0.10 | 0.05 | 0.00 |               |
| 12             | 0.00                                                             | 0.00                     | 0.20  | 3.10                 | 1.25  | 31.33   | 0.55                     | 0.35  | 0.05 | 0.10 | 0.00 | 0.00 |               |
| 13             | 0.00                                                             | 0.00                     | 0.25  | 1.95                 | 0.95  | 73.75   | 0.40                     | 0.45  | 0.05 | 0.10 | 0.00 | 0.00 |               |
| 14             | 0.00                                                             | 0.00                     | 0.25  | 0.85                 | 0.75  | 17.24   | 0.50                     | 0.95  | 0.05 | 0.10 | 0.00 | 0.00 |               |
| 15             | 0.00                                                             | 0.00                     | 0.20  | 1.80                 | 0.50  | 11.40   | 0.40                     | 0.85  | 0.05 | 0.10 | 0.00 | 0.00 |               |
| 16             | 0.00                                                             | 0.00                     | 0.15  | 0.60                 | 0.40  | 9.84    | 0.40                     | 0.75  | 0.10 | 0.10 | 0.00 | 0.00 |               |
| 17             | 0.00                                                             | 0.00                     | 0.00  | 1.00                 | 0.35  | 4.60    | 12.00                    | 0.60  | 0.30 | 0.10 | 0.00 | 0.00 |               |
| 18             | 0.00                                                             | 0.00                     | 0.00  | 0.65                 | 0.25  | 1.65    | 43.86                    | 0.50  | 0.35 | 0.10 | 0.00 | 0.00 |               |
| 19             | 0.00                                                             | 0.00                     | 0.35  | 0.45                 | 0.20  | 0.75    | 40.43                    | 0.40  | 0.35 | 0.10 | 0.00 | 0.00 |               |
| 20             | 0.00                                                             | 0.00                     | 0.60  | 0.35                 | 0.35  | 0.35    | 27.59                    | 0.40  | 0.30 | 0.10 | 0.00 | 0.00 |               |
| 21             | 0.00                                                             | 0.00                     | 0.15  | 0.35                 | 0.30  | 1.30    | 5.90                     | 0.35  | 0.30 | 0.10 | 0.00 | 0.00 |               |
| 22             | 0.00                                                             | 0.00                     | 0.25  | 0.30                 | 0.25  | 6.90    | 2.30                     | 0.35  | 0.25 | 0.10 | 0.00 | 0.00 |               |
| 23             | 0.00                                                             | 0.00                     | 0.10  | 1.30                 | 0.45  | 5.10    | 0.75                     | 0.35  | 0.25 | 0.10 | 0.00 | 0.00 |               |
| 24             | 0.00                                                             | 0.00                     | 0.15  | 9.72                 | 0.35  | 2.30    | 0.55                     | 0.30  | 0.20 | 0.10 | 0.00 | 0.00 |               |
| 25             | 0.00                                                             | 2.10                     | 0.40  | 7.80                 | 0.35  | 1.65    | 0.35                     | 0.30  | 0.20 | 0.10 | 0.00 | 0.00 |               |
| 26             | 0.00                                                             | 0.55                     | 0.45  | 1.85                 | 0.35  | 1.65    | 0.25                     | 0.30  | 0.20 | 0.10 | 0.00 | 0.00 |               |
| 27             | 0.00                                                             | 0.30                     | 0.25  | 1.20                 | 0.35  | 5.00    | 0.25                     | 0.30  | 0.20 | 0.10 | 0.00 | 0.00 |               |
| 28             | 0.00                                                             | 0.10                     | 0.20  | 1.05                 | 0.40  | 8.20    | 0.50                     | 0.30  | 0.20 | 0.10 | 0.00 | 0.00 |               |
| 29             | 0.00                                                             | 0.10                     | 0.15  | 1.80                 | 0.35  | 6.70    | 1.15                     | 0.25  | 0.20 | 0.10 |      | 0.00 |               |
| 30             | 0.00                                                             | 0.25                     | 0.25  | 1.90                 | 0.35  | 3.20    | 0.95                     | 0.25  | 0.20 | 0.10 |      | 0.00 |               |
| 31             |                                                                  | 0.30                     |       | 4.40                 | 1.65  |         | 0.85                     |       | 0.20 | 0.10 |      | 0.00 |               |
| Total          | 0.00                                                             | 3.70                     | 15.90 | 46.72                | 22.70 | 232.26  | 173.66                   | 13.70 | 6.25 | 3.75 | 1.05 | 0.00 | 519.69 CMSDAY |
| Mean           | 0.00                                                             | 0.12                     | 0.53  | 1.51                 | 0.73  | 7.74    | 5.60                     | 0.46  | 0.20 | 0.12 | 0.04 | 0.00 | 1.42 CMS      |
| Max            | 0.00                                                             | 2.10                     | 4.70  | 9.72                 | 1.85  | 73.75   | 43.86                    | 0.95  | 0.35 | 0.20 | 0.10 | 0.00 | 73.75 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00  | 0.05                 | 0.20  | 0.35    | 0.25                     | 0.25  | 0.05 | 0.10 | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 0.00                                                             | 0.32                     | 1.37  | 4.04                 | 1.96  | 20.07   | 15.00                    | 1.18  | 0.54 | 0.32 | 0.09 | 0.00 | 44.90 MCM     |
| Momentary Peak | 88.15 CMS. at 253.45 m. (MSL.) at 10.00 Hours , on Sep 13 , 2013 |                          |       |                      |       |         |                          |       |      |      |      |      |               |
| Runoff Yield   | 6.50                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 402.511 | Liters/Second/Square KM. |       |      |      |      |      |               |

**WATER YEAR : 2013**  
**KHONG RIVER BASIN**

**Nam Mae Chan at Ban Hua Saphan , Chiang Rai (Kh.89)**

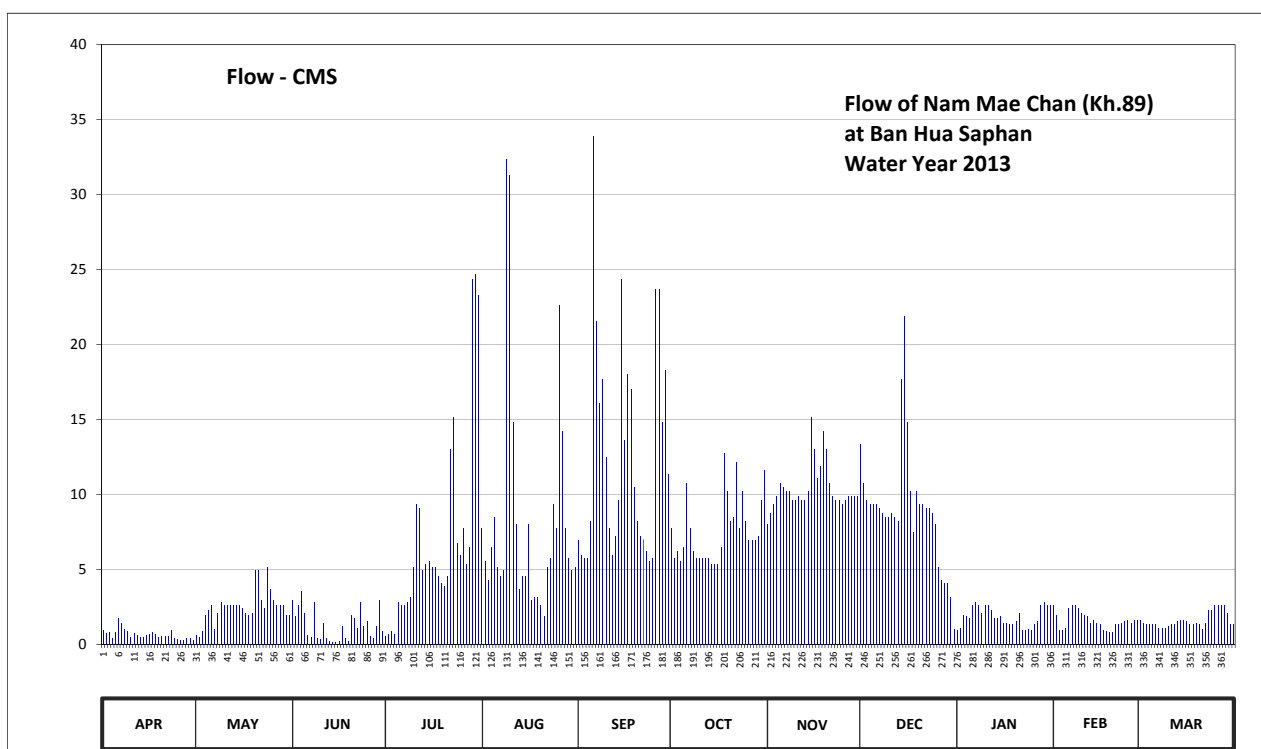
Lat 20 - 09 - 25 N    Long 99 - 51 - 45 E

**Location : on right bank at the bridge of Mae Chan - Mae Sai Highway from Tambon Pa Sang.**

|                                         |                                                                                       |                |               |          |                  |                    |
|-----------------------------------------|---------------------------------------------------------------------------------------|----------------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                            | Hua Saphan     | <b>Amphoe</b> | Mae Chan | <b>Changwat</b>  | Chiang Rai         |
| <b>Drainage Area</b>                    | 248                                                                                   | sq.km.         |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water -                                                                               | stage recorder |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +406.385                                                                              | m. (MSL.)      |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                 | Temporary.     |               |          |                  |                    |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                          |                |               |          | <b>Elevation</b> | +408.840 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                             |                |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                        |                |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 1993 to date                                                                          |                |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                       |                |               |          |                  |                    |
| <b>Period of Rating</b>                 | 1993 to date                                                                          |                |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                     |                |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 1993 to date                                                                          |                |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                               |                |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                     |                |               |          |                  |                    |
| <b>General Description</b>              | Records fair. The local weir situated about 300 meters downstream from the gage site. |                |               |          |                  |                    |
|                                         | Stage-discharge relation defined by 43 discharge measurements made in 2013.           |                |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 406.79 | 406.73 | 406.95                                          | 406.72 | 407.17 | 407.14 | 407.17 | 407.18 | 407.37 | 406.79 | 406.93 | 406.86 |        |
| 2                                | 406.75 | 406.69 | 406.88                                          | 406.74 | 407.08 | 407.10 | 407.09 | 407.21 | 407.28 | 406.81 | 406.89 | 406.84 |        |
| 3                                | 406.77 | 406.78 | 406.93                                          | 406.78 | 407.02 | 407.09 | 407.11 | 407.23 | 407.24 | 406.89 | 406.79 | 406.83 |        |
| 4                                | 406.68 | 406.89 | 406.98                                          | 406.74 | 407.12 | 407.09 | 407.08 | 407.25 | 407.23 | 406.88 | 406.79 | 406.83 |        |
| 5                                | 406.77 | 406.91 | 406.90                                          | 406.94 | 407.20 | 407.19 | 407.12 | 407.28 | 407.23 | 406.87 | 406.81 | 406.83 |        |
| 6                                | 406.87 | 406.93 | 406.73                                          | 406.93 | 407.06 | 407.97 | 407.28 | 407.27 | 407.23 | 406.93 | 406.92 | 406.83 |        |
| 7                                | 406.84 | 406.80 | 406.70                                          | 406.93 | 407.03 | 407.63 | 407.17 | 407.26 | 407.22 | 406.94 | 406.93 | 406.81 |        |
| 8                                | 406.80 | 406.90 | 406.94                                          | 406.94 | 407.05 | 407.46 | 407.11 | 407.26 | 407.21 | 406.93 | 406.93 | 406.81 |        |
| 9                                | 406.78 | 406.94 | 406.67                                          | 406.96 | 407.93 | 407.51 | 407.09 | 407.24 | 407.20 | 406.90 | 406.92 | 406.81 |        |
| 10                               | 406.70 | 406.93 | 406.63                                          | 407.06 | 407.90 | 407.34 | 407.09 | 407.24 | 407.20 | 406.93 | 406.90 | 406.82 |        |
| 11                               | 406.75 | 406.93 | 406.84                                          | 407.23 | 407.42 | 407.17 | 407.09 | 407.25 | 407.21 | 406.93 | 406.89 | 406.83 |        |
| 12                               | 406.73 | 406.93 | 406.68                                          | 407.22 | 407.18 | 407.10 | 407.09 | 407.24 | 407.20 | 406.91 | 406.88 | 406.83 |        |
| 13                               | 406.70 | 406.93 | 406.51                                          | 407.05 | 406.99 | 407.15 | 407.09 | 407.24 | 407.19 | 406.87 | 406.84 | 406.85 |        |
| 14                               | 406.70 | 406.93 | 406.44                                          | 407.07 | 407.03 | 407.24 | 407.07 | 407.26 | 407.51 | 406.87 | 406.86 | 406.86 |        |
| 15                               | 406.73 | 406.93 | 406.44                                          | 407.08 | 407.03 | 407.71 | 407.07 | 407.43 | 407.64 | 406.88 | 406.84 | 406.86 |        |
| 16                               | 406.74 | 406.92 | 406.51                                          | 407.06 | 407.18 | 407.38 | 407.07 | 407.36 | 407.42 | 406.84 | 406.83 | 406.85 |        |
| 17                               | 406.77 | 406.90 | 406.82                                          | 407.06 | 406.95 | 407.52 | 407.12 | 407.29 | 407.26 | 406.84 | 406.79 | 406.83 |        |
| 18                               | 406.74 | 406.89 | 406.67                                          | 407.03 | 406.96 | 407.49 | 407.35 | 407.32 | 407.16 | 406.83 | 406.78 | 406.83 |        |
| 19                               | 406.70 | 406.90 | 406.55                                          | 407.01 | 406.96 | 407.27 | 407.26 | 407.40 | 407.26 | 406.83 | 406.76 | 406.84 |        |
| 20                               | 406.72 | 407.05 | 406.89                                          | 407.00 | 406.93 | 407.19 | 407.19 | 407.36 | 407.23 | 406.85 | 406.77 | 406.83 |        |
| 21                               | 406.71 | 407.05 | 406.87                                          | 407.03 | 406.88 | 407.15 | 407.20 | 407.28 | 407.23 | 406.90 | 406.83 | 406.80 |        |
| 22                               | 406.72 | 406.95 | 406.81                                          | 407.36 | 407.06 | 407.14 | 407.33 | 407.25 | 407.22 | 406.79 | 406.83 | 406.84 |        |
| 23                               | 406.79 | 406.92 | 406.94                                          | 407.43 | 407.09 | 407.11 | 407.17 | 407.24 | 407.22 | 406.79 | 406.84 | 406.91 |        |
| 24                               | 406.68 | 407.06 | 406.82                                          | 407.13 | 407.23 | 407.08 | 407.26 | 407.24 | 407.21 | 406.80 | 406.85 | 406.91 |        |
| 25                               | 406.64 | 406.99 | 406.85                                          | 407.10 | 407.17 | 407.09 | 407.19 | 407.23 | 407.18 | 406.79 | 406.86 | 406.93 |        |
| 26                               | 406.61 | 406.95 | 406.71                                          | 407.17 | 407.66 | 407.69 | 407.14 | 407.24 | 407.06 | 406.83 | 406.84 | 406.93 |        |
| 27                               | 406.60 | 406.93 | 406.66                                          | 407.07 | 407.40 | 407.69 | 407.14 | 407.25 | 407.02 | 406.85 | 406.86 | 406.93 |        |
| 28                               | 406.66 | 406.93 | 406.82                                          | 407.12 | 407.17 | 407.42 | 407.14 | 407.25 | 407.01 | 406.93 | 406.86 | 406.93 |        |
| 29                               | 406.68 | 406.93 | 406.95                                          | 407.71 | 407.09 | 407.53 | 407.15 | 407.25 | 407.01 | 406.94 |        | 406.90 |        |
| 30                               | 406.59 | 406.89 | 406.78                                          | 407.72 | 407.05 | 407.30 | 407.24 | 407.25 | 406.96 | 406.93 |        | 406.83 |        |
| 31                               |        | 406.89 |                                                 | 407.68 | 407.06 |        | 407.31 |        | 406.80 | 406.93 |        | 406.83 |        |
| Mean                             | 406.72 | 406.91 | 406.76                                          | 407.10 | 407.16 | 407.33 | 407.16 | 407.27 | 407.21 | 406.87 | 406.85 | 406.85 |        |
| Max                              | 406.87 | 407.06 | 406.98                                          | 407.72 | 407.93 | 407.97 | 407.35 | 407.43 | 407.64 | 406.94 | 406.93 | 406.93 | 407.97 |
| Min                              | 406.59 | 406.69 | 406.44                                          | 406.72 | 406.88 | 407.08 | 407.07 | 407.18 | 406.80 | 406.79 | 406.76 | 406.80 | 406.44 |
| Annual Max Momentary Gage Height | 408.40 |        | m. (MSL.) , at 16.00 Hours , on Sep 6 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 406.39 |        | m. (MSL.) , River Bed 406.11 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 411.67 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 411.67 |        | m. (MSL.) , Drainage Area 248 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul    | Aug                  | Sep    | Oct    | Nov                              | Dec    | Jan   | Feb   | Mar   | Annual  |        |
|----------------|-------|-----------------------------------------------------------|-------|--------|----------------------|--------|--------|----------------------------------|--------|-------|-------|-------|---------|--------|
| 1              | 0.95  | 0.65                                                      | 3.00  | 0.60   | 7.75                 | 7.00   | 7.75   | 8.00                             | 13.34  | 0.95  | 2.64  | 1.66  |         |        |
| 2              | 0.75  | 0.48                                                      | 1.88  | 0.70   | 5.58                 | 6.00   | 5.79   | 8.78                             | 10.78  | 1.11  | 1.99  | 1.44  |         |        |
| 3              | 0.85  | 0.90                                                      | 2.64  | 0.90   | 4.32                 | 5.79   | 6.25   | 9.36                             | 9.64   | 1.99  | 0.95  | 1.33  |         |        |
| 4              | 0.46  | 1.99                                                      | 3.54  | 0.70   | 6.50                 | 5.79   | 5.58   | 9.92                             | 9.36   | 1.88  | 0.95  | 1.33  |         |        |
| 5              | 0.85  | 2.28                                                      | 2.10  | 2.82   | 8.50                 | 8.25   | 6.50   | 10.78                            | 9.36   | 1.77  | 1.11  | 1.33  |         |        |
| 6              | 1.77  | 2.64                                                      | 0.65  | 2.64   | 5.16                 | 33.88  | 10.78  | 10.49                            | 9.36   | 2.64  | 2.46  | 1.33  |         |        |
| 7              | 1.44  | 1.00                                                      | 0.50  | 2.64   | 4.53                 | 21.55  | 7.75   | 10.21                            | 9.07   | 2.82  | 2.64  | 1.11  |         |        |
| 8              | 1.00  | 2.10                                                      | 2.82  | 2.82   | 4.95                 | 16.09  | 6.25   | 10.21                            | 8.78   | 2.64  | 2.64  | 1.11  |         |        |
| 9              | 0.90  | 2.82                                                      | 0.44  | 3.18   | 32.37                | 17.67  | 5.79   | 9.64                             | 8.50   | 2.10  | 2.46  | 1.11  |         |        |
| 10             | 0.50  | 2.64                                                      | 0.36  | 5.16   | 31.25                | 12.49  | 5.79   | 9.64                             | 8.50   | 2.64  | 2.10  | 1.22  |         |        |
| 11             | 0.75  | 2.64                                                      | 1.44  | 9.36   | 14.83                | 7.75   | 5.79   | 9.92                             | 8.78   | 2.64  | 1.99  | 1.33  |         |        |
| 12             | 0.65  | 2.64                                                      | 0.46  | 9.07   | 8.00                 | 6.00   | 5.79   | 9.64                             | 8.50   | 2.28  | 1.88  | 1.33  |         |        |
| 13             | 0.50  | 2.64                                                      | 0.21  | 4.95   | 3.72                 | 7.25   | 5.79   | 9.64                             | 8.25   | 1.77  | 1.44  | 1.55  |         |        |
| 14             | 0.50  | 2.64                                                      | 0.14  | 5.37   | 4.53                 | 9.64   | 5.37   | 10.21                            | 17.67  | 1.77  | 1.66  | 1.66  |         |        |
| 15             | 0.65  | 2.64                                                      | 0.14  | 5.58   | 4.53                 | 24.35  | 5.37   | 15.14                            | 21.90  | 1.88  | 1.44  | 1.66  |         |        |
| 16             | 0.70  | 2.46                                                      | 0.21  | 5.16   | 8.00                 | 13.63  | 5.37   | 13.06                            | 14.83  | 1.44  | 1.33  | 1.55  |         |        |
| 17             | 0.85  | 2.10                                                      | 1.22  | 5.16   | 3.00                 | 17.98  | 6.50   | 11.07                            | 10.21  | 1.44  | 0.95  | 1.33  |         |        |
| 18             | 0.70  | 1.99                                                      | 0.44  | 4.53   | 3.18                 | 17.03  | 12.78  | 11.92                            | 7.50   | 1.33  | 0.90  | 1.33  |         |        |
| 19             | 0.50  | 2.10                                                      | 0.25  | 4.11   | 3.18                 | 10.49  | 10.21  | 14.20                            | 10.21  | 1.33  | 0.80  | 1.44  |         |        |
| 20             | 0.60  | 4.95                                                      | 1.99  | 3.90   | 2.64                 | 8.25   | 8.25   | 13.06                            | 9.36   | 1.55  | 0.85  | 1.33  |         |        |
| 21             | 0.55  | 4.95                                                      | 1.77  | 4.53   | 1.88                 | 7.25   | 8.50   | 10.78                            | 9.36   | 2.10  | 1.33  | 1.00  |         |        |
| 22             | 0.60  | 3.00                                                      | 1.11  | 13.06  | 5.16                 | 7.00   | 12.20  | 9.92                             | 9.07   | 0.95  | 1.33  | 1.44  |         |        |
| 23             | 0.95  | 2.46                                                      | 2.82  | 15.14  | 5.79                 | 6.25   | 7.75   | 9.64                             | 9.07   | 0.95  | 1.44  | 2.28  |         |        |
| 24             | 0.46  | 5.16                                                      | 1.22  | 6.75   | 9.36                 | 5.58   | 10.21  | 9.64                             | 8.78   | 1.00  | 1.55  | 2.28  |         |        |
| 25             | 0.38  | 3.72                                                      | 1.55  | 6.00   | 7.75                 | 5.79   | 8.25   | 9.36                             | 8.00   | 0.95  | 1.66  | 2.64  |         |        |
| 26             | 0.32  | 3.00                                                      | 0.55  | 7.75   | 22.60                | 23.65  | 7.00   | 9.64                             | 5.16   | 1.33  | 1.44  | 2.64  |         |        |
| 27             | 0.30  | 2.64                                                      | 0.42  | 5.37   | 14.20                | 23.65  | 7.00   | 9.92                             | 4.32   | 1.55  | 1.66  | 2.64  |         |        |
| 28             | 0.42  | 2.64                                                      | 1.22  | 6.50   | 7.75                 | 14.83  | 7.00   | 9.92                             | 4.11   | 2.64  | 1.66  | 2.64  |         |        |
| 29             | 0.46  | 2.64                                                      | 3.00  | 24.35  | 5.79                 | 18.29  | 7.25   | 9.92                             | 4.11   | 2.82  |       | 2.10  |         |        |
| 30             | 0.29  | 1.99                                                      | 0.90  | 24.70  | 4.95                 | 11.35  | 9.64   | 9.92                             | 3.18   | 2.64  |       | 1.33  |         |        |
| 31             |       | 1.99                                                      |       | 23.30  | 5.16                 |        | 11.63  |                                  | 1.00   | 2.64  |       | 1.33  |         |        |
| Total          | 20.60 | 78.49                                                     | 38.99 | 216.80 | 256.91               | 380.52 | 235.88 | 313.55                           | 280.06 | 57.54 | 45.25 | 49.80 | 1974.39 | CMSDAY |
| Mean           | 0.69  | 2.53                                                      | 1.30  | 6.99   | 8.29                 | 12.68  | 7.61   | 10.45                            | 9.03   | 1.86  | 1.62  | 1.61  | 5.41    | CMS    |
| Max            | 1.77  | 5.16                                                      | 3.54  | 24.70  | 32.37                | 33.88  | 12.78  | 15.14                            | 21.90  | 2.82  | 2.64  | 2.64  | 33.88   | CMS    |
| Min            | 0.29  | 0.48                                                      | 0.14  | 0.60   | 1.88                 | 5.58   | 5.37   | 8.00                             | 1.00   | 0.95  | 0.80  | 1.00  | 0.14    | CMS    |
| Runoff         | 1.78  | 6.78                                                      | 3.37  | 18.73  | 22.20                | 32.88  | 20.38  | 27.09                            | 24.20  | 4.97  | 3.91  | 4.30  | 170.59  | MCM    |
| Momentary Peak | 51.20 | CMS. at 408.40 m. (MSL.) at 16.00 Hours , on Sep 6 , 2013 |       |        |                      |        |        |                                  |        |       |       |       |         |        |
| Runoff Yield   | 21.81 | Liters/Second/Square KM.                                  |       |        | Momentary Peak Yield |        |        | 206,452 Liters/Second/Square KM. |        |       |       |       |         |        |

**WATER YEAR : 2013****KHONG RIVER BASIN****Lam Nam Phung at Ban Tong Khop , Sakon Nakhon (Kh.90)**

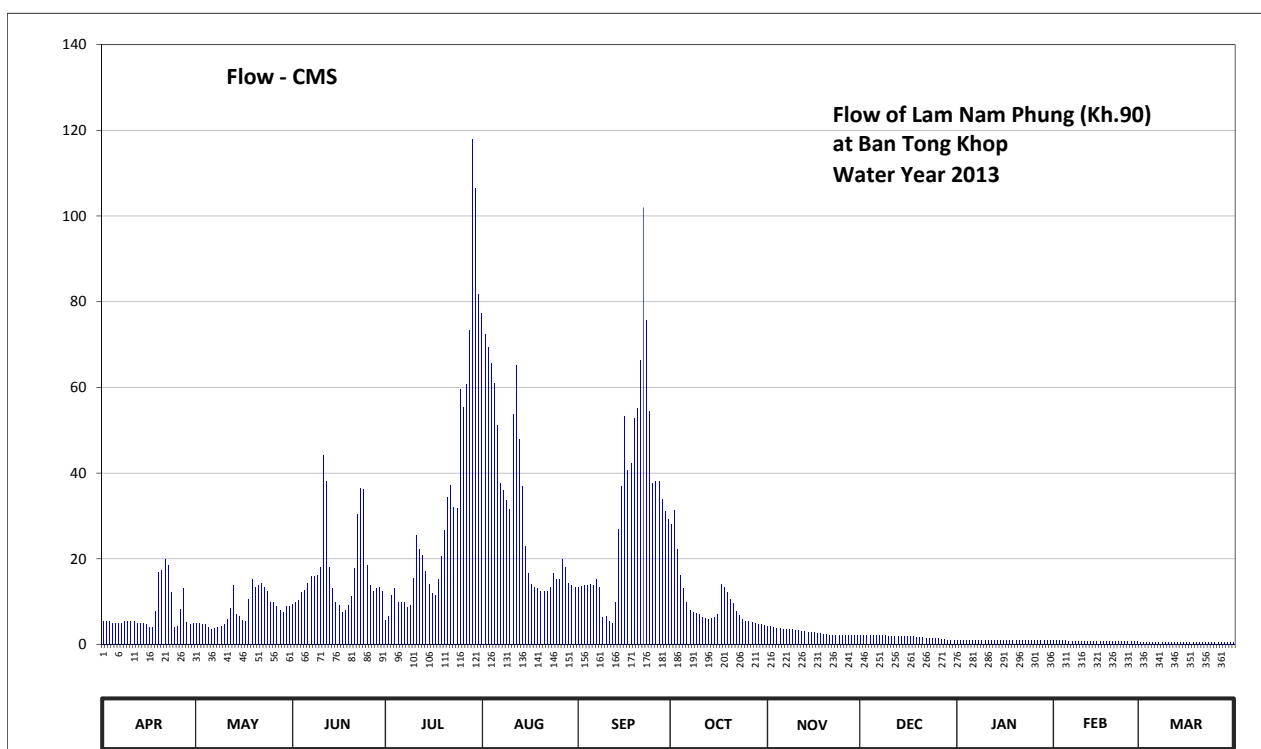
Lat 17 - 04 - 05 N Long 104 - 15 - 32 E

Location : on right bank at the bridge on highway.

|                                         |                                                                                           |                  |               |                       |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|-----------------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | <b>Tong Khop</b> | <b>Amphoe</b> | <b>Khok Si Suphan</b> | <b>Changwat</b>  | <b>Sakon Nakhon</b> |
| <b>Drainage Area</b>                    | 861                                                                                       | sq.km.           |               |                       |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                  |               |                       |                  |                     |
| <b>Zero Gage at Bottom</b>              | +158.500                                                                                  | m. (MSL.)        |               |                       |                  |                     |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                      |                  |               |                       |                  |                     |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                              |                  |               |                       | <b>Elevation</b> | +167.456 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00 , 12.00 and 18.00 hours.                                   |                  |               |                       |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                  |               |                       |                  |                     |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |                  |               |                       |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |                       |                  |                     |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |                  |               |                       |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |                       |                  |                     |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |                  |               |                       |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                  |               |                       |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |                       |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 25 discharge measurements made in 2013. |                  |               |                       |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 158.75 | 158.70 | 159.08      | 158.76 | 161.82 | 159.30        | 160.05                            | 158.64 | 158.43            | 158.31 | 158.30 | 158.25 |        |
| 2                                | 158.75 | 158.70 | 159.10      | 158.86 | 161.67 | 159.31        | 160.18                            | 158.62 | 158.43            | 158.31 | 158.30 | 158.25 |        |
| 3                                | 158.74 | 158.68 | 159.13      | 159.20 | 161.57 | 159.32        | 159.76                            | 158.60 | 158.43            | 158.31 | 158.30 | 158.25 |        |
| 4                                | 158.70 | 158.68 | 159.23      | 159.29 | 161.45 | 159.33        | 159.46                            | 158.59 | 158.43            | 158.31 | 158.30 | 158.25 |        |
| 5                                | 158.70 | 158.60 | 159.26      | 159.10 | 161.30 | 159.34        | 159.29                            | 158.58 | 158.43            | 158.31 | 158.30 | 158.25 |        |
| 6                                | 158.70 | 158.55 | 159.35      | 159.10 | 160.97 | 159.33        | 159.10                            | 158.57 | 158.42            | 158.31 | 158.29 | 158.25 |        |
| 7                                | 158.71 | 158.58 | 159.44      | 159.10 | 160.45 | 159.40        | 159.00                            | 158.57 | 158.42            | 158.31 | 158.29 | 158.25 |        |
| 8                                | 158.75 | 158.60 | 159.44      | 159.04 | 160.38 | 159.30        | 158.97                            | 158.56 | 158.42            | 158.31 | 158.29 | 158.25 |        |
| 9                                | 158.75 | 158.64 | 159.46      | 159.07 | 160.28 | 158.83        | 158.94                            | 158.55 | 158.42            | 158.31 | 158.29 | 158.25 |        |
| 10                               | 158.75 | 158.68 | 159.55      | 159.42 | 160.19 | 158.86        | 158.90                            | 158.54 | 158.41            | 158.31 | 158.29 | 158.25 |        |
| 11                               | 158.74 | 158.79 | 160.70      | 159.93 | 161.06 | 158.74        | 158.85                            | 158.53 | 158.41            | 158.31 | 158.28 | 158.25 |        |
| 12                               | 158.70 | 159.03 | 160.46      | 159.76 | 161.44 | 158.71        | 158.82                            | 158.52 | 158.41            | 158.31 | 158.28 | 158.25 |        |
| 13                               | 158.70 | 159.33 | 159.55      | 159.70 | 160.84 | 159.10        | 158.80                            | 158.51 | 158.41            | 158.31 | 158.28 | 158.25 |        |
| 14                               | 158.70 | 158.91 | 159.29      | 159.51 | 160.42 | 160.00        | 158.82                            | 158.50 | 158.40            | 158.31 | 158.28 | 158.25 |        |
| 15                               | 158.68 | 158.87 | 159.10      | 159.34 | 159.80 | 160.42        | 158.85                            | 158.49 | 158.40            | 158.31 | 158.28 | 158.25 |        |
| 16                               | 158.60 | 158.77 | 159.07      | 159.22 | 159.48 | 161.04        | 158.90                            | 158.48 | 158.40            | 158.31 | 158.28 | 158.25 |        |
| 17                               | 158.60 | 158.74 | 158.96      | 159.20 | 159.34 | 160.57        | 159.34                            | 158.47 | 158.40            | 158.31 | 158.28 | 158.25 |        |
| 18                               | 158.99 | 159.14 | 159.00      | 159.40 | 159.30 | 160.63        | 159.30                            | 158.46 | 158.40            | 158.31 | 158.28 | 158.25 |        |
| 19                               | 159.49 | 159.40 | 159.07      | 159.68 | 159.29 | 161.03        | 159.23                            | 158.45 | 158.38            | 158.31 | 158.28 | 158.25 |        |
| 20                               | 159.52 | 159.30 | 159.19      | 159.99 | 159.25 | 161.10        | 159.15                            | 158.44 | 158.37            | 158.31 | 158.28 | 158.25 |        |
| 21                               | 159.65 | 159.33 | 159.54      | 160.31 | 159.25 | 161.48        | 159.09                            | 158.43 | 158.37            | 158.30 | 158.27 | 158.25 |        |
| 22                               | 159.58 | 159.35 | 160.14      | 160.43 | 159.25 | 162.55        | 158.99                            | 158.43 | 158.36            | 158.30 | 158.27 | 158.25 |        |
| 23                               | 159.24 | 159.30 | 160.40      | 160.21 | 159.30 | 161.77        | 158.88                            | 158.43 | 158.35            | 158.30 | 158.27 | 158.25 |        |
| 24                               | 158.61 | 159.25 | 160.39      | 160.20 | 159.48 | 161.08        | 158.80                            | 158.43 | 158.35            | 158.30 | 158.27 | 158.25 |        |
| 25                               | 158.63 | 159.10 | 159.58      | 161.25 | 159.40 | 160.45        | 158.75                            | 158.43 | 158.34            | 158.30 | 158.27 | 158.25 |        |
| 26                               | 159.01 | 159.10 | 159.32      | 161.11 | 159.41 | 160.46        | 158.75                            | 158.43 | 158.34            | 158.30 | 158.27 | 158.25 |        |
| 27                               | 159.29 | 159.05 | 159.25      | 161.29 | 159.65 | 160.46        | 158.73                            | 158.43 | 158.33            | 158.30 | 158.27 | 158.25 |        |
| 28                               | 158.72 | 159.00 | 159.29      | 161.70 | 159.55 | 160.29        | 158.71                            | 158.43 | 158.32            | 158.30 | 158.27 | 158.25 |        |
| 29                               | 158.69 | 158.95 | 159.30      | 162.95 | 159.35 | 160.17        | 158.68                            | 158.43 | 158.31            | 158.30 |        | 158.25 |        |
| 30                               | 158.70 | 159.06 | 159.25      | 162.66 | 159.32 | 160.10        | 158.68                            | 158.43 | 158.31            | 158.30 |        | 158.25 |        |
| 31                               |        | 159.06 |             | 161.96 | 159.30 |               | 158.65                            |        | 158.31            | 158.30 |        | 158.25 |        |
| Mean                             | 158.87 | 158.94 | 159.46      | 160.02 | 160.11 | 160.08        | 159.05                            | 158.50 | 158.38            | 158.31 | 158.28 | 158.25 |        |
| Max                              | 159.65 | 159.40 | 160.70      | 162.95 | 161.82 | 162.55        | 160.18                            | 158.64 | 158.43            | 158.31 | 158.30 | 158.25 | 162.95 |
| Min                              | 158.60 | 158.55 | 158.96      | 158.76 | 159.25 | 158.71        | 158.65                            | 158.43 | 158.31            | 158.30 | 158.27 | 158.25 | 158.25 |
| Annual Max Momentary Gage Height | 163.50 |        | m. (MSL.) , |        |        |               | at 23.00 Hours , on Jul 29 , 2013 |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 158.50 |        | m. (MSL.) , |        |        | River Bed     | 156.96                            |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 163.80 |        | m. (MSL.) , |        |        |               |                                   |        |                   |        |        |        |        |
| Right Bank Elevation             | 164.36 |        | m. (MSL.) , |        |        | Drainage Area | 861                               |        | Square Kilometers |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                        | Jun    | Jul    | Aug    | Sep                  | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|--------|------------------------------------------------------------|--------|--------|--------|----------------------|--------|---------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 5.50   | 5.00                                                       | 9.44   | 5.60   | 77.24  | 13.40                | 28.20  | 4.40    | 2.30                     | 1.10  | 1.00  | 0.50  |         |        |
| 2              | 5.50   | 5.00                                                       | 9.80   | 6.60   | 72.44  | 13.58                | 31.32  | 4.20    | 2.30                     | 1.10  | 1.00  | 0.50  |         |        |
| 3              | 5.40   | 4.80                                                       | 10.34  | 11.60  | 69.24  | 13.76                | 22.20  | 4.00    | 2.30                     | 1.10  | 1.00  | 0.50  |         |        |
| 4              | 5.00   | 4.80                                                       | 12.14  | 13.22  | 65.50  | 13.94                | 16.28  | 3.90    | 2.30                     | 1.10  | 1.00  | 0.50  |         |        |
| 5              | 5.00   | 4.00                                                       | 12.68  | 9.80   | 61.00  | 14.12                | 13.22  | 3.80    | 2.30                     | 1.10  | 1.00  | 0.50  |         |        |
| 6              | 5.00   | 3.50                                                       | 14.30  | 9.80   | 51.22  | 13.94                | 9.80   | 3.70    | 2.20                     | 1.10  | 0.90  | 0.50  |         |        |
| 7              | 5.10   | 3.80                                                       | 15.92  | 9.80   | 37.80  | 15.20                | 8.00   | 3.70    | 2.20                     | 1.10  | 0.90  | 0.50  |         |        |
| 8              | 5.50   | 4.00                                                       | 15.92  | 8.72   | 36.12  | 13.40                | 7.70   | 3.60    | 2.20                     | 1.10  | 0.90  | 0.50  |         |        |
| 9              | 5.50   | 4.40                                                       | 16.28  | 9.26   | 33.72  | 6.30                 | 7.40   | 3.50    | 2.20                     | 1.10  | 0.90  | 0.50  |         |        |
| 10             | 5.50   | 4.80                                                       | 18.00  | 15.56  | 31.56  | 6.60                 | 7.00   | 3.40    | 2.10                     | 1.10  | 0.90  | 0.50  |         |        |
| 11             | 5.40   | 5.90                                                       | 44.20  | 25.60  | 53.80  | 5.40                 | 6.50   | 3.30    | 2.10                     | 1.10  | 0.80  | 0.50  |         |        |
| 12             | 5.00   | 8.54                                                       | 38.04  | 22.20  | 65.20  | 5.10                 | 6.20   | 3.20    | 2.10                     | 1.10  | 0.80  | 0.50  |         |        |
| 13             | 5.00   | 13.94                                                      | 18.00  | 21.00  | 47.84  | 9.80                 | 6.00   | 3.10    | 2.10                     | 1.10  | 0.80  | 0.50  |         |        |
| 14             | 5.00   | 7.10                                                       | 13.22  | 17.20  | 37.08  | 27.00                | 6.20   | 3.00    | 2.00                     | 1.10  | 0.80  | 0.50  |         |        |
| 15             | 4.80   | 6.70                                                       | 9.80   | 14.12  | 23.00  | 37.08                | 6.50   | 2.90    | 2.00                     | 1.10  | 0.80  | 0.50  |         |        |
| 16             | 4.00   | 5.70                                                       | 9.26   | 11.96  | 16.64  | 53.20                | 7.00   | 2.80    | 2.00                     | 1.10  | 0.80  | 0.50  |         |        |
| 17             | 4.00   | 5.40                                                       | 7.60   | 11.60  | 14.12  | 40.82                | 14.12  | 2.70    | 2.00                     | 1.10  | 0.80  | 0.50  |         |        |
| 18             | 7.90   | 10.52                                                      | 8.00   | 15.20  | 13.40  | 42.38                | 13.40  | 2.60    | 2.00                     | 1.10  | 0.80  | 0.50  |         |        |
| 19             | 16.82  | 15.20                                                      | 9.26   | 20.60  | 13.22  | 52.90                | 12.14  | 2.50    | 1.80                     | 1.10  | 0.80  | 0.50  |         |        |
| 20             | 17.40  | 13.40                                                      | 11.42  | 26.80  | 12.50  | 55.00                | 10.70  | 2.40    | 1.70                     | 1.10  | 0.80  | 0.50  |         |        |
| 21             | 20.00  | 13.94                                                      | 17.80  | 34.44  | 12.50  | 66.40                | 9.62   | 2.30    | 1.70                     | 1.00  | 0.70  | 0.50  |         |        |
| 22             | 18.60  | 14.30                                                      | 30.36  | 37.32  | 12.50  | 102.00               | 7.90   | 2.30    | 1.60                     | 1.00  | 0.70  | 0.50  |         |        |
| 23             | 12.32  | 13.40                                                      | 36.60  | 32.04  | 13.40  | 75.64                | 6.80   | 2.30    | 1.50                     | 1.00  | 0.70  | 0.50  |         |        |
| 24             | 4.10   | 12.50                                                      | 36.36  | 31.80  | 16.64  | 54.40                | 6.00   | 2.30    | 1.50                     | 1.00  | 0.70  | 0.50  |         |        |
| 25             | 4.30   | 9.80                                                       | 18.60  | 59.50  | 15.20  | 37.80                | 5.50   | 2.30    | 1.40                     | 1.00  | 0.70  | 0.50  |         |        |
| 26             | 8.18   | 9.80                                                       | 13.76  | 55.30  | 15.38  | 38.04                | 5.50   | 2.30    | 1.40                     | 1.00  | 0.70  | 0.50  |         |        |
| 27             | 13.22  | 8.90                                                       | 12.50  | 60.70  | 20.00  | 38.04                | 5.30   | 2.30    | 1.30                     | 1.00  | 0.70  | 0.50  |         |        |
| 28             | 5.20   | 8.00                                                       | 13.22  | 73.40  | 18.00  | 33.96                | 5.10   | 2.30    | 1.20                     | 1.00  | 0.70  | 0.50  |         |        |
| 29             | 4.90   | 7.50                                                       | 13.40  | 118.00 | 14.30  | 31.08                | 4.80   | 2.30    | 1.10                     | 1.00  |       | 0.50  |         |        |
| 30             | 5.00   | 9.08                                                       | 12.50  | 106.40 | 13.76  | 29.40                | 4.80   | 2.30    | 1.10                     | 1.00  |       | 0.50  |         |        |
| 31             |        | 9.08                                                       |        | 81.72  | 13.40  |                      | 4.50   |         | 1.10                     | 1.00  |       | 0.50  |         |        |
| Total          | 224.14 | 252.80                                                     | 508.72 | 976.86 | 997.72 | 959.68               | 305.70 | 89.70   | 57.10                    | 33.00 | 23.10 | 15.50 | 4444.02 | CMSDAY |
| Mean           | 7.47   | 8.15                                                       | 16.96  | 31.51  | 32.18  | 31.99                | 9.86   | 2.99    | 1.84                     | 1.06  | 0.83  | 0.50  | 12.18   | CMS    |
| Max            | 20.00  | 15.20                                                      | 44.20  | 118.00 | 77.24  | 102.00               | 31.32  | 4.40    | 2.30                     | 1.10  | 1.00  | 0.50  | 118.00  | CMS    |
| Min            | 4.00   | 3.50                                                       | 7.60   | 5.60   | 12.50  | 5.10                 | 4.50   | 2.30    | 1.10                     | 1.00  | 0.70  | 0.50  | 0.50    | CMS    |
| Runoff         | 19.37  | 21.84                                                      | 43.95  | 84.40  | 86.20  | 82.92                | 26.41  | 7.75    | 4.93                     | 2.85  | 2.00  | 1.34  | 383.96  | MCM    |
| Momentary Peak | 14.14  | CMS. at 163.50 m. (MSL.) at 23.00 Hours , on Jul 29 , 2013 |        |        |        |                      |        |         |                          |       |       |       |         |        |
| Runoff Yield   | 14.14  | Liters/Second/Square KM.                                   |        |        |        | Momentary Peak Yield |        | 162.602 | Liters/Second/Square KM. |       |       |       |         |        |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Huai Chanot at Ban Don Sawan , Nakhon Phanom (Kh.91)**

Lat 16 - 47 - 48 N    Long 104 - 39 - 45 E

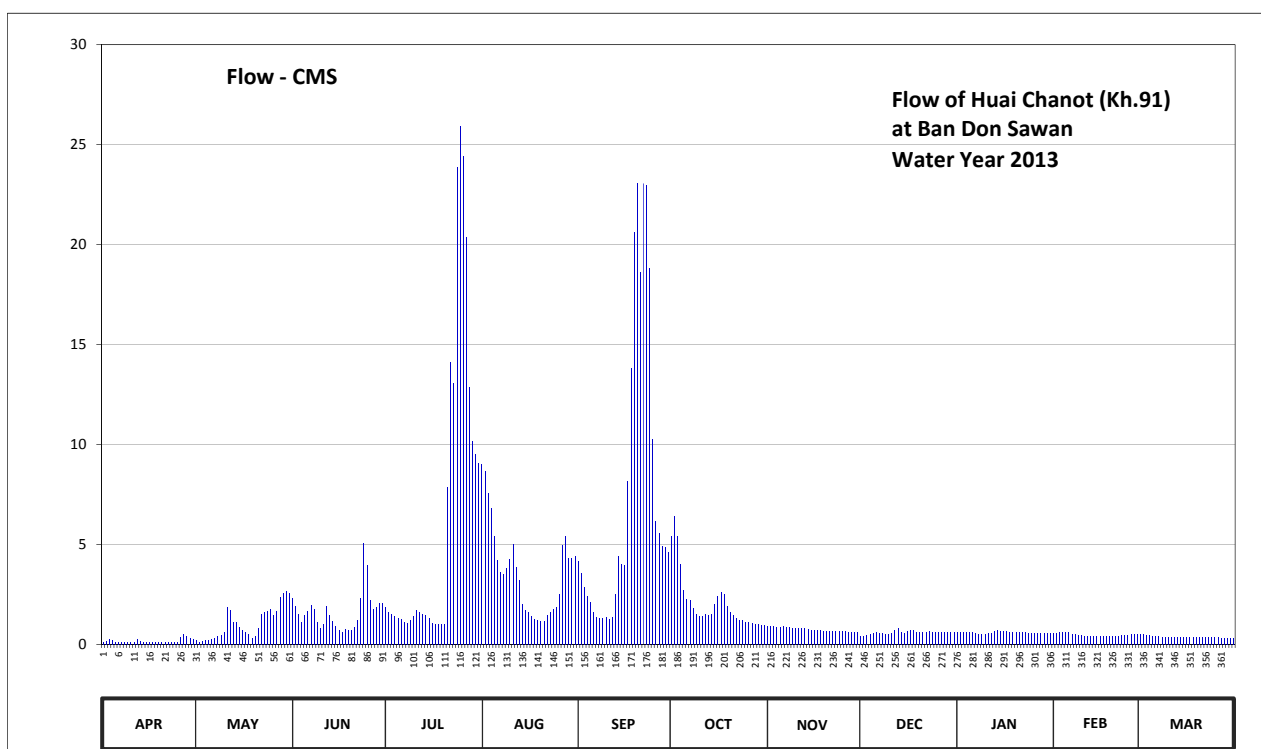
**Location : on left bank at the bridge on highway.**

|                                         |                                                                                           |                |               |             |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Don Sawan      | <b>Amphoe</b> | That Phanom | <b>Changwat</b>  | Nakhon Phanom      |
| <b>Drainage Area</b>                    | 172                                                                                       | sq.km.         |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +149.000                                                                                  | m. (MSL.)      |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank at the footpath of the bridge.                                               |                |               |             | <b>Elevation</b> | +159.228 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00 , 12.00 and 18.00 hours.                                   |                |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |                |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |                |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |                |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |             |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 27 discharge measurements made in 2013. |                |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 149.90 | 149.95 | 150.91                                          | 150.76 | 151.99 | 151.27 | 151.49 | 150.32 | 150.06 | 150.15 | 150.13 | 150.10 |        |
| 2                                | 149.94 | 149.91 | 150.77                                          | 150.67 | 151.94 | 151.17 | 151.63 | 150.30 | 150.07 | 150.15 | 150.14 | 150.10 |        |
| 3                                | 149.98 | 149.93 | 150.60                                          | 150.61 | 151.79 | 151.05 | 151.49 | 150.30 | 150.09 | 150.15 | 150.15 | 150.09 |        |
| 4                                | 149.96 | 149.95 | 150.42                                          | 150.55 | 151.68 | 150.95 | 151.25 | 150.29 | 150.12 | 150.15 | 150.15 | 150.08 |        |
| 5                                | 149.90 | 149.95 | 150.58                                          | 150.52 | 151.49 | 150.84 | 151.02 | 150.29 | 150.14 | 150.15 | 150.16 | 150.07 |        |
| 6                                | 149.90 | 149.98 | 150.69                                          | 150.48 | 151.28 | 150.65 | 150.89 | 150.32 | 150.15 | 150.15 | 150.15 | 150.06 |        |
| 7                                | 149.90 | 150.00 | 150.79                                          | 150.40 | 151.18 | 150.53 | 150.87 | 150.29 | 150.13 | 150.14 | 150.10 | 150.05 |        |
| 8                                | 149.90 | 150.05 | 150.73                                          | 150.39 | 151.16 | 150.52 | 150.75 | 150.28 | 150.13 | 150.11 | 150.10 | 150.04 |        |
| 9                                | 149.90 | 150.08 | 150.42                                          | 150.45 | 151.21 | 150.51 | 150.60 | 150.27 | 150.12 | 150.11 | 150.09 | 150.03 |        |
| 10                               | 149.90 | 150.15 | 150.25                                          | 150.57 | 151.29 | 150.54 | 150.56 | 150.26 | 150.12 | 150.12 | 150.08 | 150.03 |        |
| 11                               | 149.90 | 150.76 | 150.36                                          | 150.71 | 151.42 | 150.48 | 150.56 | 150.26 | 150.14 | 150.13 | 150.05 | 150.03 |        |
| 12                               | 149.98 | 150.70 | 150.78                                          | 150.65 | 151.22 | 150.54 | 150.62 | 150.27 | 150.21 | 150.14 | 150.05 | 150.03 |        |
| 13                               | 149.93 | 150.42 | 150.59                                          | 150.61 | 151.11 | 150.98 | 150.59 | 150.26 | 150.25 | 150.18 | 150.05 | 150.03 |        |
| 14                               | 149.90 | 150.42 | 150.43                                          | 150.59 | 150.81 | 151.31 | 150.61 | 150.24 | 150.15 | 150.20 | 150.05 | 150.03 |        |
| 15                               | 149.90 | 150.28 | 150.30                                          | 150.51 | 150.71 | 151.25 | 150.81 | 150.22 | 150.13 | 150.19 | 150.05 | 150.03 |        |
| 16                               | 149.90 | 150.20 | 150.20                                          | 150.38 | 150.65 | 151.24 | 150.94 | 150.20 | 150.19 | 150.19 | 150.05 | 150.03 |        |
| 17                               | 149.90 | 150.16 | 150.16                                          | 150.36 | 150.55 | 151.87 | 151.00 | 150.20 | 150.20 | 150.18 | 150.05 | 150.03 |        |
| 18                               | 149.90 | 150.10 | 150.24                                          | 150.36 | 150.49 | 152.52 | 150.98 | 150.20 | 150.20 | 150.17 | 150.05 | 150.03 |        |
| 19                               | 149.92 | 150.01 | 150.22                                          | 150.35 | 150.47 | 153.16 | 150.78 | 150.19 | 150.15 | 150.16 | 150.05 | 150.03 |        |
| 20                               | 149.92 | 150.06 | 150.22                                          | 150.36 | 150.44 | 153.38 | 150.65 | 150.19 | 150.15 | 150.15 | 150.05 | 150.03 |        |
| 21                               | 149.92 | 150.26 | 150.29                                          | 151.83 | 150.44 | 152.98 | 150.58 | 150.19 | 150.17 | 150.15 | 150.06 | 150.04 |        |
| 22                               | 149.92 | 150.60 | 150.46                                          | 152.55 | 150.58 | 153.38 | 150.52 | 150.19 | 150.17 | 150.15 | 150.07 | 150.04 |        |
| 23                               | 149.90 | 150.66 | 150.90                                          | 152.44 | 150.66 | 153.37 | 150.46 | 150.19 | 150.18 | 150.15 | 150.08 | 150.04 |        |
| 24                               | 149.90 | 150.69 | 151.43                                          | 153.45 | 150.73 | 153.00 | 150.45 | 150.19 | 150.15 | 150.14 | 150.09 | 150.04 |        |
| 25                               | 149.90 | 150.72 | 151.24                                          | 153.62 | 150.76 | 152.13 | 150.40 | 150.19 | 150.16 | 150.14 | 150.09 | 150.04 |        |
| 26                               | 150.03 | 150.58 | 150.87                                          | 153.50 | 150.97 | 151.59 | 150.40 | 150.18 | 150.17 | 150.14 | 150.10 | 150.04 |        |
| 27                               | 150.10 | 150.68 | 150.73                                          | 153.14 | 151.41 | 151.51 | 150.38 | 150.17 | 150.15 | 150.13 | 150.10 | 150.02 |        |
| 28                               | 150.07 | 150.93 | 150.76                                          | 152.42 | 151.49 | 151.40 | 150.37 | 150.16 | 150.15 | 150.13 | 150.10 | 150.01 |        |
| 29                               | 150.02 | 150.99 | 150.82                                          | 152.12 | 151.30 | 151.39 | 150.35 | 150.16 | 150.15 | 150.13 |        | 150.00 |        |
| 30                               | 149.98 | 151.01 | 150.82                                          | 152.05 | 151.30 | 151.35 | 150.34 | 150.15 | 150.15 | 150.13 |        | 150.00 |        |
| 31                               |        | 150.99 |                                                 | 152.00 | 151.31 |        | 150.33 |        | 150.15 | 150.13 |        | 150.00 |        |
| Mean                             | 149.94 | 150.36 | 150.60                                          | 151.27 | 151.09 | 151.56 | 150.73 | 150.23 | 150.15 | 150.15 | 150.09 | 150.04 |        |
| Max                              | 150.10 | 151.01 | 151.43                                          | 153.62 | 151.99 | 153.38 | 151.63 | 150.32 | 150.25 | 150.20 | 150.16 | 150.10 | 153.62 |
| Min                              | 149.90 | 149.91 | 150.16                                          | 150.35 | 150.44 | 150.48 | 150.33 | 150.15 | 150.06 | 150.11 | 150.05 | 150.00 | 149.90 |
| Annual Max Momentary Gage Height |        | 153.65 | m. (MSL.) , at 12.00 Hours , on Jul 24 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 149.00 | m. (MSL.) , River Bed 149.35 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 153.69 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 156.15 | m. (MSL.) , Drainage Area 172 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun   | Jul    | Aug    | Sep                  | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |                          |  |
|----------------|-------|------------------------------------------------------------|-------|--------|--------|----------------------|-------|-------|-------|---------|-------|-------|--------|--------------------------|--|
| 1              | 0.10  | 0.20                                                       | 2.33  | 1.88   | 9.03   | 4.17                 | 5.44  | 0.94  | 0.42  | 0.60    | 0.56  | 0.50  |        |                          |  |
| 2              | 0.18  | 0.12                                                       | 1.91  | 1.64   | 8.67   | 3.59                 | 6.44  | 0.90  | 0.44  | 0.60    | 0.58  | 0.50  |        |                          |  |
| 3              | 0.26  | 0.16                                                       | 1.50  | 1.52   | 7.59   | 2.89                 | 5.44  | 0.90  | 0.48  | 0.60    | 0.60  | 0.48  |        |                          |  |
| 4              | 0.22  | 0.20                                                       | 1.14  | 1.40   | 6.80   | 2.45                 | 4.05  | 0.88  | 0.54  | 0.60    | 0.60  | 0.46  |        |                          |  |
| 5              | 0.10  | 0.20                                                       | 1.46  | 1.34   | 5.44   | 2.12                 | 2.72  | 0.88  | 0.58  | 0.60    | 0.62  | 0.44  |        |                          |  |
| 6              | 0.10  | 0.26                                                       | 1.68  | 1.26   | 4.22   | 1.60                 | 2.27  | 0.94  | 0.60  | 0.60    | 0.60  | 0.42  |        |                          |  |
| 7              | 0.10  | 0.30                                                       | 1.97  | 1.10   | 3.64   | 1.36                 | 2.21  | 0.88  | 0.56  | 0.58    | 0.50  | 0.40  |        |                          |  |
| 8              | 0.10  | 0.40                                                       | 1.79  | 1.08   | 3.53   | 1.34                 | 1.85  | 0.86  | 0.56  | 0.52    | 0.50  | 0.38  |        |                          |  |
| 9              | 0.10  | 0.46                                                       | 1.14  | 1.20   | 3.82   | 1.32                 | 1.50  | 0.84  | 0.54  | 0.52    | 0.48  | 0.36  |        |                          |  |
| 10             | 0.10  | 0.60                                                       | 0.80  | 1.44   | 4.28   | 1.38                 | 1.42  | 0.82  | 0.54  | 0.54    | 0.46  | 0.36  |        |                          |  |
| 11             | 0.10  | 1.88                                                       | 1.02  | 1.73   | 5.04   | 1.26                 | 1.42  | 0.82  | 0.58  | 0.56    | 0.40  | 0.36  |        |                          |  |
| 12             | 0.26  | 1.70                                                       | 1.94  | 1.60   | 3.88   | 1.38                 | 1.54  | 0.84  | 0.72  | 0.58    | 0.40  | 0.36  |        |                          |  |
| 13             | 0.16  | 1.14                                                       | 1.48  | 1.52   | 3.24   | 2.54                 | 1.48  | 0.82  | 0.80  | 0.66    | 0.40  | 0.36  |        |                          |  |
| 14             | 0.10  | 1.14                                                       | 1.16  | 1.48   | 2.03   | 4.40                 | 1.52  | 0.78  | 0.60  | 0.70    | 0.40  | 0.36  |        |                          |  |
| 15             | 0.10  | 0.86                                                       | 0.90  | 1.32   | 1.73   | 4.05                 | 2.03  | 0.74  | 0.56  | 0.68    | 0.40  | 0.36  |        |                          |  |
| 16             | 0.10  | 0.70                                                       | 0.70  | 1.06   | 1.60   | 3.99                 | 2.42  | 0.70  | 0.68  | 0.68    | 0.40  | 0.36  |        |                          |  |
| 17             | 0.10  | 0.62                                                       | 0.62  | 1.02   | 1.40   | 8.16                 | 2.60  | 0.70  | 0.70  | 0.66    | 0.40  | 0.36  |        |                          |  |
| 18             | 0.10  | 0.50                                                       | 0.78  | 1.02   | 1.28   | 13.81                | 2.54  | 0.70  | 0.70  | 0.64    | 0.40  | 0.36  |        |                          |  |
| 19             | 0.14  | 0.32                                                       | 0.74  | 1.00   | 1.24   | 20.59                | 1.94  | 0.68  | 0.60  | 0.62    | 0.40  | 0.36  |        |                          |  |
| 20             | 0.14  | 0.42                                                       | 0.74  | 1.02   | 1.18   | 23.06                | 1.60  | 0.68  | 0.60  | 0.60    | 0.40  | 0.36  |        |                          |  |
| 21             | 0.14  | 0.82                                                       | 0.88  | 7.88   | 1.18   | 18.59                | 1.46  | 0.68  | 0.64  | 0.60    | 0.42  | 0.38  |        |                          |  |
| 22             | 0.14  | 1.50                                                       | 1.22  | 14.12  | 1.46   | 23.06                | 1.34  | 0.68  | 0.64  | 0.60    | 0.44  | 0.38  |        |                          |  |
| 23             | 0.10  | 1.62                                                       | 2.30  | 13.06  | 1.62   | 22.94                | 1.22  | 0.68  | 0.66  | 0.60    | 0.46  | 0.38  |        |                          |  |
| 24             | 0.10  | 1.68                                                       | 5.09  | 23.84  | 1.79   | 18.80                | 1.20  | 0.68  | 0.60  | 0.58    | 0.48  | 0.38  |        |                          |  |
| 25             | 0.10  | 1.76                                                       | 3.99  | 25.94  | 1.88   | 10.27                | 1.10  | 0.68  | 0.62  | 0.58    | 0.48  | 0.38  |        |                          |  |
| 26             | 0.36  | 1.46                                                       | 2.21  | 24.40  | 2.51   | 6.15                 | 1.10  | 0.66  | 0.64  | 0.58    | 0.50  | 0.38  |        |                          |  |
| 27             | 0.50  | 1.66                                                       | 1.79  | 20.37  | 4.98   | 5.57                 | 1.06  | 0.64  | 0.60  | 0.56    | 0.50  | 0.34  |        |                          |  |
| 28             | 0.44  | 2.39                                                       | 1.88  | 12.88  | 5.44   | 4.92                 | 1.04  | 0.62  | 0.60  | 0.56    | 0.50  | 0.32  |        |                          |  |
| 29             | 0.34  | 2.57                                                       | 2.06  | 10.18  | 4.34   | 4.86                 | 1.00  | 0.62  | 0.60  | 0.56    |       | 0.30  |        |                          |  |
| 30             | 0.26  | 2.66                                                       | 2.06  | 9.55   | 4.34   | 4.63                 | 0.98  | 0.60  | 0.60  | 0.56    |       | 0.30  |        |                          |  |
| 31             |       | 2.57                                                       |       | 9.10   | 4.40   |                      | 0.96  |       | 0.60  | 0.56    |       | 0.30  |        |                          |  |
| Total          | 5.14  | 32.87                                                      | 49.28 | 197.95 | 113.58 | 225.25               | 64.89 | 22.84 | 18.60 | 18.48   | 13.28 | 11.74 | 773.90 | CMSDAY                   |  |
| Mean           | 0.17  | 1.06                                                       | 1.64  | 6.39   | 3.66   | 7.51                 | 2.09  | 0.76  | 0.60  | 0.60    | 0.47  | 0.38  | 2.12   | CMS                      |  |
| Max            | 0.50  | 2.66                                                       | 5.09  | 25.94  | 9.03   | 23.06                | 6.44  | 0.94  | 0.80  | 0.70    | 0.62  | 0.50  | 25.94  | CMS                      |  |
| Min            | 0.10  | 0.12                                                       | 0.62  | 1.00   | 1.18   | 1.26                 | 0.96  | 0.60  | 0.42  | 0.52    | 0.40  | 0.30  | 0.10   | CMS                      |  |
| Runoff         | 0.44  | 2.84                                                       | 4.26  | 17.10  | 9.81   | 19.46                | 5.61  | 1.97  | 1.61  | 1.60    | 1.15  | 1.01  | 66.87  | MCM                      |  |
| Momentary Peak | 26.32 | CMS. at 153.65 m. (MSL.) at 12.00 Hours , on Jul 24 , 2013 |       |        |        |                      |       |       |       |         |       |       |        |                          |  |
| Runoff Yield   | 12.33 | Liters/Second/Square KM.                                   |       |        |        | Momentary Peak Yield |       |       |       | 153.023 |       |       |        | Liters/Second/Square KM. |  |

**WATER YEAR : 2013****KHONG RIVER BASIN**

**Huai Bang Sai at Ban Kan Luang Dong , Muk Dahan (Kh.92)**

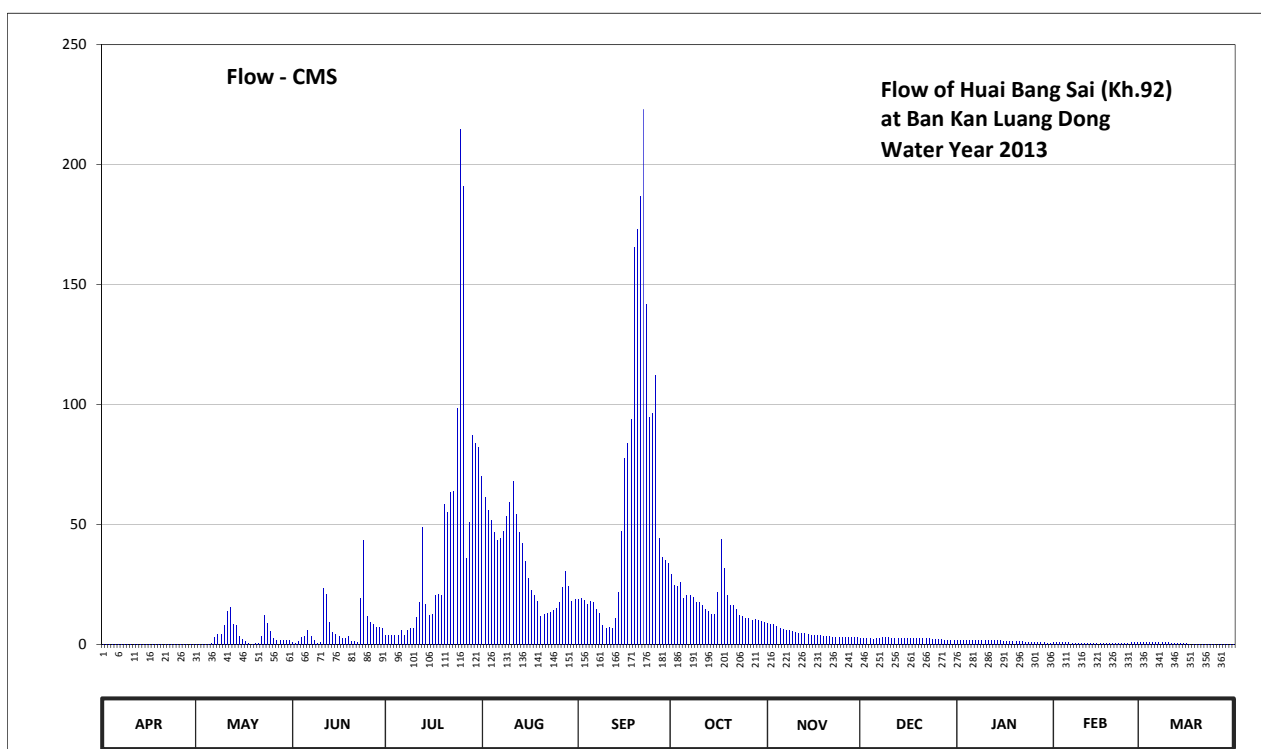
Lat 16 - 44 - 06 N    Long 104 - 31 - 23 E

**Location : on left bank at the bridge on highway.**

|                                         |                                                                             |                |               |            |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|----------------|---------------|------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Kan Luang Dong | <b>Amphoe</b> | Dong Luang | <b>Changwat</b>  | Muk Dahan          |
| <b>Drainage Area</b>                    | 1,119                                                                       | sq.km.         |               |            |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                  |                |               |            |                  |                    |
| <b>Zero Gage at Bottom</b>              | +147.840                                                                    | m. (MSL.)      |               |            |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                       | Highways Dept. |               |            |                  |                    |
| <b>Location BM</b>                      | On left bank at the footpath of the bridge.                                 |                |               |            | <b>Elevation</b> | +158.890 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00 , 12.00 and 18.00 hours.                     |                |               |            |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                               |                |               |            |                  |                    |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                |                |               |            |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                |               |            |                  |                    |
| <b>Period of Rating</b>                 | 1996 to date                                                                |                |               |            |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                |               |            |                  |                    |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                |                |               |            |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                |               |            |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                |               |            |                  |                    |
| <b>General Description</b>              | Records good. The local weir situated downstream from the gage site.        |                |               |            |                  |                    |
|                                         | Stage-discharge relation defined by 26 discharge measurements made in 2013. |                |               |            |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 148.32 | 148.44 | 148.72      | 148.99 | 151.15                            | 149.75 | 150.13            | 149.28    | 148.88 | 148.77 | 148.71 | 148.69 |        |
| 2                                | 148.32 | 148.44 | 148.63      | 149.00 | 150.96                            | 149.77 | 149.99            | 149.26    | 148.87 | 148.77 | 148.72 | 148.69 |        |
| 3                                | 148.32 | 148.48 | 148.74      | 148.98 | 150.83                            | 149.73 | 149.98            | 149.24    | 148.86 | 148.77 | 148.72 | 148.68 |        |
| 4                                | 148.32 | 148.49 | 148.92      | 148.98 | 150.74                            | 149.66 | 150.03            | 149.20    | 148.85 | 148.77 | 148.69 | 148.68 |        |
| 5                                | 148.34 | 148.53 | 148.94      | 148.98 | 150.62                            | 149.71 | 149.76            | 149.16    | 148.84 | 148.77 | 148.69 | 148.68 |        |
| 6                                | 148.34 | 148.66 | 149.12      | 149.12 | 150.54                            | 149.69 | 149.81            | 149.14    | 148.88 | 148.78 | 148.68 | 148.67 |        |
| 7                                | 148.34 | 148.89 | 148.95      | 149.00 | 150.56                            | 149.58 | 149.82            | 149.12    | 148.88 | 148.78 | 148.66 | 148.67 |        |
| 8                                | 148.34 | 149.02 | 148.80      | 149.12 | 150.63                            | 149.51 | 149.78            | 149.12    | 148.89 | 148.78 | 148.64 | 148.67 |        |
| 9                                | 148.34 | 149.01 | 148.66      | 149.17 | 150.77                            | 149.23 | 149.69            | 149.08    | 148.89 | 148.78 | 148.64 | 148.67 |        |
| 10                               | 148.34 | 149.22 | 148.70      | 149.16 | 150.91                            | 149.17 | 149.69            | 149.07    | 148.89 | 148.78 | 148.64 | 148.67 |        |
| 11                               | 148.34 | 149.54 | 149.93      | 149.42 | 151.11                            | 149.18 | 149.64            | 149.04    | 148.88 | 148.78 | 148.64 | 148.64 |        |
| 12                               | 148.34 | 149.61 | 149.84      | 149.70 | 150.79                            | 149.17 | 149.57            | 149.04    | 148.88 | 148.78 | 148.64 | 148.64 |        |
| 13                               | 148.34 | 149.24 | 149.29      | 150.67 | 150.62                            | 149.38 | 149.54            | 149.04    | 148.88 | 148.78 | 148.64 | 148.62 |        |
| 14                               | 148.34 | 149.23 | 149.06      | 149.66 | 150.51                            | 149.86 | 149.49            | 149.01    | 148.88 | 148.77 | 148.64 | 148.62 |        |
| 15                               | 148.34 | 148.96 | 149.03      | 149.47 | 150.29                            | 150.63 | 149.48            | 148.99    | 148.88 | 148.77 | 148.64 | 148.59 |        |
| 16                               | 148.34 | 148.84 | 148.94      | 149.49 | 150.08                            | 151.31 | 149.86            | 148.99    | 148.87 | 148.76 | 148.64 | 148.58 |        |
| 17                               | 148.34 | 148.75 | 148.86      | 149.81 | 149.91                            | 151.44 | 150.55            | 148.99    | 148.87 | 148.76 | 148.64 | 148.57 |        |
| 18                               | 148.34 | 148.65 | 148.85      | 149.83 | 149.82                            | 151.63 | 150.20            | 148.99    | 148.87 | 148.76 | 148.64 | 148.57 |        |
| 19                               | 148.34 | 148.56 | 148.93      | 149.81 | 149.71                            | 152.83 | 149.81            | 148.96    | 148.87 | 148.75 | 148.63 | 148.57 |        |
| 20                               | 148.34 | 148.59 | 148.76      | 150.89 | 149.43                            | 152.94 | 149.64            | 148.94    | 148.87 | 148.75 | 148.63 | 148.57 |        |
| 21                               | 148.34 | 148.64 | 148.74      | 150.81 | 149.49                            | 153.13 | 149.64            | 148.93    | 148.86 | 148.74 | 148.63 | 148.56 |        |
| 22                               | 148.34 | 148.95 | 148.69      | 151.01 | 149.50                            | 153.62 | 149.58            | 148.92    | 148.86 | 148.73 | 148.62 | 148.56 |        |
| 23                               | 148.34 | 149.46 | 149.76      | 151.02 | 149.52                            | 152.48 | 149.45            | 148.91    | 148.85 | 148.72 | 148.62 | 148.56 |        |
| 24                               | 148.34 | 149.27 | 150.54      | 151.72 | 149.55                            | 151.65 | 149.43            | 148.90    | 148.84 | 148.71 | 148.65 | 148.56 |        |
| 25                               | 148.34 | 149.08 | 149.43      | 153.51 | 149.60                            | 151.68 | 149.39            | 148.89    | 148.82 | 148.70 | 148.66 | 148.55 |        |
| 26                               | 148.43 | 148.88 | 149.29      | 153.19 | 149.70                            | 151.98 | 149.39            | 148.89    | 148.81 | 148.69 | 148.68 | 148.55 |        |
| 27                               | 148.44 | 148.77 | 149.25      | 150.32 | 149.96                            | 150.56 | 149.34            | 148.89    | 148.81 | 148.69 | 148.69 | 148.55 |        |
| 28                               | 148.44 | 148.79 | 149.19      | 150.72 | 150.17                            | 150.34 | 149.36            | 148.89    | 148.79 | 148.68 | 148.69 | 148.54 |        |
| 29                               | 148.44 | 148.77 | 149.19      | 151.51 | 149.98                            | 150.30 | 149.35            | 148.89    | 148.79 | 148.67 |        | 148.54 |        |
| 30                               | 148.44 | 148.77 | 149.17      | 151.44 | 149.71                            | 150.26 | 149.32            | 148.89    | 148.78 | 148.66 |        | 148.54 |        |
| 31                               |        | 148.77 |             | 151.40 | 149.74                            |        | 149.30            |           | 148.77 | 148.64 |        | 148.54 |        |
| Mean                             | 148.35 | 148.88 | 149.10      | 150.19 | 150.22                            | 150.67 | 149.68            | 149.02    | 148.85 | 148.74 | 148.66 | 148.61 |        |
| Max                              | 148.44 | 149.61 | 150.54      | 153.51 | 151.15                            | 153.62 | 150.55            | 149.28    | 148.89 | 148.78 | 148.72 | 148.69 | 153.62 |
| Min                              | 148.32 | 148.44 | 148.63      | 148.98 | 149.43                            | 149.17 | 149.30            | 148.89    | 148.77 | 148.64 | 148.62 | 148.54 | 148.32 |
| Annual Max Momentary Gage Height | 153.94 |        | m. (MSL.) , |        | at 06.00 Hours , on Sep 22 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 147.84 |        | m. (MSL.) , |        | River Bed                         | 148.23 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 154.16 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 156.66 |        | m. (MSL.) , |        | Drainage Area                     | 1119   | Square Kilometers |           |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                               | May                      | Jun    | Jul     | Aug                  | Sep     | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|---------|----------------------|---------|--------|---------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 0.02                                                              | 0.14                     | 1.20   | 3.90    | 70.20                | 19.00   | 29.42  | 9.04    | 2.80                     | 1.70  | 1.10  | 0.95  |         |        |
| 2              | 0.02                                                              | 0.14                     | 0.65   | 4.00    | 61.32                | 19.48   | 24.76  | 8.68    | 2.70                     | 1.70  | 1.20  | 0.95  |         |        |
| 3              | 0.02                                                              | 0.18                     | 1.40   | 3.80    | 55.86                | 18.52   | 24.52  | 8.32    | 2.60                     | 1.70  | 1.20  | 0.90  |         |        |
| 4              | 0.02                                                              | 0.19                     | 3.20   | 3.80    | 52.08                | 16.84   | 26.02  | 7.60    | 2.50                     | 1.70  | 0.95  | 0.90  |         |        |
| 5              | 0.04                                                              | 0.29                     | 3.40   | 3.80    | 47.04                | 18.04   | 19.24  | 6.88    | 2.40                     | 1.70  | 0.95  | 0.90  |         |        |
| 6              | 0.04                                                              | 0.80                     | 6.16   | 6.16    | 43.68                | 17.56   | 20.44  | 6.52    | 2.80                     | 1.80  | 0.90  | 0.85  |         |        |
| 7              | 0.04                                                              | 2.90                     | 3.50   | 4.00    | 44.52                | 14.92   | 20.68  | 6.16    | 2.80                     | 1.80  | 0.80  | 0.85  |         |        |
| 8              | 0.04                                                              | 4.36                     | 2.00   | 6.16    | 47.46                | 13.24   | 19.72  | 6.16    | 2.90                     | 1.80  | 0.70  | 0.85  |         |        |
| 9              | 0.04                                                              | 4.18                     | 0.80   | 7.06    | 53.34                | 8.14    | 17.56  | 5.44    | 2.90                     | 1.80  | 0.70  | 0.85  |         |        |
| 10             | 0.04                                                              | 7.96                     | 1.00   | 6.88    | 59.22                | 7.06    | 17.56  | 5.26    | 2.90                     | 1.80  | 0.70  | 0.85  |         |        |
| 11             | 0.04                                                              | 13.96                    | 23.32  | 11.56   | 68.28                | 7.24    | 16.36  | 4.72    | 2.80                     | 1.80  | 0.70  | 0.70  |         |        |
| 12             | 0.04                                                              | 15.64                    | 21.16  | 17.80   | 54.18                | 7.06    | 14.68  | 4.72    | 2.80                     | 1.80  | 0.70  | 0.70  |         |        |
| 13             | 0.04                                                              | 8.32                     | 9.22   | 49.14   | 47.04                | 10.84   | 13.96  | 4.72    | 2.80                     | 1.80  | 0.70  | 0.60  |         |        |
| 14             | 0.04                                                              | 8.14                     | 5.08   | 16.84   | 42.42                | 21.64   | 12.82  | 4.18    | 2.80                     | 1.70  | 0.70  | 0.60  |         |        |
| 15             | 0.04                                                              | 3.60                     | 4.54   | 12.46   | 34.86                | 47.46   | 12.64  | 3.90    | 2.80                     | 1.70  | 0.70  | 0.47  |         |        |
| 16             | 0.04                                                              | 2.40                     | 3.40   | 12.82   | 27.72                | 77.88   | 21.64  | 3.90    | 2.70                     | 1.60  | 0.70  | 0.44  |         |        |
| 17             | 0.04                                                              | 1.50                     | 2.60   | 20.44   | 22.84                | 84.12   | 44.10  | 3.90    | 2.70                     | 1.60  | 0.70  | 0.41  |         |        |
| 18             | 0.04                                                              | 0.75                     | 2.50   | 20.92   | 20.68                | 93.76   | 31.80  | 3.90    | 2.70                     | 1.60  | 0.70  | 0.41  |         |        |
| 19             | 0.04                                                              | 0.38                     | 3.30   | 20.44   | 18.04                | 165.44  | 20.44  | 3.60    | 2.70                     | 1.50  | 0.65  | 0.41  |         |        |
| 20             | 0.04                                                              | 0.47                     | 1.60   | 58.38   | 11.74                | 172.92  | 16.36  | 3.40    | 2.70                     | 1.50  | 0.65  | 0.41  |         |        |
| 21             | 0.04                                                              | 0.70                     | 1.40   | 55.02   | 12.82                | 186.62  | 16.36  | 3.30    | 2.60                     | 1.40  | 0.65  | 0.38  |         |        |
| 22             | 0.04                                                              | 3.50                     | 0.95   | 63.48   | 13.00                | 223.12  | 14.92  | 3.20    | 2.60                     | 1.30  | 0.60  | 0.38  |         |        |
| 23             | 0.04                                                              | 12.28                    | 19.24  | 63.96   | 13.48                | 141.80  | 12.10  | 3.10    | 2.50                     | 1.20  | 0.60  | 0.38  |         |        |
| 24             | 0.04                                                              | 8.86                     | 43.68  | 98.44   | 14.20                | 94.80   | 11.74  | 3.00    | 2.40                     | 1.10  | 0.75  | 0.38  |         |        |
| 25             | 0.04                                                              | 5.44                     | 11.74  | 214.76  | 15.40                | 96.36   | 11.02  | 2.90    | 2.20                     | 1.00  | 0.80  | 0.35  |         |        |
| 26             | 0.13                                                              | 2.80                     | 9.22   | 191.06  | 17.80                | 111.96  | 11.02  | 2.90    | 2.10                     | 0.95  | 0.90  | 0.35  |         |        |
| 27             | 0.14                                                              | 1.70                     | 8.50   | 35.88   | 24.04                | 44.52   | 10.12  | 2.90    | 2.10                     | 0.95  | 0.95  | 0.35  |         |        |
| 28             | 0.14                                                              | 1.90                     | 7.42   | 51.24   | 30.78                | 36.56   | 10.48  | 2.90    | 1.90                     | 0.90  | 0.95  | 0.32  |         |        |
| 29             | 0.14                                                              | 1.70                     | 7.42   | 87.52   | 24.52                | 35.20   | 10.30  | 2.90    | 1.90                     | 0.85  |       | 0.32  |         |        |
| 30             | 0.14                                                              | 1.70                     | 7.06   | 84.12   | 18.04                | 33.84   | 9.76   | 2.90    | 1.80                     | 0.80  |       | 0.32  |         |        |
| 31             |                                                                   | 1.70                     |        | 82.20   | 18.76                |         | 9.40   |         | 1.70                     | 0.70  |       | 0.32  |         |        |
| Total          | 1.61                                                              | 118.58                   | 216.66 | 1318.04 | 1085.36              | 1845.94 | 551.94 | 141.00  | 78.60                    | 45.25 | 22.30 | 17.85 | 5443.13 | CMSDAY |
| Mean           | 0.05                                                              | 3.83                     | 7.22   | 42.52   | 35.01                | 61.53   | 17.80  | 4.70    | 2.54                     | 1.46  | 0.80  | 0.58  | 14.91   | CMS    |
| Max            | 0.14                                                              | 15.64                    | 43.68  | 214.76  | 70.20                | 223.12  | 44.10  | 9.04    | 2.90                     | 1.80  | 1.20  | 0.95  | 223.12  | CMS    |
| Min            | 0.02                                                              | 0.14                     | 0.65   | 3.80    | 11.74                | 7.06    | 9.40   | 2.90    | 1.70                     | 0.70  | 0.60  | 0.32  | 0.02    | CMS    |
| Runoff         | 0.14                                                              | 10.25                    | 18.72  | 113.88  | 93.78                | 159.49  | 47.69  | 12.18   | 6.79                     | 3.91  | 1.93  | 1.54  | 470.29  | MCM    |
| Momentary Peak | 247.44 CMS. at 153.94 m. (MSL.) at 06.00 Hours , on Sep 22 , 2013 |                          |        |         |                      |         |        |         |                          |       |       |       |         |        |
| Runoff Yield   | 13.33                                                             | Liters/Second/Square KM. |        |         | Momentary Peak Yield |         |        | 221.126 | Liters/Second/Square KM. |       |       |       |         |        |

**WATER YEAR : 2013****KHONG RIVER BASIN****Songkhram River at Ban Khok Kham Lai, Udon Thani (Kh.93)**

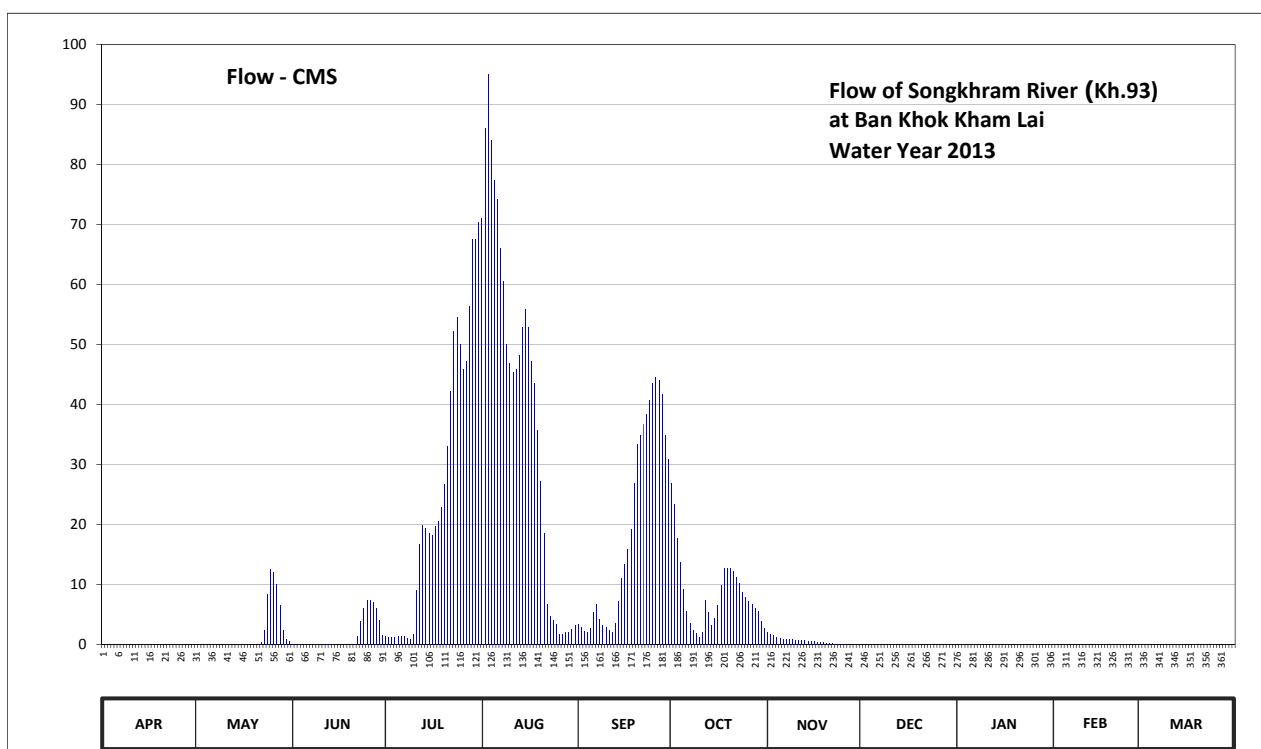
Lat 17 - 33 - 22 N Long 103 - 20 - 20 E

**Location : on left bank at the bridge of Amphoe Ban Duang - Amphoe Sawang Daen Din Highway.**

|                                         |                                                                                     |                      |               |                 |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------|----------------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                          | <b>Khok Kham Lai</b> | <b>Amphoe</b> | <b>Ban Dung</b> | <b>Changwat</b>  | <b>Udon Thani</b>  |
| <b>Drainage Area</b>                    | 760                                                                                 | sq.km.               |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                          |                      |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +153.120                                                                            | m. (MSL.)            |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                |                      |               |                 |                  |                    |
| <b>Location BM</b>                      | On left bank downstream side at the footpath of the bridge.                         |                      |               |                 | <b>Elevation</b> | +161.354 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00 , 12.00 and 18.00 hours.                             |                      |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                       |                      |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                        |                      |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                                     |                      |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 1997 to date                                                                        |                      |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                   |                      |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 1997 to date                                                                        |                      |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                             |                      |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +156.830 m.(MSL.), records are channel flow only. |                      |               |                 |                  |                    |
| <b>General Description</b>              | Records fair. The weir situated downstream from the gage site.                      |                      |               |                 |                  |                    |
|                                         | Stage-discharge relation defined by 19 discharge measurements made in 2013.         |                      |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

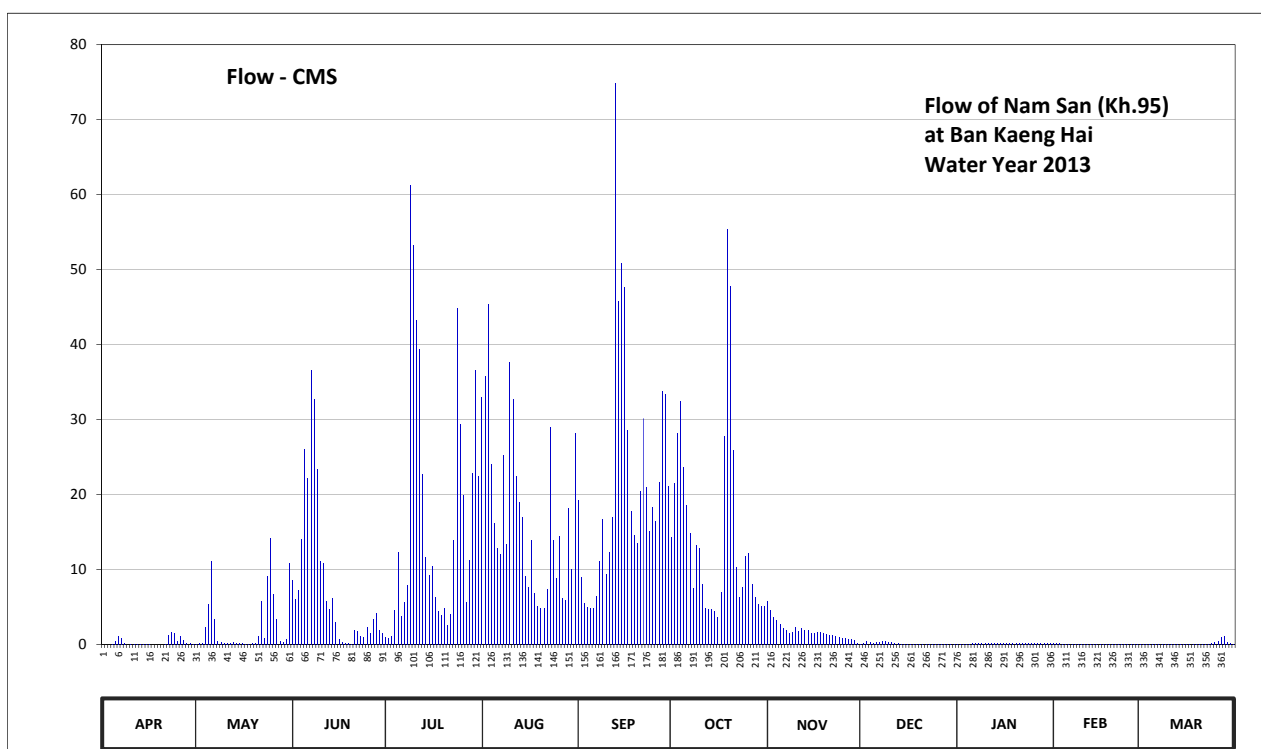
| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                              | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|----------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 154.54 | 154.32      | 154.62 | 154.87 | 158.20        | 155.17                           | 157.25            | 155.01 | 154.58 | 154.57 | 154.45 | 154.26 |        |
| 2                                | 154.52 | 154.32      | 154.62 | 154.86 | 158.37        | 155.11                           | 157.03            | 154.96 | 154.58 | 154.57 | 154.45 | 154.26 |        |
| 3                                | 154.50 | 154.32      | 154.61 | 154.86 | 158.45        | 155.04                           | 156.63            | 154.91 | 154.58 | 154.56 | 154.44 | 154.25 |        |
| 4                                | 154.49 | 154.33      | 154.60 | 154.86 | 158.35        | 155.00                           | 156.28            | 154.85 | 154.58 | 154.56 | 154.44 | 154.24 |        |
| 5                                | 154.46 | 154.33      | 154.60 | 154.88 | 158.28        | 155.09                           | 155.83            | 154.81 | 154.58 | 154.55 | 154.43 | 154.23 |        |
| 6                                | 154.44 | 154.33      | 154.60 | 154.88 | 158.24        | 155.43                           | 155.44            | 154.79 | 154.58 | 154.55 | 154.43 | 154.22 |        |
| 7                                | 154.44 | 154.34      | 154.60 | 154.87 | 158.13        | 155.57                           | 155.19            | 154.78 | 154.59 | 154.54 | 154.42 | 154.21 |        |
| 8                                | 154.43 | 154.34      | 154.60 | 154.82 | 158.05        | 155.29                           | 155.05            | 154.78 | 154.59 | 154.54 | 154.42 | 154.20 |        |
| 9                                | 154.42 | 154.34      | 154.60 | 154.78 | 157.88        | 155.15                           | 154.98            | 154.77 | 154.59 | 154.53 | 154.41 | 154.19 |        |
| 10                               | 154.40 | 154.35      | 154.59 | 154.95 | 157.81        | 155.12                           | 154.86            | 154.76 | 154.59 | 154.53 | 154.41 | 154.18 |        |
| 11                               | 154.40 | 154.35      | 154.60 | 155.80 | 157.78        | 155.06                           | 155.00            | 154.75 | 154.59 | 154.52 | 154.40 | 154.17 |        |
| 12                               | 154.39 | 154.35      | 154.61 | 156.55 | 157.79        | 155.02                           | 155.64            | 154.74 | 154.59 | 154.52 | 154.39 | 154.16 |        |
| 13                               | 154.39 | 154.36      | 154.61 | 156.78 | 157.84        | 155.19                           | 155.43            | 154.73 | 154.59 | 154.52 | 154.38 | 154.15 |        |
| 14                               | 154.39 | 154.36      | 154.61 | 156.74 | 157.93        | 155.63                           | 155.15            | 154.72 | 154.59 | 154.51 | 154.37 | 154.14 |        |
| 15                               | 154.38 | 154.36      | 154.60 | 156.68 | 157.98        | 156.00                           | 155.30            | 154.71 | 154.59 | 154.51 | 154.36 | 154.13 |        |
| 16                               | 154.38 | 154.38      | 154.59 | 156.66 | 157.93        | 156.25                           | 155.55            | 154.70 | 154.59 | 154.50 | 154.35 | 154.12 |        |
| 17                               | 154.38 | 154.41      | 154.59 | 156.77 | 157.82        | 156.49                           | 155.89            | 154.69 | 154.58 | 154.50 | 154.34 | 154.11 |        |
| 18                               | 154.38 | 154.45      | 154.59 | 156.83 | 157.74        | 156.73                           | 156.17            | 154.68 | 154.58 | 154.50 | 154.33 | 154.10 |        |
| 19                               | 154.36 | 154.50      | 154.59 | 157.00 | 157.56        | 157.25                           | 156.18            | 154.67 | 154.58 | 154.49 | 154.33 | 154.09 |        |
| 20                               | 154.36 | 154.56      | 154.59 | 157.24 | 157.26        | 157.48                           | 156.17            | 154.66 | 154.58 | 154.49 | 154.32 | 154.08 |        |
| 21                               | 154.36 | 154.60      | 154.61 | 157.47 | 156.68        | 157.53                           | 156.13            | 154.65 | 154.58 | 154.48 | 154.31 | 154.07 |        |
| 22                               | 154.36 | 154.67      | 154.88 | 157.71 | 155.58        | 157.59                           | 156.02            | 154.64 | 154.58 | 154.48 | 154.30 | 154.06 |        |
| 23                               | 154.36 | 155.05      | 155.23 | 157.92 | 155.34        | 157.63                           | 155.92            | 154.63 | 154.58 | 154.48 | 154.29 | 154.05 |        |
| 24                               | 154.35 | 155.74      | 155.50 | 157.96 | 155.27        | 157.68                           | 155.77            | 154.62 | 154.58 | 154.47 | 154.29 | 154.04 |        |
| 25                               | 154.34 | 156.16      | 155.65 | 157.88 | 155.18        | 157.74                           | 155.69            | 154.61 | 154.57 | 154.47 | 154.28 | 154.03 |        |
| 26                               | 154.33 | 156.11      | 155.65 | 157.79 | 154.95        | 157.76                           | 155.63            | 154.60 | 154.57 | 154.47 | 154.28 | 154.02 |        |
| 27                               | 154.32 | 155.91      | 155.60 | 157.82 | 154.96        | 157.75                           | 155.57            | 154.59 | 154.57 | 154.46 | 154.27 | 154.01 |        |
| 28                               | 154.32 | 155.55      | 155.51 | 157.99 | 155.00        | 157.70                           | 155.51            | 154.58 | 154.57 | 154.46 | 154.27 | 154.00 |        |
| 29                               | 154.32 | 155.05      | 155.27 | 158.15 | 155.00        | 157.53                           | 155.44            | 154.58 | 154.57 | 154.46 |        | 153.99 |        |
| 30                               | 154.32 | 154.77      | 154.91 | 158.15 | 155.07        | 157.40                           | 155.24            | 154.57 | 154.57 | 154.46 |        | 153.98 |        |
| 31                               |        | 154.70      |        | 158.19 | 155.15        |                                  | 155.09            |        | 154.57 | 154.45 |        | 153.97 |        |
| Mean                             | 154.39 | 154.70      | 154.83 | 156.54 | 157.02        | 156.31                           | 155.71            | 154.72 | 154.58 | 154.51 | 154.36 | 154.12 |        |
| Max                              | 154.54 | 156.16      | 155.65 | 158.19 | 158.45        | 157.76                           | 157.25            | 155.01 | 154.59 | 154.57 | 154.45 | 154.26 | 158.45 |
| Min                              | 154.32 | 154.32      | 154.59 | 154.78 | 154.95        | 155.00                           | 154.86            | 154.57 | 154.57 | 154.45 | 154.27 | 153.97 | 153.97 |
| Annual Max Momentary Gage Height | 158.47 | m. (MSL.) , |        |        |               | at 05.00 Hours , on Aug 3 , 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 153.12 | m. (MSL.) , |        |        | River Bed     | 152.28                           | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 157.60 | m. (MSL.) , |        |        |               |                                  |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 156.83 | m. (MSL.) , |        |        | Drainage Area | 760                              | Square Kilometers |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                       | May                      | Jun   | Jul    | Aug                  | Sep    | Oct     | Nov                      | Dec  | Jan  | Feb  | Mar  | Annual  |
|----------------|-----------------------------------------------------------|--------------------------|-------|--------|----------------------|--------|---------|--------------------------|------|------|------|------|---------|
| 1              | 0.00                                                      | 0.00                     | 0.10  | 1.35   | 71.00                | 3.36   | 27.00   | 2.08                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 2              | 0.00                                                      | 0.00                     | 0.10  | 1.30   | 86.00                | 2.88   | 23.45   | 1.80                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 3              | 0.00                                                      | 0.00                     | 0.05  | 1.30   | 95.00                | 2.32   | 17.82   | 1.55                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 4              | 0.00                                                      | 0.00                     | 0.00  | 1.30   | 84.00                | 2.00   | 13.80   | 1.25                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 5              | 0.00                                                      | 0.00                     | 0.00  | 1.40   | 77.40                | 2.72   | 9.30    | 1.05                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 6              | 0.00                                                      | 0.00                     | 0.00  | 1.40   | 74.20                | 5.44   | 5.52    | 0.95                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 7              | 0.00                                                      | 0.00                     | 0.00  | 1.35   | 66.10                | 6.70   | 3.52    | 0.90                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 8              | 0.00                                                      | 0.00                     | 0.00  | 1.10   | 60.50                | 4.32   | 2.40    | 0.90                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 9              | 0.00                                                      | 0.00                     | 0.00  | 0.90   | 50.07                | 3.20   | 1.90    | 0.85                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 10             | 0.00                                                      | 0.00                     | 0.00  | 1.75   | 46.80                | 2.96   | 1.30    | 0.80                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 11             | 0.00                                                      | 0.00                     | 0.00  | 9.00   | 45.40                | 2.48   | 2.00    | 0.75                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 12             | 0.00                                                      | 0.00                     | 0.05  | 16.70  | 45.87                | 2.16   | 7.40    | 0.70                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 13             | 0.00                                                      | 0.00                     | 0.05  | 19.92  | 48.20                | 3.52   | 5.44    | 0.65                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 14             | 0.00                                                      | 0.00                     | 0.05  | 19.36  | 52.80                | 7.30   | 3.20    | 0.60                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 15             | 0.00                                                      | 0.00                     | 0.00  | 18.52  | 55.80                | 11.00  | 4.40    | 0.55                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 16             | 0.00                                                      | 0.00                     | 0.00  | 18.24  | 52.80                | 13.50  | 6.50    | 0.50                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 17             | 0.00                                                      | 0.00                     | 0.00  | 19.78  | 47.27                | 15.90  | 9.90    | 0.45                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 18             | 0.00                                                      | 0.00                     | 0.00  | 20.62  | 43.53                | 19.22  | 12.70   | 0.40                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 19             | 0.00                                                      | 0.00                     | 0.00  | 23.00  | 35.80                | 27.00  | 12.80   | 0.35                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 20             | 0.00                                                      | 0.00                     | 0.00  | 26.80  | 27.20                | 33.40  | 12.70   | 0.30                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 21             | 0.00                                                      | 0.00                     | 0.05  | 33.10  | 18.52                | 34.90  | 12.30   | 0.25                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 22             | 0.00                                                      | 0.35                     | 1.40  | 42.13  | 6.80                 | 36.70  | 11.20   | 0.20                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 23             | 0.00                                                      | 2.40                     | 3.84  | 52.20  | 4.72                 | 38.40  | 10.20   | 0.15                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 24             | 0.00                                                      | 8.40                     | 6.00  | 54.60  | 4.16                 | 40.73  | 8.70    | 0.10                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 25             | 0.00                                                      | 12.60                    | 7.50  | 50.07  | 3.44                 | 43.53  | 7.90    | 0.05                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 26             | 0.00                                                      | 12.10                    | 7.50  | 45.87  | 1.75                 | 44.47  | 7.30    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 27             | 0.00                                                      | 10.10                    | 7.00  | 47.27  | 1.80                 | 44.00  | 6.70    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 28             | 0.00                                                      | 6.50                     | 6.10  | 56.40  | 2.00                 | 41.67  | 6.10    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 29             | 0.00                                                      | 2.40                     | 4.16  | 67.50  | 2.00                 | 34.90  | 5.52    | 0.00                     | 0.00 | 0.00 |      | 0.00 |         |
| 30             | 0.00                                                      | 0.85                     | 1.55  | 67.50  | 2.56                 | 31.00  | 3.92    | 0.00                     | 0.00 | 0.00 |      | 0.00 |         |
| 31             |                                                           | 0.50                     |       | 70.30  | 3.20                 |        | 2.72    |                          | 0.00 | 0.00 |      | 0.00 |         |
| Total          | 0.00                                                      | 56.20                    | 45.50 | 792.03 | 1216.69              | 561.68 | 265.61  | 18.13                    | 0.00 | 0.00 | 0.00 | 0.00 | 2955.84 |
| Mean           | 0.00                                                      | 1.81                     | 1.52  | 25.55  | 39.25                | 18.72  | 8.57    | 0.60                     | 0.00 | 0.00 | 0.00 | 0.00 | 8.10    |
| Max            | 0.00                                                      | 12.60                    | 7.50  | 70.30  | 95.00                | 44.47  | 27.00   | 2.08                     | 0.00 | 0.00 | 0.00 | 0.00 | 95.00   |
| Min            | 0.00                                                      | 0.00                     | 0.00  | 0.90   | 1.75                 | 2.00   | 1.30    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    |
| Runoff         | 0.00                                                      | 4.86                     | 3.93  | 68.43  | 105.12               | 48.53  | 22.95   | 1.57                     | 0.00 | 0.00 | 0.00 | 0.00 | 255.39  |
| Momentary Peak | CMS. at 158.47 m. (MSL.) at 05.00 Hours , on Aug 3 , 2013 |                          |       |        |                      |        |         |                          |      |      |      |      |         |
| Runoff Yield   | 10.66                                                     | Liters/Second/Square KM. |       |        | Momentary Peak Yield |        | 128.158 | Liters/Second/Square KM. |      |      |      |      |         |

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 594.85 | 595.24 | 597.54                                          | 596.01 | 599.80 | 598.62 | 598.13 | 597.17 | 595.21 | 595.03 | 595.30 | 595.01 |        |
| 2                                | 594.69 | 595.46 | 597.21                                          | 595.97 | 599.98 | 597.59 | 598.86 | 596.92 | 595.41 | 595.06 | 595.29 | 595.01 |        |
| 3                                | 594.75 | 595.42 | 597.37                                          | 596.03 | 600.62 | 597.11 | 599.48 | 596.73 | 595.77 | 595.11 | 595.27 | 595.08 |        |
| 4                                | 595.13 | 596.47 | 598.11                                          | 596.93 | 599.11 | 597.00 | 599.76 | 596.64 | 595.53 | 595.17 | 595.25 | 595.13 |        |
| 5                                | 595.72 | 597.07 | 599.31                                          | 597.93 | 598.32 | 596.98 | 599.07 | 596.55 | 595.50 | 595.23 | 595.23 | 595.16 |        |
| 6                                | 596.03 | 597.81 | 598.92                                          | 596.75 | 597.98 | 596.98 | 598.56 | 596.44 | 595.54 | 595.29 | 595.21 | 595.13 |        |
| 7                                | 595.97 | 596.67 | 600.04                                          | 597.13 | 597.91 | 597.27 | 598.18 | 596.36 | 595.64 | 595.35 | 595.19 | 595.11 |        |
| 8                                | 595.37 | 595.78 | 599.78                                          | 597.45 | 599.23 | 597.81 | 597.40 | 596.22 | 595.80 | 595.41 | 595.17 | 595.10 |        |
| 9                                | 594.85 | 595.68 | 599.04                                          | 601.38 | 598.04 | 598.38 | 598.02 | 596.27 | 595.75 | 595.45 | 595.16 | 595.10 |        |
| 10                               | 595.01 | 595.49 | 597.81                                          | 601.01 | 600.11 | 597.64 | 597.98 | 596.46 | 595.66 | 595.43 | 595.15 | 595.09 |        |
| 11                               | 595.01 | 595.43 | 597.79                                          | 600.48 | 599.78 | 597.94 | 597.47 | 596.32 | 595.58 | 595.42 | 595.14 | 595.08 |        |
| 12                               | 595.01 | 595.39 | 597.17                                          | 600.22 | 598.95 | 598.40 | 596.97 | 596.44 | 595.44 | 595.41 | 595.13 | 595.08 |        |
| 13                               | 595.01 | 595.53 | 596.95                                          | 598.98 | 598.60 | 601.95 | 596.94 | 596.36 | 595.32 | 595.40 | 595.12 | 595.09 |        |
| 14                               | 595.04 | 595.41 | 597.22                                          | 597.86 | 598.40 | 600.64 | 596.94 | 596.35 | 595.21 | 595.39 | 595.12 | 595.12 |        |
| 15                               | 595.05 | 595.33 | 596.60                                          | 597.63 | 597.61 | 600.89 | 596.90 | 596.21 | 595.14 | 595.38 | 595.11 | 595.12 |        |
| 16                               | 595.04 | 595.27 | 595.90                                          | 597.74 | 597.42 | 600.73 | 596.72 | 596.22 | 595.14 | 595.37 | 595.10 | 595.10 |        |
| 17                               | 595.00 | 595.21 | 595.66                                          | 597.25 | 598.09 | 599.51 | 597.34 | 596.25 | 595.13 | 595.36 | 595.10 | 595.10 |        |
| 18                               | 594.98 | 595.16 | 595.40                                          | 596.90 | 597.32 | 598.48 | 599.45 | 596.26 | 595.11 | 595.35 | 595.09 | 595.08 |        |
| 19                               | 594.99 | 595.52 | 595.45                                          | 596.78 | 597.02 | 598.16 | 601.12 | 596.19 | 595.10 | 595.34 | 595.08 | 595.08 |        |
| 20                               | 594.99 | 595.52 | 595.22                                          | 596.97 | 596.97 | 598.06 | 600.74 | 596.16 | 595.09 | 595.34 | 595.08 | 595.08 |        |
| 21                               | 595.14 | 596.06 | 596.37                                          | 596.51 | 596.96 | 598.75 | 599.29 | 596.13 | 595.08 | 595.34 | 595.07 | 595.08 |        |
| 22                               | 596.11 | 597.15 | 596.33                                          | 596.81 | 597.38 | 599.61 | 597.73 | 596.09 | 595.07 | 595.34 | 595.06 | 595.09 |        |
| 23                               | 596.24 | 595.93 | 596.08                                          | 598.09 | 599.53 | 598.80 | 597.25 | 596.04 | 595.06 | 595.33 | 595.05 | 595.17 |        |
| 24                               | 596.20 | 597.61 | 595.98                                          | 600.59 | 598.10 | 598.22 | 597.42 | 596.00 | 595.05 | 595.33 | 595.04 | 595.32 |        |
| 25                               | 595.80 | 598.12 | 596.46                                          | 599.56 | 597.58 | 598.54 | 597.88 | 595.96 | 595.04 | 595.33 | 595.04 | 595.56 |        |
| 26                               | 596.07 | 597.29 | 596.20                                          | 598.69 | 598.15 | 598.34 | 597.92 | 595.93 | 595.04 | 595.32 | 595.03 | 595.79 |        |
| 27                               | 595.81 | 596.68 | 596.67                                          | 597.13 | 597.23 | 598.87 | 597.47 | 595.91 | 595.04 | 595.32 | 595.03 | 595.99 |        |
| 28                               | 595.44 | 595.70 | 596.83                                          | 597.82 | 597.18 | 599.85 | 597.24 | 595.90 | 595.04 | 595.32 | 595.03 | 596.05 |        |
| 29                               | 595.30 | 595.63 | 596.38                                          | 598.99 | 598.52 | 599.82 | 597.08 | 595.83 | 595.03 | 595.31 |        | 595.67 |        |
| 30                               | 595.24 | 595.91 | 596.19                                          | 600.04 | 597.71 | 598.81 | 597.03 | 595.48 | 595.03 | 595.31 |        | 595.29 |        |
| 31                               |        | 597.79 |                                                 | 598.94 | 599.48 |        | 597.02 |        | 595.03 | 595.30 |        | 595.13 |        |
| Mean                             | 595.33 | 596.09 | 597.07                                          | 598.08 | 598.36 | 598.66 | 598.04 | 596.26 | 595.28 | 595.32 | 595.13 | 595.23 |        |
| Max                              | 596.24 | 598.12 | 600.04                                          | 601.38 | 600.62 | 601.95 | 601.12 | 597.17 | 595.80 | 595.45 | 595.30 | 596.05 | 601.95 |
| Min                              | 594.69 | 595.16 | 595.22                                          | 595.97 | 596.96 | 596.98 | 596.72 | 595.48 | 595.03 | 595.03 | 595.03 | 595.01 | 594.69 |
| Annual Max Momentary Gage Height | 602.29 |        | m. (MSL.) , at 19.00 Hours , on Sep 13 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 593.92 |        | m. (MSL.) , River Bed 594.76 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 605.19 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 601.94 |        | m. (MSL.) , Drainage Area 352 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual  |        |
|----------------|-------|------------------------------------------------------------|--------|--------|----------------------|--------|--------|---------|--------------------------|------|------|------|---------|--------|
| 1              | 0.00  | 0.12                                                       | 8.55   | 1.03   | 33.00                | 19.20  | 14.30  | 5.85    | 0.11                     | 0.02 | 0.15 | 0.01 |         |        |
| 2              | 0.00  | 0.23                                                       | 6.08   | 0.92   | 35.70                | 8.93   | 21.60  | 4.60    | 0.20                     | 0.03 | 0.14 | 0.01 |         |        |
| 3              | 0.00  | 0.21                                                       | 7.27   | 1.08   | 45.40                | 5.55   | 28.20  | 3.65    | 0.47                     | 0.05 | 0.14 | 0.04 |         |        |
| 4              | 0.07  | 2.35                                                       | 14.10  | 4.65   | 24.10                | 5.00   | 32.40  | 3.20    | 0.27                     | 0.08 | 0.13 | 0.07 |         |        |
| 5              | 0.42  | 5.35                                                       | 26.10  | 12.30  | 16.20                | 4.90   | 23.70  | 2.75    | 0.25                     | 0.11 | 0.11 | 0.08 |         |        |
| 6              | 1.08  | 11.10                                                      | 22.20  | 3.75   | 12.80                | 4.90   | 18.60  | 2.20    | 0.27                     | 0.14 | 0.11 | 0.07 |         |        |
| 7              | 0.92  | 3.35                                                       | 36.60  | 5.65   | 12.10                | 6.53   | 14.80  | 1.90    | 0.34                     | 0.17 | 0.10 | 0.05 |         |        |
| 8              | 0.19  | 0.48                                                       | 32.70  | 7.88   | 25.30                | 11.10  | 7.50   | 1.55    | 0.50                     | 0.20 | 0.08 | 0.05 |         |        |
| 9              | 0.00  | 0.38                                                       | 23.40  | 61.27  | 13.40                | 16.80  | 13.20  | 1.68    | 0.45                     | 0.23 | 0.08 | 0.05 |         |        |
| 10             | 0.01  | 0.25                                                       | 11.10  | 53.20  | 37.65                | 9.40   | 12.80  | 2.30    | 0.36                     | 0.22 | 0.08 | 0.05 |         |        |
| 11             | 0.01  | 0.22                                                       | 10.90  | 43.20  | 32.70                | 12.40  | 8.02   | 1.80    | 0.29                     | 0.21 | 0.07 | 0.04 |         |        |
| 12             | 0.01  | 0.20                                                       | 5.85   | 39.30  | 22.50                | 17.00  | 4.85   | 2.20    | 0.22                     | 0.20 | 0.07 | 0.04 |         |        |
| 13             | 0.01  | 0.27                                                       | 4.75   | 22.80  | 19.00                | 74.81  | 4.70   | 1.90    | 0.16                     | 0.20 | 0.06 | 0.05 |         |        |
| 14             | 0.02  | 0.20                                                       | 6.15   | 11.60  | 17.00                | 45.80  | 4.70   | 1.87    | 0.11                     | 0.20 | 0.06 | 0.06 |         |        |
| 15             | 0.02  | 0.17                                                       | 3.00   | 9.30   | 9.10                 | 50.80  | 4.50   | 1.53    | 0.07                     | 0.19 | 0.05 | 0.06 |         |        |
| 16             | 0.02  | 0.14                                                       | 0.75   | 10.40  | 7.65                 | 47.60  | 3.60   | 1.55    | 0.07                     | 0.19 | 0.05 | 0.05 |         |        |
| 17             | 0.00  | 0.11                                                       | 0.36   | 6.37   | 13.90                | 28.65  | 7.05   | 1.62    | 0.07                     | 0.18 | 0.05 | 0.05 |         |        |
| 18             | 0.00  | 0.08                                                       | 0.20   | 4.50   | 6.90                 | 17.80  | 27.75  | 1.65    | 0.05                     | 0.17 | 0.05 | 0.04 |         |        |
| 19             | 0.00  | 0.26                                                       | 0.23   | 3.90   | 5.10                 | 14.60  | 55.40  | 1.47    | 0.05                     | 0.17 | 0.04 | 0.04 |         |        |
| 20             | 0.00  | 0.26                                                       | 0.11   | 4.85   | 4.85                 | 13.60  | 47.80  | 1.40    | 0.05                     | 0.17 | 0.04 | 0.04 |         |        |
| 21             | 0.07  | 1.15                                                       | 1.92   | 2.55   | 4.80                 | 20.50  | 25.90  | 1.32    | 0.04                     | 0.17 | 0.04 | 0.04 |         |        |
| 22             | 1.27  | 5.75                                                       | 1.82   | 4.05   | 7.35                 | 30.15  | 10.30  | 1.23    | 0.04                     | 0.17 | 0.03 | 0.05 |         |        |
| 23             | 1.60  | 0.82                                                       | 1.20   | 13.90  | 28.95                | 21.00  | 6.37   | 1.10    | 0.03                     | 0.17 | 0.02 | 0.08 |         |        |
| 24             | 1.50  | 9.10                                                       | 0.95   | 44.85  | 14.00                | 15.20  | 7.65   | 1.00    | 0.02                     | 0.17 | 0.02 | 0.16 |         |        |
| 25             | 0.50  | 14.20                                                      | 2.30   | 29.40  | 8.85                 | 18.40  | 11.80  | 0.90    | 0.02                     | 0.17 | 0.02 | 0.28 |         |        |
| 26             | 1.18  | 6.67                                                       | 1.50   | 19.90  | 14.50                | 16.40  | 12.20  | 0.82    | 0.02                     | 0.16 | 0.02 | 0.49 |         |        |
| 27             | 0.53  | 3.40                                                       | 3.35   | 5.65   | 6.22                 | 21.70  | 8.02   | 0.77    | 0.02                     | 0.16 | 0.02 | 0.97 |         |        |
| 28             | 0.22  | 0.40                                                       | 4.15   | 11.20  | 5.90                 | 33.75  | 6.30   | 0.75    | 0.02                     | 0.16 | 0.02 | 1.12 |         |        |
| 29             | 0.15  | 0.33                                                       | 1.95   | 22.90  | 18.20                | 33.30  | 5.40   | 0.58    | 0.02                     | 0.16 |      | 0.37 |         |        |
| 30             | 0.12  | 0.77                                                       | 1.47   | 36.60  | 10.10                | 21.10  | 5.15   | 0.24    | 0.02                     | 0.16 |      | 0.14 |         |        |
| 31             |       | 10.90                                                      |        | 22.40  | 28.20                |        | 5.10   |         | 0.02                     | 0.15 |      | 0.07 |         |        |
| Total          | 9.92  | 79.22                                                      | 241.01 | 521.35 | 541.42               | 646.87 | 459.66 | 55.38   | 4.63                     | 4.93 | 1.85 | 4.72 | 2570.96 | CMSDAY |
| Mean           | 0.33  | 2.56                                                       | 8.03   | 16.82  | 17.47                | 21.56  | 14.83  | 1.85    | 0.15                     | 0.16 | 0.07 | 0.15 | 7.04    | CMS    |
| Max            | 1.60  | 14.20                                                      | 36.60  | 61.27  | 45.40                | 74.81  | 55.40  | 5.85    | 0.50                     | 0.23 | 0.15 | 1.12 | 74.81   | CMS    |
| Min            | 0.00  | 0.08                                                       | 0.11   | 0.92   | 4.80                 | 4.90   | 3.60   | 0.24    | 0.02                     | 0.02 | 0.02 | 0.01 | 0.00    | CMS    |
| Runoff         | 0.86  | 6.85                                                       | 20.82  | 45.05  | 46.78                | 55.89  | 39.72  | 4.79    | 0.40                     | 0.43 | 0.16 | 0.41 | 222.13  | MCM    |
| Momentary Peak | 84.70 | CMS. at 602.29 m. (MSL.) at 19.00 Hours , on Sep 13 , 2013 |        |        |                      |        |        |         |                          |      |      |      |         |        |
| Runoff Yield   | 20.01 | Liters/Second/Square KM.                                   |        |        | Momentary Peak Yield |        |        | 240.625 | Liters/Second/Square KM. |      |      |      |         |        |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Songkhram River at Ban Tha Kok Daeng , Bueng Kan (Kh.98)**

Lat 17 - 51 - 04 N    Long 103 - 46 - 52 E

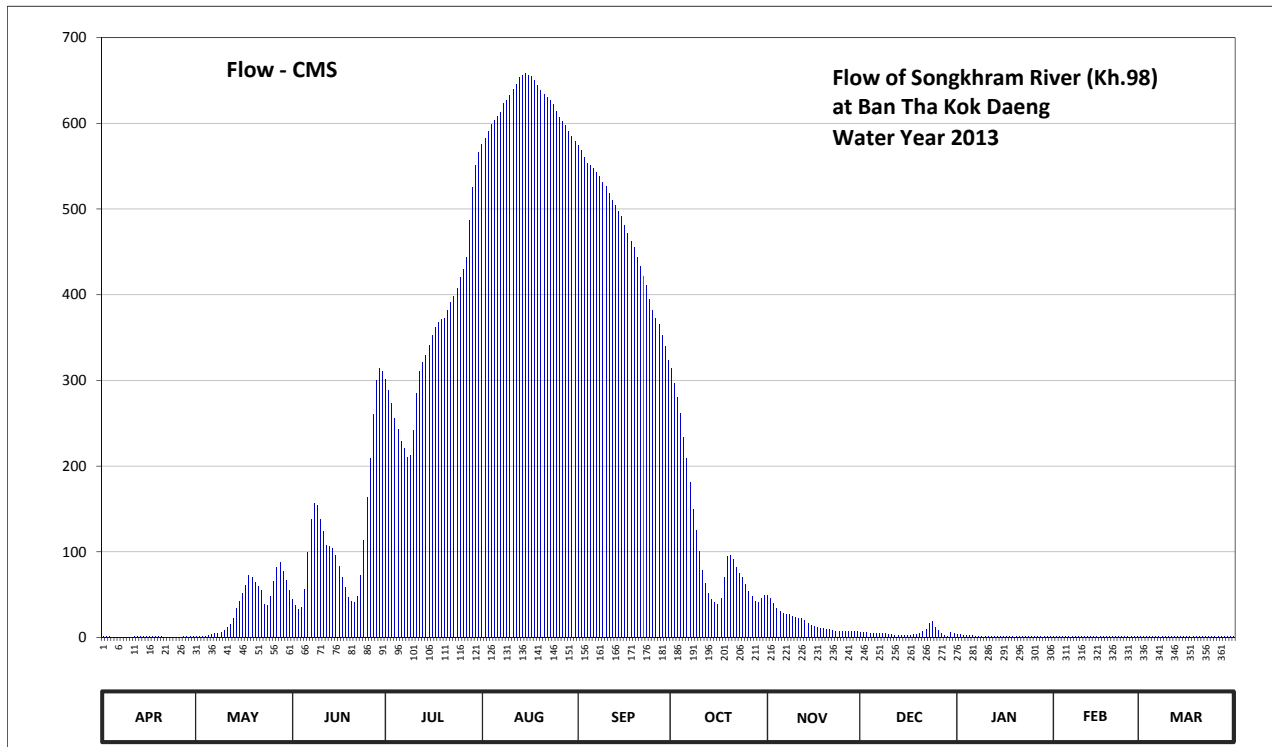
**Location : on right bank at the bridge.**

|                                         |                                                                                           |               |               |       |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|-------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Tha Kok Daeng | <b>Amphoe</b> | Se Ka | <b>Changwat</b>  | Bueng Kan          |
| <b>Drainage Area</b>                    | 5,089                                                                                     | sq.km.        |               |       |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |               |               |       |                  |                    |
| <b>Zero Gage at Bottom</b>              | +134.610                                                                                  | m. (MSL.)     |               |       |                  |                    |
| <b>Bench Mark</b>                       | B.M. - Highways Dept.                                                                     |               |               |       |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |               |               |       | <b>Elevation</b> | +152.552 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |               |               |       |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |               |               |       |                  |                    |
| <b>Period of Available Gage Records</b> | 1998 to date                                                                              |               |               |       |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |               |               |       |                  |                    |
| <b>Period of Rating</b>                 | 1998 to date                                                                              |               |               |       |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |       |                  |                    |
| <b>Rated by Current Meter</b>           | 1998 to date                                                                              |               |               |       |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |               |               |       |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |       |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |               |               |       |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 135.85 | 135.87 | 138.67                                           | 144.02 | 147.65 | 147.63 | 144.20 | 138.81 | 136.49 | 136.23 | 135.94 | 135.96 |        |
| 2                                | 135.85 | 135.90 | 138.34                                           | 143.82 | 147.73 | 147.56 | 143.94 | 138.68 | 136.44 | 136.15 | 135.94 | 135.91 |        |
| 3                                | 135.84 | 135.94 | 138.11                                           | 143.59 | 147.84 | 147.45 | 143.70 | 138.45 | 136.40 | 136.10 | 135.95 | 135.91 |        |
| 4                                | 135.83 | 135.99 | 138.21                                           | 143.34 | 147.93 | 147.37 | 143.43 | 138.19 | 136.36 | 136.09 | 135.95 | 135.91 |        |
| 5                                | 135.82 | 136.10 | 139.08                                           | 143.14 | 148.00 | 147.34 | 143.00 | 138.02 | 136.33 | 136.09 | 135.95 | 135.90 |        |
| 6                                | 135.82 | 136.19 | 140.30                                           | 142.91 | 148.05 | 147.29 | 142.56 | 137.89 | 136.30 | 136.04 | 135.95 | 135.90 |        |
| 7                                | 135.82 | 136.28 | 141.22                                           | 142.76 | 148.11 | 147.24 | 142.05 | 137.81 | 136.30 | 136.01 | 135.96 | 135.88 |        |
| 8                                | 135.83 | 136.37 | 141.60                                           | 142.58 | 148.23 | 147.17 | 141.45 | 137.79 | 136.28 | 135.99 | 135.96 | 135.88 |        |
| 9                                | 135.83 | 136.46 | 141.54                                           | 142.62 | 148.28 | 147.09 | 140.94 | 137.73 | 136.26 | 135.99 | 135.96 | 135.88 |        |
| 10                               | 135.83 | 136.69 | 141.21                                           | 143.12 | 148.34 | 147.03 | 140.33 | 137.65 | 136.24 | 135.99 | 135.97 | 135.87 |        |
| 11                               | 135.84 | 136.99 | 140.92                                           | 143.77 | 148.43 | 146.93 | 139.74 | 137.61 | 136.19 | 135.99 | 135.97 | 135.87 |        |
| 12                               | 135.84 | 137.25 | 140.52                                           | 144.15 | 148.50 | 146.83 | 139.29 | 137.58 | 136.14 | 135.99 | 135.97 | 135.87 |        |
| 13                               | 135.85 | 137.61 | 140.48                                           | 144.31 | 148.59 | 146.75 | 138.91 | 137.46 | 136.08 | 135.99 | 135.97 | 135.87 |        |
| 14                               | 135.85 | 138.17 | 140.43                                           | 144.42 | 148.62 | 146.67 | 138.65 | 137.32 | 136.10 | 135.99 | 135.97 | 135.87 |        |
| 15                               | 135.85 | 138.57 | 140.22                                           | 144.60 | 148.64 | 146.59 | 138.50 | 137.20 | 136.10 | 135.98 | 135.97 | 135.87 |        |
| 16                               | 135.85 | 138.91 | 139.88                                           | 144.75 | 148.62 | 146.46 | 138.42 | 137.10 | 136.11 | 135.96 | 135.97 | 135.87 |        |
| 17                               | 135.85 | 139.23 | 139.52                                           | 144.89 | 148.60 | 146.35 | 138.68 | 137.00 | 136.13 | 135.96 | 135.97 | 135.87 |        |
| 18                               | 135.85 | 139.59 | 139.14                                           | 144.96 | 148.55 | 146.23 | 139.53 | 136.92 | 136.15 | 135.96 | 135.97 | 135.88 |        |
| 19                               | 135.85 | 139.50 | 138.76                                           | 145.01 | 148.48 | 146.14 | 140.19 | 136.87 | 136.18 | 135.96 | 135.97 | 135.88 |        |
| 20                               | 135.84 | 139.32 | 138.55                                           | 145.04 | 148.41 | 145.99 | 140.23 | 136.80 | 136.29 | 135.96 | 135.97 | 135.88 |        |
| 21                               | 135.82 | 139.20 | 138.53                                           | 145.16 | 148.35 | 145.85 | 140.09 | 136.77 | 136.52 | 135.96 | 135.97 | 135.88 |        |
| 22                               | 135.82 | 139.03 | 138.80                                           | 145.29 | 148.31 | 145.71 | 139.85 | 136.63 | 136.85 | 135.96 | 135.97 | 135.88 |        |
| 23                               | 135.82 | 138.38 | 139.59                                           | 145.39 | 148.28 | 145.57 | 139.64 | 136.57 | 137.28 | 135.96 | 135.97 | 135.88 |        |
| 24                               | 135.82 | 138.36 | 140.66                                           | 145.52 | 148.21 | 145.34 | 139.50 | 136.53 | 137.43 | 135.96 | 135.97 | 135.88 |        |
| 25                               | 135.83 | 138.77 | 141.71                                           | 145.68 | 148.12 | 145.17 | 139.25 | 136.51 | 137.05 | 135.95 | 135.97 | 135.88 |        |
| 26                               | 135.83 | 139.38 | 142.57                                           | 145.81 | 148.04 | 145.04 | 139.01 | 136.51 | 136.65 | 135.95 | 135.97 | 135.88 |        |
| 27                               | 135.84 | 139.85 | 143.40                                           | 145.99 | 147.98 | 144.93 | 138.77 | 136.51 | 136.33 | 135.94 | 135.99 | 135.88 |        |
| 28                               | 135.86 | 140.00 | 144.00                                           | 146.53 | 147.92 | 144.76 | 138.58 | 136.51 | 136.04 | 135.94 | 136.02 | 135.88 |        |
| 29                               | 135.86 | 139.71 | 144.20                                           | 147.01 | 147.84 | 144.57 | 138.53 | 136.51 | 135.99 | 135.93 |        | 135.88 |        |
| 30                               | 135.87 | 139.42 | 144.15                                           | 147.34 | 147.76 | 144.35 | 138.69 | 136.50 | 136.44 | 135.93 |        | 135.87 |        |
| 31                               |        | 139.04 |                                                  | 147.53 | 147.69 |        | 138.81 |        | 136.33 | 135.93 |        | 135.87 |        |
| Mean                             | 135.84 | 138.00 | 140.48                                           | 144.68 | 148.20 | 146.31 | 140.27 | 137.28 | 136.38 | 135.99 | 135.97 | 135.88 |        |
| Max                              | 135.87 | 140.00 | 144.20                                           | 147.53 | 148.64 | 147.63 | 144.20 | 138.81 | 137.43 | 136.23 | 136.02 | 135.96 | 148.64 |
| Min                              | 135.82 | 135.87 | 138.11                                           | 142.58 | 147.65 | 144.35 | 138.42 | 136.50 | 135.99 | 135.93 | 135.94 | 135.87 | 135.82 |
| Annual Max Momentary Gage Height | 148.64 |        | m. (MSL.) , at 06.00 Hours , on Aug 15 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 134.61 |        | m. (MSL.) , River Bed 135.30 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 150.60 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 150.49 |        | m. (MSL.) , Drainage Area 5089 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun     | Jul                  | Aug      | Sep      | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|---------|----------------------|----------|----------|--------------------------|--------|--------|-------|-------|-------|----------|--------|
| 1              | 1.25                                                              | 1.35                     | 45.42   | 301.36               | 576.00   | 574.40   | 313.60                   | 49.06  | 6.90   | 4.30  | 1.70  | 1.80  |          |        |
| 2              | 1.25                                                              | 1.50                     | 37.80   | 288.12               | 582.40   | 568.80   | 296.04                   | 45.68  | 6.40   | 3.50  | 1.70  | 1.55  |          |        |
| 3              | 1.20                                                              | 1.70                     | 33.20   | 272.94               | 591.20   | 560.00   | 280.20                   | 40.00  | 6.00   | 3.00  | 1.75  | 1.55  |          |        |
| 4              | 1.15                                                              | 1.95                     | 35.20   | 256.44               | 598.40   | 553.60   | 262.38                   | 34.80  | 5.60   | 2.90  | 1.75  | 1.55  |          |        |
| 5              | 1.10                                                              | 3.00                     | 56.56   | 243.24               | 604.00   | 551.20   | 234.00                   | 31.40  | 5.30   | 2.90  | 1.75  | 1.50  |          |        |
| 6              | 1.10                                                              | 3.90                     | 99.40   | 228.96               | 608.20   | 547.20   | 209.36                   | 28.80  | 5.00   | 2.40  | 1.75  | 1.50  |          |        |
| 7              | 1.10                                                              | 4.80                     | 138.56  | 220.56               | 613.24   | 543.20   | 181.70                   | 27.20  | 5.00   | 2.10  | 1.80  | 1.40  |          |        |
| 8              | 1.15                                                              | 5.70                     | 157.40  | 210.48               | 623.32   | 537.60   | 149.60                   | 26.80  | 4.80   | 1.95  | 1.80  | 1.40  |          |        |
| 9              | 1.15                                                              | 6.60                     | 154.16  | 212.72               | 627.52   | 531.20   | 125.48                   | 25.60  | 4.60   | 1.95  | 1.80  | 1.40  |          |        |
| 10             | 1.15                                                              | 8.90                     | 138.08  | 241.92               | 632.56   | 526.40   | 100.54                   | 24.00  | 4.40   | 1.95  | 1.85  | 1.35  |          |        |
| 11             | 1.20                                                              | 11.90                    | 124.64  | 284.82               | 640.12   | 518.40   | 78.64                    | 23.20  | 3.90   | 1.95  | 1.85  | 1.35  |          |        |
| 12             | 1.20                                                              | 16.00                    | 107.84  | 310.20               | 646.00   | 510.40   | 63.28                    | 22.60  | 3.40   | 1.95  | 1.85  | 1.35  |          |        |
| 13             | 1.25                                                              | 23.20                    | 106.24  | 321.08               | 653.74   | 504.00   | 51.66                    | 20.20  | 2.80   | 1.95  | 1.85  | 1.35  |          |        |
| 14             | 1.25                                                              | 34.40                    | 104.34  | 328.56               | 656.32   | 497.60   | 44.90                    | 17.40  | 3.00   | 1.95  | 1.85  | 1.35  |          |        |
| 15             | 1.25                                                              | 42.82                    | 96.36   | 341.20               | 658.04   | 491.20   | 41.00                    | 15.00  | 3.00   | 1.90  | 1.85  | 1.35  |          |        |
| 16             | 1.25                                                              | 51.66                    | 83.68   | 352.00               | 656.32   | 480.80   | 39.40                    | 13.00  | 3.10   | 1.80  | 1.85  | 1.35  |          |        |
| 17             | 1.25                                                              | 61.36                    | 70.72   | 362.08               | 654.60   | 472.00   | 45.68                    | 12.00  | 3.30   | 1.80  | 1.85  | 1.35  |          |        |
| 18             | 1.25                                                              | 73.24                    | 58.48   | 367.12               | 650.30   | 462.40   | 71.08                    | 11.20  | 3.50   | 1.80  | 1.85  | 1.40  |          |        |
| 19             | 1.25                                                              | 70.00                    | 47.76   | 370.72               | 644.32   | 455.20   | 95.22                    | 10.70  | 3.80   | 1.80  | 1.85  | 1.40  |          |        |
| 20             | 1.20                                                              | 64.24                    | 42.30   | 372.88               | 638.44   | 443.24   | 96.74                    | 10.00  | 4.90   | 1.80  | 1.85  | 1.40  |          |        |
| 21             | 1.10                                                              | 60.40                    | 41.78   | 381.52               | 633.40   | 432.60   | 91.42                    | 9.70   | 7.20   | 1.80  | 1.85  | 1.40  |          |        |
| 22             | 1.10                                                              | 54.96                    | 48.80   | 390.88               | 630.04   | 421.96   | 82.60                    | 8.30   | 10.50  | 1.80  | 1.85  | 1.40  |          |        |
| 23             | 1.10                                                              | 38.60                    | 73.24   | 398.08               | 627.52   | 411.32   | 75.04                    | 7.70   | 16.60  | 1.80  | 1.85  | 1.40  |          |        |
| 24             | 1.10                                                              | 38.20                    | 113.72  | 407.52               | 621.64   | 394.48   | 70.00                    | 7.30   | 19.60  | 1.80  | 1.85  | 1.40  |          |        |
| 25             | 1.15                                                              | 48.02                    | 163.34  | 419.68               | 614.08   | 382.24   | 62.00                    | 7.10   | 12.50  | 1.75  | 1.85  | 1.40  |          |        |
| 26             | 1.15                                                              | 66.16                    | 209.92  | 429.56               | 607.36   | 372.88   | 54.32                    | 7.10   | 8.50   | 1.75  | 1.85  | 1.40  |          |        |
| 27             | 1.20                                                              | 82.60                    | 260.40  | 443.24               | 602.40   | 364.96   | 48.02                    | 7.10   | 5.30   | 1.70  | 1.95  | 1.40  |          |        |
| 28             | 1.30                                                              | 88.00                    | 300.00  | 486.40               | 597.60   | 352.72   | 43.08                    | 7.10   | 2.40   | 1.70  | 2.20  | 1.40  |          |        |
| 29             | 1.30                                                              | 77.56                    | 313.60  | 524.80               | 591.20   | 339.04   | 41.78                    | 7.10   | 1.95   | 1.65  |       | 1.40  |          |        |
| 30             | 1.35                                                              | 67.44                    | 310.20  | 551.20               | 584.80   | 323.80   | 45.94                    | 7.00   | 6.40   | 1.65  |       | 1.35  |          |        |
| 31             |                                                                   | 55.28                    |         | 566.40               | 579.20   |          | 49.06                    |        | 5.30   | 1.65  |       | 1.35  |          |        |
| Total          | 35.80                                                             | 1165.44                  | 3573.14 | 10886.68             | 19244.28 | 14124.84 | 3443.76                  | 564.14 | 184.95 | 64.70 | 51.40 | 43.95 | 53383.08 | CMSDAY |
| Mean           | 1.19                                                              | 37.59                    | 119.10  | 351.18               | 620.78   | 470.83   | 111.09                   | 18.80  | 5.97   | 2.09  | 1.84  | 1.42  | 146.26   | CMS    |
| Max            | 1.35                                                              | 88.00                    | 313.60  | 566.40               | 658.04   | 574.40   | 313.60                   | 49.06  | 19.60  | 4.30  | 2.20  | 1.80  | 658.04   | CMS    |
| Min            | 1.10                                                              | 1.35                     | 33.20   | 210.48               | 576.00   | 323.80   | 39.40                    | 7.00   | 1.95   | 1.65  | 1.70  | 1.35  | 1.10     | CMS    |
| Runoff         | 3.09                                                              | 100.69                   | 308.72  | 940.61               | 1662.71  | 1220.39  | 297.54                   | 48.74  | 15.98  | 5.59  | 4.44  | 3.80  | 4612.30  | MCM    |
| Momentary Peak | 658.04 CMS. at 148.64 m. (MSL.) at 06.00 Hours , on Aug 15 , 2013 |                          |         |                      |          |          |                          |        |        |       |       |       |          |        |
| Runoff Yield   | 28.74                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |          | 129.306  | Liters/Second/Square KM. |        |        |       |       |       |          |        |

**WATER YEAR : 2013****KHONG RIVER BASIN****Huai Bang Sai at Ban Bang Sai , Mukdahan (Kh.99A)**

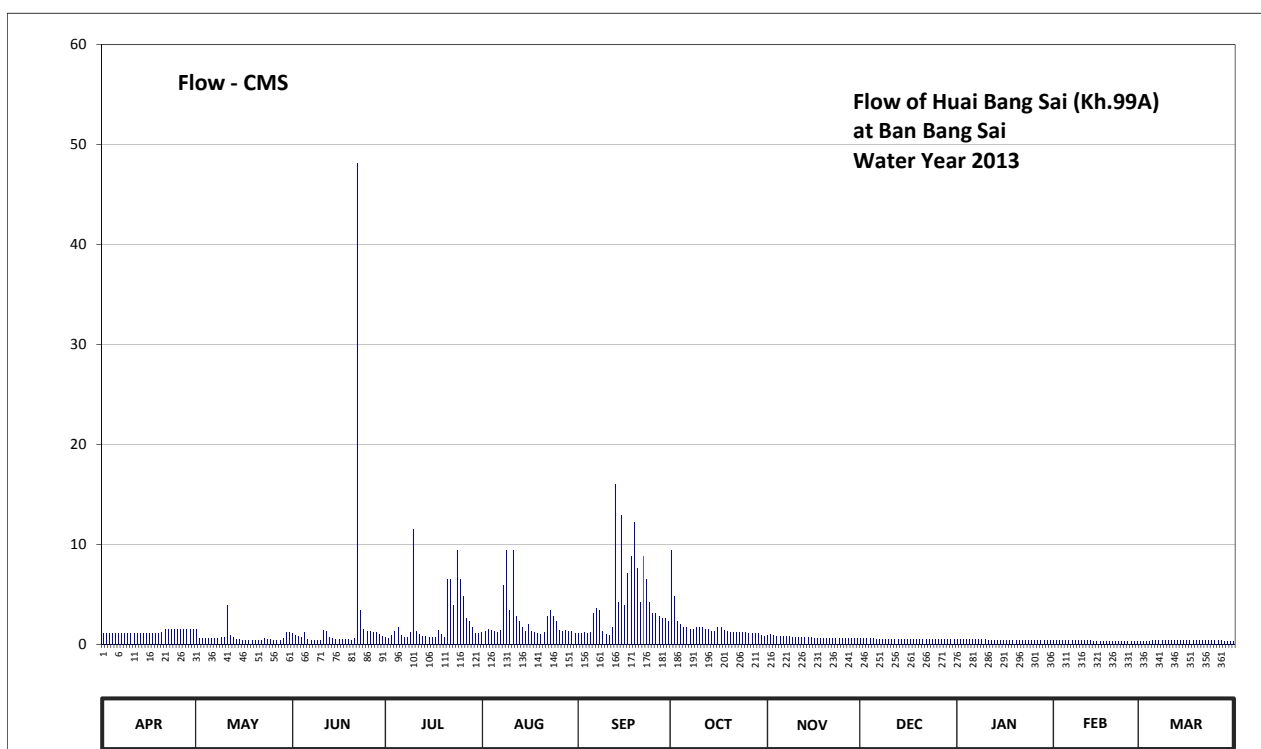
Lat 16 - 42 - 05 N Long 104 - 14 - 46 E

**Location : on right bank at Ban Bang Sai**

|                                         |                                                                                           |                 |               |                   |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|---------------|-------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Bang Sai</b> | <b>Amphoe</b> | <b>Dong Luang</b> | <b>Changwat</b>  | <b>Mukdahan</b>    |
| <b>Drainage Area</b>                    | 115                                                                                       | sq.km.          |               |                   |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                 |               |                   |                  |                    |
| <b>Zero Gage at Bottom</b>              | +248.500 m. (MSL.)                                                                        |                 |               |                   |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |                 |               |                   |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |                 |               |                   | <b>Elevation</b> | +255.082 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                 |               |                   |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings.                                                            |                 |               |                   |                  |                    |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                              |                 |               |                   |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                 |               |                   |                  |                    |
| <b>Period of Rating</b>                 | 2005 to date                                                                              |                 |               |                   |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |               |                   |                  |                    |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                              |                 |               |                   |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                 |               |                   |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +255.290 m.(MSL.), records are channel flow only.       |                 |               |                   |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2013. |                 |               |                   |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct    | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|--------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 250.95 | 251.00 | 250.95      | 250.88 | 250.96                            | 250.95 | 251.19 | 250.93 | 250.84            | 250.82 | 250.79 | 250.73 |        |
| 2                                | 250.95 | 250.85 | 250.93      | 250.87 | 250.98                            | 250.95 | 251.11 | 250.94 | 250.84            | 250.82 | 250.79 | 250.73 |        |
| 3                                | 250.95 | 250.85 | 250.91      | 250.93 | 251.00                            | 250.96 | 251.03 | 250.93 | 250.84            | 250.82 | 250.79 | 250.74 |        |
| 4                                | 250.95 | 250.85 | 250.89      | 250.98 | 250.99                            | 250.95 | 251.02 | 250.92 | 250.84            | 250.82 | 250.78 | 250.75 |        |
| 5                                | 250.95 | 250.85 | 250.96      | 251.01 | 250.98                            | 250.96 | 251.01 | 250.92 | 250.84            | 250.82 | 250.78 | 250.76 |        |
| 6                                | 250.95 | 250.86 | 250.81      | 250.93 | 250.97                            | 251.06 | 251.01 | 250.92 | 250.83            | 250.81 | 250.78 | 250.77 |        |
| 7                                | 250.95 | 250.86 | 250.80      | 250.89 | 250.99                            | 251.08 | 251.00 | 250.92 | 250.83            | 250.81 | 250.77 | 250.78 |        |
| 8                                | 250.95 | 250.86 | 250.78      | 250.89 | 251.13                            | 251.07 | 251.00 | 250.91 | 250.83            | 250.81 | 250.77 | 250.78 |        |
| 9                                | 250.95 | 250.89 | 250.80      | 250.97 | 251.19                            | 250.98 | 251.01 | 250.90 | 250.83            | 250.81 | 250.76 | 250.78 |        |
| 10                               | 250.95 | 250.89 | 250.77      | 251.22 | 251.07                            | 250.94 | 251.01 | 250.90 | 250.83            | 250.81 | 250.76 | 250.78 |        |
| 11                               | 250.95 | 251.09 | 250.99      | 250.98 | 251.19                            | 250.93 | 251.01 | 250.89 | 250.83            | 250.80 | 250.76 | 250.77 |        |
| 12                               | 250.95 | 250.93 | 250.98      | 250.94 | 251.05                            | 251.01 | 251.00 | 250.89 | 250.83            | 250.80 | 250.76 | 250.77 |        |
| 13                               | 250.95 | 250.90 | 250.89      | 250.92 | 251.03                            | 251.28 | 251.00 | 250.89 | 250.82            | 250.80 | 250.76 | 250.77 |        |
| 14                               | 250.95 | 250.82 | 250.85      | 250.92 | 251.01                            | 251.10 | 250.98 | 250.88 | 250.82            | 250.80 | 250.75 | 250.77 |        |
| 15                               | 250.95 | 250.81 | 250.83      | 250.90 | 250.98                            | 251.24 | 250.98 | 250.88 | 250.82            | 250.80 | 250.75 | 250.77 |        |
| 16                               | 250.95 | 250.78 | 250.82      | 250.89 | 251.02                            | 251.09 | 251.01 | 250.87 | 250.82            | 250.80 | 250.75 | 250.77 |        |
| 17                               | 250.95 | 250.77 | 250.83      | 250.89 | 250.98                            | 251.15 | 251.01 | 250.87 | 250.82            | 250.80 | 250.75 | 250.77 |        |
| 18                               | 250.95 | 250.77 | 250.81      | 250.99 | 250.96                            | 251.18 | 250.99 | 250.87 | 250.82            | 250.80 | 250.75 | 250.77 |        |
| 19                               | 250.95 | 250.77 | 250.81      | 250.94 | 250.95                            | 251.23 | 250.98 | 250.87 | 250.82            | 250.80 | 250.75 | 250.77 |        |
| 20                               | 250.96 | 250.77 | 250.80      | 250.90 | 250.94                            | 251.16 | 250.97 | 250.87 | 250.82            | 250.80 | 250.75 | 250.77 |        |
| 21                               | 251.00 | 250.77 | 250.85      | 251.14 | 250.96                            | 251.10 | 250.97 | 250.87 | 250.82            | 250.80 | 250.74 | 250.76 |        |
| 22                               | 251.00 | 250.78 | 251.56      | 251.14 | 251.05                            | 251.18 | 250.97 | 250.87 | 250.82            | 250.80 | 250.74 | 250.76 |        |
| 23                               | 251.00 | 250.85 | 251.07      | 251.09 | 251.07                            | 251.14 | 250.97 | 250.87 | 250.82            | 250.80 | 250.74 | 250.76 |        |
| 24                               | 251.00 | 250.83 | 251.00      | 251.19 | 251.05                            | 251.10 | 250.96 | 250.87 | 250.82            | 250.80 | 250.74 | 250.76 |        |
| 25                               | 251.00 | 250.81 | 250.98      | 251.14 | 251.03                            | 251.06 | 250.96 | 250.86 | 250.82            | 250.80 | 250.74 | 250.76 |        |
| 26                               | 251.00 | 250.79 | 250.98      | 251.11 | 250.99                            | 251.06 | 250.95 | 250.86 | 250.82            | 250.79 | 250.74 | 250.76 |        |
| 27                               | 251.00 | 250.78 | 250.97      | 251.04 | 250.98                            | 251.05 | 250.95 | 250.86 | 250.82            | 250.79 | 250.73 | 250.76 |        |
| 28                               | 251.00 | 250.78 | 250.97      | 251.03 | 250.99                            | 251.04 | 250.95 | 250.85 | 250.82            | 250.79 | 250.73 | 250.75 |        |
| 29                               | 251.00 | 250.84 | 250.94      | 251.01 | 250.98                            | 251.04 | 250.95 | 250.85 | 250.81            | 250.79 |        | 250.75 |        |
| 30                               | 251.00 | 250.96 | 250.91      | 250.95 | 250.98                            | 251.03 | 250.93 | 250.85 | 250.81            | 250.79 |        | 250.75 |        |
| 31                               |        | 250.96 |             | 250.95 | 250.95                            |        | 250.92 |        | 250.81            | 250.79 |        | 250.75 |        |
| Mean                             | 250.97 | 250.85 | 250.91      | 250.99 | 251.01                            | 251.07 | 250.99 | 250.89 | 250.82            | 250.80 | 250.76 | 250.76 |        |
| Max                              | 251.00 | 251.09 | 251.56      | 251.22 | 251.19                            | 251.28 | 251.19 | 250.94 | 250.84            | 250.82 | 250.79 | 250.78 | 251.56 |
| Min                              | 250.95 | 250.77 | 250.77      | 250.87 | 250.94                            | 250.93 | 250.92 | 250.85 | 250.81            | 250.79 | 250.73 | 250.73 | 250.73 |
| Annual Max Momentary Gage Height | 252.30 |        | m. (MSL.) , |        | at 18.00 Hours , on Jun 22 , 2013 |        |        |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 248.50 |        | m. (MSL.) , |        | River Bed                         |        | 250.47 |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 257.32 |        | m. (MSL.) , |        |                                   |        |        |        |                   |        |        |        |        |
| Right Bank Elevation             | 255.29 |        | m. (MSL.) , |        | Drainage Area                     |        | 115    |        | Square Kilometers |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug   | Sep      | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|-------|----------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 1.13                                                              | 1.50                     | 1.13  | 0.70                 | 1.20  | 1.13     | 9.43                     | 0.97  | 0.60  | 0.55  | 0.47  | 0.32  |               |
| 2              | 1.13                                                              | 0.63                     | 0.97  | 0.68                 | 1.35  | 1.13     | 4.82                     | 1.05  | 0.60  | 0.55  | 0.47  | 0.32  |               |
| 3              | 1.13                                                              | 0.63                     | 0.83  | 0.97                 | 1.50  | 1.20     | 2.32                     | 0.97  | 0.60  | 0.55  | 0.47  | 0.35  |               |
| 4              | 1.13                                                              | 0.63                     | 0.73  | 1.35                 | 1.43  | 1.13     | 2.05                     | 0.90  | 0.60  | 0.55  | 0.45  | 0.38  |               |
| 5              | 1.13                                                              | 0.63                     | 1.20  | 1.77                 | 1.35  | 1.20     | 1.77                     | 0.90  | 0.60  | 0.55  | 0.45  | 0.40  |               |
| 6              | 1.13                                                              | 0.65                     | 0.53  | 0.97                 | 1.28  | 3.15     | 1.77                     | 0.90  | 0.58  | 0.53  | 0.45  | 0.43  |               |
| 7              | 1.13                                                              | 0.65                     | 0.50  | 0.73                 | 1.43  | 3.70     | 1.50                     | 0.90  | 0.58  | 0.53  | 0.43  | 0.45  |               |
| 8              | 1.13                                                              | 0.65                     | 0.45  | 0.73                 | 5.98  | 3.43     | 1.50                     | 0.83  | 0.58  | 0.53  | 0.43  | 0.45  |               |
| 9              | 1.13                                                              | 0.73                     | 0.50  | 1.28                 | 9.43  | 1.35     | 1.77                     | 0.75  | 0.58  | 0.53  | 0.40  | 0.45  |               |
| 10             | 1.13                                                              | 0.73                     | 0.43  | 11.50                | 3.43  | 1.05     | 1.77                     | 0.75  | 0.58  | 0.53  | 0.40  | 0.45  |               |
| 11             | 1.13                                                              | 3.97                     | 1.43  | 1.35                 | 9.43  | 0.97     | 1.77                     | 0.73  | 0.58  | 0.50  | 0.40  | 0.43  |               |
| 12             | 1.13                                                              | 0.97                     | 1.35  | 1.05                 | 2.88  | 1.77     | 1.50                     | 0.73  | 0.58  | 0.50  | 0.40  | 0.43  |               |
| 13             | 1.13                                                              | 0.75                     | 0.73  | 0.90                 | 2.32  | 16.00    | 1.50                     | 0.73  | 0.55  | 0.50  | 0.40  | 0.43  |               |
| 14             | 1.13                                                              | 0.55                     | 0.63  | 0.90                 | 1.77  | 4.25     | 1.35                     | 0.70  | 0.55  | 0.50  | 0.38  | 0.43  |               |
| 15             | 1.13                                                              | 0.53                     | 0.58  | 0.75                 | 1.35  | 13.00    | 1.35                     | 0.70  | 0.55  | 0.50  | 0.38  | 0.43  |               |
| 16             | 1.13                                                              | 0.45                     | 0.55  | 0.73                 | 2.05  | 3.97     | 1.77                     | 0.68  | 0.55  | 0.50  | 0.38  | 0.43  |               |
| 17             | 1.13                                                              | 0.43                     | 0.58  | 0.73                 | 1.35  | 7.12     | 1.77                     | 0.68  | 0.55  | 0.50  | 0.38  | 0.43  |               |
| 18             | 1.13                                                              | 0.43                     | 0.53  | 1.43                 | 1.20  | 8.85     | 1.43                     | 0.68  | 0.55  | 0.50  | 0.38  | 0.43  |               |
| 19             | 1.13                                                              | 0.43                     | 0.53  | 1.05                 | 1.13  | 12.25    | 1.35                     | 0.68  | 0.55  | 0.50  | 0.38  | 0.43  |               |
| 20             | 1.20                                                              | 0.43                     | 0.50  | 0.75                 | 1.05  | 7.70     | 1.28                     | 0.68  | 0.55  | 0.50  | 0.38  | 0.43  |               |
| 21             | 1.50                                                              | 0.43                     | 0.63  | 6.55                 | 1.20  | 4.25     | 1.28                     | 0.68  | 0.55  | 0.50  | 0.35  | 0.40  |               |
| 22             | 1.50                                                              | 0.45                     | 48.12 | 6.55                 | 2.88  | 8.85     | 1.28                     | 0.68  | 0.55  | 0.50  | 0.35  | 0.40  |               |
| 23             | 1.50                                                              | 0.63                     | 3.43  | 3.97                 | 3.43  | 6.55     | 1.28                     | 0.68  | 0.55  | 0.50  | 0.35  | 0.40  |               |
| 24             | 1.50                                                              | 0.58                     | 1.50  | 9.43                 | 2.88  | 4.25     | 1.20                     | 0.68  | 0.55  | 0.50  | 0.35  | 0.40  |               |
| 25             | 1.50                                                              | 0.53                     | 1.35  | 6.55                 | 2.32  | 3.15     | 1.20                     | 0.65  | 0.55  | 0.50  | 0.35  | 0.40  |               |
| 26             | 1.50                                                              | 0.47                     | 1.35  | 4.82                 | 1.43  | 3.15     | 1.13                     | 0.65  | 0.55  | 0.47  | 0.35  | 0.40  |               |
| 27             | 1.50                                                              | 0.45                     | 1.28  | 2.60                 | 1.35  | 2.88     | 1.13                     | 0.65  | 0.55  | 0.47  | 0.32  | 0.40  |               |
| 28             | 1.50                                                              | 0.45                     | 1.28  | 2.32                 | 1.43  | 2.60     | 1.13                     | 0.63  | 0.55  | 0.47  | 0.32  | 0.38  |               |
| 29             | 1.50                                                              | 0.60                     | 1.05  | 1.77                 | 1.35  | 2.60     | 1.13                     | 0.63  | 0.53  | 0.47  |       | 0.38  |               |
| 30             | 1.50                                                              | 1.20                     | 0.83  | 1.13                 | 1.35  | 2.32     | 0.97                     | 0.63  | 0.53  | 0.47  |       | 0.38  |               |
| 31             |                                                                   | 1.20                     |       | 1.13                 | 1.13  |          | 0.90                     |       | 0.53  | 0.47  |       | 0.38  |               |
| Total          | 37.67                                                             | 23.36                    | 75.50 | 77.14                | 73.66 | 134.95   | 56.40                    | 22.47 | 17.45 | 15.72 | 11.02 | 12.62 | 557.96 CMSDAY |
| Mean           | 1.26                                                              | 0.75                     | 2.52  | 2.49                 | 2.38  | 4.50     | 1.82                     | 0.75  | 0.56  | 0.51  | 0.39  | 0.41  | 1.53 CMS      |
| Max            | 1.50                                                              | 3.97                     | 48.12 | 11.50                | 9.43  | 16.00    | 9.43                     | 1.05  | 0.60  | 0.55  | 0.47  | 0.45  | 48.12 CMS     |
| Min            | 1.13                                                              | 0.43                     | 0.43  | 0.68                 | 1.05  | 0.97     | 0.90                     | 0.63  | 0.53  | 0.47  | 0.32  | 0.32  | 0.32 CMS      |
| Runoff         | 3.26                                                              | 2.02                     | 6.52  | 6.67                 | 6.36  | 11.66    | 4.87                     | 1.94  | 1.51  | 1.36  | 0.95  | 1.09  | 48.21 MCM     |
| Momentary Peak | 196.00 CMS. at 252.30 m. (MSL.) at 18.00 Hours , on Jun 22 , 2013 |                          |       |                      |       |          |                          |       |       |       |       |       |               |
| Runoff Yield   | 13.29                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 1704.348 | Liters/Second/Square KM. |       |       |       |       |       |               |

**WATER YEAR : 2013****KHONG RIVER BASIN****Huai Muk at Ban Kaen Tao , Mukdahan (Kh.101)**

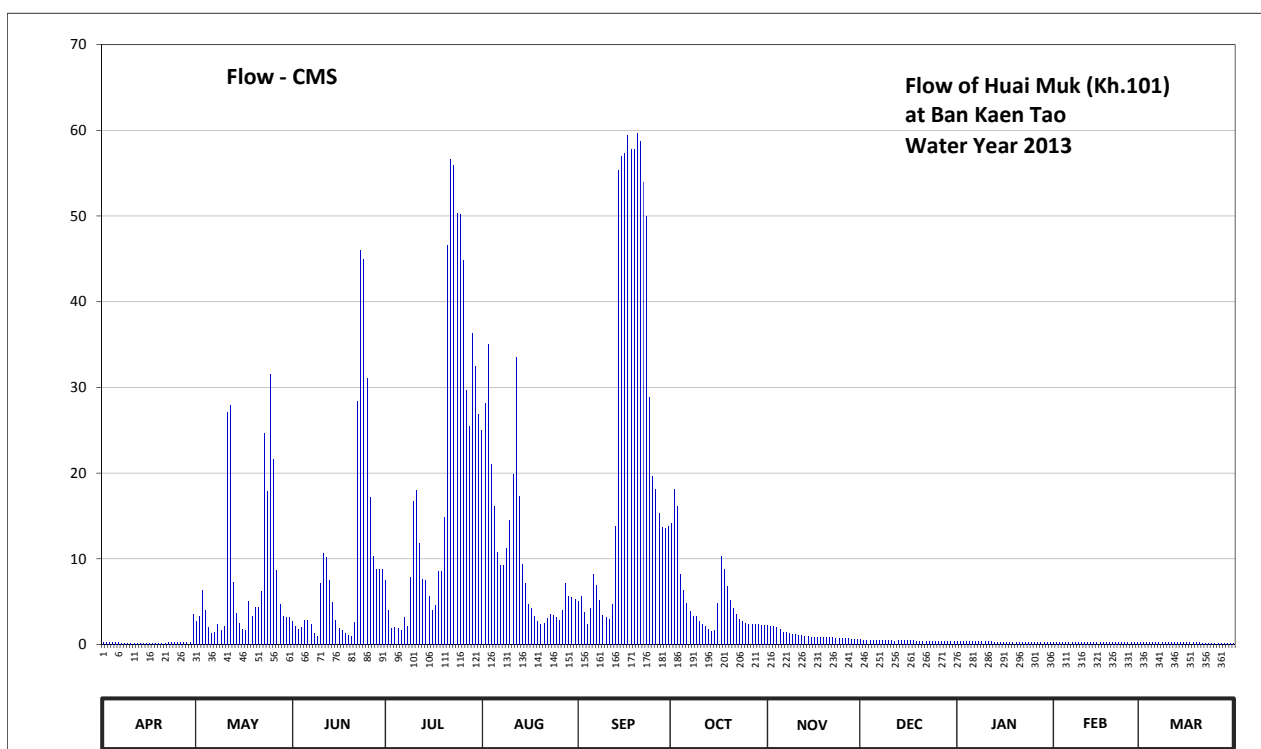
Lat 16 - 35 - 07 N Long 104 - 37 - 13 E

**Location : on right bank at the bridge of Amphoe Dong Luang - Muk Dahan Highway.**

|                                         |                                                                                           |                 |               |               |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Kaen Tao</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b>  | <b>Mukdahan</b>    |
| <b>Drainage Area</b>                    | 414                                                                                       | sq.km.          |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                 |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +136.900                                                                                  | m. (MSL.)       |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                      |                 |               |               |                  |                    |
| <b>Location BM</b>                      | On right bank about 1 meter from the top staff gage.                                      |                 |               |               | <b>Elevation</b> | +146.237 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                 |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings.                                                            |                 |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |                 |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                 |               |               |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |                 |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |                 |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                 |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +142.600 m.(MSL.), records are channel flow only.       |                 |               |               |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2013. |                 |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                               | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 137.44 | 138.19      | 138.17 | 138.97 | 141.02        | 138.61                            | 139.87            | 138.06 | 137.60 | 137.50 | 137.43 | 137.42 |        |
| 2                                | 137.44 | 138.31      | 138.05 | 138.44 | 141.30        | 138.70                            | 140.30            | 138.05 | 137.59 | 137.50 | 137.43 | 137.42 |        |
| 3                                | 137.43 | 138.80      | 137.95 | 137.98 | 141.92        | 138.40                            | 140.09            | 138.03 | 137.58 | 137.50 | 137.43 | 137.42 |        |
| 4                                | 137.43 | 138.43      | 138.01 | 138.00 | 140.63        | 138.09                            | 139.08            | 138.00 | 137.58 | 137.50 | 137.43 | 137.43 |        |
| 5                                | 137.42 | 138.01      | 138.20 | 137.99 | 140.08        | 138.47                            | 138.80            | 137.94 | 137.58 | 137.50 | 137.43 | 137.43 |        |
| 6                                | 137.42 | 137.84      | 138.21 | 137.93 | 139.44        | 139.08                            | 138.57            | 137.85 | 137.58 | 137.49 | 137.43 | 137.43 |        |
| 7                                | 137.40 | 137.85      | 138.11 | 138.28 | 139.22        | 138.89                            | 138.42            | 137.85 | 137.58 | 137.49 | 137.43 | 137.43 |        |
| 8                                | 137.40 | 138.10      | 137.84 | 138.03 | 139.22        | 138.64                            | 138.31            | 137.82 | 137.58 | 137.49 | 137.43 | 137.43 |        |
| 9                                | 137.40 | 137.91      | 137.73 | 139.02 | 139.51        | 138.32                            | 138.31            | 137.80 | 137.58 | 137.49 | 137.42 | 137.43 |        |
| 10                               | 137.39 | 138.05      | 138.92 | 140.15 | 139.91        | 138.29                            | 138.17            | 137.80 | 137.58 | 137.48 | 137.42 | 137.43 |        |
| 11                               | 137.38 | 141.21      | 139.43 | 140.29 | 140.50        | 138.23                            | 138.10            | 137.78 | 137.53 | 137.48 | 137.42 | 137.44 |        |
| 12                               | 137.38 | 141.28      | 139.36 | 139.58 | 141.79        | 138.55                            | 138.05            | 137.76 | 137.52 | 137.48 | 137.42 | 137.44 |        |
| 13                               | 137.37 | 138.94      | 138.98 | 138.99 | 140.21        | 139.83                            | 137.95            | 137.73 | 137.53 | 137.47 | 137.42 | 137.44 |        |
| 14                               | 137.36 | 138.37      | 138.59 | 138.97 | 139.25        | 143.53                            | 137.89            | 137.72 | 137.53 | 137.47 | 137.42 | 137.44 |        |
| 15                               | 137.36 | 138.12      | 138.22 | 138.71 | 138.92        | 143.66                            | 137.93            | 137.70 | 137.54 | 137.47 | 137.43 | 137.43 |        |
| 16                               | 137.36 | 137.96      | 137.99 | 138.44 | 138.56        | 143.69                            | 138.58            | 137.70 | 137.55 | 137.46 | 137.43 | 137.43 |        |
| 17                               | 137.37 | 137.91      | 137.93 | 138.54 | 138.47        | 143.85                            | 139.37            | 137.70 | 137.55 | 137.45 | 137.43 | 137.43 |        |
| 18                               | 137.41 | 138.62      | 137.82 | 139.12 | 138.30        | 143.72                            | 139.15            | 137.68 | 137.55 | 137.45 | 137.44 | 137.43 |        |
| 19                               | 137.41 | 138.30      | 137.77 | 139.13 | 138.17        | 143.72                            | 138.87            | 137.68 | 137.52 | 137.45 | 137.44 | 137.43 |        |
| 20                               | 137.41 | 138.50      | 137.71 | 139.94 | 138.10        | 143.87                            | 138.64            | 137.67 | 137.51 | 137.44 | 137.44 | 137.43 |        |
| 21                               | 137.41 | 138.50      | 138.16 | 142.86 | 138.14        | 143.79                            | 138.48            | 137.67 | 137.51 | 137.43 | 137.43 | 137.41 |        |
| 22                               | 137.43 | 138.79      | 141.32 | 143.63 | 138.25        | 143.43                            | 138.34            | 137.67 | 137.50 | 137.43 | 137.43 | 137.41 |        |
| 23                               | 137.43 | 140.99      | 142.81 | 143.58 | 138.34        | 143.12                            | 138.23            | 137.66 | 137.50 | 137.43 | 137.43 | 137.40 |        |
| 24                               | 137.43 | 140.28      | 142.73 | 143.15 | 138.32        | 141.37                            | 138.18            | 137.65 | 137.50 | 137.43 | 137.43 | 137.40 |        |
| 25                               | 137.43 | 141.61      | 141.57 | 143.14 | 138.29        | 140.47                            | 138.13            | 137.65 | 137.50 | 137.43 | 137.43 | 137.39 |        |
| 26                               | 137.43 | 140.69      | 140.20 | 142.72 | 138.21        | 140.30                            | 138.11            | 137.64 | 137.50 | 137.43 | 137.43 | 137.39 |        |
| 27                               | 137.44 | 139.14      | 139.37 | 141.44 | 138.43        | 139.99                            | 138.10            | 137.64 | 137.50 | 137.43 | 137.42 | 137.39 |        |
| 28                               | 137.44 | 138.55      | 139.15 | 141.06 | 138.93        | 139.81                            | 138.10            | 137.63 | 137.50 | 137.43 | 137.42 | 137.38 |        |
| 29                               | 137.44 | 138.30      | 139.16 | 142.02 | 138.71        | 139.80                            | 138.09            | 137.62 | 137.50 | 137.43 |        | 137.38 |        |
| 30                               | 138.36 | 138.27      | 139.15 | 141.69 | 138.68        | 139.82                            | 138.08            | 137.61 | 137.50 | 137.43 |        | 137.38 |        |
| 31                               |        | 138.29      |        | 141.19 | 138.65        |                                   | 138.07            |        | 137.50 | 137.43 |        | 137.38 |        |
| Mean                             | 137.44 | 138.84      | 138.95 | 140.10 | 139.27        | 140.67                            | 138.53            | 137.76 | 137.54 | 137.46 | 137.43 | 137.42 |        |
| Max                              | 138.36 | 141.61      | 142.81 | 143.63 | 141.92        | 143.87                            | 140.30            | 138.06 | 137.60 | 137.50 | 137.44 | 137.44 | 143.87 |
| Min                              | 137.36 | 137.84      | 137.71 | 137.93 | 138.10        | 138.09                            | 137.89            | 137.61 | 137.50 | 137.43 | 137.42 | 137.38 | 137.36 |
| Annual Max Momentary Gage Height | 143.93 | m. (MSL.) , |        |        |               | at 05.00 Hours , on Sep 20 , 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 136.90 | m. (MSL.) , |        |        | River Bed     | 137.26                            | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 142.66 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 142.60 | m. (MSL.) , |        |        | Drainage Area | 414                               | Square Kilometers |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun    | Jul    | Aug    | Sep                  | Oct    | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual  |        |
|----------------|-------|------------------------------------------------------------|--------|--------|--------|----------------------|--------|---------|--------------------------|------|------|------|---------|--------|
| 1              | 0.28  | 2.76                                                       | 2.68   | 7.49   | 25.02  | 5.06                 | 14.23  | 2.24    | 0.60                     | 0.40 | 0.26 | 0.24 |         |        |
| 2              | 0.28  | 3.35                                                       | 2.20   | 4.04   | 28.10  | 5.60                 | 18.10  | 2.20    | 0.58                     | 0.40 | 0.26 | 0.24 |         |        |
| 3              | 0.26  | 6.30                                                       | 1.80   | 1.92   | 35.04  | 3.80                 | 16.21  | 2.12    | 0.56                     | 0.40 | 0.26 | 0.24 |         |        |
| 4              | 0.26  | 3.98                                                       | 2.04   | 2.00   | 21.10  | 2.36                 | 8.26   | 2.00    | 0.56                     | 0.40 | 0.26 | 0.26 |         |        |
| 5              | 0.24  | 2.04                                                       | 2.80   | 1.96   | 16.12  | 4.22                 | 6.30   | 1.76    | 0.56                     | 0.40 | 0.26 | 0.26 |         |        |
| 6              | 0.24  | 1.36                                                       | 2.85   | 1.72   | 10.80  | 8.26                 | 4.82   | 1.40    | 0.56                     | 0.38 | 0.26 | 0.26 |         |        |
| 7              | 0.20  | 1.40                                                       | 2.44   | 3.20   | 9.24   | 6.93                 | 3.92   | 1.40    | 0.56                     | 0.38 | 0.26 | 0.26 |         |        |
| 8              | 0.20  | 2.40                                                       | 1.36   | 2.12   | 9.24   | 5.24                 | 3.35   | 1.28    | 0.56                     | 0.38 | 0.26 | 0.26 |         |        |
| 9              | 0.20  | 1.64                                                       | 0.99   | 7.84   | 11.32  | 3.40                 | 3.35   | 1.20    | 0.56                     | 0.38 | 0.24 | 0.26 |         |        |
| 10             | 0.18  | 2.20                                                       | 7.14   | 16.75  | 14.59  | 3.25                 | 2.68   | 1.20    | 0.56                     | 0.36 | 0.24 | 0.26 |         |        |
| 11             | 0.16  | 27.11                                                      | 10.72  | 18.01  | 19.90  | 2.95                 | 2.40   | 1.14    | 0.46                     | 0.36 | 0.24 | 0.28 |         |        |
| 12             | 0.16  | 27.88                                                      | 10.22  | 11.85  | 33.49  | 4.70                 | 2.20   | 1.08    | 0.44                     | 0.36 | 0.24 | 0.28 |         |        |
| 13             | 0.14  | 7.28                                                       | 7.56   | 7.63   | 17.29  | 13.87                | 1.80   | 0.99    | 0.46                     | 0.34 | 0.24 | 0.28 |         |        |
| 14             | 0.12  | 3.65                                                       | 4.94   | 7.49   | 9.45   | 55.29                | 1.56   | 0.96    | 0.46                     | 0.34 | 0.24 | 0.28 |         |        |
| 15             | 0.12  | 2.48                                                       | 2.90   | 5.67   | 7.14   | 56.98                | 1.72   | 0.90    | 0.48                     | 0.34 | 0.26 | 0.26 |         |        |
| 16             | 0.12  | 1.84                                                       | 1.96   | 4.04   | 4.76   | 57.37                | 4.88   | 0.90    | 0.50                     | 0.32 | 0.26 | 0.26 |         |        |
| 17             | 0.14  | 1.64                                                       | 1.72   | 4.64   | 4.22   | 59.45                | 10.29  | 0.90    | 0.50                     | 0.30 | 0.26 | 0.26 |         |        |
| 18             | 0.22  | 5.12                                                       | 1.28   | 8.54   | 3.30   | 57.76                | 8.75   | 0.84    | 0.50                     | 0.30 | 0.28 | 0.26 |         |        |
| 19             | 0.22  | 3.30                                                       | 1.11   | 8.61   | 2.68   | 57.76                | 6.79   | 0.84    | 0.44                     | 0.30 | 0.28 | 0.26 |         |        |
| 20             | 0.22  | 4.40                                                       | 0.93   | 14.86  | 2.40   | 59.71                | 5.24   | 0.81    | 0.42                     | 0.28 | 0.28 | 0.26 |         |        |
| 21             | 0.22  | 4.40                                                       | 2.64   | 46.58  | 2.56   | 58.67                | 4.28   | 0.81    | 0.42                     | 0.26 | 0.26 | 0.22 |         |        |
| 22             | 0.26  | 6.23                                                       | 28.32  | 56.59  | 3.05   | 53.99                | 3.50   | 0.81    | 0.40                     | 0.26 | 0.26 | 0.22 |         |        |
| 23             | 0.26  | 24.70                                                      | 45.93  | 55.94  | 3.50   | 49.96                | 2.95   | 0.78    | 0.40                     | 0.26 | 0.26 | 0.20 |         |        |
| 24             | 0.26  | 17.92                                                      | 44.89  | 50.35  | 3.40   | 28.87                | 2.72   | 0.75    | 0.40                     | 0.26 | 0.26 | 0.20 |         |        |
| 25             | 0.26  | 31.51                                                      | 31.07  | 50.22  | 3.25   | 19.63                | 2.52   | 0.75    | 0.40                     | 0.26 | 0.26 | 0.18 |         |        |
| 26             | 0.26  | 21.70                                                      | 17.20  | 44.76  | 2.85   | 18.10                | 2.44   | 0.72    | 0.40                     | 0.26 | 0.26 | 0.18 |         |        |
| 27             | 0.28  | 8.68                                                       | 10.29  | 29.64  | 3.98   | 15.31                | 2.40   | 0.72    | 0.40                     | 0.26 | 0.24 | 0.18 |         |        |
| 28             | 0.28  | 4.70                                                       | 8.75   | 25.46  | 7.21   | 13.69                | 2.40   | 0.69    | 0.40                     | 0.26 | 0.24 | 0.16 |         |        |
| 29             | 0.28  | 3.30                                                       | 8.82   | 36.24  | 5.67   | 13.60                | 2.36   | 0.66    | 0.40                     | 0.26 |      | 0.16 |         |        |
| 30             | 3.60  | 3.15                                                       | 8.75   | 32.39  | 5.48   | 13.78                | 2.32   | 0.63    | 0.40                     | 0.26 |      | 0.16 |         |        |
| 31             |       | 3.25                                                       |        | 26.89  | 5.30   |                      | 2.28   |         | 0.40                     | 0.26 |      | 0.16 |         |        |
| Total          | 9.92  | 241.67                                                     | 276.30 | 595.44 | 331.45 | 759.56               | 157.02 | 33.48   | 14.74                    | 9.98 | 7.18 | 7.24 | 2443.98 | CMSDAY |
| Mean           | 0.33  | 7.80                                                       | 9.21   | 19.21  | 10.69  | 25.32                | 5.07   | 1.12    | 0.48                     | 0.32 | 0.26 | 0.23 | 6.70    | CMS    |
| Max            | 3.60  | 31.51                                                      | 45.93  | 56.59  | 35.04  | 59.71                | 18.10  | 2.24    | 0.60                     | 0.40 | 0.28 | 0.28 | 59.71   | CMS    |
| Min            | 0.12  | 1.36                                                       | 0.93   | 1.72   | 2.40   | 2.36                 | 1.56   | 0.63    | 0.40                     | 0.26 | 0.24 | 0.16 | 0.12    | CMS    |
| Runoff         | 0.86  | 20.88                                                      | 23.87  | 51.45  | 28.64  | 65.63                | 13.57  | 2.89    | 1.27                     | 0.86 | 0.62 | 0.63 | 211.16  | MCM    |
| Momentary Peak | 60.49 | CMS. at 143.93 m. (MSL.) at 05.00 Hours , on Sep 20 , 2013 |        |        |        |                      |        |         |                          |      |      |      |         |        |
| Runoff Yield   | 16.15 | Liters/Second/Square KM.                                   |        |        |        | Momentary Peak Yield |        | 145,938 | Liters/Second/Square KM. |      |      |      |         |        |

## WATER YEAR : 2013

**KHONG RIVER BASIN**

**Huai Luang at Ban Non Toom , Udon Thani (Kh.103)**

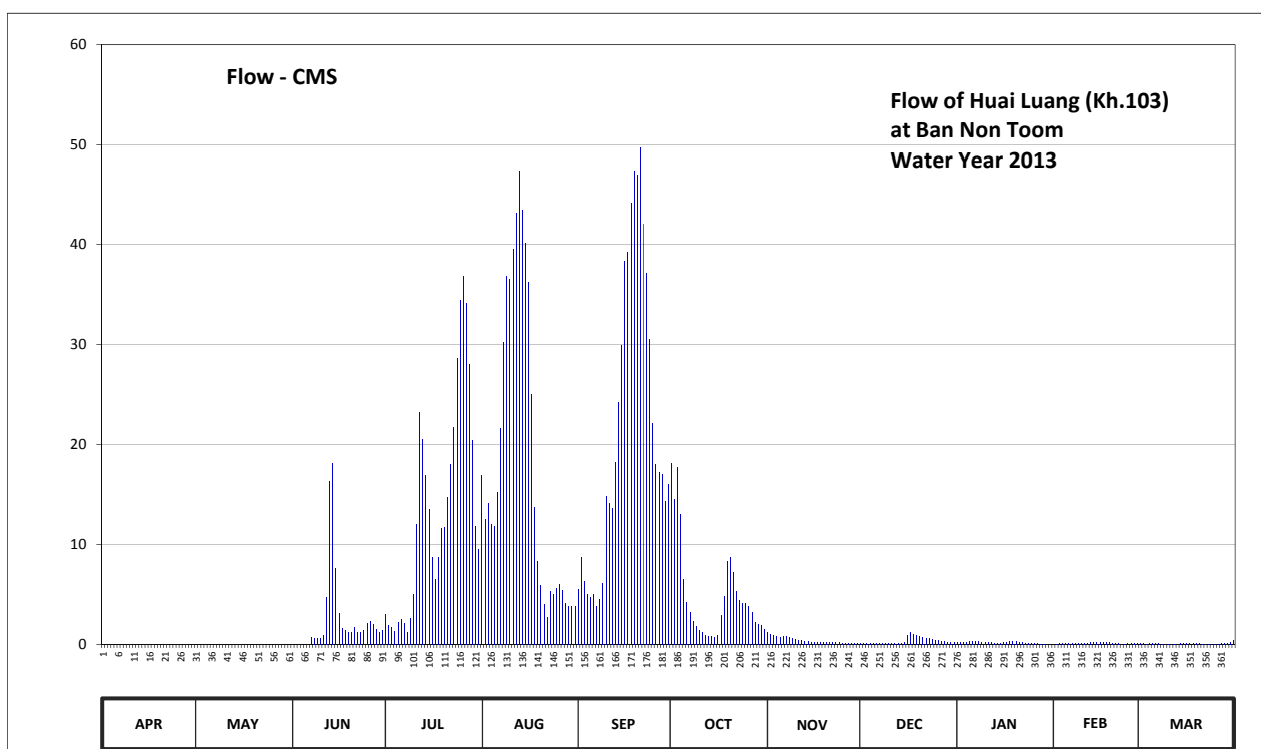
Lat 17 - 28 - 56 N    Long 102 - 47 - 49 E

**Location : on right bank at the bridge on highway.**

|                                         |                                                                                           |           |               |        |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Non Toom  | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Udon Thani         |
| <b>Drainage Area</b>                    | 1,235                                                                                     | sq.km.    |               |        |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +166.500                                                                                  | m. (MSL.) |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                      |           |               |        |                  |                    |
| <b>Location BM</b>                      | On right bank downstream side at the footpath of the bridge.                              |           |               |        | <b>Elevation</b> | +172.486 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings.                                                            |           |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                              |           |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                    |
| <b>Period of Rating</b>                 | 2004 to date                                                                              |           |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                              |           |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2013. |           |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 166.79 | 166.67 | 166.79                                           | 167.76 | 169.83 | 168.38 | 169.91 | 167.26 | 166.87 | 166.90 | 166.79 | 166.85 |        |
| 2                                | 166.79 | 166.66 | 166.79                                           | 167.48 | 169.40 | 168.96 | 169.60 | 167.19 | 166.88 | 166.90 | 166.82 | 166.85 |        |
| 3                                | 166.79 | 166.66 | 166.79                                           | 167.41 | 169.57 | 168.56 | 169.88 | 167.16 | 166.88 | 166.90 | 166.85 | 166.84 |        |
| 4                                | 166.79 | 166.63 | 166.78                                           | 167.29 | 169.34 | 168.26 | 169.45 | 167.12 | 166.88 | 166.91 | 166.88 | 166.86 |        |
| 5                                | 166.79 | 166.62 | 166.77                                           | 167.56 | 169.32 | 168.19 | 168.59 | 167.09 | 166.88 | 166.95 | 166.88 | 166.88 |        |
| 6                                | 166.79 | 166.62 | 166.82                                           | 167.63 | 169.67 | 168.26 | 168.05 | 167.12 | 166.88 | 166.95 | 166.89 | 166.85 |        |
| 7                                | 166.79 | 166.62 | 167.08                                           | 167.53 | 170.13 | 167.96 | 167.81 | 167.10 | 166.87 | 166.94 | 166.86 | 166.85 |        |
| 8                                | 166.79 | 166.62 | 167.06                                           | 167.24 | 170.54 | 168.14 | 167.59 | 167.08 | 166.87 | 166.94 | 166.86 | 166.84 |        |
| 9                                | 166.79 | 166.64 | 167.06                                           | 167.67 | 170.76 | 168.53 | 167.45 | 167.06 | 166.87 | 166.92 | 166.85 | 166.83 |        |
| 10                               | 166.79 | 166.68 | 167.06                                           | 168.26 | 170.75 | 169.63 | 167.32 | 167.03 | 166.87 | 166.90 | 166.85 | 166.83 |        |
| 11                               | 166.79 | 166.68 | 167.14                                           | 169.34 | 170.85 | 169.57 | 167.23 | 167.00 | 166.86 | 166.90 | 166.87 | 166.83 |        |
| 12                               | 166.79 | 166.68 | 168.18                                           | 170.21 | 170.96 | 169.51 | 167.15 | 166.98 | 166.86 | 166.90 | 166.89 | 166.84 |        |
| 13                               | 166.79 | 166.68 | 169.78                                           | 170.07 | 171.08 | 169.92 | 167.12 | 166.96 | 166.85 | 166.89 | 166.90 | 166.84 |        |
| 14                               | 166.79 | 166.68 | 169.91                                           | 169.83 | 170.97 | 170.26 | 167.10 | 166.94 | 166.85 | 166.88 | 166.91 | 166.85 |        |
| 15                               | 166.79 | 166.68 | 168.78                                           | 169.50 | 170.87 | 170.53 | 167.08 | 166.93 | 166.90 | 166.89 | 166.92 | 166.86 |        |
| 16                               | 166.79 | 166.68 | 167.78                                           | 168.96 | 170.74 | 170.81 | 167.15 | 166.93 | 167.15 | 166.90 | 166.90 | 166.86 |        |
| 17                               | 166.79 | 166.68 | 167.39                                           | 168.59 | 170.30 | 170.84 | 167.73 | 166.92 | 167.26 | 166.92 | 166.91 | 166.86 |        |
| 18                               | 166.78 | 166.68 | 167.32                                           | 168.95 | 169.53 | 170.99 | 168.22 | 166.92 | 167.18 | 166.95 | 166.90 | 166.86 |        |
| 19                               | 166.78 | 166.68 | 167.26                                           | 169.29 | 168.89 | 171.08 | 168.89 | 166.91 | 167.14 | 166.94 | 166.90 | 166.85 |        |
| 20                               | 166.78 | 166.68 | 167.26                                           | 169.31 | 168.48 | 171.07 | 168.95 | 166.91 | 167.11 | 166.94 | 166.88 | 166.85 |        |
| 21                               | 166.78 | 166.68 | 167.43                                           | 169.62 | 168.00 | 171.15 | 168.71 | 166.91 | 167.08 | 166.93 | 166.88 | 166.84 |        |
| 22                               | 166.78 | 166.69 | 167.26                                           | 169.90 | 167.69 | 170.93 | 168.33 | 166.90 | 167.05 | 166.90 | 166.86 | 166.84 |        |
| 23                               | 166.77 | 166.69 | 167.25                                           | 170.14 | 168.34 | 170.77 | 168.10 | 166.90 | 167.04 | 166.89 | 166.84 | 166.83 |        |
| 24                               | 166.69 | 166.70 | 167.31                                           | 170.48 | 168.26 | 170.55 | 168.03 | 166.90 | 167.02 | 166.89 | 166.84 | 166.83 |        |
| 25                               | 166.67 | 166.71 | 167.54                                           | 170.68 | 168.41 | 170.16 | 168.03 | 166.89 | 167.00 | 166.88 | 166.85 | 166.84 |        |
| 26                               | 166.67 | 166.75 | 167.58                                           | 170.76 | 168.51 | 169.90 | 167.96 | 166.89 | 166.98 | 166.87 | 166.85 | 166.84 |        |
| 27                               | 166.67 | 166.78 | 167.51                                           | 170.67 | 168.37 | 169.85 | 167.80 | 166.88 | 166.96 | 166.85 | 166.87 | 166.85 |        |
| 28                               | 166.67 | 166.79 | 167.36                                           | 170.45 | 168.04 | 169.84 | 167.56 | 166.88 | 166.95 | 166.84 | 166.85 | 166.86 |        |
| 29                               | 166.68 | 166.79 | 167.26                                           | 170.06 | 167.97 | 169.58 | 167.52 | 166.88 | 166.92 | 166.82 |        | 166.87 |        |
| 30                               | 166.68 | 166.80 | 167.31                                           | 169.32 | 167.96 | 169.75 | 167.48 | 166.88 | 166.90 | 166.79 |        | 166.90 |        |
| 31                               |        | 166.79 |                                                  | 169.06 | 167.95 |        | 167.36 |        | 166.90 | 166.79 |        | 166.97 |        |
| Mean                             | 166.76 | 166.69 | 167.45                                           | 169.07 | 169.40 | 169.73 | 168.04 | 166.98 | 166.96 | 166.90 | 166.87 | 166.85 |        |
| Max                              | 166.79 | 166.80 | 169.91                                           | 170.76 | 171.08 | 171.15 | 169.91 | 167.26 | 167.26 | 166.95 | 166.92 | 166.97 | 171.15 |
| Min                              | 166.67 | 166.62 | 166.77                                           | 167.24 | 167.69 | 167.96 | 167.08 | 166.88 | 166.85 | 166.79 | 166.79 | 166.83 | 166.62 |
| Annual Max Momentary Gage Height | 171.18 |        | m. (MSL.) , at 19.00 Hours , on Aug 13 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 166.50 |        | m. (MSL.) , River Bed 166.53 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 172.67 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 172.20 |        | m. (MSL.) , Drainage Area 1235 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun   | Jul    | Aug    | Sep                  | Oct    | Nov    | Dec                      | Jan  | Feb  | Mar  | Annual  |        |
|----------------|-------|------------------------------------------------------------|-------|--------|--------|----------------------|--------|--------|--------------------------|------|------|------|---------|--------|
| 1              | 0.00  | 0.00                                                       | 0.00  | 3.04   | 16.95  | 5.52                 | 18.15  | 1.28   | 0.14                     | 0.20 | 0.00 | 0.10 |         |        |
| 2              | 0.00  | 0.00                                                       | 0.00  | 1.94   | 12.60  | 8.76                 | 14.50  | 1.07   | 0.16                     | 0.20 | 0.04 | 0.10 |         |        |
| 3              | 0.00  | 0.00                                                       | 0.00  | 1.73   | 14.20  | 6.36                 | 17.70  | 0.98   | 0.16                     | 0.20 | 0.10 | 0.08 |         |        |
| 4              | 0.00  | 0.00                                                       | 0.00  | 1.37   | 12.06  | 5.04                 | 13.05  | 0.86   | 0.16                     | 0.23 | 0.16 | 0.12 |         |        |
| 5              | 0.00  | 0.00                                                       | 0.00  | 2.24   | 11.88  | 4.76                 | 6.54   | 0.77   | 0.16                     | 0.35 | 0.16 | 0.16 |         |        |
| 6              | 0.00  | 0.00                                                       | 0.04  | 2.52   | 15.20  | 5.04                 | 4.20   | 0.86   | 0.16                     | 0.35 | 0.18 | 0.10 |         |        |
| 7              | 0.00  | 0.00                                                       | 0.74  | 2.12   | 21.60  | 3.84                 | 3.24   | 0.80   | 0.14                     | 0.32 | 0.12 | 0.10 |         |        |
| 8              | 0.00  | 0.00                                                       | 0.68  | 1.22   | 30.20  | 4.56                 | 2.36   | 0.74   | 0.14                     | 0.32 | 0.12 | 0.08 |         |        |
| 9              | 0.00  | 0.00                                                       | 0.68  | 2.68   | 36.80  | 6.18                 | 1.85   | 0.68   | 0.14                     | 0.26 | 0.10 | 0.06 |         |        |
| 10             | 0.00  | 0.00                                                       | 0.68  | 5.04   | 36.50  | 14.80                | 1.46   | 0.59   | 0.14                     | 0.20 | 0.10 | 0.06 |         |        |
| 11             | 0.00  | 0.00                                                       | 0.92  | 12.06  | 39.50  | 14.20                | 1.19   | 0.50   | 0.12                     | 0.20 | 0.14 | 0.06 |         |        |
| 12             | 0.00  | 0.00                                                       | 4.72  | 23.20  | 43.10  | 13.60                | 0.95   | 0.44   | 0.12                     | 0.20 | 0.18 | 0.08 |         |        |
| 13             | 0.00  | 0.00                                                       | 16.30 | 20.55  | 47.30  | 18.30                | 0.86   | 0.38   | 0.10                     | 0.18 | 0.20 | 0.08 |         |        |
| 14             | 0.00  | 0.00                                                       | 18.15 | 16.95  | 43.45  | 24.20                | 0.80   | 0.32   | 0.10                     | 0.16 | 0.23 | 0.10 |         |        |
| 15             | 0.00  | 0.00                                                       | 7.68  | 13.50  | 40.10  | 29.90                | 0.74   | 0.29   | 0.20                     | 0.18 | 0.26 | 0.12 |         |        |
| 16             | 0.00  | 0.00                                                       | 3.12  | 8.76   | 36.20  | 38.30                | 0.95   | 0.29   | 0.95                     | 0.20 | 0.20 | 0.12 |         |        |
| 17             | 0.00  | 0.00                                                       | 1.67  | 6.54   | 25.00  | 39.20                | 2.92   | 0.26   | 1.28                     | 0.26 | 0.23 | 0.12 |         |        |
| 18             | 0.00  | 0.00                                                       | 1.46  | 8.70   | 13.80  | 44.15                | 4.88   | 0.26   | 1.04                     | 0.35 | 0.20 | 0.12 |         |        |
| 19             | 0.00  | 0.00                                                       | 1.28  | 11.61  | 8.34   | 47.30                | 8.34   | 0.23   | 0.92                     | 0.32 | 0.20 | 0.10 |         |        |
| 20             | 0.00  | 0.00                                                       | 1.28  | 11.79  | 5.92   | 46.95                | 8.70   | 0.23   | 0.83                     | 0.32 | 0.16 | 0.10 |         |        |
| 21             | 0.00  | 0.00                                                       | 1.79  | 14.70  | 4.00   | 49.75                | 7.26   | 0.23   | 0.74                     | 0.29 | 0.16 | 0.08 |         |        |
| 22             | 0.00  | 0.00                                                       | 1.28  | 18.00  | 2.76   | 42.05                | 5.32   | 0.20   | 0.65                     | 0.20 | 0.12 | 0.08 |         |        |
| 23             | 0.00  | 0.00                                                       | 1.25  | 21.80  | 5.36   | 37.10                | 4.40   | 0.20   | 0.62                     | 0.18 | 0.08 | 0.06 |         |        |
| 24             | 0.00  | 0.00                                                       | 1.43  | 28.60  | 5.04   | 30.50                | 4.12   | 0.20   | 0.56                     | 0.18 | 0.08 | 0.06 |         |        |
| 25             | 0.00  | 0.00                                                       | 2.16  | 34.40  | 5.64   | 22.20                | 4.12   | 0.18   | 0.50                     | 0.16 | 0.10 | 0.08 |         |        |
| 26             | 0.00  | 0.00                                                       | 2.32  | 36.80  | 6.06   | 18.00                | 3.84   | 0.18   | 0.44                     | 0.14 | 0.10 | 0.08 |         |        |
| 27             | 0.00  | 0.00                                                       | 2.04  | 34.10  | 5.48   | 17.25                | 3.20   | 0.16   | 0.38                     | 0.10 | 0.14 | 0.10 |         |        |
| 28             | 0.00  | 0.00                                                       | 1.58  | 28.00  | 4.16   | 17.10                | 2.24   | 0.16   | 0.35                     | 0.08 | 0.10 | 0.12 |         |        |
| 29             | 0.00  | 0.00                                                       | 1.28  | 20.40  | 3.88   | 14.30                | 2.08   | 0.16   | 0.26                     | 0.04 |      | 0.14 |         |        |
| 30             | 0.00  | 0.00                                                       | 1.43  | 11.88  | 3.84   | 16.00                | 1.94   | 0.16   | 0.20                     | 0.00 |      | 0.20 |         |        |
| 31             |       | 0.00                                                       |       | 9.54   | 3.80   |                      | 1.58   |        | 0.20                     | 0.00 |      | 0.41 |         |        |
| Total          | 0.00  | 0.00                                                       | 75.96 | 415.78 | 560.72 | 645.21               | 153.48 | 13.66  | 12.06                    | 6.37 | 3.96 | 3.37 | 1890.57 | CMSDAY |
| Mean           | 0.00  | 0.00                                                       | 2.53  | 13.41  | 18.09  | 21.51                | 4.95   | 0.46   | 0.39                     | 0.21 | 0.14 | 0.11 | 5.18    | CMS    |
| Max            | 0.00  | 0.00                                                       | 18.15 | 36.80  | 47.30  | 49.75                | 18.15  | 1.28   | 1.28                     | 0.35 | 0.26 | 0.41 | 49.75   | CMS    |
| Min            | 0.00  | 0.00                                                       | 0.00  | 1.22   | 2.76   | 3.84                 | 0.74   | 0.16   | 0.10                     | 0.00 | 0.00 | 0.06 | 0.00    | CMS    |
| Runoff         | 0.00  | 0.00                                                       | 6.56  | 35.92  | 48.45  | 55.75                | 13.26  | 1.18   | 1.04                     | 0.55 | 0.34 | 0.29 | 163.35  | MCM    |
| Momentary Peak | 50.80 | CMS. at 171.18 m. (MSL-) at 19.00 Hours , on Aug 13 , 2013 |       |        |        |                      |        |        |                          |      |      |      |         |        |
| Runoff Yield   | 4.19  | Liters/Second/Square KM.                                   |       |        |        | Momentary Peak Yield |        | 41.134 | Liters/Second/Square KM. |      |      |      |         |        |

**WATER YEAR : 2013**

## KHONG RIVER BASIN

**Nam Puan at Ban Pa Noi , Loei (Kh.105)**

Lat 17 - 21 - 43 N    Long 101 - 49 - 46 E

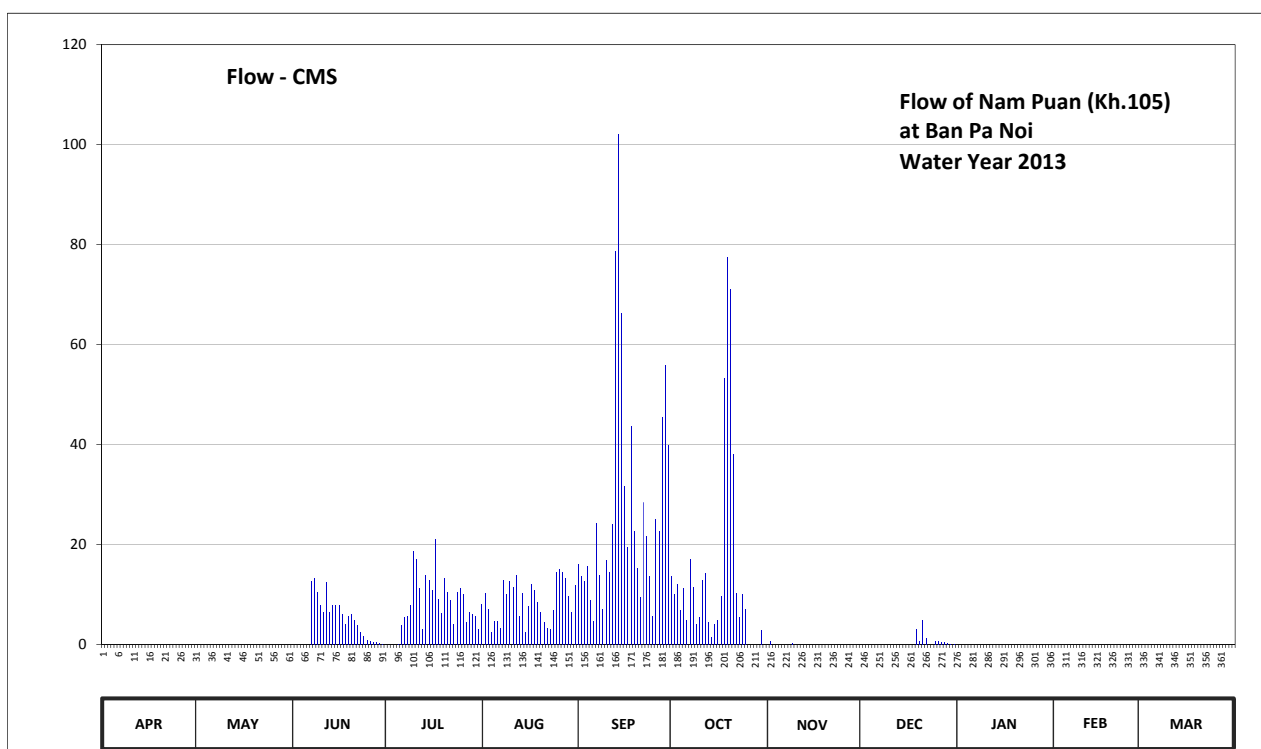
**Location : on right bank at the bridge on highway.**

|                                         |                                                                                           |                |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pa Noi         | <b>Amphoe</b> | Wang Saphung | <b>Changwat</b>  | Loei               |
| <b>Drainage Area</b>                    | 948                                                                                       | sq.km.         |               |              |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +247.500                                                                                  | m. (MSL.)      |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |              |                  |                    |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                              |                |               |              | <b>Elevation</b> | +258.341 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings.                                                            |                |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 2006 to date                                                                              |                |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |              |                  |                    |
| <b>Period of Rating</b>                 | 2006 to date                                                                              |                |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 2006 to date                                                                              |                |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |              |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2013. |                |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 248.29 | 248.31 | 248.31                                          | 250.99 | 251.44 | 251.70 | 251.62 | 250.92 | 250.12 | 251.00 | 250.77 | 250.24 |        |
| 2                                | 248.29 | 248.29 | 248.30                                          | 250.97 | 251.51 | 251.62 | 251.50 | 251.07 | 250.27 | 251.00 | 250.77 | 250.21 |        |
| 3                                | 248.28 | 248.29 | 248.30                                          | 250.97 | 251.40 | 251.59 | 251.57 | 250.30 | 250.37 | 251.00 | 250.76 | 250.18 |        |
| 4                                | 248.28 | 248.29 | 248.30                                          | 250.98 | 251.18 | 251.69 | 251.39 | 249.68 | 250.42 | 250.99 | 250.75 | 250.14 |        |
| 5                                | 248.27 | 248.30 | 248.54                                          | 251.01 | 251.28 | 251.46 | 251.54 | 250.05 | 250.56 | 250.98 | 250.74 | 250.11 |        |
| 6                                | 248.26 | 248.32 | 250.49                                          | 251.24 | 251.28 | 251.28 | 251.30 | 249.60 | 250.59 | 250.97 | 250.71 | 250.09 |        |
| 7                                | 248.23 | 248.33 | 251.59                                          | 251.32 | 251.22 | 251.91 | 251.73 | 250.90 | 250.58 | 250.96 | 250.68 | 250.07 |        |
| 8                                | 248.15 | 248.33 | 251.61                                          | 251.34 | 251.60 | 251.63 | 251.55 | 250.91 | 250.56 | 250.95 | 250.67 | 250.05 |        |
| 9                                | 248.15 | 248.33 | 251.52                                          | 251.43 | 251.50 | 251.40 | 251.25 | 251.02 | 250.55 | 250.93 | 250.65 | 250.03 |        |
| 10                               | 248.15 | 248.32 | 251.43                                          | 251.77 | 251.59 | 251.72 | 251.32 | 250.90 | 250.54 | 250.91 | 250.64 | 249.98 |        |
| 11                               | 248.14 | 248.32 | 251.38                                          | 251.73 | 251.55 | 251.65 | 251.60 | 250.76 | 250.53 | 250.90 | 250.64 | 249.97 |        |
| 12                               | 248.17 | 248.31 | 251.58                                          | 251.54 | 251.63 | 251.90 | 251.64 | 250.59 | 250.53 | 250.88 | 250.63 | 249.96 |        |
| 13                               | 248.26 | 248.29 | 251.37                                          | 251.20 | 251.34 | 253.01 | 251.27 | 250.17 | 250.52 | 250.87 | 250.63 | 249.95 |        |
| 14                               | 248.26 | 248.28 | 251.43                                          | 251.63 | 251.51 | 253.43 | 251.12 | 249.54 | 250.51 | 250.84 | 250.55 | 249.94 |        |
| 15                               | 248.25 | 248.29 | 251.43                                          | 251.60 | 251.17 | 252.78 | 251.25 | 250.23 | 250.50 | 250.83 | 250.39 | 249.93 |        |
| 16                               | 248.26 | 248.28 | 251.43                                          | 251.53 | 251.42 | 252.08 | 251.30 | 249.77 | 250.53 | 250.83 | 250.42 | 249.93 |        |
| 17                               | 248.29 | 248.25 | 251.35                                          | 251.83 | 251.57 | 251.79 | 251.49 | 249.61 | 250.71 | 250.82 | 250.49 | 249.92 |        |
| 18                               | 248.26 | 248.22 | 251.26                                          | 251.47 | 251.53 | 252.34 | 252.54 | 249.69 | 251.00 | 250.82 | 250.48 | 249.92 |        |
| 19                               | 248.26 | 248.21 | 251.33                                          | 251.36 | 251.45 | 251.87 | 252.99 | 249.93 | 251.20 | 250.82 | 250.48 | 249.92 |        |
| 20                               | 248.26 | 248.20 | 251.35                                          | 251.61 | 251.37 | 251.68 | 252.87 | 250.25 | 251.06 | 250.81 | 250.48 | 249.91 |        |
| 21                               | 248.25 | 248.20 | 251.30                                          | 251.52 | 251.27 | 251.48 | 252.22 | 250.14 | 251.29 | 250.81 | 250.47 | 249.90 |        |
| 22                               | 248.25 | 248.21 | 251.24                                          | 251.46 | 251.21 | 252.01 | 251.51 | 250.07 | 251.11 | 250.81 | 250.45 | 249.90 |        |
| 23                               | 248.25 | 248.27 | 251.18                                          | 251.26 | 251.20 | 251.84 | 251.32 | 250.11 | 250.99 | 250.81 | 250.41 | 249.89 |        |
| 24                               | 248.27 | 248.32 | 251.13                                          | 251.52 | 251.39 | 251.62 | 251.50 | 250.28 | 250.99 | 250.81 | 250.38 | 249.89 |        |
| 25                               | 248.29 | 248.35 | 251.10                                          | 251.54 | 251.65 | 251.33 | 251.40 | 250.41 | 251.06 | 250.81 | 250.37 | 249.89 |        |
| 26                               | 248.31 | 248.34 | 251.06                                          | 251.50 | 251.67 | 251.93 | 250.81 | 250.35 | 251.06 | 250.81 | 250.35 | 249.87 |        |
| 27                               | 248.32 | 248.35 | 251.05                                          | 251.27 | 251.65 | 251.87 | 250.66 | 250.29 | 251.04 | 250.81 | 250.32 | 249.85 |        |
| 28                               | 248.32 | 248.38 | 251.04                                          | 251.38 | 251.61 | 252.38 | 250.57 | 250.00 | 251.04 | 250.81 | 250.30 | 249.81 |        |
| 29                               | 248.31 | 248.35 | 251.03                                          | 251.35 | 251.49 | 252.59 | 250.78 | 249.84 | 251.03 | 250.81 |        | 249.79 |        |
| 30                               | 248.31 | 248.36 | 251.01                                          | 251.34 | 251.37 | 252.26 | 251.19 | 249.86 | 251.01 | 250.80 |        | 249.78 |        |
| 31                               |        | 248.33 |                                                 | 251.20 | 251.56 |        | 250.85 |        | 251.01 | 250.79 |        | 249.77 |        |
| Mean                             | 248.25 | 248.30 | 250.78                                          | 251.38 | 251.44 | 251.93 | 251.47 | 250.24 | 250.75 | 250.87 | 250.55 | 249.96 |        |
| Max                              | 248.32 | 248.38 | 251.61                                          | 251.83 | 251.67 | 253.43 | 252.99 | 251.07 | 251.29 | 251.00 | 250.77 | 250.24 | 253.43 |
| Min                              | 248.14 | 248.20 | 248.30                                          | 250.97 | 251.17 | 251.28 | 250.57 | 249.54 | 250.12 | 250.79 | 250.30 | 249.77 | 248.14 |
| Annual Max Momentary Gage Height | 253.56 |        | m. (MSL.) , at 17.00 Hours , on Sep 14 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 247.50 |        | m. (MSL.) , River Bed 247.65 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 258.32 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 256.64 |        | m. (MSL.) , Drainage Area 948 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec   | Jan  | Feb  | Mar  | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------|--------------------------|-------|------|------|------|----------------|
| 1              | 0.00                                                              | 0.00                     | 0.00   | 0.00                 | 8.20   | 16.00   | 13.60  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00                                                              | 0.00                     | 0.00   | 0.00                 | 10.30  | 13.60   | 10.00  | 0.70                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00                                                              | 0.00                     | 0.00   | 0.00                 | 7.00   | 12.70   | 12.10  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00                                                              | 0.00                     | 0.00   | 0.00                 | 2.60   | 15.70   | 6.80   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                              | 0.00                     | 0.00   | 0.10                 | 4.60   | 8.80    | 11.20  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                              | 0.00                     | 0.00   | 3.80                 | 4.60   | 4.60    | 5.00   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                              | 0.00                     | 12.70  | 5.40                 | 3.40   | 24.40   | 17.20  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                              | 0.00                     | 13.30  | 5.80                 | 13.00  | 13.90   | 11.50  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                              | 0.00                     | 10.60  | 7.90                 | 10.00  | 7.00    | 4.00   | 0.20                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                              | 0.00                     | 7.90   | 18.80                | 12.70  | 16.80   | 5.40   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                              | 0.00                     | 6.60   | 17.20                | 11.50  | 14.50   | 13.00  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                              | 0.00                     | 12.40  | 11.20                | 13.90  | 24.00   | 14.20  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                              | 0.00                     | 6.40   | 3.00                 | 5.80   | 78.56   | 4.40   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                              | 0.00                     | 7.90   | 13.90                | 10.30  | 102.08  | 1.40   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                              | 0.00                     | 7.90   | 13.00                | 2.40   | 66.12   | 4.00   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                              | 0.00                     | 7.90   | 10.90                | 7.60   | 31.68   | 5.00   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                              | 0.00                     | 6.00   | 21.20                | 12.10  | 19.60   | 9.70   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                              | 0.00                     | 4.20   | 9.10                 | 10.90  | 43.64   | 53.16  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                              | 0.00                     | 5.60   | 6.20                 | 8.50   | 22.80   | 77.46  | 0.00                     | 3.00  | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                              | 0.00                     | 6.00   | 13.30                | 6.40   | 15.40   | 70.98  | 0.00                     | 0.60  | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                              | 0.00                     | 5.00   | 10.60                | 4.40   | 9.40    | 38.12  | 0.00                     | 4.80  | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                              | 0.00                     | 3.80   | 8.80                 | 3.20   | 28.46   | 10.30  | 0.00                     | 1.20  | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                              | 0.00                     | 2.60   | 4.20                 | 3.00   | 21.60   | 5.40   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                              | 0.00                     | 1.60   | 10.60                | 6.80   | 13.60   | 10.00  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                              | 0.00                     | 1.00   | 11.20                | 14.50  | 5.60    | 7.00   | 0.00                     | 0.60  | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                              | 0.00                     | 0.60   | 10.00                | 15.10  | 25.20   | 0.00   | 0.00                     | 0.60  | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                              | 0.00                     | 0.50   | 4.40                 | 14.50  | 22.80   | 0.00   | 0.00                     | 0.40  | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                              | 0.00                     | 0.40   | 6.60                 | 13.30  | 45.48   | 0.00   | 0.00                     | 0.40  | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                              | 0.00                     | 0.30   | 6.00                 | 9.70   | 55.86   | 0.00   | 0.00                     | 0.30  | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                              | 0.00                     | 0.10   | 5.80                 | 6.40   | 39.96   | 2.80   | 0.00                     | 0.10  | 0.00 |      | 0.00 |                |
| 31             |                                                                   | 0.00                     |        | 3.00                 | 11.80  |         | 0.00   |                          | 0.10  | 0.00 |      | 0.00 |                |
| Total          | 0.00                                                              | 0.00                     | 131.30 | 242.00               | 268.50 | 819.84  | 423.72 | 0.90                     | 12.10 | 0.00 | 0.00 | 0.00 | 1898.36 CMSDAY |
| Mean           | 0.00                                                              | 0.00                     | 4.38   | 7.81                 | 8.66   | 27.33   | 13.67  | 0.03                     | 0.39  | 0.00 | 0.00 | 0.00 | 5.20 CMS       |
| Max            | 0.00                                                              | 0.00                     | 13.30  | 21.20                | 15.10  | 102.08  | 77.46  | 0.70                     | 4.80  | 0.00 | 0.00 | 0.00 | 102.08 CMS     |
| Min            | 0.00                                                              | 0.00                     | 0.00   | 0.00                 | 2.40   | 4.60    | 0.00   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                              | 0.00                     | 11.34  | 20.91                | 23.20  | 70.83   | 36.61  | 0.08                     | 1.05  | 0.00 | 0.00 | 0.00 | 164.02 MCM     |
| Momentary Peak | 109.84 CMS. at 253.56 m. (MSL.) at 17.00 Hours , on Sep 14 , 2013 |                          |        |                      |        |         |        |                          |       |      |      |      |                |
| Runoff Yield   | 5.49                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 115.865 |        | Liters/Second/Square KM. |       |      |      |      |                |

## WATER YEAR : 2013

**KHONG RIVER BASIN**

**Nam Un at Ban Prong Yai , Sakon Nakhon (Kh.108)**

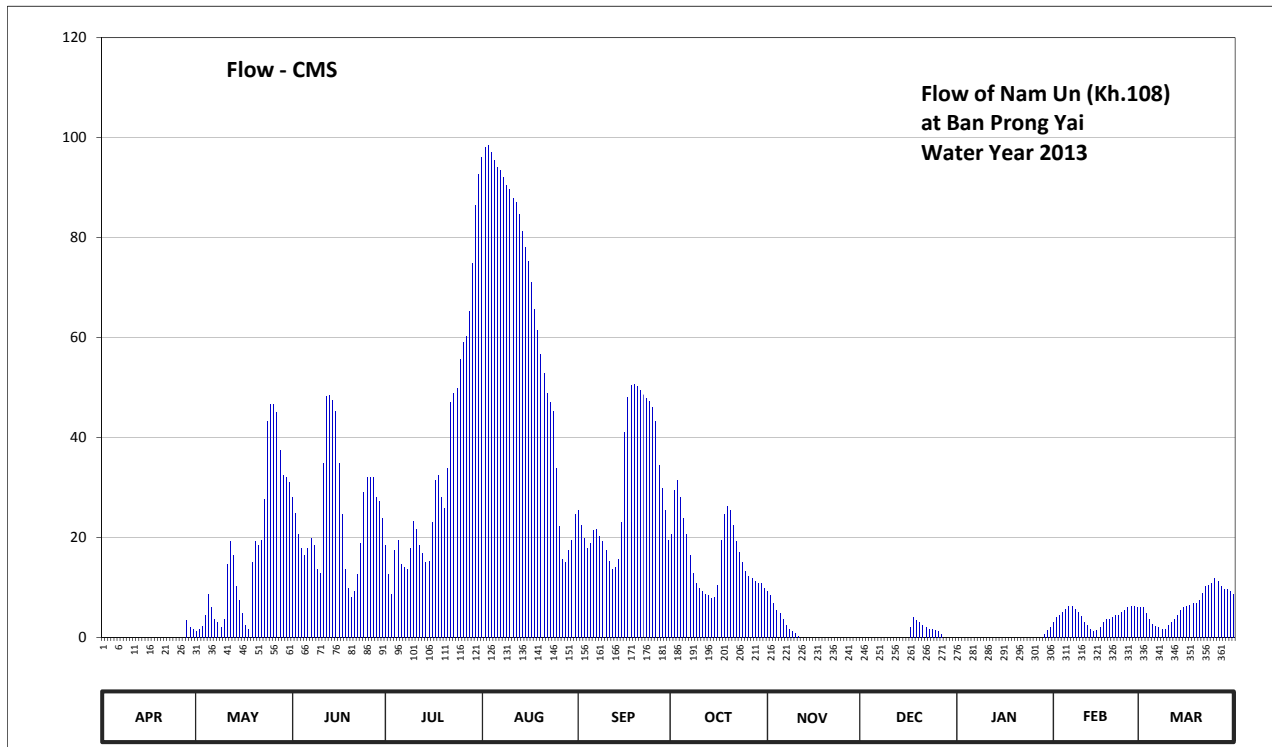
Lat 17 - 19 - 22 N    Long 103 - 58 - 45 E

**Location :** on right bank Ban Prong Yai.

|                                         |                                                                                           |           |               |               |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Prong Yai | <b>Amphoe</b> | Phanna Nikhom | <b>Changwat</b>  | Sakon Nakhon       |
| <b>Drainage Area</b>                    | 2,160                                                                                     | sq.km.    |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +150.000                                                                                  | m. (MSL.) |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | H.D.      |               |               |                  |                    |
| <b>Location BM</b>                      | On right bank at the automatic gage building.                                             |           |               |               | <b>Elevation</b> | +159.228 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings.                                                            |           |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |           |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |               |                  |                    |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |           |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |           |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                                       |           |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |               |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2013. |           |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 152.70 | 152.86 | 153.67                                           | 153.43 | 156.65 | 153.61 | 153.49 | 153.16 | 152.49 | 152.71 | 152.94 | 153.05 |        |
| 2                                | 152.67 | 152.88 | 153.60                                           | 153.26 | 156.71 | 153.54 | 153.70 | 153.13 | 152.48 | 152.69 | 152.98 | 153.05 |        |
| 3                                | 152.64 | 152.91 | 153.49                                           | 153.14 | 156.72 | 153.47 | 153.74 | 153.08 | 152.48 | 152.68 | 153.00 | 153.01 |        |
| 4                                | 152.61 | 153.00 | 153.41                                           | 153.40 | 156.68 | 153.41 | 153.67 | 153.03 | 152.51 | 152.67 | 153.02 | 152.97 |        |
| 5                                | 152.58 | 153.14 | 153.37                                           | 153.46 | 156.63 | 153.44 | 153.57 | 153.01 | 152.56 | 152.66 | 153.04 | 152.93 |        |
| 6                                | 152.56 | 153.05 | 153.41                                           | 153.32 | 156.59 | 153.51 | 153.49 | 152.97 | 152.57 | 152.66 | 153.06 | 152.91 |        |
| 7                                | 152.54 | 152.97 | 153.47                                           | 153.30 | 156.57 | 153.52 | 153.37 | 152.92 | 152.56 | 152.66 | 153.06 | 152.90 |        |
| 8                                | 152.51 | 152.94 | 153.43                                           | 153.29 | 156.53 | 153.48 | 153.27 | 152.88 | 152.55 | 152.66 | 153.04 | 152.89 |        |
| 9                                | 152.46 | 152.90 | 153.29                                           | 153.41 | 156.48 | 153.45 | 153.21 | 152.86 | 152.58 | 152.70 | 153.02 | 152.89 |        |
| 10                               | 152.43 | 152.97 | 153.27                                           | 153.56 | 156.45 | 153.40 | 153.18 | 152.85 | 152.60 | 152.72 | 152.99 | 152.92 |        |
| 11                               | 152.41 | 153.32 | 153.81                                           | 153.52 | 156.39 | 153.34 | 153.16 | 152.81 | 152.61 | 152.73 | 152.94 | 152.94 |        |
| 12                               | 152.37 | 153.45 | 154.40                                           | 153.43 | 156.36 | 153.29 | 153.14 | 152.79 | 152.63 | 152.74 | 152.92 | 152.97 |        |
| 13                               | 152.34 | 153.37 | 154.42                                           | 153.38 | 156.28 | 153.30 | 153.13 | 152.79 | 152.66 | 152.74 | 152.89 | 153.00 |        |
| 14                               | 152.31 | 153.19 | 154.30                                           | 153.33 | 156.16 | 153.35 | 153.11 | 152.77 | 152.67 | 152.74 | 152.86 | 153.03 |        |
| 15                               | 152.29 | 153.10 | 154.05                                           | 153.34 | 156.05 | 153.55 | 153.12 | 152.76 | 152.71 | 152.75 | 152.87 | 153.05 |        |
| 16                               | 152.29 | 153.01 | 153.81                                           | 153.55 | 155.94 | 153.93 | 153.20 | 152.74 | 152.79 | 152.76 | 152.90 | 153.06 |        |
| 17                               | 152.29 | 152.92 | 153.59                                           | 153.74 | 155.76 | 154.39 | 153.46 | 152.73 | 152.90 | 152.75 | 152.94 | 153.07 |        |
| 18                               | 152.28 | 152.89 | 153.29                                           | 153.76 | 155.53 | 154.61 | 153.59 | 152.72 | 152.98 | 152.72 | 152.97 | 153.08 |        |
| 19                               | 152.28 | 153.33 | 153.18                                           | 153.67 | 155.31 | 154.62 | 153.63 | 152.69 | 152.96 | 152.70 | 152.97 | 153.08 |        |
| 20                               | 152.28 | 153.45 | 153.12                                           | 153.62 | 155.06 | 154.60 | 153.61 | 152.69 | 152.94 | 152.71 | 152.98 | 153.10 |        |
| 21                               | 152.28 | 153.43 | 153.16                                           | 153.79 | 154.79 | 154.53 | 153.54 | 152.68 | 152.92 | 152.72 | 153.00 | 153.15 |        |
| 22                               | 152.29 | 153.46 | 153.26                                           | 154.24 | 154.48 | 154.45 | 153.45 | 152.66 | 152.90 | 152.70 | 153.00 | 153.19 |        |
| 23                               | 152.32 | 153.66 | 153.44                                           | 154.48 | 154.26 | 154.34 | 153.39 | 152.65 | 152.89 | 152.70 | 153.02 | 153.20 |        |
| 24                               | 152.31 | 153.97 | 153.69                                           | 154.56 | 154.04 | 154.29 | 153.33 | 152.63 | 152.88 | 152.68 | 153.03 | 153.21 |        |
| 25                               | 152.31 | 154.21 | 153.75                                           | 155.01 | 153.79 | 154.14 | 153.28 | 152.62 | 152.87 | 152.68 | 153.05 | 153.24 |        |
| 26                               | 152.38 | 154.21 | 153.75                                           | 155.18 | 153.53 | 153.97 | 153.25 | 152.61 | 152.86 | 152.69 | 153.06 | 153.22 |        |
| 27                               | 152.63 | 154.00 | 153.75                                           | 155.25 | 153.35 | 153.80 | 153.24 | 152.59 | 152.83 | 152.74 | 153.06 | 153.19 |        |
| 28                               | 152.96 | 153.86 | 153.67                                           | 155.51 | 153.33 | 153.71 | 153.22 | 152.57 | 152.78 | 152.78 | 153.05 | 153.17 |        |
| 29                               | 152.90 | 153.76 | 153.65                                           | 155.93 | 153.40 | 153.61 | 153.21 | 152.54 | 152.75 | 152.83 |        | 153.17 |        |
| 30                               | 152.88 | 153.75 | 153.57                                           | 156.34 | 153.46 | 153.46 | 153.21 | 152.51 | 152.73 | 152.87 |        | 153.16 |        |
| 31                               |        | 153.73 |                                                  | 156.55 | 153.59 |        | 153.18 |        | 152.72 | 152.90 |        | 153.14 |        |
| Mean                             | 152.47 | 153.34 | 153.60                                           | 154.06 | 155.38 | 153.80 | 153.36 | 152.78 | 152.72 | 152.72 | 152.99 | 153.06 |        |
| Max                              | 152.96 | 154.21 | 154.42                                           | 156.55 | 156.72 | 154.62 | 153.74 | 153.16 | 152.98 | 152.90 | 153.06 | 153.24 | 156.72 |
| Min                              | 152.28 | 152.86 | 153.12                                           | 153.14 | 153.33 | 153.29 | 153.11 | 152.51 | 152.48 | 152.66 | 152.86 | 152.89 | 152.28 |
| Annual Max Momentary Gage Height | 156.74 |        | m. (MSL.) , at 01.00 Hours , on Aug 3 , 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 150.00 |        | m. (MSL.) , River Bed 150.23 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 157.58 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 158.36 |        | m. (MSL.) , Drainage Area 2160 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug     | Sep    | Oct                      | Nov   | Dec   | Jan  | Feb    | Mar    | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|---------|--------|--------------------------|-------|-------|------|--------|--------|----------------|
| 1              | 0.00                                                            | 1.20                     | 28.15  | 18.55                | 96.10   | 25.45  | 20.65                    | 9.30  | 0.00  | 0.00 | 3.00   | 6.00   |                |
| 2              | 0.00                                                            | 1.60                     | 25.00  | 12.60                | 98.14   | 22.60  | 29.50                    | 8.40  | 0.00  | 0.00 | 4.00   | 6.00   |                |
| 3              | 0.00                                                            | 2.25                     | 20.65  | 8.70                 | 98.48   | 19.95  | 31.50                    | 6.90  | 0.00  | 0.00 | 4.50   | 4.80   |                |
| 4              | 0.00                                                            | 4.50                     | 17.85  | 17.50                | 97.12   | 17.85  | 28.15                    | 5.40  | 0.00  | 0.00 | 5.10   | 3.75   |                |
| 5              | 0.00                                                            | 8.70                     | 16.45  | 19.60                | 95.42   | 18.90  | 23.80                    | 4.80  | 0.00  | 0.00 | 5.70   | 2.75   |                |
| 6              | 0.00                                                            | 6.00                     | 17.85  | 14.70                | 94.06   | 21.40  | 20.65                    | 3.75  | 0.00  | 0.00 | 6.30   | 2.25   |                |
| 7              | 0.00                                                            | 3.75                     | 19.95  | 14.00                | 93.38   | 21.80  | 16.45                    | 2.50  | 0.00  | 0.00 | 6.30   | 2.00   |                |
| 8              | 0.00                                                            | 3.00                     | 18.55  | 13.65                | 92.02   | 20.30  | 12.95                    | 1.60  | 0.00  | 0.00 | 5.70   | 1.80   |                |
| 9              | 0.00                                                            | 2.00                     | 13.65  | 17.85                | 90.42   | 19.25  | 10.85                    | 1.20  | 0.00  | 0.00 | 5.10   | 1.80   |                |
| 10             | 0.00                                                            | 3.75                     | 12.95  | 23.40                | 89.55   | 17.50  | 9.90                     | 1.00  | 0.00  | 0.00 | 4.25   | 2.50   |                |
| 11             | 0.00                                                            | 14.70                    | 35.00  | 21.80                | 87.81   | 15.40  | 9.30                     | 0.20  | 0.00  | 0.00 | 3.00   | 3.00   |                |
| 12             | 0.00                                                            | 19.25                    | 48.20  | 18.55                | 86.94   | 13.65  | 8.70                     | 0.00  | 0.00  | 0.00 | 2.50   | 3.75   |                |
| 13             | 0.00                                                            | 16.45                    | 48.36  | 16.80                | 84.62   | 14.00  | 8.40                     | 0.00  | 0.00  | 0.00 | 1.80   | 4.50   |                |
| 14             | 0.00                                                            | 10.20                    | 47.40  | 15.05                | 81.14   | 15.75  | 7.80                     | 0.00  | 0.00  | 0.00 | 1.20   | 5.40   |                |
| 15             | 0.00                                                            | 7.50                     | 45.40  | 15.40                | 77.95   | 23.00  | 8.10                     | 0.00  | 0.00  | 0.00 | 1.40   | 6.00   |                |
| 16             | 0.00                                                            | 4.80                     | 35.00  | 23.00                | 75.12   | 41.15  | 10.50                    | 0.00  | 0.00  | 0.00 | 2.00   | 6.30   |                |
| 17             | 0.00                                                            | 2.50                     | 24.60  | 31.50                | 70.98   | 48.12  | 19.60                    | 0.00  | 2.00  | 0.00 | 3.00   | 6.60   |                |
| 18             | 0.00                                                            | 1.80                     | 13.65  | 32.50                | 65.69   | 50.43  | 24.60                    | 0.00  | 4.00  | 0.00 | 3.75   | 6.90   |                |
| 19             | 0.00                                                            | 15.05                    | 9.90   | 28.15                | 61.39   | 50.56  | 26.35                    | 0.00  | 3.50  | 0.00 | 3.75   | 6.90   |                |
| 20             | 0.00                                                            | 19.25                    | 8.10   | 25.90                | 56.64   | 50.30  | 25.45                    | 0.00  | 3.00  | 0.00 | 4.00   | 7.50   |                |
| 21             | 0.00                                                            | 18.55                    | 9.30   | 34.00                | 52.77   | 49.39  | 22.60                    | 0.00  | 2.50  | 0.00 | 4.50   | 9.00   |                |
| 22             | 0.00                                                            | 19.60                    | 12.60  | 46.92                | 48.84   | 48.60  | 19.25                    | 0.00  | 2.00  | 0.00 | 4.50   | 10.20  |                |
| 23             | 0.00                                                            | 27.70                    | 18.90  | 48.84                | 47.08   | 47.72  | 17.15                    | 0.00  | 1.80  | 0.00 | 5.10   | 10.50  |                |
| 24             | 0.00                                                            | 43.35                    | 29.05  | 49.78                | 45.32   | 47.32  | 15.05                    | 0.00  | 1.60  | 0.00 | 5.40   | 10.85  |                |
| 25             | 0.00                                                            | 46.68                    | 32.00  | 55.69                | 34.00   | 46.12  | 13.30                    | 0.00  | 1.40  | 0.00 | 6.00   | 11.90  |                |
| 26             | 0.00                                                            | 46.68                    | 32.00  | 58.92                | 22.20   | 43.35  | 12.25                    | 0.00  | 1.20  | 0.00 | 6.30   | 11.20  |                |
| 27             | 0.00                                                            | 45.00                    | 32.00  | 60.25                | 15.75   | 34.50  | 11.90                    | 0.00  | 0.60  | 0.00 | 6.30   | 10.20  |                |
| 28             | 3.50                                                            | 37.50                    | 28.15  | 65.23                | 15.05   | 30.00  | 11.20                    | 0.00  | 0.00  | 0.00 | 6.00   | 9.60   |                |
| 29             | 2.00                                                            | 32.50                    | 27.25  | 74.89                | 17.50   | 25.45  | 10.85                    | 0.00  | 0.00  | 0.60 |        | 9.60   |                |
| 30             | 1.60                                                            | 32.00                    | 23.80  | 86.36                | 19.60   | 19.60  | 10.85                    | 0.00  | 0.00  | 1.40 |        | 9.30   |                |
| 31             |                                                                 | 31.00                    |        | 92.70                | 24.60   |        | 9.90                     |       | 0.00  | 2.00 |        | 8.70   |                |
| Total          | 7.10                                                            | 528.81                   | 751.71 | 1062.78              | 2035.68 | 919.41 | 507.50                   | 45.05 | 23.60 | 4.00 | 120.45 | 201.55 | 6207.64 CMSDAY |
| Mean           | 0.24                                                            | 17.06                    | 25.06  | 34.28                | 65.67   | 30.65  | 16.37                    | 1.50  | 0.76  | 0.13 | 4.30   | 6.50   | 17.01 CMS      |
| Max            | 3.50                                                            | 46.68                    | 48.36  | 92.70                | 98.48   | 50.56  | 31.50                    | 9.30  | 4.00  | 2.00 | 6.30   | 11.90  | 98.48 CMS      |
| Min            | 0.00                                                            | 1.20                     | 8.10   | 8.70                 | 15.05   | 13.65  | 7.80                     | 0.00  | 0.00  | 0.00 | 1.20   | 1.80   | 0.00 CMS       |
| Runoff         | 0.61                                                            | 45.69                    | 64.95  | 91.82                | 175.88  | 79.44  | 43.85                    | 3.89  | 2.04  | 0.35 | 10.41  | 17.41  | 536.34 MCM     |
| Momentary Peak | 99.16 CMS. at 156.74 m. (MSL.) at 01.00 Hours , on Aug 3 , 2013 |                          |        |                      |         |        |                          |       |       |      |        |        |                |
| Runoff Yield   | 7.87                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 45.899 | Liters/Second/Square KM. |       |       |      |        |        |                |

## WATER YEAR : 2013

**KHONG RIVER BASIN**

**Nam Yam at Ban Pho Chai , Sakon Nakhon (Kh.112)**

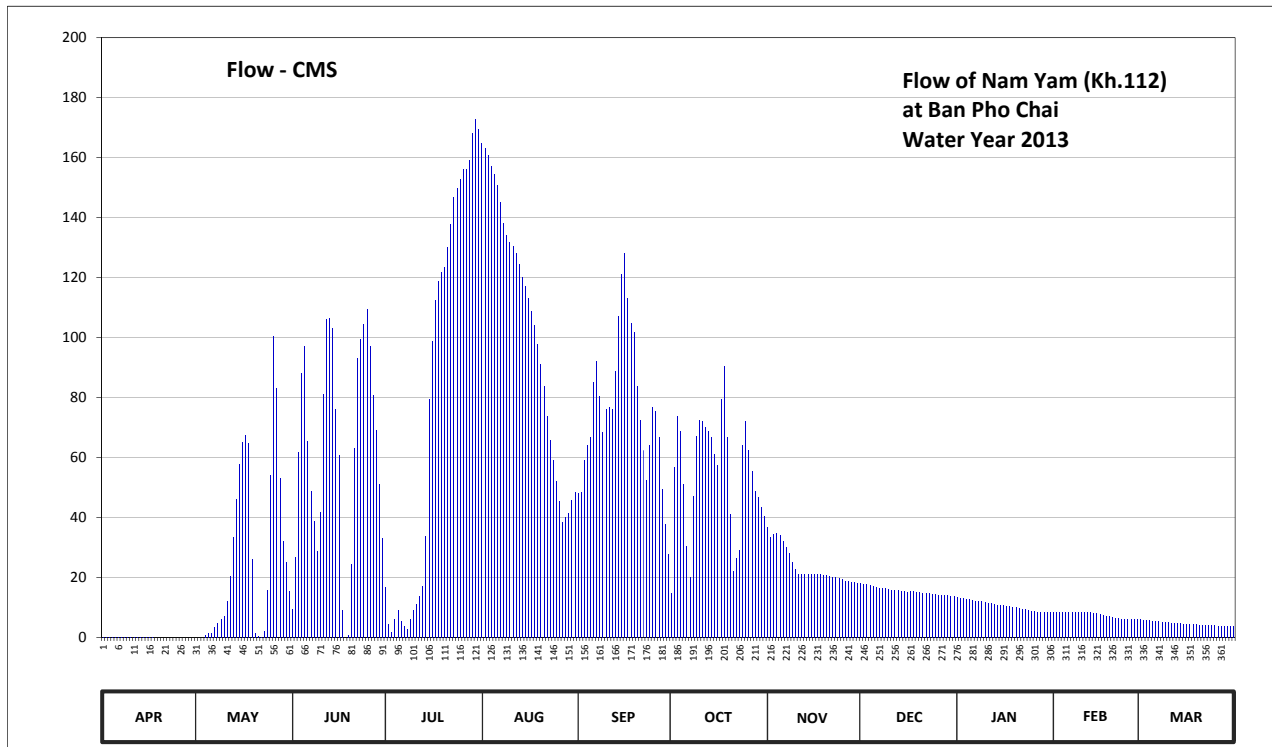
Lat 17 - 35 - 59 N    Long 103 - 58 - 51 E

**Location : on left bank Ban Pho Chai.**

|                                         |                                                                                           |           |               |             |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pho Chai  | <b>Amphoe</b> | Akat Amnuai | <b>Changwat</b>  | Sakon Nakhon       |
| <b>Drainage Area</b>                    | 1,448                                                                                     | sq.km.    |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +141.000                                                                                  | m. (MSL.) |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | H.D.      |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank at the automatic gage building.                                              |           |               |             | <b>Elevation</b> | +151.253 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings.                                                            |           |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |           |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |             |                  |                    |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |           |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |           |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |             |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 19 discharge measurements made in 2013. |           |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 143.06 | 142.85 | 144.00                                           | 144.40 | 148.09 | 146.49 | 145.41 | 146.21 | 145.58 | 145.32 | 145.00 | 144.80 |        |
| 2                                | 143.06 | 142.85 | 144.85                                           | 143.64 | 148.06 | 146.50 | 146.68 | 146.11 | 145.57 | 145.31 | 145.00 | 144.79 |        |
| 3                                | 143.06 | 142.93 | 146.00                                           | 143.36 | 148.02 | 146.72 | 146.98 | 146.14 | 145.56 | 145.30 | 145.00 | 144.78 |        |
| 4                                | 143.06 | 143.14 | 146.64                                           | 143.77 | 147.96 | 146.81 | 146.90 | 146.15 | 145.54 | 145.29 | 145.00 | 144.76 |        |
| 5                                | 143.06 | 143.29 | 146.83                                           | 143.98 | 147.91 | 146.86 | 146.56 | 146.13 | 145.53 | 145.28 | 145.00 | 144.75 |        |
| 6                                | 143.06 | 143.31 | 146.09                                           | 143.73 | 147.85 | 147.16 | 146.03 | 146.08 | 145.52 | 145.27 | 144.99 | 144.73 |        |
| 7                                | 143.04 | 143.54 | 145.62                                           | 143.59 | 147.78 | 147.25 | 145.67 | 146.02 | 145.50 | 145.25 | 144.99 | 144.72 |        |
| 8                                | 143.04 | 143.67 | 145.30                                           | 143.47 | 147.73 | 147.09 | 146.47 | 145.96 | 145.50 | 145.25 | 144.99 | 144.70 |        |
| 9                                | 143.04 | 143.77 | 144.93                                           | 143.76 | 147.70 | 146.89 | 146.87 | 145.86 | 145.49 | 145.24 | 144.99 | 144.69 |        |
| 10                               | 143.04 | 143.85 | 145.39                                           | 143.98 | 147.68 | 147.02 | 146.96 | 145.78 | 145.48 | 145.22 | 144.98 | 144.67 |        |
| 11                               | 143.04 | 144.15 | 146.48                                           | 144.09 | 147.67 | 147.03 | 146.95 | 145.70 | 145.46 | 145.21 | 144.98 | 144.66 |        |
| 12                               | 143.04 | 144.57 | 147.02                                           | 144.25 | 147.65 | 147.02 | 146.92 | 145.70 | 145.45 | 145.20 | 144.98 | 144.65 |        |
| 13                               | 143.02 | 145.10 | 147.03                                           | 144.42 | 147.62 | 147.21 | 146.90 | 145.71 | 145.45 | 145.18 | 144.98 | 144.64 |        |
| 14                               | 143.02 | 145.54 | 146.96                                           | 145.12 | 147.58 | 147.44 | 146.86 | 145.71 | 145.44 | 145.17 | 144.97 | 144.63 |        |
| 15                               | 143.01 | 145.88 | 146.35                                           | 146.43 | 147.55 | 147.59 | 146.76 | 145.71 | 145.43 | 145.16 | 144.96 | 144.62 |        |
| 16                               | 143.01 | 146.08 | 145.97                                           | 146.87 | 147.51 | 147.65 | 146.69 | 145.71 | 145.42 | 145.15 | 144.94 | 144.61 |        |
| 17                               | 143.01 | 146.14 | 143.98                                           | 147.15 | 147.46 | 147.51 | 147.07 | 145.71 | 145.44 | 145.14 | 144.92 | 144.60 |        |
| 18                               | 143.00 | 146.07 | 142.40                                           | 147.27 | 147.40 | 147.41 | 147.23 | 145.70 | 145.43 | 145.13 | 144.90 | 144.59 |        |
| 19                               | 142.98 | 144.83 | 143.18                                           | 147.33 | 147.32 | 147.37 | 146.86 | 145.69 | 145.42 | 145.12 | 144.88 | 144.58 |        |
| 20                               | 142.96 | 143.32 | 144.76                                           | 147.36 | 147.24 | 147.14 | 146.33 | 145.69 | 145.42 | 145.10 | 144.86 | 144.57 |        |
| 21                               | 142.94 | 143.10 | 146.03                                           | 147.48 | 147.14 | 146.96 | 145.74 | 145.68 | 145.41 | 145.08 | 144.84 | 144.56 |        |
| 22                               | 142.92 | 143.03 | 146.75                                           | 147.62 | 146.98 | 146.78 | 145.91 | 145.67 | 145.41 | 145.06 | 144.83 | 144.55 |        |
| 23                               | 142.90 | 143.42 | 146.88                                           | 147.78 | 146.84 | 146.59 | 145.99 | 145.66 | 145.40 | 145.05 | 144.82 | 144.54 |        |
| 24                               | 142.88 | 144.35 | 146.99                                           | 147.83 | 146.72 | 146.81 | 146.81 | 145.65 | 145.39 | 145.03 | 144.81 | 144.54 |        |
| 25                               | 142.87 | 145.78 | 147.09                                           | 147.88 | 146.58 | 147.03 | 146.95 | 145.64 | 145.38 | 145.02 | 144.81 | 144.53 |        |
| 26                               | 142.86 | 146.90 | 146.83                                           | 147.94 | 146.43 | 147.01 | 146.78 | 145.62 | 145.37 | 145.01 | 144.81 | 144.52 |        |
| 27                               | 142.85 | 146.53 | 146.47                                           | 147.94 | 146.26 | 146.86 | 146.65 | 145.61 | 145.37 | 145.00 | 144.80 | 144.52 |        |
| 28                               | 142.85 | 145.75 | 146.18                                           | 147.99 | 146.30 | 146.52 | 146.51 | 145.60 | 145.36 | 145.00 | 144.80 | 144.51 |        |
| 29                               | 142.84 | 145.06 | 145.69                                           | 148.15 | 146.34 | 146.24 | 146.46 | 145.60 | 145.36 | 145.00 |        | 144.50 |        |
| 30                               | 142.87 | 144.78 | 145.09                                           | 148.23 | 146.44 | 145.95 | 146.39 | 145.59 | 145.35 | 145.00 |        | 144.50 |        |
| 31                               |        | 144.34 |                                                  | 148.17 | 146.50 |        | 146.31 |        | 145.34 | 145.00 |        | 144.49 |        |
| Mean                             | 142.98 | 144.45 | 145.79                                           | 145.97 | 147.30 | 146.96 | 146.57 | 145.79 | 145.44 | 145.15 | 144.92 | 144.62 |        |
| Max                              | 143.06 | 146.90 | 147.09                                           | 148.23 | 148.09 | 147.65 | 147.23 | 146.21 | 145.58 | 145.32 | 145.00 | 144.80 | 148.23 |
| Min                              | 142.84 | 142.85 | 142.40                                           | 143.36 | 146.26 | 145.95 | 145.41 | 145.59 | 145.34 | 145.00 | 144.80 | 144.49 | 142.40 |
| Annual Max Momentary Gage Height | 148.25 |        | m. (MSL.) , at 07.00 Hours , on Jul 30 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 141.00 |        | m. (MSL.) , River Bed 139.89 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 149.73 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 151.35 |        | m. (MSL.) , Drainage Area 1448 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|--------|----------|--------|
| 1              | 0.30                                                              | 0.00                     | 9.50    | 16.75                | 164.68  | 48.05   | 14.98                    | 36.85  | 18.12  | 13.36  | 8.60   | 6.00   |          |        |
| 2              | 0.30                                                              | 0.00                     | 26.81   | 4.50                 | 162.95  | 48.50   | 57.00                    | 33.35  | 17.93  | 13.18  | 8.60   | 5.92   |          |        |
| 3              | 0.30                                                              | 0.00                     | 62.00   | 1.80                 | 160.65  | 59.10   | 73.80                    | 34.40  | 17.74  | 13.00  | 8.60   | 5.84   |          |        |
| 4              | 0.30                                                              | 0.70                     | 87.90   | 6.13                 | 157.20  | 64.05   | 69.00                    | 34.75  | 17.36  | 12.84  | 8.60   | 5.68   |          |        |
| 5              | 0.30                                                              | 1.45                     | 96.92   | 9.20                 | 154.33  | 66.80   | 51.20                    | 34.05  | 17.17  | 12.68  | 8.60   | 5.60   |          |        |
| 6              | 0.30                                                              | 1.55                     | 65.60   | 5.62                 | 150.88  | 85.20   | 30.55                    | 32.30  | 16.98  | 12.52  | 8.47   | 5.44   |          |        |
| 7              | 0.20                                                              | 3.40                     | 48.70   | 3.90                 | 145.20  | 92.00   | 20.25                    | 30.20  | 16.60  | 12.20  | 8.47   | 5.36   |          |        |
| 8              | 0.20                                                              | 4.87                     | 39.00   | 2.70                 | 138.20  | 80.40   | 47.15                    | 28.10  | 16.60  | 12.20  | 8.47   | 5.20   |          |        |
| 9              | 0.20                                                              | 6.13                     | 28.91   | 6.00                 | 134.00  | 68.45   | 67.35                    | 25.00  | 16.42  | 12.04  | 8.47   | 5.13   |          |        |
| 10             | 0.20                                                              | 7.25                     | 41.70   | 9.20                 | 131.60  | 76.20   | 72.60                    | 23.00  | 16.24  | 11.72  | 8.34   | 4.99   |          |        |
| 11             | 0.20                                                              | 12.12                    | 81.20   | 11.07                | 130.40  | 76.80   | 72.00                    | 21.00  | 15.88  | 11.56  | 8.34   | 4.92   |          |        |
| 12             | 0.20                                                              | 20.36                    | 106.00  | 13.94                | 128.00  | 76.20   | 70.20                    | 21.00  | 15.70  | 11.40  | 8.34   | 4.85   |          |        |
| 13             | 0.10                                                              | 33.38                    | 106.50  | 17.18                | 124.40  | 88.80   | 69.00                    | 21.25  | 15.70  | 11.12  | 8.34   | 4.78   |          |        |
| 14             | 0.10                                                              | 46.20                    | 103.10  | 33.90                | 120.00  | 107.20  | 66.80                    | 21.25  | 15.52  | 10.98  | 8.21   | 4.71   |          |        |
| 15             | 0.05                                                              | 57.80                    | 76.00   | 79.20                | 117.00  | 121.00  | 61.30                    | 21.25  | 15.34  | 10.84  | 8.08   | 4.64   |          |        |
| 16             | 0.05                                                              | 65.20                    | 60.95   | 98.82                | 113.00  | 128.00  | 57.50                    | 21.25  | 15.16  | 10.70  | 7.82   | 4.57   |          |        |
| 17             | 0.05                                                              | 67.60                    | 9.20    | 112.50               | 108.80  | 113.00  | 79.20                    | 21.25  | 15.52  | 10.56  | 7.56   | 4.50   |          |        |
| 18             | 0.00                                                              | 64.80                    | 0.00    | 118.68               | 104.00  | 104.80  | 90.40                    | 21.00  | 15.34  | 10.42  | 7.30   | 4.43   |          |        |
| 19             | 0.00                                                              | 26.29                    | 0.90    | 121.83               | 97.60   | 101.60  | 66.80                    | 20.75  | 15.16  | 10.28  | 7.04   | 4.36   |          |        |
| 20             | 0.00                                                              | 1.60                     | 24.60   | 123.40               | 91.20   | 83.80   | 41.20                    | 20.75  | 15.16  | 10.00  | 6.78   | 4.29   |          |        |
| 21             | 0.00                                                              | 0.50                     | 63.20   | 129.90               | 83.80   | 72.60   | 22.00                    | 20.50  | 14.98  | 9.72   | 6.52   | 4.22   |          |        |
| 22             | 0.00                                                              | 0.15                     | 93.12   | 137.65               | 73.80   | 62.40   | 26.35                    | 20.25  | 14.98  | 9.44   | 6.39   | 4.15   |          |        |
| 23             | 0.00                                                              | 2.20                     | 99.30   | 146.85               | 65.70   | 52.55   | 29.15                    | 20.00  | 14.80  | 9.30   | 6.26   | 4.08   |          |        |
| 24             | 0.00                                                              | 15.81                    | 104.53  | 149.72               | 59.10   | 64.05   | 64.05                    | 19.75  | 14.62  | 9.02   | 6.13   | 4.08   |          |        |
| 25             | 0.00                                                              | 54.30                    | 109.50  | 152.60               | 52.10   | 76.80   | 72.00                    | 19.50  | 14.44  | 8.88   | 6.13   | 4.01   |          |        |
| 26             | 0.00                                                              | 100.25                   | 96.92   | 156.05               | 45.35   | 75.60   | 62.40                    | 19.00  | 14.26  | 8.74   | 6.13   | 3.94   |          |        |
| 27             | 0.00                                                              | 83.20                    | 80.80   | 156.05               | 38.60   | 66.80   | 55.50                    | 18.75  | 14.26  | 8.60   | 6.00   | 3.94   |          |        |
| 28             | 0.00                                                              | 53.25                    | 69.20   | 158.93               | 40.00   | 49.40   | 48.95                    | 18.50  | 14.08  | 8.60   | 6.00   | 3.87   |          |        |
| 29             | 0.00                                                              | 32.32                    | 51.15   | 168.12               | 41.60   | 37.90   | 46.70                    | 18.50  | 14.08  | 8.60   |        | 3.80   |          |        |
| 30             | 0.00                                                              | 25.05                    | 33.11   | 172.80               | 45.80   | 27.75   | 43.60                    | 18.31  | 13.90  | 8.60   |        | 3.80   |          |        |
| 31             |                                                                   | 15.63                    |         | 169.28               | 48.50   |         | 40.40                    |        | 13.72  | 8.60   |        | 3.74   |          |        |
| Total          | 3.35                                                              | 803.36                   | 1876.32 | 2494.27              | 3228.44 | 2275.80 | 1689.38                  | 715.81 | 483.76 | 331.70 | 212.59 | 144.84 | 14259.62 | CMSDAY |
| Mean           | 0.11                                                              | 25.91                    | 62.54   | 80.46                | 104.14  | 75.86   | 54.50                    | 23.86  | 15.61  | 10.70  | 7.59   | 4.67   | 39.07    | CMS    |
| Max            | 0.30                                                              | 100.25                   | 109.50  | 172.80               | 164.68  | 128.00  | 90.40                    | 36.85  | 18.12  | 13.36  | 8.60   | 6.00   | 172.80   | CMS    |
| Min            | 0.00                                                              | 0.00                     | 0.00    | 1.80                 | 38.60   | 27.75   | 14.98                    | 18.31  | 13.72  | 8.60   | 6.00   | 3.74   | 0.00     | CMS    |
| Runoff         | 0.29                                                              | 69.41                    | 162.11  | 215.51               | 278.94  | 196.63  | 145.96                   | 61.85  | 41.80  | 28.66  | 18.37  | 12.51  | 1232.03  | MCM    |
| Momentary Peak | 174.00 CMS. at 148.25 m. (MSL.) at 07.00 Hours , on Jul 30 , 2013 |                          |         |                      |         |         |                          |        |        |        |        |        |          |        |
| Runoff Yield   | 26.98                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 120.157 | Liters/Second/Square KM. |        |        |        |        |        |          |        |

**WATER YEAR : 2013****KHONG RIVER BASIN****Songkhram River at Ban Lao Sonbun , Sakon Nakhon (Kh.115)**

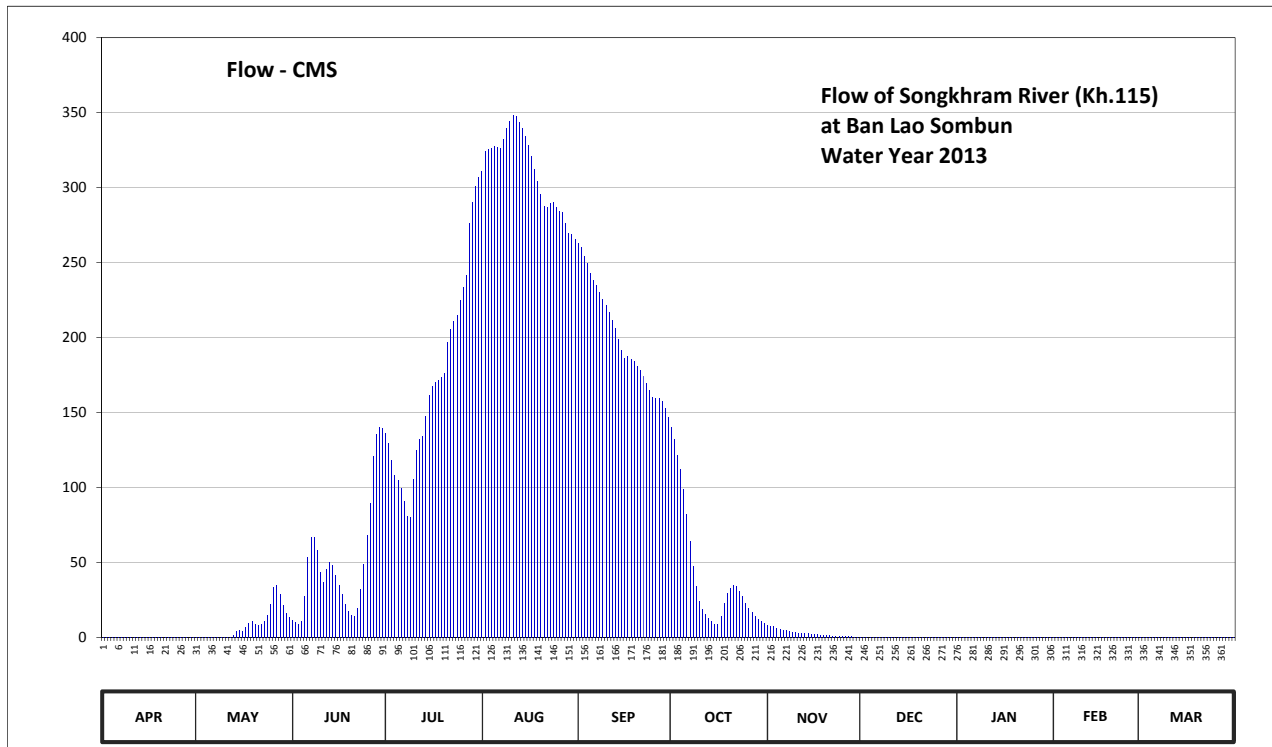
Lat 18 - 00 - 20 N Long 103 - 28 - 20 E

Location : on right bank Ban Lao Sombun.

|                                         |                                                                                           |            |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Lao Sombun | <b>Amphoe</b> | Ban Muang | <b>Changwat</b>  | Sakon Nakhon       |
| <b>Drainage Area</b>                    | 2,852                                                                                     | sq.km.     |               |           |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage       |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +143.000                                                                                  | m. (MSL.)  |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | H.D.       |               |           |                  |                    |
| <b>Location BM</b>                      | On right bank at the automatic gage building.                                             |            |               |           | <b>Elevation</b> | +159.538 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |            |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings.                                                            |            |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |            |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |            |               |           |                  |                    |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |            |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |            |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |            |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +154.910 m.(MSL.), records are channel flow only.       |            |               |           |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |            |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 143.30 | 143.35 | 145.80      | 151.48 | 154.52 | 153.87        | 151.57                            | 145.42            | 143.58 | 143.47 | 143.33 | 143.45 |        |
| 2                                | 143.30 | 143.33 | 145.63      | 151.31 | 154.69 | 153.82        | 151.38                            | 145.31            | 143.55 | 143.46 | 143.33 | 143.47 |        |
| 3                                | 143.30 | 143.34 | 145.50      | 151.00 | 154.71 | 153.73        | 151.09                            | 145.22            | 143.53 | 143.45 | 143.33 | 143.52 |        |
| 4                                | 143.30 | 143.45 | 145.77      | 150.71 | 154.72 | 153.65        | 150.84                            | 145.04            | 143.51 | 143.44 | 143.33 | 143.52 |        |
| 5                                | 143.30 | 143.48 | 147.21      | 150.61 | 154.74 | 153.55        | 150.43                            | 144.93            | 143.51 | 143.43 | 143.33 | 143.52 |        |
| 6                                | 143.29 | 143.42 | 148.70      | 150.45 | 154.73 | 153.47        | 149.86                            | 144.82            | 143.51 | 143.43 | 143.33 | 143.52 |        |
| 7                                | 143.29 | 143.49 | 149.27      | 150.17 | 154.72 | 153.41        | 149.16                            | 144.73            | 143.50 | 143.42 | 143.33 | 143.52 |        |
| 8                                | 143.29 | 143.50 | 149.26      | 149.80 | 154.80 | 153.33        | 148.41                            | 144.66            | 143.50 | 143.41 | 143.33 | 143.51 |        |
| 9                                | 143.29 | 143.44 | 148.91      | 149.77 | 154.89 | 153.26        | 147.66                            | 144.58            | 143.48 | 143.41 | 143.32 | 143.51 |        |
| 10                               | 143.29 | 143.40 | 148.21      | 150.63 | 154.95 | 153.19        | 147.04                            | 144.49            | 143.48 | 143.40 | 143.32 | 143.51 |        |
| 11                               | 143.29 | 143.39 | 147.79      | 151.19 | 155.00 | 153.11        | 146.60                            | 144.42            | 143.47 | 143.39 | 143.38 | 143.51 |        |
| 12                               | 143.28 | 143.41 | 148.33      | 151.37 | 154.99 | 153.02        | 146.27                            | 144.37            | 143.46 | 143.38 | 143.50 | 143.50 |        |
| 13                               | 143.28 | 143.96 | 148.56      | 151.42 | 154.94 | 152.93        | 145.96                            | 144.31            | 143.45 | 143.37 | 143.49 | 143.50 |        |
| 14                               | 143.28 | 144.68 | 148.45      | 151.75 | 154.89 | 152.79        | 145.71                            | 144.24            | 143.44 | 143.36 | 143.40 | 143.50 |        |
| 15                               | 143.28 | 144.76 | 148.10      | 152.05 | 154.82 | 152.65        | 145.52                            | 144.17            | 143.43 | 143.35 | 143.40 | 143.50 |        |
| 16                               | 143.28 | 144.71 | 147.70      | 152.18 | 154.75 | 152.56        | 145.48                            | 144.10            | 143.48 | 143.35 | 143.39 | 143.50 |        |
| 17                               | 143.28 | 145.20 | 147.29      | 152.23 | 154.65 | 152.58        | 146.16                            | 144.05            | 143.57 | 143.35 | 143.39 | 143.50 |        |
| 18                               | 143.28 | 145.58 | 146.86      | 152.26 | 154.54 | 152.55        | 146.93                            | 144.01            | 143.60 | 143.35 | 143.38 | 143.50 |        |
| 19                               | 143.28 | 145.71 | 146.45      | 152.30 | 154.44 | 152.52        | 147.35                            | 143.96            | 143.59 | 143.35 | 143.43 | 143.50 |        |
| 20                               | 143.28 | 145.49 | 146.19      | 152.36 | 154.32 | 152.46        | 147.57                            | 143.90            | 143.59 | 143.35 | 143.54 | 143.50 |        |
| 21                               | 143.29 | 145.37 | 146.16      | 152.76 | 154.22 | 152.40        | 147.69                            | 143.86            | 143.58 | 143.35 | 143.55 | 143.49 |        |
| 22                               | 143.28 | 145.51 | 146.63      | 152.92 | 154.21 | 152.32        | 147.63                            | 143.82            | 143.58 | 143.35 | 143.56 | 143.49 |        |
| 23                               | 143.27 | 145.71 | 147.53      | 153.01 | 154.24 | 152.22        | 147.45                            | 143.80            | 143.57 | 143.35 | 143.56 | 143.49 |        |
| 24                               | 143.27 | 146.21 | 148.51      | 153.08 | 154.25 | 152.12        | 147.22                            | 143.76            | 143.56 | 143.35 | 143.56 | 143.48 |        |
| 25                               | 143.27 | 146.87 | 149.33      | 153.25 | 154.21 | 152.02        | 146.92                            | 143.73            | 143.55 | 143.34 | 143.56 | 143.48 |        |
| 26                               | 143.27 | 147.62 | 150.13      | 153.39 | 154.17 | 152.01        | 146.64                            | 143.69            | 143.55 | 143.34 | 143.54 | 143.47 |        |
| 27                               | 143.30 | 147.70 | 151.08      | 153.52 | 154.16 | 152.01        | 146.37                            | 143.66            | 143.54 | 143.34 | 143.51 | 143.47 |        |
| 28                               | 143.29 | 147.31 | 151.46      | 154.07 | 154.07 | 151.97        | 146.12                            | 143.63            | 143.52 | 143.34 | 143.45 | 143.47 |        |
| 29                               | 143.35 | 146.81 | 151.58      | 154.25 | 153.98 | 151.87        | 145.90                            | 143.61            | 143.51 | 143.34 |        | 143.46 |        |
| 30                               | 143.38 | 146.35 | 151.56      | 154.39 | 153.96 | 151.72        | 145.71                            | 143.61            | 143.49 | 143.34 |        | 143.46 |        |
| 31                               |        | 146.04 |             | 154.47 | 153.91 |               | 145.55                            |                   | 143.48 | 143.34 |        | 143.46 |        |
| Mean                             | 143.29 | 144.92 | 148.13      | 152.07 | 154.52 | 152.77        | 147.55                            | 144.26            | 143.52 | 143.38 | 143.42 | 143.49 |        |
| Max                              | 143.38 | 147.70 | 151.58      | 154.47 | 155.00 | 153.87        | 151.57                            | 145.42            | 143.60 | 143.47 | 143.56 | 143.52 | 155.00 |
| Min                              | 143.27 | 143.33 | 145.50      | 149.77 | 153.91 | 151.72        | 145.48                            | 143.61            | 143.43 | 143.34 | 143.32 | 143.45 | 143.27 |
| Annual Max Momentary Gage Height |        | 155.02 | m. (MSL.) , |        |        |               | at 18.00 Hours , on Aug 11 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 143.00 | m. (MSL.) , |        |        | River Bed     | 142.91                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 155.78 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 154.90 | m. (MSL.) , |        |        | Drainage Area | 2852                              | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov   | Dec   | Jan  | Feb  | Mar  | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|-------|-------|------|------|------|-----------------|
| 1              | 0.10                                                              | 0.15                     | 11.40   | 136.24               | 310.56  | 262.94  | 140.08                   | 8.52  | 0.54  | 0.27 | 0.13 | 0.25 |                 |
| 2              | 0.10                                                              | 0.13                     | 10.04   | 129.78               | 323.82  | 259.84  | 132.44                   | 7.86  | 0.45  | 0.26 | 0.13 | 0.27 |                 |
| 3              | 0.10                                                              | 0.14                     | 9.00    | 118.00               | 325.38  | 254.26  | 121.42                   | 7.32  | 0.39  | 0.25 | 0.13 | 0.36 |                 |
| 4              | 0.10                                                              | 0.25                     | 11.16   | 108.14               | 326.16  | 249.30  | 112.56                   | 6.24  | 0.33  | 0.24 | 0.13 | 0.36 |                 |
| 5              | 0.10                                                              | 0.28                     | 27.36   | 104.74               | 327.72  | 243.10  | 98.90                    | 5.65  | 0.33  | 0.23 | 0.13 | 0.36 |                 |
| 6              | 0.09                                                              | 0.22                     | 53.40   | 99.50                | 326.94  | 238.20  | 82.36                    | 5.10  | 0.33  | 0.23 | 0.13 | 0.36 |                 |
| 7              | 0.09                                                              | 0.29                     | 67.02   | 91.10                | 326.16  | 234.60  | 64.16                    | 4.65  | 0.30  | 0.22 | 0.13 | 0.36 |                 |
| 8              | 0.09                                                              | 0.30                     | 66.76   | 80.80                | 332.40  | 229.80  | 47.38                    | 4.30  | 0.30  | 0.21 | 0.13 | 0.33 |                 |
| 9              | 0.09                                                              | 0.24                     | 58.02   | 80.02                | 339.42  | 225.60  | 34.56                    | 3.90  | 0.28  | 0.21 | 0.12 | 0.33 |                 |
| 10             | 0.09                                                              | 0.20                     | 43.78   | 105.42               | 344.10  | 221.40  | 24.64                    | 3.47  | 0.28  | 0.20 | 0.12 | 0.33 |                 |
| 11             | 0.09                                                              | 0.19                     | 36.64   | 125.22               | 348.00  | 216.60  | 19.20                    | 3.23  | 0.27  | 0.19 | 0.18 | 0.33 |                 |
| 12             | 0.08                                                              | 0.21                     | 45.94   | 132.06               | 347.22  | 211.20  | 15.70                    | 3.06  | 0.26  | 0.18 | 0.30 | 0.30 |                 |
| 13             | 0.08                                                              | 1.68                     | 50.32   | 133.96               | 343.32  | 206.22  | 12.68                    | 2.85  | 0.25  | 0.17 | 0.29 | 0.30 |                 |
| 14             | 0.08                                                              | 4.40                     | 48.10   | 148.00               | 339.42  | 198.66  | 10.68                    | 2.62  | 0.24  | 0.16 | 0.20 | 0.30 |                 |
| 15             | 0.08                                                              | 4.80                     | 41.80   | 161.40               | 333.96  | 191.10  | 9.16                     | 2.38  | 0.23  | 0.15 | 0.20 | 0.30 |                 |
| 16             | 0.08                                                              | 4.55                     | 35.20   | 167.64               | 328.50  | 186.24  | 8.88                     | 2.14  | 0.28  | 0.15 | 0.19 | 0.30 |                 |
| 17             | 0.08                                                              | 7.20                     | 28.64   | 170.04               | 320.70  | 187.32  | 14.60                    | 1.97  | 0.51  | 0.15 | 0.19 | 0.30 |                 |
| 18             | 0.08                                                              | 9.64                     | 22.32   | 171.48               | 312.12  | 185.70  | 23.16                    | 1.83  | 0.60  | 0.15 | 0.18 | 0.30 |                 |
| 19             | 0.08                                                              | 10.68                    | 17.50   | 173.40               | 304.44  | 184.08  | 29.60                    | 1.68  | 0.57  | 0.15 | 0.23 | 0.30 |                 |
| 20             | 0.08                                                              | 8.94                     | 14.90   | 176.28               | 295.32  | 181.08  | 33.12                    | 1.50  | 0.57  | 0.15 | 0.42 | 0.30 |                 |
| 21             | 0.09                                                              | 8.22                     | 14.60   | 197.04               | 287.72  | 178.20  | 35.04                    | 1.38  | 0.54  | 0.15 | 0.45 | 0.29 |                 |
| 22             | 0.08                                                              | 9.08                     | 19.56   | 205.68               | 286.96  | 174.36  | 34.08                    | 1.26  | 0.54  | 0.15 | 0.48 | 0.29 |                 |
| 23             | 0.07                                                              | 10.68                    | 32.48   | 210.60               | 289.24  | 169.56  | 31.20                    | 1.20  | 0.51  | 0.15 | 0.48 | 0.29 |                 |
| 24             | 0.07                                                              | 15.10                    | 49.22   | 214.80               | 290.00  | 164.76  | 27.52                    | 1.08  | 0.48  | 0.15 | 0.48 | 0.28 |                 |
| 25             | 0.07                                                              | 22.44                    | 68.58   | 225.00               | 286.96  | 159.96  | 23.04                    | 0.99  | 0.45  | 0.14 | 0.48 | 0.28 |                 |
| 26             | 0.07                                                              | 33.92                    | 89.90   | 233.40               | 283.92  | 159.48  | 19.68                    | 0.87  | 0.45  | 0.14 | 0.42 | 0.27 |                 |
| 27             | 0.10                                                              | 35.20                    | 121.04  | 241.24               | 283.16  | 159.48  | 16.70                    | 0.78  | 0.42  | 0.14 | 0.33 | 0.27 |                 |
| 28             | 0.09                                                              | 28.96                    | 135.48  | 276.32               | 276.32  | 157.68  | 14.20                    | 0.69  | 0.36  | 0.14 | 0.25 | 0.27 |                 |
| 29             | 0.15                                                              | 21.72                    | 140.52  | 290.00               | 269.76  | 153.28  | 12.20                    | 0.63  | 0.33  | 0.14 |      | 0.26 |                 |
| 30             | 0.18                                                              | 16.50                    | 139.64  | 300.64               | 268.52  | 146.68  | 10.68                    | 0.63  | 0.29  | 0.14 |      | 0.26 |                 |
| 31             |                                                                   | 13.40                    |         | 306.72               | 265.42  |         | 9.40                     |       | 0.28  | 0.14 |      | 0.26 |                 |
| Total          | 2.73                                                              | 269.71                   | 1510.32 | 5314.66              | 9643.64 | 5990.68 | 1269.02                  | 89.78 | 11.96 | 5.50 | 7.03 | 9.36 | 24124.39 CMSDAY |
| Mean           | 0.09                                                              | 8.70                     | 50.34   | 171.44               | 311.09  | 199.69  | 40.94                    | 2.99  | 0.39  | 0.18 | 0.25 | 0.30 | 66.09 CMS       |
| Max            | 0.18                                                              | 35.20                    | 140.52  | 306.72               | 348.00  | 262.94  | 140.08                   | 8.52  | 0.60  | 0.27 | 0.48 | 0.36 | 348.00 CMS      |
| Min            | 0.07                                                              | 0.13                     | 9.00    | 80.02                | 265.42  | 146.68  | 8.88                     | 0.63  | 0.23  | 0.14 | 0.12 | 0.25 | 0.07 CMS        |
| Runoff         | 0.24                                                              | 23.30                    | 130.49  | 459.19               | 833.21  | 517.60  | 109.64                   | 7.76  | 1.03  | 0.48 | 0.61 | 0.81 | 2084.35 MCM     |
| Momentary Peak | 350.00 CMS. at 155.02 m. (MSL.) at 18.00 Hours , on Aug 11 , 2013 |                          |         |                      |         |         |                          |       |       |      |      |      |                 |
| Runoff Yield   | 23.17                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 122.714 | Liters/Second/Square KM. |       |       |      |      |      |                 |

**WATER YEAR : 2013**

## NAM MAE ING RIVER BASIN

### Nam Waen at Ban Nam Waen , Phayao (1.6)

Lat 19 - 29 - 21 N      Long 100 - 16 - 33 E

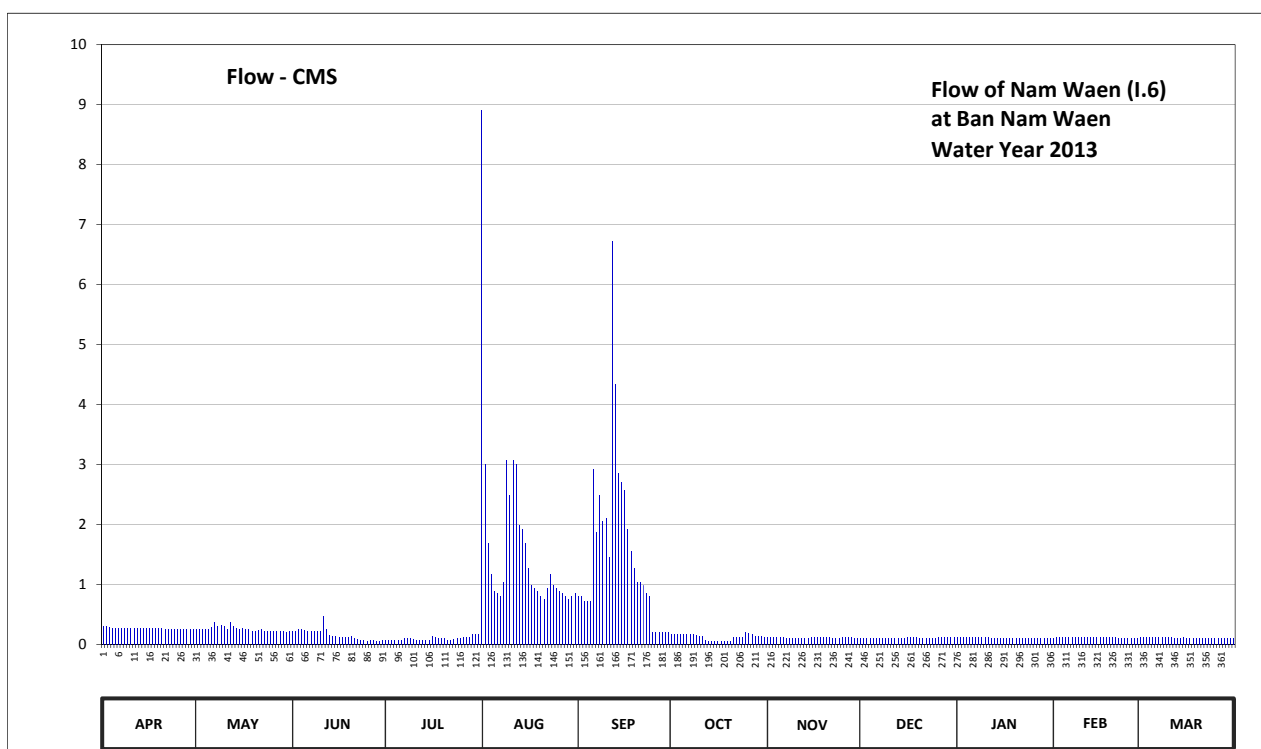
**Location : on left bank at the bridge of Amphoe Chum - Amphoe Chiang Kham Highway.**

|                                         |                                                                                           |           |               |             |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Nam Waen  | <b>Amphoe</b> | Chiang Kham | <b>Changwat</b>  | Phayao             |
| <b>Drainage Area</b>                    | 146                                                                                       | sq.km.    |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage      |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +389.745                                                                                  | m. (MSL.) |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank in the vicinity of gage observer's house.                                    |           |               |             | <b>Elevation</b> | +397.867 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1980 to date                                                                              |           |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1997 to date                                                                              |           |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1997 to date                                                                              |           |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |             |                  |                    |
| <b>General Description</b>              | Records good. Flow effected by Nam Waen reservoir about 4 - 5 kilometers above gage site. |           |               |             |                  |                    |
|                                         | Stage-discharge relation defined by 35 discharge measurements made in 2013.               |           |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 390.45 | 390.40 | 390.35                                          | 390.05 | 391.20 | 390.20 | 390.27 | 390.15 | 390.10 | 390.14 | 390.11 | 390.13 |        |
|                                  | 2  | 390.45 | 390.40 | 390.35                                          | 390.05 | 390.59 | 390.20 | 390.24 | 390.15 | 390.10 | 390.14 | 390.13 | 390.13 |        |
|                                  | 3  | 390.44 | 390.41 | 390.40                                          | 390.05 | 390.39 | 390.18 | 390.23 | 390.15 | 390.10 | 390.15 | 390.14 | 390.13 |        |
|                                  | 4  | 390.43 | 390.41 | 390.40                                          | 390.05 | 390.28 | 390.18 | 390.25 | 390.15 | 390.11 | 390.15 | 390.14 | 390.14 |        |
|                                  | 5  | 390.43 | 390.41 | 390.38                                          | 390.05 | 390.22 | 390.18 | 390.25 | 390.14 | 390.12 | 390.15 | 390.14 | 390.15 |        |
|                                  | 6  | 390.42 | 390.44 | 390.36                                          | 390.05 | 390.21 | 390.58 | 390.27 | 390.13 | 390.12 | 390.15 | 390.14 | 390.15 |        |
|                                  | 7  | 390.42 | 390.52 | 390.35                                          | 390.11 | 390.20 | 390.42 | 390.25 | 390.12 | 390.12 | 390.15 | 390.14 | 390.14 |        |
|                                  | 8  | 390.42 | 390.45 | 390.35                                          | 390.12 | 390.25 | 390.52 | 390.23 | 390.11 | 390.12 | 390.14 | 390.14 | 390.14 |        |
|                                  | 9  | 390.42 | 390.48 | 390.35                                          | 390.09 | 390.60 | 390.45 | 390.22 | 390.10 | 390.12 | 390.14 | 390.14 | 390.13 |        |
|                                  | 10 | 390.42 | 390.45 | 390.35                                          | 390.08 | 390.52 | 390.46 | 390.20 | 390.10 | 390.12 | 390.14 | 390.14 | 390.13 |        |
|                                  | 11 | 390.42 | 390.41 | 390.58                                          | 390.05 | 390.60 | 390.34 | 390.19 | 390.10 | 390.11 | 390.13 | 390.13 | 390.13 |        |
|                                  | 12 | 390.42 | 390.52 | 390.40                                          | 390.05 | 390.59 | 391.01 | 390.03 | 390.10 | 390.11 | 390.12 | 390.13 | 390.12 |        |
|                                  | 13 | 390.42 | 390.46 | 390.22                                          | 390.05 | 390.44 | 390.76 | 390.02 | 390.10 | 390.10 | 390.12 | 390.13 | 390.12 |        |
|                                  | 14 | 390.42 | 390.43 | 390.19                                          | 390.05 | 390.43 | 390.57 | 390.02 | 390.11 | 390.10 | 390.12 | 390.13 | 390.12 |        |
|                                  | 15 | 390.42 | 390.41 | 390.17                                          | 390.05 | 390.39 | 390.55 | 390.02 | 390.13 | 390.11 | 390.12 | 390.13 | 390.13 |        |
|                                  | 16 | 390.42 | 390.42 | 390.16                                          | 390.20 | 390.30 | 390.53 | 390.02 | 390.14 | 390.15 | 390.11 | 390.13 | 390.12 |        |
|                                  | 17 | 390.42 | 390.41 | 390.16                                          | 390.16 | 390.24 | 390.43 | 390.02 | 390.15 | 390.15 | 390.11 | 390.13 | 390.12 |        |
|                                  | 18 | 390.42 | 390.39 | 390.14                                          | 390.12 | 390.23 | 390.36 | 390.02 | 390.15 | 390.13 | 390.11 | 390.13 | 390.11 |        |
|                                  | 19 | 390.42 | 390.36 | 390.15                                          | 390.10 | 390.22 | 390.30 | 390.01 | 390.15 | 390.13 | 390.11 | 390.13 | 390.11 |        |
|                                  | 20 | 390.42 | 390.35 | 390.18                                          | 390.09 | 390.20 | 390.25 | 390.01 | 390.16 | 390.11 | 390.10 | 390.13 | 390.11 |        |
|                                  | 21 | 390.41 | 390.37 | 390.12                                          | 390.05 | 390.19 | 390.25 | 390.14 | 390.14 | 390.12 | 390.10 | 390.13 | 390.11 |        |
|                                  | 22 | 390.41 | 390.40 | 390.07                                          | 390.05 | 390.23 | 390.24 | 390.14 | 390.12 | 390.12 | 390.10 | 390.12 | 390.12 |        |
|                                  | 23 | 390.41 | 390.36 | 390.05                                          | 390.07 | 390.28 | 390.21 | 390.14 | 390.12 | 390.12 | 390.10 | 390.12 | 390.11 |        |
|                                  | 24 | 390.40 | 390.35 | 390.03                                          | 390.09 | 390.24 | 390.20 | 390.15 | 390.12 | 390.11 | 390.10 | 390.12 | 390.11 |        |
|                                  | 25 | 390.40 | 390.35 | 390.02                                          | 390.12 | 390.23 | 390.30 | 390.33 | 390.13 | 390.11 | 390.10 | 390.12 | 390.11 |        |
|                                  | 26 | 390.40 | 390.35 | 390.03                                          | 390.13 | 390.22 | 390.30 | 390.28 | 390.13 | 390.13 | 390.10 | 390.12 | 390.10 |        |
|                                  | 27 | 390.41 | 390.35 | 390.03                                          | 390.15 | 390.21 | 390.31 | 390.23 | 390.13 | 390.15 | 390.10 | 390.12 | 390.10 |        |
|                                  | 28 | 390.41 | 390.34 | 390.02                                          | 390.16 | 390.20 | 390.30 | 390.19 | 390.13 | 390.15 | 390.10 | 390.12 | 390.10 |        |
|                                  | 29 | 390.41 | 390.34 | 390.02                                          | 390.27 | 390.19 | 390.29 | 390.18 | 390.12 | 390.14 | 390.10 |        | 390.11 |        |
|                                  | 30 | 390.40 | 390.33 | 390.05                                          | 390.27 | 390.20 | 390.29 | 390.17 | 390.11 | 390.13 | 390.10 |        | 390.12 |        |
|                                  | 31 |        | 390.34 |                                                 | 390.23 | 390.21 |        | 390.15 |        | 390.13 | 390.10 |        | 390.12 |        |
| Mean                             |    | 390.42 | 390.40 | 390.21                                          | 390.10 | 390.34 | 390.37 | 390.16 | 390.13 | 390.12 | 390.12 | 390.13 | 390.12 |        |
| Max                              |    | 390.45 | 390.52 | 390.58                                          | 390.27 | 391.20 | 391.01 | 390.33 | 390.16 | 390.15 | 390.15 | 390.14 | 390.15 | 391.20 |
| Min                              |    | 390.40 | 390.33 | 390.02                                          | 390.05 | 390.19 | 390.18 | 390.01 | 390.10 | 390.10 | 390.10 | 390.11 | 390.10 | 390.01 |
| Annual Max Momentary Gage Height |    |        | 391.76 | m. (MSL.) , at 06.00 Hours , on Aug 1 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 389.74 | m. (MSL.) , River Bed 389.97 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 398.52 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 398.55 | m. (MSL.) , Drainage Area 146 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul                  | Aug   | Sep     | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|------|----------------------|-------|---------|--------------------------|------|------|------|------|------|---------------|
| 1              | 0.30                                                            | 0.25                     | 0.23 | 0.07                 | 8.90  | 0.80    | 0.18                     | 0.13 | 0.10 | 0.12 | 0.10 | 0.12 |               |
| 2              | 0.30                                                            | 0.25                     | 0.23 | 0.07                 | 3.00  | 0.80    | 0.17                     | 0.13 | 0.10 | 0.12 | 0.12 | 0.12 |               |
| 3              | 0.29                                                            | 0.26                     | 0.25 | 0.07                 | 1.70  | 0.73    | 0.17                     | 0.13 | 0.10 | 0.13 | 0.12 | 0.12 |               |
| 4              | 0.28                                                            | 0.26                     | 0.25 | 0.07                 | 1.18  | 0.73    | 0.18                     | 0.13 | 0.10 | 0.13 | 0.12 | 0.12 |               |
| 5              | 0.28                                                            | 0.26                     | 0.24 | 0.07                 | 0.89  | 0.73    | 0.18                     | 0.12 | 0.11 | 0.13 | 0.12 | 0.13 |               |
| 6              | 0.27                                                            | 0.29                     | 0.23 | 0.07                 | 0.85  | 2.93    | 0.18                     | 0.12 | 0.11 | 0.13 | 0.12 | 0.13 |               |
| 7              | 0.27                                                            | 0.38                     | 0.23 | 0.10                 | 0.80  | 1.87    | 0.18                     | 0.11 | 0.11 | 0.13 | 0.12 | 0.12 |               |
| 8              | 0.27                                                            | 0.30                     | 0.23 | 0.11                 | 1.04  | 2.49    | 0.17                     | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 |               |
| 9              | 0.27                                                            | 0.33                     | 0.23 | 0.10                 | 3.08  | 2.05    | 0.16                     | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 |               |
| 10             | 0.27                                                            | 0.30                     | 0.23 | 0.09                 | 2.49  | 2.11    | 0.15                     | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 |               |
| 11             | 0.27                                                            | 0.26                     | 0.47 | 0.07                 | 3.08  | 1.46    | 0.15                     | 0.10 | 0.10 | 0.12 | 0.12 | 0.12 |               |
| 12             | 0.27                                                            | 0.38                     | 0.25 | 0.07                 | 3.00  | 6.72    | 0.07                     | 0.10 | 0.10 | 0.11 | 0.12 | 0.11 |               |
| 13             | 0.27                                                            | 0.31                     | 0.16 | 0.07                 | 1.99  | 4.34    | 0.06                     | 0.10 | 0.10 | 0.11 | 0.12 | 0.11 |               |
| 14             | 0.27                                                            | 0.28                     | 0.15 | 0.07                 | 1.93  | 2.86    | 0.06                     | 0.10 | 0.10 | 0.11 | 0.12 | 0.11 |               |
| 15             | 0.27                                                            | 0.26                     | 0.14 | 0.07                 | 1.70  | 2.71    | 0.06                     | 0.12 | 0.10 | 0.11 | 0.12 | 0.12 |               |
| 16             | 0.27                                                            | 0.27                     | 0.13 | 0.15                 | 1.27  | 2.57    | 0.06                     | 0.12 | 0.13 | 0.10 | 0.12 | 0.11 |               |
| 17             | 0.27                                                            | 0.26                     | 0.13 | 0.13                 | 0.99  | 1.93    | 0.06                     | 0.13 | 0.13 | 0.10 | 0.12 | 0.11 |               |
| 18             | 0.27                                                            | 0.25                     | 0.12 | 0.11                 | 0.94  | 1.56    | 0.06                     | 0.13 | 0.12 | 0.10 | 0.12 | 0.10 |               |
| 19             | 0.27                                                            | 0.23                     | 0.13 | 0.10                 | 0.89  | 1.27    | 0.06                     | 0.13 | 0.12 | 0.10 | 0.12 | 0.10 |               |
| 20             | 0.27                                                            | 0.23                     | 0.14 | 0.10                 | 0.80  | 1.04    | 0.06                     | 0.13 | 0.10 | 0.10 | 0.12 | 0.10 |               |
| 21             | 0.26                                                            | 0.24                     | 0.11 | 0.07                 | 0.76  | 1.04    | 0.12                     | 0.12 | 0.11 | 0.10 | 0.12 | 0.10 |               |
| 22             | 0.26                                                            | 0.25                     | 0.09 | 0.07                 | 0.94  | 0.99    | 0.12                     | 0.11 | 0.11 | 0.10 | 0.11 | 0.11 |               |
| 23             | 0.26                                                            | 0.23                     | 0.07 | 0.09                 | 1.18  | 0.85    | 0.12                     | 0.11 | 0.11 | 0.10 | 0.11 | 0.10 |               |
| 24             | 0.25                                                            | 0.23                     | 0.07 | 0.10                 | 0.99  | 0.80    | 0.13                     | 0.11 | 0.10 | 0.10 | 0.11 | 0.10 |               |
| 25             | 0.25                                                            | 0.23                     | 0.06 | 0.11                 | 0.94  | 0.20    | 0.21                     | 0.12 | 0.10 | 0.10 | 0.11 | 0.10 |               |
| 26             | 0.25                                                            | 0.23                     | 0.07 | 0.12                 | 0.89  | 0.20    | 0.19                     | 0.12 | 0.12 | 0.10 | 0.11 | 0.10 |               |
| 27             | 0.26                                                            | 0.23                     | 0.07 | 0.13                 | 0.85  | 0.21    | 0.17                     | 0.12 | 0.13 | 0.10 | 0.11 | 0.10 |               |
| 28             | 0.26                                                            | 0.22                     | 0.06 | 0.13                 | 0.80  | 0.20    | 0.15                     | 0.12 | 0.13 | 0.10 | 0.11 | 0.10 |               |
| 29             | 0.26                                                            | 0.22                     | 0.06 | 0.18                 | 0.76  | 0.20    | 0.14                     | 0.11 | 0.12 | 0.10 |      | 0.10 |               |
| 30             | 0.25                                                            | 0.21                     | 0.07 | 0.18                 | 0.80  | 0.20    | 0.14                     | 0.10 | 0.12 | 0.10 |      | 0.11 |               |
| 31             |                                                                 | 0.22                     |      | 0.17                 | 0.85  |         | 0.13                     |      | 0.12 | 0.10 |      | 0.11 |               |
| Total          | 8.06                                                            | 8.12                     | 4.90 | 3.11                 | 50.28 | 46.59   | 4.04                     | 3.47 | 3.43 | 3.41 | 3.27 | 3.44 | 142.12 CMSDAY |
| Mean           | 0.27                                                            | 0.26                     | 0.16 | 0.10                 | 1.62  | 1.55    | 0.13                     | 0.12 | 0.11 | 0.11 | 0.12 | 0.11 | 0.39 CMS      |
| Max            | 0.30                                                            | 0.38                     | 0.47 | 0.18                 | 8.90  | 6.72    | 0.21                     | 0.13 | 0.13 | 0.13 | 0.12 | 0.13 | 8.90 CMS      |
| Min            | 0.25                                                            | 0.21                     | 0.06 | 0.07                 | 0.76  | 0.20    | 0.06                     | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.06 CMS      |
| Runoff         | 0.70                                                            | 0.70                     | 0.42 | 0.27                 | 4.34  | 4.03    | 0.35                     | 0.30 | 0.30 | 0.30 | 0.28 | 0.30 | 12.28 MCM     |
| Momentary Peak | 16.76 CMS. at 391.76 m. (MSL.) at 06.00 Hours , on Aug 1 , 2013 |                          |      |                      |       |         |                          |      |      |      |      |      |               |
| Runoff Yield   | 2.67                                                            | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 114.795 | Liters/Second/Square KM. |      |      |      |      |      |               |

**WATER YEAR : 2013**

## NAM MAE ING RIVER BASIN

### Nam Mae Ing at Ban Nam Ing , Chiang Rai (I.14)

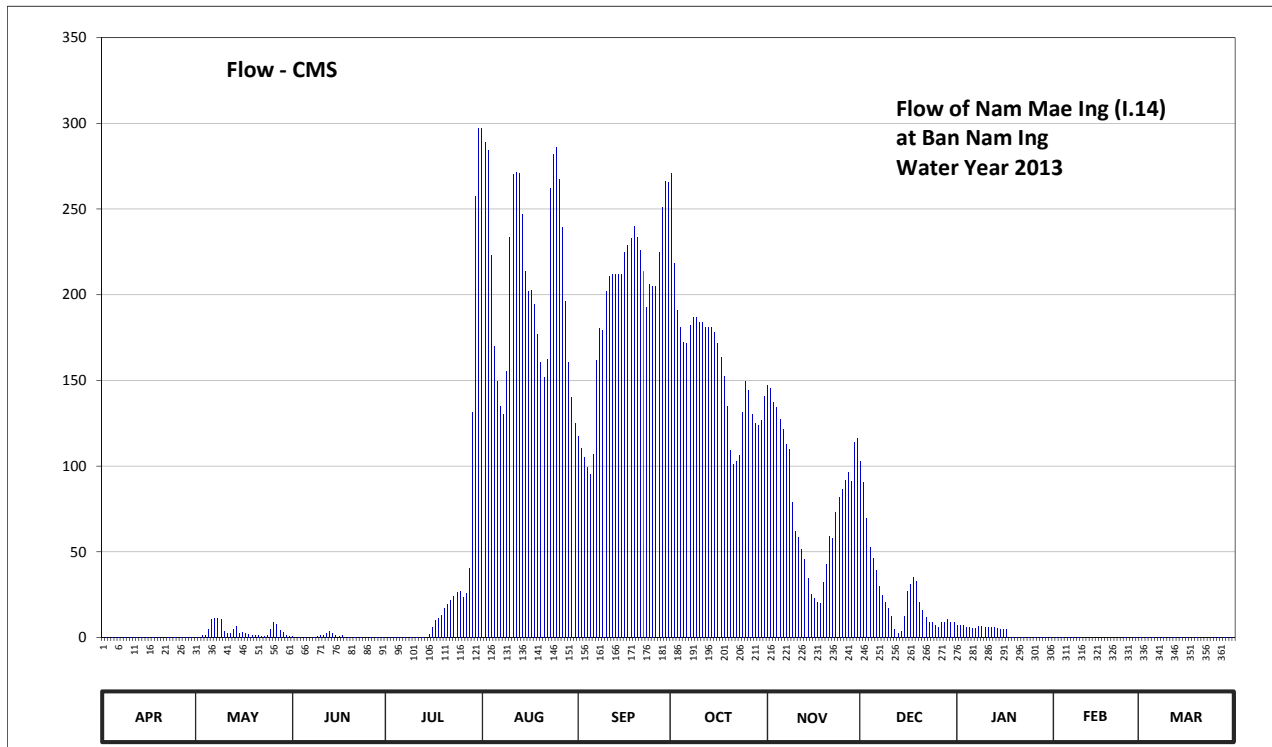
Lat 19 - 49 - 56 N      Long 100 - 12 - 15 E

**Location :** on right bank at the bridge on the road about 2 kilometers from Amphoe Khun Tan.

|                                         |                                                                                               |           |               |          |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                    | Nam Ing   | <b>Amphoe</b> | Khun Tan | <b>Changwat</b>  | Chiang Rai         |
| <b>Drainage Area</b>                    | 6,266                                                                                         | sq.km.    |               |          |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                    |           |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +351.430                                                                                      | m. (MSL.) |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                     |           |               |          |                  |                    |
| <b>Location BM</b>                      | On right bank downstream side at the approach of the bridge.                                  |           |               |          | <b>Elevation</b> | +361.805 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                        |           |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                                 |           |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 1993 to date                                                                                  |           |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                               |           |               |          |                  |                    |
| <b>Period of Rating</b>                 | 1993 to date                                                                                  |           |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                             |           |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 1993 to date                                                                                  |           |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                       |           |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                             |           |               |          |                  |                    |
| <b>General Description</b>              | Records good. Flow effected by the local weir about 100 meters downstream from the gage site. |           |               |          |                  |                    |
|                                         | Stage-discharge relation defined by 44 discharge measurements made in 2013.                   |           |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 352.73 | 352.55 | 352.51                                           | 352.40 | 358.12 | 355.05 | 357.68 | 355.58 | 354.78 | 352.78 | 352.51 | 352.39 |        |
| 2                                | 352.73 | 352.54 | 352.48                                           | 352.35 | 357.98 | 354.92 | 356.80 | 355.55 | 354.53 | 352.78 | 352.48 | 352.33 |        |
| 3                                | 352.75 | 352.58 | 352.46                                           | 352.33 | 357.90 | 354.82 | 356.35 | 355.40 | 354.11 | 352.78 | 352.46 | 352.33 |        |
| 4                                | 352.80 | 352.60 | 352.48                                           | 352.37 | 356.88 | 354.71 | 356.18 | 355.35 | 353.78 | 352.75 | 352.42 | 352.34 |        |
| 5                                | 352.83 | 352.72 | 352.48                                           | 352.36 | 356.00 | 354.63 | 356.04 | 355.23 | 353.65 | 352.75 | 352.35 | 352.35 |        |
| 6                                | 352.83 | 352.88 | 352.48                                           | 352.33 | 355.63 | 354.86 | 356.03 | 355.12 | 353.51 | 352.74 | 352.30 | 352.44 |        |
| 7                                | 352.82 | 352.89 | 352.48                                           | 352.33 | 355.36 | 355.85 | 356.20 | 354.96 | 353.31 | 352.74 | 352.25 | 352.63 |        |
| 8                                | 352.80 | 352.89 | 352.50                                           | 352.40 | 355.28 | 356.17 | 356.28 | 354.91 | 353.21 | 352.77 | 352.21 | 352.62 |        |
| 9                                | 352.80 | 352.88 | 352.54                                           | 352.35 | 355.73 | 356.15 | 356.28 | 354.30 | 353.12 | 352.77 | 352.18 | 352.56 |        |
| 10                               | 352.79 | 352.70 | 352.59                                           | 352.34 | 357.06 | 356.53 | 356.23 | 353.96 | 353.04 | 352.76 | 351.89 | 352.45 |        |
| 11                               | 352.73 | 352.63 | 352.58                                           | 352.38 | 357.67 | 356.68 | 356.23 | 353.89 | 352.92 | 352.76 | 352.03 | 352.33 |        |
| 12                               | 352.73 | 352.63 | 352.63                                           | 352.40 | 357.69 | 356.70 | 356.18 | 353.75 | 352.73 | 352.75 | 352.02 | 352.33 |        |
| 13                               | 352.72 | 352.73 | 352.68                                           | 352.42 | 357.68 | 356.70 | 356.18 | 353.63 | 352.63 | 352.75 | 351.98 | 352.31 |        |
| 14                               | 352.71 | 352.77 | 352.64                                           | 352.45 | 357.28 | 356.70 | 356.18 | 353.41 | 352.68 | 352.74 | 351.96 | 352.28 |        |
| 15                               | 352.70 | 352.63 | 352.59                                           | 352.61 | 356.73 | 356.70 | 356.13 | 353.22 | 352.93 | 352.73 | 351.96 | 352.26 |        |
| 16                               | 352.70 | 352.66 | 352.53                                           | 352.75 | 356.53 | 356.91 | 356.03 | 353.17 | 353.25 | 352.73 | 351.95 | 352.28 |        |
| 17                               | 352.71 | 352.63 | 352.58                                           | 352.86 | 356.54 | 356.98 | 355.88 | 353.12 | 353.34 | 352.73 | 351.95 | 352.30 |        |
| 18                               | 352.73 | 352.61 | 352.46                                           | 352.89 | 356.41 | 357.05 | 355.68 | 353.10 | 353.43 | 352.68 | 351.94 | 352.38 |        |
| 19                               | 352.73 | 352.60 | 352.43                                           | 352.94 | 356.11 | 357.16 | 355.36 | 353.37 | 353.38 | 352.68 | 351.94 | 352.49 |        |
| 20                               | 352.73 | 352.58 | 352.45                                           | 353.04 | 355.83 | 357.06 | 354.90 | 353.58 | 353.11 | 352.67 | 351.93 | 352.41 |        |
| 21                               | 352.73 | 352.59 | 352.44                                           | 353.09 | 355.67 | 356.93 | 354.75 | 353.91 | 353.01 | 352.67 | 351.93 | 351.93 |        |
| 22                               | 352.72 | 352.53 | 352.43                                           | 353.14 | 355.86 | 356.73 | 354.78 | 353.88 | 352.91 | 352.66 | 351.92 | 351.92 |        |
| 23                               | 352.72 | 352.55 | 352.33                                           | 353.19 | 357.53 | 356.38 | 354.85 | 354.18 | 352.83 | 352.66 | 351.96 | 351.94 |        |
| 24                               | 352.72 | 352.60 | 352.32                                           | 353.24 | 357.86 | 356.60 | 355.30 | 354.36 | 352.83 | 352.65 | 352.16 | 352.17 |        |
| 25                               | 352.73 | 352.72 | 352.30                                           | 353.26 | 357.93 | 356.58 | 355.63 | 354.45 | 352.78 | 352.65 | 352.26 | 352.28 |        |
| 26                               | 352.72 | 352.84 | 352.28                                           | 353.18 | 357.62 | 356.58 | 355.53 | 354.56 | 352.75 | 352.64 | 352.34 | 352.33 |        |
| 27                               | 352.69 | 352.81 | 352.27                                           | 353.23 | 357.15 | 356.91 | 355.28 | 354.65 | 352.83 | 352.63 | 352.34 | 352.33 |        |
| 28                               | 352.65 | 352.71 | 352.31                                           | 353.53 | 356.43 | 357.35 | 355.18 | 354.55 | 352.83 | 352.61 | 352.38 | 352.34 |        |
| 29                               | 352.60 | 352.66 | 352.38                                           | 355.30 | 355.83 | 357.60 | 355.16 | 354.98 | 352.88 | 352.55 |        | 352.38 |        |
| 30                               | 352.58 | 352.58 | 352.43                                           | 357.46 | 355.46 | 357.59 | 355.22 | 355.03 | 352.83 | 352.55 |        | 352.38 |        |
| 31                               |        | 352.53 |                                                  | 358.12 | 355.18 |        | 355.47 |        | 352.83 | 352.55 |        | 352.38 |        |
| Mean                             | 352.73 | 352.67 | 352.47                                           | 353.13 | 356.68 | 356.39 | 355.81 | 354.31 | 353.19 | 352.70 | 352.14 | 352.33 |        |
| Max                              | 352.83 | 352.89 | 352.68                                           | 358.12 | 358.12 | 357.60 | 357.68 | 355.58 | 354.78 | 352.78 | 352.51 | 352.63 | 358.12 |
| Min                              | 352.58 | 352.53 | 352.27                                           | 352.33 | 355.18 | 354.63 | 354.75 | 353.10 | 352.63 | 352.55 | 351.89 | 351.92 | 351.89 |
| Annual Max Momentary Gage Height | 358.23 |        | m. (MSL.) , at 18.00 Hours , on Jul 31 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 351.43 |        | m. (MSL.) , River Bed 351.33 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 362.05 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 362.05 |        | m. (MSL.) , Drainage Area 6266 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec    | Jan    | Feb  | Mar  | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|---------|---------|--------------------------|---------|--------|--------|------|------|-----------------|
| 1              | 0.36                                                              | 0.24                     | 0.62  | 0.20                 | 297.20  | 117.75  | 270.80                   | 146.90  | 103.00 | 6.96   | 0.22 | 0.15 |                 |
| 2              | 0.36                                                              | 0.23                     | 0.44  | 0.15                 | 288.80  | 110.60  | 218.00                   | 145.25  | 90.50  | 6.96   | 0.20 | 0.11 |                 |
| 3              | 0.38                                                              | 1.46                     | 0.38  | 0.13                 | 284.00  | 105.10  | 191.00                   | 137.00  | 69.50  | 6.96   | 0.19 | 0.11 |                 |
| 4              | 0.42                                                              | 1.70                     | 0.44  | 0.17                 | 222.80  | 99.50   | 180.80                   | 134.25  | 53.00  | 5.85   | 0.16 | 0.12 |                 |
| 5              | 0.45                                                              | 4.74                     | 0.44  | 0.16                 | 170.00  | 95.50   | 172.40                   | 127.65  | 46.50  | 5.85   | 0.13 | 0.13 |                 |
| 6              | 0.45                                                              | 10.82                    | 0.44  | 0.13                 | 149.65  | 107.30  | 171.80                   | 121.60  | 39.50  | 5.48   | 0.10 | 0.17 |                 |
| 7              | 0.44                                                              | 11.21                    | 0.44  | 0.13                 | 134.80  | 161.75  | 182.00                   | 112.80  | 29.72  | 5.48   | 0.08 | 0.29 |                 |
| 8              | 0.42                                                              | 11.21                    | 0.50  | 0.20                 | 130.40  | 180.20  | 186.80                   | 110.05  | 24.97  | 6.59   | 0.06 | 0.28 |                 |
| 9              | 0.42                                                              | 10.82                    | 0.98  | 0.15                 | 155.15  | 179.00  | 186.80                   | 79.00   | 20.90  | 6.59   | 0.05 | 0.25 |                 |
| 10             | 0.41                                                              | 4.00                     | 1.58  | 0.14                 | 233.60  | 201.80  | 183.80                   | 62.00   | 17.30  | 6.22   | 0.00 | 0.18 |                 |
| 11             | 0.36                                                              | 2.39                     | 1.46  | 0.18                 | 270.20  | 210.80  | 183.80                   | 58.50   | 12.38  | 6.22   | 0.02 | 0.11 |                 |
| 12             | 0.36                                                              | 2.39                     | 2.39  | 0.20                 | 271.40  | 212.00  | 180.80                   | 51.50   | 5.11   | 5.85   | 0.01 | 0.11 |                 |
| 13             | 0.36                                                              | 5.11                     | 3.54  | 0.26                 | 270.80  | 212.00  | 180.80                   | 45.50   | 2.39   | 5.85   | 0.01 | 0.11 |                 |
| 14             | 0.35                                                              | 6.59                     | 2.62  | 0.35                 | 246.80  | 212.00  | 180.80                   | 34.50   | 3.54   | 5.48   | 0.01 | 0.09 |                 |
| 15             | 0.34                                                              | 2.39                     | 1.58  | 1.93                 | 213.80  | 212.00  | 177.80                   | 25.45   | 12.77  | 5.11   | 0.01 | 0.08 |                 |
| 16             | 0.34                                                              | 3.08                     | 0.86  | 5.85                 | 201.80  | 224.60  | 171.80                   | 23.15   | 26.87  | 5.11   | 0.01 | 0.09 |                 |
| 17             | 0.35                                                              | 2.39                     | 1.46  | 10.04                | 202.40  | 228.80  | 163.40                   | 20.90   | 31.15  | 5.11   | 0.01 | 0.10 |                 |
| 18             | 0.36                                                              | 1.93                     | 0.38  | 11.21                | 194.60  | 233.00  | 152.40                   | 20.00   | 35.50  | 0.33   | 0.00 | 0.14 |                 |
| 19             | 0.36                                                              | 1.70                     | 0.29  | 13.16                | 176.60  | 239.60  | 134.80                   | 32.57   | 33.05  | 0.33   | 0.00 | 0.20 |                 |
| 20             | 0.36                                                              | 1.46                     | 0.35  | 17.30                | 160.65  | 233.60  | 109.50                   | 43.00   | 20.45  | 0.32   | 0.00 | 0.16 |                 |
| 21             | 0.36                                                              | 1.58                     | 0.32  | 19.55                | 151.85  | 225.80  | 101.50                   | 59.50   | 15.95  | 0.32   | 0.00 | 0.00 |                 |
| 22             | 0.36                                                              | 0.86                     | 0.29  | 21.80                | 162.30  | 213.80  | 103.00                   | 58.00   | 11.99  | 0.31   | 0.00 | 0.00 |                 |
| 23             | 0.36                                                              | 1.10                     | 0.13  | 24.05                | 261.80  | 192.80  | 106.75                   | 73.00   | 8.87   | 0.31   | 0.01 | 0.00 |                 |
| 24             | 0.36                                                              | 1.70                     | 0.12  | 26.40                | 281.60  | 206.00  | 131.50                   | 82.00   | 8.87   | 0.30   | 0.05 | 0.05 |                 |
| 25             | 0.36                                                              | 4.74                     | 0.10  | 27.35                | 285.80  | 204.80  | 149.65                   | 86.50   | 6.96   | 0.30   | 0.08 | 0.09 |                 |
| 26             | 0.36                                                              | 9.26                     | 0.09  | 23.60                | 267.20  | 204.80  | 144.15                   | 92.00   | 5.85   | 0.30   | 0.12 | 0.11 |                 |
| 27             | 0.33                                                              | 8.09                     | 0.09  | 25.93                | 239.00  | 224.60  | 130.40                   | 96.50   | 8.87   | 0.29   | 0.12 | 0.11 |                 |
| 28             | 0.30                                                              | 4.37                     | 0.11  | 40.50                | 195.80  | 251.00  | 124.90                   | 91.50   | 8.87   | 0.28   | 0.14 | 0.12 |                 |
| 29             | 0.27                                                              | 3.08                     | 0.18  | 131.50               | 160.65  | 266.00  | 123.80                   | 113.90  | 10.82  | 0.24   |      | 0.14 |                 |
| 30             | 0.26                                                              | 1.46                     | 0.29  | 257.60               | 140.30  | 265.40  | 127.10                   | 116.65  | 8.87   | 0.24   |      | 0.14 |                 |
| 31             |                                                                   | 0.86                     |       | 297.20               | 124.90  |         | 140.85                   |         | 8.87   | 0.24   |      | 0.14 |                 |
| Total          | 10.97                                                             | 122.96                   | 22.91 | 957.52               | 6546.65 | 5831.90 | 4963.70                  | 2401.12 | 782.89 | 105.78 | 1.79 | 3.88 | 21752.07 CMSDAY |
| Mean           | 0.37                                                              | 3.97                     | 0.76  | 30.89                | 211.18  | 194.40  | 160.12                   | 80.04   | 25.25  | 3.41   | 0.06 | 0.13 | 59.59 CMS       |
| Max            | 0.45                                                              | 11.21                    | 3.54  | 297.20               | 297.20  | 266.00  | 270.80                   | 146.90  | 103.00 | 6.96   | 0.22 | 0.29 | 297.20 CMS      |
| Min            | 0.26                                                              | 0.23                     | 0.09  | 0.13                 | 124.90  | 95.50   | 101.50                   | 20.00   | 2.39   | 0.24   | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 0.95                                                              | 10.62                    | 1.98  | 82.73                | 565.63  | 503.88  | 428.86                   | 207.46  | 67.64  | 9.14   | 0.16 | 0.34 | 1879.38 MCM     |
| Momentary Peak | 303.80 CMS. at 358.23 m. (MSL.) at 18.00 Hours , on Jul 31 , 2013 |                          |       |                      |         |         |                          |         |        |        |      |      |                 |
| Runoff Yield   | 9.51                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |         | 48.484  | Liters/Second/Square KM. |         |        |        |      |      |                 |

**WATER YEAR : 2013**

## NAM MAE ING RIVER BASIN

**Nam Mae Ing at Ban Jae Dee Ngam , Phayao (I.17)**

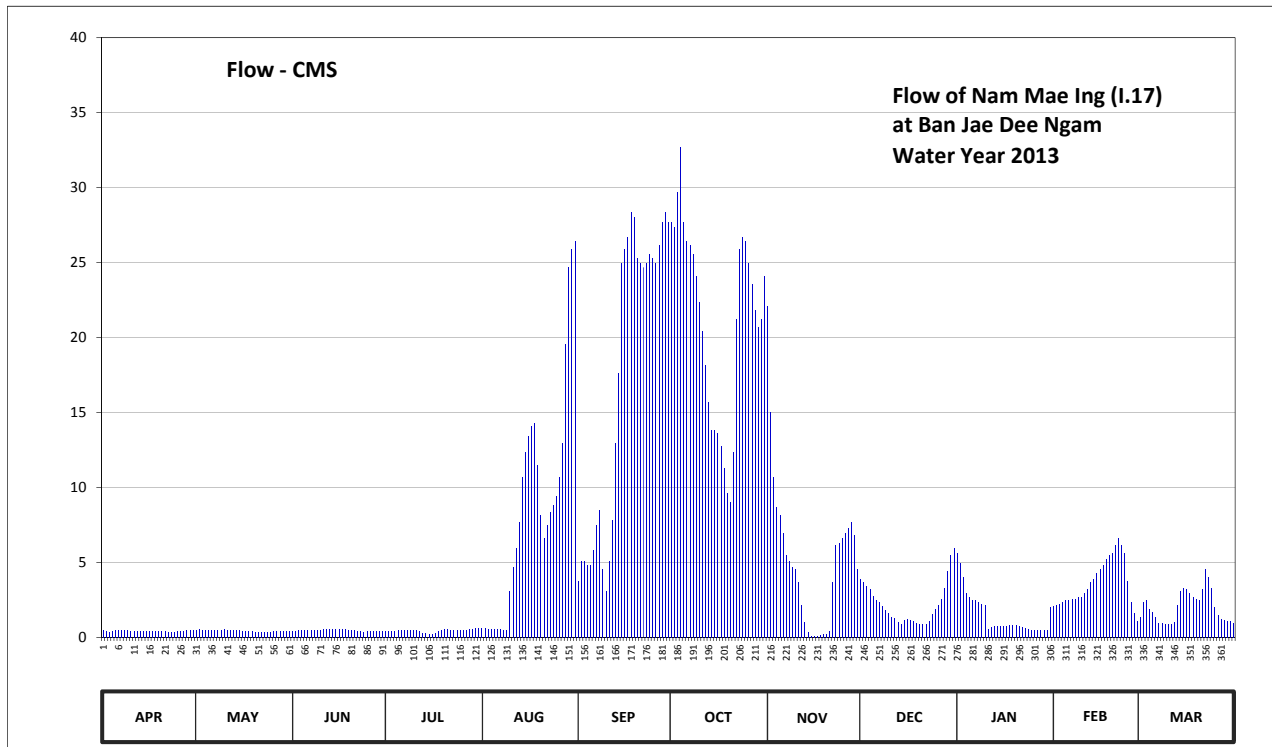
Lat 19 - 10 - 11 N      Long 99 - 56 - 13 E

**Location :** on left bank at Ban Jae Dee Ngam.

|                                         |                                                                                           |              |               |        |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Jae Dee Ngam | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Phayao             |
| <b>Drainage Area</b>                    | 1,167                                                                                     | sq.km.       |               |        |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |              |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +386.266                                                                                  | m. (MSL.)    |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |        |                  |                    |
| <b>Location BM</b>                      | On left bank about 10 meters from the top staff gage.                                     |              |               |        | <b>Elevation</b> | +390.690 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |              |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |              |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                              |              |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |              |               |        |                  |                    |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |              |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |              |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly Stable because of backwater effect.                                                |              |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |        |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2013. |              |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 387.28 | 387.28 | 387.11                                           | 387.11 | 387.42 | 387.35 | 388.42 | 388.23 | 387.36 | 387.49 | 387.19 | 387.10 |        |
|                                  | 2  | 387.13 | 387.37 | 387.12                                           | 387.05 | 387.41 | 387.45 | 388.41 | 387.97 | 387.34 | 387.44 | 387.20 | 387.22 |        |
|                                  | 3  | 387.00 | 387.28 | 387.20                                           | 387.03 | 387.38 | 387.45 | 388.48 | 387.77 | 387.32 | 387.37 | 387.21 | 387.23 |        |
|                                  | 4  | 387.07 | 387.22 | 387.23                                           | 387.13 | 387.35 | 387.43 | 388.57 | 387.67 | 387.30 | 387.28 | 387.22 | 387.17 |        |
|                                  | 5  | 387.20 | 387.26 | 387.22                                           | 387.17 | 387.33 | 387.43 | 388.42 | 387.64 | 387.26 | 387.25 | 387.23 | 387.14 |        |
|                                  | 6  | 387.25 | 387.28 | 387.22                                           | 387.19 | 387.31 | 387.50 | 388.38 | 387.57 | 387.23 | 387.23 | 387.23 | 387.09 |        |
|                                  | 7  | 387.25 | 387.26 | 387.21                                           | 387.20 | 387.29 | 387.60 | 388.37 | 387.48 | 387.22 | 387.23 | 387.24 | 386.99 |        |
|                                  | 8  | 387.25 | 387.24 | 387.23                                           | 387.20 | 387.25 | 387.66 | 388.35 | 387.45 | 387.19 | 387.22 | 387.24 | 386.97 |        |
|                                  | 9  | 387.20 | 387.23 | 387.28                                           | 387.22 | 387.23 | 387.41 | 388.30 | 387.42 | 387.16 | 387.21 | 387.25 | 386.96 |        |
|                                  | 10 | 387.12 | 387.29 | 387.27                                           | 387.23 | 387.29 | 387.29 | 388.24 | 387.41 | 387.13 | 387.20 | 387.25 | 386.95 |        |
|                                  | 11 | 387.11 | 387.23 | 387.30                                           | 387.19 | 387.42 | 387.45 | 388.17 | 387.34 | 387.10 | 387.30 | 387.28 | 386.94 |        |
|                                  | 12 | 387.11 | 387.21 | 387.33                                           | 387.03 | 387.51 | 387.62 | 388.09 | 387.20 | 387.08 | 387.50 | 387.30 | 387.01 |        |
|                                  | 13 | 387.11 | 387.19 | 387.35                                           | 386.83 | 387.61 | 387.88 | 388.00 | 387.01 | 387.00 | 387.58 | 387.34 | 387.20 |        |
|                                  | 14 | 387.12 | 387.18 | 387.37                                           | 386.77 | 387.77 | 388.07 | 387.92 | 386.66 | 386.95 | 387.62 | 387.36 | 387.29 |        |
|                                  | 15 | 387.12 | 387.17 | 387.34                                           | 386.71 | 387.85 | 388.33 | 387.92 | 386.34 | 387.04 | 387.62 | 387.39 | 387.31 |        |
|                                  | 16 | 387.12 | 387.14 | 387.31                                           | 386.65 | 387.90 | 388.36 | 387.91 | 386.34 | 387.05 | 387.63 | 387.41 | 387.30 |        |
|                                  | 17 | 387.13 | 387.12 | 387.30                                           | 386.85 | 387.93 | 388.39 | 387.87 | 386.42 | 387.04 | 387.64 | 387.43 | 387.28 |        |
|                                  | 18 | 387.13 | 387.08 | 387.29                                           | 387.14 | 387.94 | 388.44 | 387.80 | 386.49 | 387.02 | 387.65 | 387.46 | 387.25 |        |
|                                  | 19 | 387.13 | 387.04 | 387.27                                           | 387.28 | 387.81 | 388.43 | 387.72 | 386.51 | 386.97 | 387.66 | 387.48 | 387.24 |        |
|                                  | 20 | 387.13 | 387.02 | 387.26                                           | 387.29 | 387.64 | 388.34 | 387.69 | 386.52 | 386.95 | 387.66 | 387.49 | 387.23 |        |
|                                  | 21 | 387.07 | 386.99 | 387.21                                           | 387.29 | 387.55 | 388.33 | 387.85 | 386.68 | 386.95 | 387.63 | 387.52 | 387.30 |        |
|                                  | 22 | 386.96 | 386.97 | 387.10                                           | 387.28 | 387.60 | 388.32 | 388.20 | 387.34 | 386.96 | 387.55 | 387.55 | 387.41 |        |
|                                  | 23 | 386.93 | 387.00 | 387.04                                           | 387.25 | 387.65 | 388.33 | 388.36 | 387.52 | 387.02 | 387.44 | 387.52 | 387.37 |        |
|                                  | 24 | 386.98 | 387.01 | 387.02                                           | 387.21 | 387.68 | 388.35 | 388.39 | 387.53 | 387.12 | 387.32 | 387.49 | 387.31 |        |
|                                  | 25 | 387.05 | 387.02 | 387.06                                           | 387.21 | 387.71 | 388.34 | 388.38 | 387.55 | 387.17 | 387.25 | 387.35 | 387.18 |        |
|                                  | 26 | 387.09 | 387.03 | 387.10                                           | 387.22 | 387.77 | 388.33 | 388.33 | 387.57 | 387.20 | 387.23 | 387.22 | 387.11 |        |
|                                  | 27 | 387.12 | 387.04 | 387.11                                           | 387.28 | 387.88 | 388.37 | 388.28 | 387.59 | 387.24 | 387.21 | 387.13 | 387.06 |        |
|                                  | 28 | 387.17 | 387.06 | 387.11                                           | 387.32 | 388.14 | 388.42 | 388.22 | 387.61 | 387.31 | 387.20 | 387.03 | 387.04 |        |
|                                  | 29 | 387.27 | 387.08 | 387.11                                           | 387.36 | 388.32 | 388.44 | 388.18 | 387.56 | 387.40 | 387.19 |        | 387.03 |        |
|                                  | 30 | 387.20 | 387.09 | 387.11                                           | 387.42 | 388.36 | 388.42 | 388.20 | 387.41 | 387.48 | 387.18 |        | 387.02 |        |
|                                  | 31 |        | 387.10 |                                                  | 387.44 | 388.38 |        | 388.30 |        | 387.51 | 387.18 |        | 386.99 |        |
| Mean                             |    | 387.13 | 387.14 | 387.21                                           | 387.15 | 387.67 | 387.98 | 388.18 | 387.26 | 387.16 | 387.39 | 387.32 | 387.15 |        |
| Max                              |    | 387.28 | 387.37 | 387.37                                           | 387.44 | 388.38 | 388.44 | 388.57 | 388.23 | 387.51 | 387.66 | 387.55 | 387.41 | 388.57 |
| Min                              |    | 386.93 | 386.97 | 387.02                                           | 386.65 | 387.23 | 387.29 | 387.69 | 386.34 | 386.95 | 387.18 | 387.03 | 386.94 | 386.34 |
| Annual Max Momentary Gage Height |    |        | 388.59 | m. (MSL.) , at 12.00 Hours , on Oct 4, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 386.27 | m. (MSL.) , River Bed 384.55 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 390.57 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 390.58 | m. (MSL.) , Drainage Area 1167 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul   | Aug                  | Sep    | Oct    | Nov                             | Dec   | Jan   | Feb    | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|-------|----------------------|--------|--------|---------------------------------|-------|-------|--------|-------|----------------|
| 1              | 0.52                                                            | 0.52                     | 0.43  | 0.43  | 0.62                 | 3.80   | 27.67  | 22.07                           | 3.92  | 5.66  | 2.07   | 1.40  |                |
| 2              | 0.45                                                            | 0.58                     | 0.44  | 0.40  | 0.61                 | 5.10   | 27.34  | 15.01                           | 3.68  | 4.96  | 2.15   | 2.36  |                |
| 3              | 0.38                                                            | 0.52                     | 0.48  | 0.40  | 0.59                 | 5.10   | 29.68  | 10.67                           | 3.44  | 4.04  | 2.25   | 2.47  |                |
| 4              | 0.42                                                            | 0.49                     | 0.50  | 0.45  | 0.57                 | 4.82   | 32.70  | 8.69                            | 3.20  | 2.99  | 2.36   | 1.93  |                |
| 5              | 0.48                                                            | 0.51                     | 0.49  | 0.47  | 0.55                 | 4.82   | 27.67  | 8.18                            | 2.78  | 2.68  | 2.47   | 1.70  |                |
| 6              | 0.51                                                            | 0.52                     | 0.49  | 0.48  | 0.54                 | 5.80   | 26.42  | 6.99                            | 2.47  | 2.47  | 2.47   | 1.36  |                |
| 7              | 0.51                                                            | 0.51                     | 0.49  | 0.48  | 0.53                 | 7.50   | 26.13  | 5.52                            | 2.36  | 2.47  | 2.57   | 0.98  |                |
| 8              | 0.51                                                            | 0.50                     | 0.50  | 0.48  | 0.51                 | 8.52   | 25.55  | 5.10                            | 2.07  | 2.36  | 2.57   | 0.94  |                |
| 9              | 0.48                                                            | 0.50                     | 0.52  | 0.49  | 0.50                 | 4.54   | 24.10  | 4.68                            | 1.85  | 2.25  | 2.68   | 0.92  |                |
| 10             | 0.44                                                            | 0.53                     | 0.52  | 0.50  | 3.10                 | 3.10   | 22.36  | 4.54                            | 1.62  | 2.15  | 2.68   | 0.90  |                |
| 11             | 0.43                                                            | 0.50                     | 0.53  | 0.48  | 4.68                 | 5.10   | 20.38  | 3.68                            | 1.40  | 0.53  | 2.99   | 0.88  |                |
| 12             | 0.43                                                            | 0.49                     | 0.55  | 0.40  | 5.97                 | 7.84   | 18.17  | 2.15                            | 1.32  | 0.68  | 3.20   | 1.04  |                |
| 13             | 0.43                                                            | 0.48                     | 0.57  | 0.29  | 7.67                 | 12.98  | 15.70  | 1.04                            | 1.00  | 0.74  | 3.68   | 2.15  |                |
| 14             | 0.44                                                            | 0.47                     | 0.58  | 0.26  | 10.67                | 17.63  | 13.86  | 0.39                            | 0.90  | 0.78  | 3.92   | 3.10  |                |
| 15             | 0.44                                                            | 0.47                     | 0.56  | 0.23  | 12.35                | 24.97  | 13.86  | 0.08                            | 1.16  | 0.78  | 4.28   | 3.32  |                |
| 16             | 0.44                                                            | 0.45                     | 0.54  | 0.20  | 13.40                | 25.84  | 13.63  | 0.08                            | 1.20  | 0.78  | 4.54   | 3.20  |                |
| 17             | 0.45                                                            | 0.44                     | 0.53  | 0.31  | 14.09                | 26.71  | 12.77  | 0.12                            | 1.16  | 0.79  | 4.82   | 2.99  |                |
| 18             | 0.45                                                            | 0.42                     | 0.53  | 0.45  | 14.32                | 28.34  | 11.30  | 0.19                            | 1.08  | 0.80  | 5.24   | 2.68  |                |
| 19             | 0.45                                                            | 0.40                     | 0.52  | 0.52  | 11.51                | 28.00  | 9.62   | 0.21                            | 0.94  | 0.81  | 5.52   | 2.57  |                |
| 20             | 0.45                                                            | 0.39                     | 0.51  | 0.53  | 8.18                 | 25.26  | 9.03   | 0.22                            | 0.90  | 0.81  | 5.66   | 2.47  |                |
| 21             | 0.42                                                            | 0.37                     | 0.49  | 0.53  | 6.65                 | 24.97  | 12.35  | 0.42                            | 0.90  | 0.78  | 6.14   | 3.20  |                |
| 22             | 0.36                                                            | 0.37                     | 0.43  | 0.52  | 7.50                 | 24.68  | 21.20  | 3.68                            | 0.92  | 0.72  | 6.65   | 4.54  |                |
| 23             | 0.34                                                            | 0.38                     | 0.40  | 0.51  | 8.35                 | 24.97  | 25.84  | 6.14                            | 1.08  | 0.63  | 6.14   | 4.04  |                |
| 24             | 0.37                                                            | 0.39                     | 0.39  | 0.49  | 8.86                 | 25.55  | 26.71  | 6.31                            | 1.55  | 0.54  | 5.66   | 3.32  |                |
| 25             | 0.40                                                            | 0.39                     | 0.41  | 0.49  | 9.41                 | 25.26  | 26.42  | 6.65                            | 1.93  | 0.51  | 3.80   | 2.00  |                |
| 26             | 0.43                                                            | 0.40                     | 0.43  | 0.49  | 10.67                | 24.97  | 24.97  | 6.99                            | 2.15  | 0.50  | 2.36   | 1.47  |                |
| 27             | 0.44                                                            | 0.40                     | 0.43  | 0.52  | 12.98                | 26.13  | 23.52  | 7.33                            | 2.57  | 0.49  | 1.62   | 1.24  |                |
| 28             | 0.47                                                            | 0.41                     | 0.43  | 0.54  | 19.55                | 27.67  | 21.78  | 7.67                            | 3.32  | 0.48  | 1.12   | 1.16  |                |
| 29             | 0.52                                                            | 0.42                     | 0.43  | 0.57  | 24.68                | 28.34  | 20.65  | 6.82                            | 4.40  | 0.48  |        | 1.12  |                |
| 30             | 0.48                                                            | 0.43                     | 0.43  | 0.62  | 25.84                | 27.67  | 21.20  | 4.54                            | 5.52  | 0.47  |        | 1.08  |                |
| 31             |                                                                 | 0.43                     |       | 0.63  | 26.42                |        | 24.10  |                                 | 5.97  | 2.00  |        | 0.98  |                |
| Total          | 13.34                                                           | 14.08                    | 14.55 | 14.16 | 271.87               | 515.98 | 656.68 | 156.16                          | 68.76 | 47.13 | 101.61 | 63.51 | 1937.83 CMSDAY |
| Mean           | 0.44                                                            | 0.45                     | 0.49  | 0.46  | 8.77                 | 17.20  | 21.18  | 5.21                            | 2.22  | 1.52  | 3.63   | 2.05  | 5.31 CMS       |
| Max            | 0.52                                                            | 0.58                     | 0.58  | 0.63  | 26.42                | 28.34  | 32.70  | 22.07                           | 5.97  | 5.66  | 6.65   | 4.54  | 32.70 CMS      |
| Min            | 0.34                                                            | 0.37                     | 0.39  | 0.20  | 0.50                 | 3.10   | 9.03   | 0.08                            | 0.90  | 0.47  | 1.12   | 0.88  | 0.08 CMS       |
| Runoff         | 1.15                                                            | 1.22                     | 1.26  | 1.22  | 23.49                | 44.58  | 56.74  | 13.49                           | 5.94  | 4.07  | 8.78   | 5.49  | 167.43 MCM     |
| Momentary Peak | 33.36 CMS. at 388.59 m. (MSL.) at 12.00 Hours , on Oct 4 , 2013 |                          |       |       |                      |        |        |                                 |       |       |        |       |                |
| Runoff Yield   | 4.55                                                            | Liters/Second/Square KM. |       |       | Momentary Peak Yield |        |        | 28.586 Liters/Second/Square KM. |       |       |        |       |                |

**WATER YEAR : 2013**

## NAM MAE KOK RIVER BASIN

**Nam Mae Kon at Ban Pang Rim Kon , Chiang Rai (G.4)**

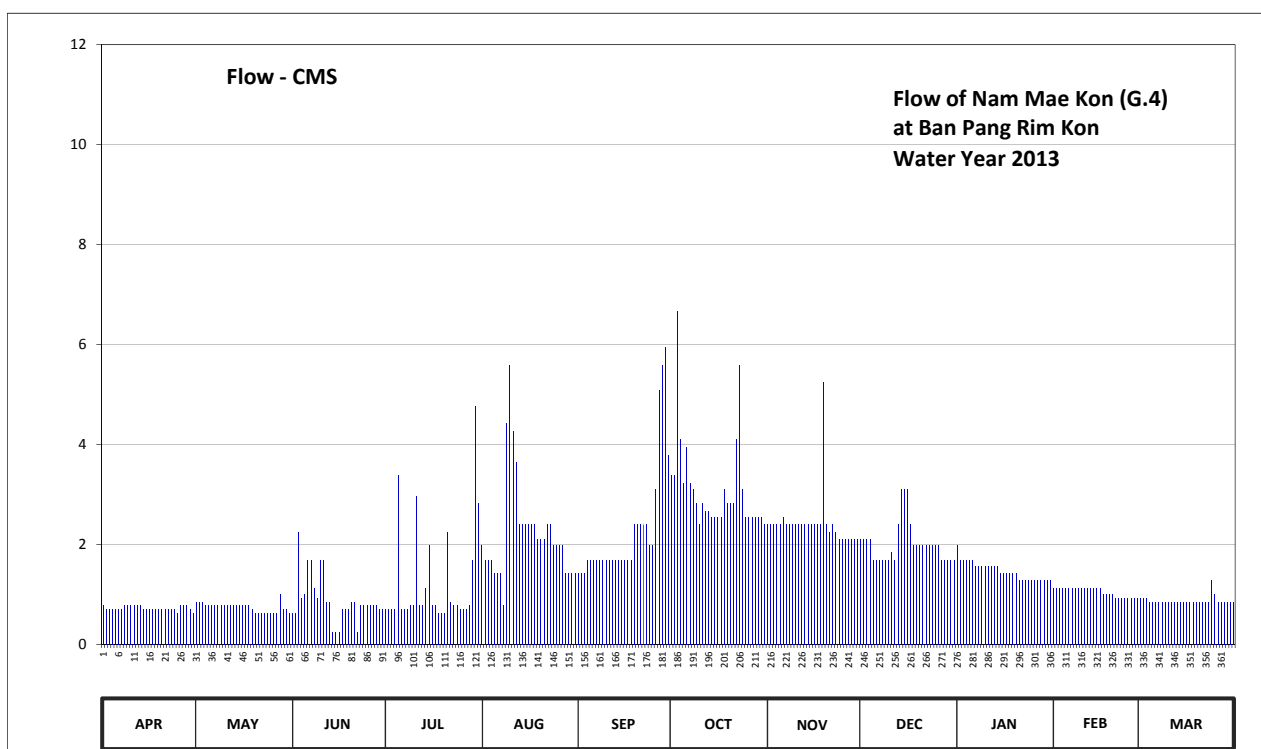
Lat 19 - 50 - 23 N    Long 99 - 40 - 27 E

**Location : on left bank at Ban Pang Rim Kon.**

|                                         |                                                                                           |              |               |        |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pang Rim Kon | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Chiang Rai         |
| <b>Drainage Area</b>                    | 49                                                                                        | sq.km.       |               |        |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |              |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +461.700                                                                                  | m. (MSL.)    |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |        |                  |                    |
| <b>Location BM</b>                      | On left bank about 66.50 meters from the top staff gage.                                  |              |               |        | <b>Elevation</b> | +465.100 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |              |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 3 readings                                                            |              |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                              |              |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |              |               |        |                  |                    |
| <b>Period of Rating</b>                 | 2000 to date                                                                              |              |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 2000 to date                                                                              |              |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |              |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |        |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 41 discharge measurements made in 2013. |              |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                            | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 462.57 | 462.58 | 462.55                                         | 462.56 | 462.67 | 462.63 | 462.77 | 462.70 | 462.68 | 462.67 | 462.61 | 462.59 |        |
| 2                                | 462.56 | 462.58 | 462.55                                         | 462.56 | 462.65 | 462.63 | 462.77 | 462.70 | 462.68 | 462.65 | 462.61 | 462.59 |        |
| 3                                | 462.56 | 462.58 | 462.69                                         | 462.56 | 462.65 | 462.63 | 462.97 | 462.70 | 462.68 | 462.65 | 462.61 | 462.59 |        |
| 4                                | 462.56 | 462.57 | 462.59                                         | 462.56 | 462.65 | 462.65 | 462.82 | 462.70 | 462.68 | 462.65 | 462.61 | 462.58 |        |
| 5                                | 462.56 | 462.57 | 462.60                                         | 462.77 | 462.63 | 462.65 | 462.76 | 462.70 | 462.65 | 462.65 | 462.61 | 462.58 |        |
| 6                                | 462.56 | 462.57 | 462.65                                         | 462.56 | 462.63 | 462.65 | 462.81 | 462.71 | 462.65 | 462.65 | 462.61 | 462.58 |        |
| 7                                | 462.56 | 462.57 | 462.65                                         | 462.56 | 462.63 | 462.65 | 462.76 | 462.70 | 462.65 | 462.64 | 462.61 | 462.58 |        |
| 8                                | 462.57 | 462.57 | 462.61                                         | 462.56 | 462.57 | 462.65 | 462.75 | 462.70 | 462.65 | 462.64 | 462.61 | 462.58 |        |
| 9                                | 462.57 | 462.57 | 462.59                                         | 462.57 | 462.84 | 462.65 | 462.73 | 462.70 | 462.65 | 462.64 | 462.61 | 462.58 |        |
| 10                               | 462.57 | 462.57 | 462.65                                         | 462.57 | 462.91 | 462.65 | 462.70 | 462.70 | 462.65 | 462.64 | 462.61 | 462.58 |        |
| 11                               | 462.57 | 462.57 | 462.65                                         | 462.74 | 462.83 | 462.65 | 462.73 | 462.70 | 462.66 | 462.64 | 462.61 | 462.58 |        |
| 12                               | 462.57 | 462.57 | 462.58                                         | 462.57 | 462.79 | 462.65 | 462.72 | 462.70 | 462.65 | 462.64 | 462.61 | 462.58 |        |
| 13                               | 462.57 | 462.57 | 462.58                                         | 462.57 | 462.70 | 462.65 | 462.72 | 462.70 | 462.70 | 462.64 | 462.61 | 462.58 |        |
| 14                               | 462.56 | 462.57 | 462.50                                         | 462.61 | 462.70 | 462.65 | 462.71 | 462.70 | 462.75 | 462.64 | 462.61 | 462.58 |        |
| 15                               | 462.56 | 462.57 | 462.50                                         | 462.67 | 462.70 | 462.65 | 462.71 | 462.70 | 462.75 | 462.63 | 462.61 | 462.58 |        |
| 16                               | 462.56 | 462.57 | 462.50                                         | 462.57 | 462.70 | 462.65 | 462.71 | 462.70 | 462.75 | 462.63 | 462.61 | 462.58 |        |
| 17                               | 462.56 | 462.57 | 462.56                                         | 462.57 | 462.70 | 462.65 | 462.71 | 462.70 | 462.70 | 462.63 | 462.60 | 462.58 |        |
| 18                               | 462.56 | 462.57 | 462.56                                         | 462.55 | 462.70 | 462.65 | 462.75 | 462.70 | 462.67 | 462.63 | 462.60 | 462.58 |        |
| 19                               | 462.56 | 462.56 | 462.56                                         | 462.55 | 462.68 | 462.70 | 462.73 | 462.89 | 462.67 | 462.63 | 462.60 | 462.58 |        |
| 20                               | 462.56 | 462.55 | 462.58                                         | 462.55 | 462.68 | 462.70 | 462.73 | 462.70 | 462.67 | 462.63 | 462.60 | 462.58 |        |
| 21                               | 462.56 | 462.55 | 462.58                                         | 462.69 | 462.68 | 462.70 | 462.73 | 462.69 | 462.67 | 462.62 | 462.59 | 462.58 |        |
| 22                               | 462.56 | 462.55 | 462.50                                         | 462.58 | 462.70 | 462.70 | 462.82 | 462.70 | 462.67 | 462.62 | 462.59 | 462.58 |        |
| 23                               | 462.56 | 462.55 | 462.57                                         | 462.57 | 462.70 | 462.70 | 462.91 | 462.69 | 462.67 | 462.62 | 462.59 | 462.58 |        |
| 24                               | 462.56 | 462.55 | 462.57                                         | 462.57 | 462.67 | 462.67 | 462.75 | 462.68 | 462.67 | 462.62 | 462.59 | 462.62 |        |
| 25                               | 462.55 | 462.55 | 462.57                                         | 462.56 | 462.67 | 462.67 | 462.71 | 462.68 | 462.67 | 462.62 | 462.59 | 462.60 |        |
| 26                               | 462.57 | 462.55 | 462.57                                         | 462.56 | 462.67 | 462.75 | 462.71 | 462.68 | 462.67 | 462.62 | 462.59 | 462.58 |        |
| 27                               | 462.57 | 462.55 | 462.57                                         | 462.56 | 462.67 | 462.88 | 462.71 | 462.68 | 462.65 | 462.62 | 462.59 | 462.58 |        |
| 28                               | 462.57 | 462.60 | 462.57                                         | 462.57 | 462.63 | 462.91 | 462.71 | 462.68 | 462.65 | 462.62 | 462.59 | 462.58 |        |
| 29                               | 462.56 | 462.56 | 462.56                                         | 462.65 | 462.63 | 462.93 | 462.71 | 462.68 | 462.65 | 462.62 |        | 462.58 |        |
| 30                               | 462.55 | 462.56 | 462.56                                         | 462.86 | 462.63 | 462.80 | 462.71 | 462.68 | 462.65 | 462.62 |        | 462.58 |        |
| 31                               |        | 462.55 |                                                | 462.73 | 462.63 |        | 462.70 |        | 462.65 | 462.62 |        | 462.58 |        |
| Mean                             | 462.56 | 462.57 | 462.58                                         | 462.60 | 462.69 | 462.69 | 462.75 | 462.70 | 462.67 | 462.63 | 462.60 | 462.58 |        |
| Max                              | 462.57 | 462.60 | 462.69                                         | 462.86 | 462.91 | 462.93 | 462.97 | 462.89 | 462.75 | 462.67 | 462.61 | 462.62 | 462.97 |
| Min                              | 462.55 | 462.55 | 462.50                                         | 462.55 | 462.57 | 462.63 | 462.70 | 462.68 | 462.65 | 462.62 | 462.59 | 462.58 | 462.50 |
| Annual Max Momentary Gage Height | 463.13 |        | m. (MSL.) , at 08.00 Hours , on Sep 27 , 2013  |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 461.70 |        | m. (MSL.) , River Bed 462.17 m. (MSL.)         |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 465.77 |        | m. (MSL.) ,                                    |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 465.77 |        | m. (MSL.) , Drainage Area 49 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep     | Oct   | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|-------|--------------------------|-------|-------|-------|-------|---------------|
| 1              | 0.78                                                            | 0.85                     | 0.62  | 0.70                 | 1.98  | 1.42    | 3.38  | 2.40                     | 2.12  | 1.98  | 1.14  | 0.92  |               |
| 2              | 0.70                                                            | 0.85                     | 0.62  | 0.70                 | 1.70  | 1.42    | 3.38  | 2.40                     | 2.12  | 1.70  | 1.14  | 0.92  |               |
| 3              | 0.70                                                            | 0.85                     | 2.26  | 0.70                 | 1.70  | 1.42    | 6.66  | 2.40                     | 2.12  | 1.70  | 1.14  | 0.92  |               |
| 4              | 0.70                                                            | 0.78                     | 0.92  | 0.70                 | 1.70  | 1.70    | 4.12  | 2.40                     | 2.12  | 1.70  | 1.14  | 0.85  |               |
| 5              | 0.70                                                            | 0.78                     | 1.00  | 3.38                 | 1.42  | 1.70    | 3.24  | 2.40                     | 1.70  | 1.70  | 1.14  | 0.85  |               |
| 6              | 0.70                                                            | 0.78                     | 1.70  | 0.70                 | 1.42  | 1.70    | 3.96  | 2.54                     | 1.70  | 1.70  | 1.14  | 0.85  |               |
| 7              | 0.70                                                            | 0.78                     | 1.70  | 0.70                 | 1.42  | 1.70    | 3.24  | 2.40                     | 1.70  | 1.56  | 1.14  | 0.85  |               |
| 8              | 0.78                                                            | 0.78                     | 1.14  | 0.70                 | 0.78  | 1.70    | 3.10  | 2.40                     | 1.70  | 1.56  | 1.14  | 0.85  |               |
| 9              | 0.78                                                            | 0.78                     | 0.92  | 0.78                 | 4.44  | 1.70    | 2.82  | 2.40                     | 1.70  | 1.56  | 1.14  | 0.85  |               |
| 10             | 0.78                                                            | 0.78                     | 1.70  | 0.78                 | 5.58  | 1.70    | 2.40  | 2.40                     | 1.70  | 1.56  | 1.14  | 0.85  |               |
| 11             | 0.78                                                            | 0.78                     | 1.70  | 2.96                 | 4.28  | 1.70    | 2.82  | 2.40                     | 1.84  | 1.56  | 1.14  | 0.85  |               |
| 12             | 0.78                                                            | 0.78                     | 0.85  | 0.78                 | 3.66  | 1.70    | 2.68  | 2.40                     | 1.70  | 1.56  | 1.14  | 0.85  |               |
| 13             | 0.78                                                            | 0.78                     | 0.85  | 0.78                 | 2.40  | 1.70    | 2.68  | 2.40                     | 2.40  | 1.56  | 1.14  | 0.85  |               |
| 14             | 0.70                                                            | 0.78                     | 0.25  | 1.14                 | 2.40  | 1.70    | 2.54  | 2.40                     | 3.10  | 1.56  | 1.14  | 0.85  |               |
| 15             | 0.70                                                            | 0.78                     | 0.25  | 1.98                 | 2.40  | 1.70    | 2.54  | 2.40                     | 3.10  | 1.42  | 1.14  | 0.85  |               |
| 16             | 0.70                                                            | 0.78                     | 0.25  | 0.78                 | 2.40  | 1.70    | 2.54  | 2.40                     | 3.10  | 1.42  | 1.14  | 0.85  |               |
| 17             | 0.70                                                            | 0.78                     | 0.70  | 0.78                 | 2.40  | 1.70    | 2.54  | 2.40                     | 2.40  | 1.42  | 1.00  | 0.85  |               |
| 18             | 0.70                                                            | 0.78                     | 0.70  | 0.62                 | 2.40  | 1.70    | 3.10  | 2.40                     | 1.98  | 1.42  | 1.00  | 0.85  |               |
| 19             | 0.70                                                            | 0.70                     | 0.70  | 0.62                 | 2.12  | 2.40    | 2.82  | 5.24                     | 1.98  | 1.42  | 1.00  | 0.85  |               |
| 20             | 0.70                                                            | 0.62                     | 0.85  | 0.62                 | 2.12  | 2.40    | 2.82  | 2.40                     | 1.98  | 1.42  | 1.00  | 0.85  |               |
| 21             | 0.70                                                            | 0.62                     | 0.85  | 2.26                 | 2.12  | 2.40    | 2.82  | 2.26                     | 1.98  | 1.28  | 0.92  | 0.85  |               |
| 22             | 0.70                                                            | 0.62                     | 0.25  | 0.85                 | 2.40  | 2.40    | 4.12  | 2.40                     | 1.98  | 1.28  | 0.92  | 0.85  |               |
| 23             | 0.70                                                            | 0.62                     | 0.78  | 0.78                 | 2.40  | 2.40    | 5.58  | 2.26                     | 1.98  | 1.28  | 0.92  | 0.85  |               |
| 24             | 0.70                                                            | 0.62                     | 0.78  | 0.78                 | 1.98  | 1.98    | 3.10  | 2.12                     | 1.98  | 1.28  | 0.92  | 1.28  |               |
| 25             | 0.62                                                            | 0.62                     | 0.78  | 0.70                 | 1.98  | 1.98    | 2.54  | 2.12                     | 1.98  | 1.28  | 0.92  | 1.00  |               |
| 26             | 0.78                                                            | 0.62                     | 0.78  | 0.70                 | 1.98  | 3.10    | 2.54  | 2.12                     | 1.98  | 1.28  | 0.92  | 0.85  |               |
| 27             | 0.78                                                            | 0.62                     | 0.78  | 0.70                 | 1.98  | 5.08    | 2.54  | 2.12                     | 1.70  | 1.28  | 0.92  | 0.85  |               |
| 28             | 0.78                                                            | 1.00                     | 0.78  | 0.78                 | 1.42  | 5.58    | 2.54  | 2.12                     | 1.70  | 1.28  | 0.92  | 0.85  |               |
| 29             | 0.70                                                            | 0.70                     | 0.70  | 1.70                 | 1.42  | 5.94    | 2.54  | 2.12                     | 1.70  | 1.28  |       | 0.85  |               |
| 30             | 0.62                                                            | 0.70                     | 0.70  | 4.76                 | 1.42  | 3.80    | 2.54  | 2.12                     | 1.70  | 1.28  |       | 0.85  |               |
| 31             |                                                                 | 0.62                     |       | 2.82                 | 1.42  |         | 2.40  |                          | 1.70  | 1.28  |       | 0.85  |               |
| Total          | 21.64                                                           | 22.93                    | 26.86 | 37.73                | 69.24 | 69.22   | 96.64 | 72.74                    | 62.64 | 45.56 | 29.60 | 27.14 | 581.94 CMSDAY |
| Mean           | 0.72                                                            | 0.74                     | 0.90  | 1.22                 | 2.23  | 2.31    | 3.12  | 2.42                     | 2.02  | 1.47  | 1.06  | 0.88  | 1.59 CMS      |
| Max            | 0.78                                                            | 1.00                     | 2.26  | 4.76                 | 5.58  | 5.94    | 6.66  | 5.24                     | 3.10  | 1.98  | 1.14  | 1.28  | 6.66 CMS      |
| Min            | 0.62                                                            | 0.62                     | 0.25  | 0.62                 | 0.78  | 1.42    | 2.40  | 2.12                     | 1.70  | 1.28  | 0.92  | 0.85  | 0.25 CMS      |
| Runoff         | 1.87                                                            | 1.98                     | 2.32  | 3.26                 | 5.98  | 5.98    | 8.35  | 6.29                     | 5.41  | 3.94  | 2.56  | 2.35  | 50.28 MCM     |
| Momentary Peak | 9.60 CMS. at 463.13 m. (MSL.) at 08.00 Hours , on Sep 27 , 2013 |                          |       |                      |       |         |       |                          |       |       |       |       |               |
| Runoff Yield   | 32.54                                                           | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 195.918 |       | Liters/Second/Square KM. |       |       |       |       |               |

**WATER YEAR : 2013**

## NAM MAE KOK RIVER BASIN

**Nam Mae Lao at Ban Ton Yang , Chiang Rai (G.8)**

Lat 19 - 47 - 32 N    Long 99 - 45 - 11 E

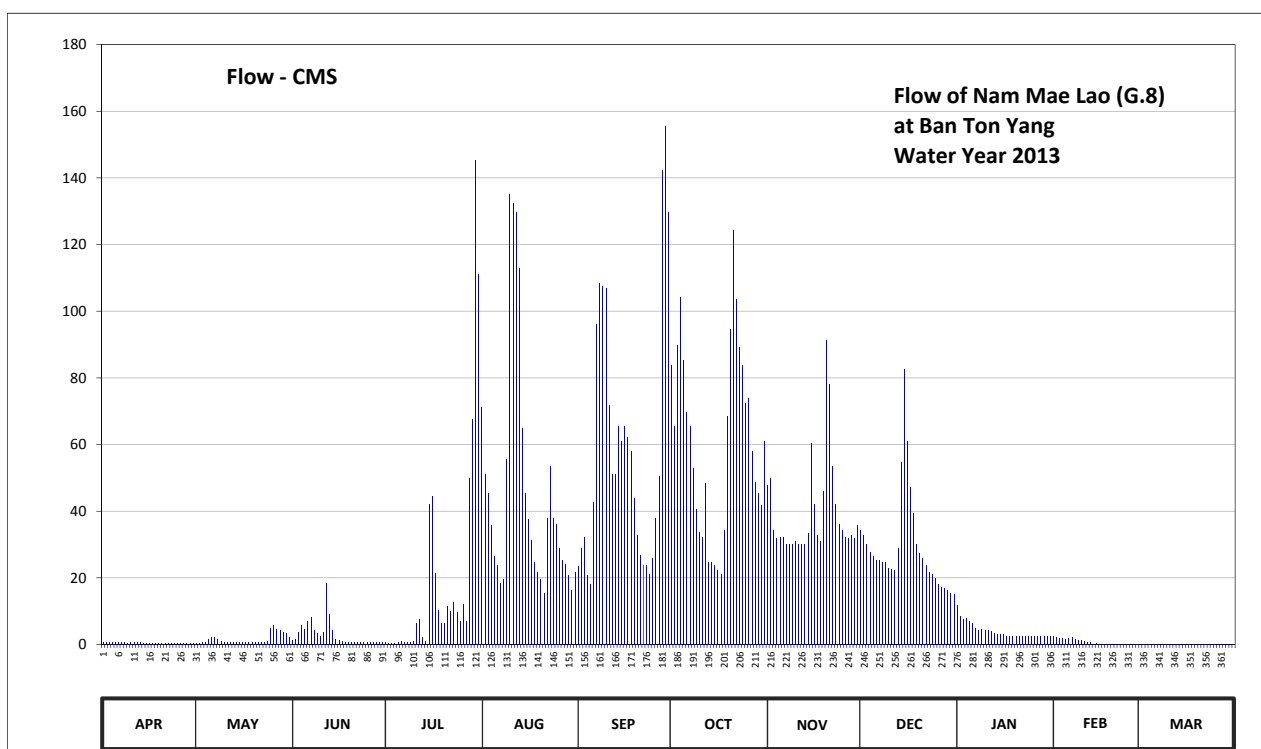
**Location :** on left bank at the bridge of Chiang Rai - Phayao Highway, Tambon Bua Sali.

|                                         |                                                                             |           |               |         |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Ton Yang  | <b>Amphoe</b> | Mae Lao | <b>Changwat</b>  | Chiang Rai         |
| <b>Drainage Area</b>                    | 2,909                                                                       | sq.km.    |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +405.100                                                                    | m. (MSL.) |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |         |                  |                    |
| <b>Location BM</b>                      | On left bank about 8 meters from the top staff gage.                        |           |               |         | <b>Elevation</b> | +410.832 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1994 to date                                                                |           |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |           |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1994 to date                                                                |           |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1994 to date                                                                |           |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |           |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |         |                  |                    |
| <b>General Description</b>              | Records fair. Mae Lao weir situated about 10 kilometers above gage site.    |           |               |         |                  |                    |
|                                         | Stage-discharge relation defined by 43 discharge measurements made in 2013. |           |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul         | Aug                               | Sep           | Oct       | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|-------------|-----------------------------------|---------------|-----------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 405.09 | 405.01 | 405.20      | 405.05      | 406.92                            | 406.05        | 407.10    | 406.55            | 406.29 | 405.72 | 405.29 | 404.86 |        |
| 2                                | 405.09 | 405.03 | 405.22      | 405.03      | 406.61                            | 406.18        | 406.84    | 406.59            | 406.26 | 405.60 | 405.27 | 404.85 |        |
| 3                                | 405.08 | 405.06 | 405.37      | 405.03      | 406.51                            | 406.25        | 407.18    | 406.29            | 406.20 | 405.56 | 405.25 | 404.86 |        |
| 4                                | 405.06 | 405.10 | 405.48      | 405.04      | 406.32                            | 405.98        | 407.36    | 406.24            | 406.15 | 405.58 | 405.23 | 404.86 |        |
| 5                                | 405.07 | 405.21 | 405.42      | 405.09      | 406.12                            | 405.91        | 407.12    | 406.25            | 406.12 | 405.54 | 405.21 | 404.84 |        |
| 6                                | 405.07 | 405.27 | 405.54      | 405.12      | 406.06                            | 406.46        | 406.90    | 406.25            | 406.10 | 405.51 | 405.25 | 404.89 |        |
| 7                                | 405.07 | 405.28 | 405.59      | 405.09      | 405.92                            | 407.26        | 406.84    | 406.20            | 406.10 | 405.44 | 405.27 | 404.88 |        |
| 8                                | 405.06 | 405.21 | 405.40      | 405.07      | 405.95                            | 407.41        | 406.64    | 406.20            | 406.08 | 405.40 | 405.22 | 404.87 |        |
| 9                                | 405.04 | 405.14 | 405.36      | 405.07      | 406.68                            | 407.40        | 406.42    | 406.20            | 406.08 | 405.42 | 405.19 | 404.87 |        |
| 10                               | 405.06 | 405.11 | 405.29      | 405.12      | 407.71                            | 407.39        | 406.28    | 406.22            | 406.04 | 405.41 | 405.17 | 404.88 |        |
| 11                               | 405.06 | 405.10 | 405.37      | 405.51      | 407.68                            | 406.93        | 406.25    | 406.20            | 406.03 | 405.40 | 405.13 | 404.88 |        |
| 12                               | 405.05 | 405.11 | 405.92      | 405.56      | 407.65                            | 406.61        | 406.56    | 406.20            | 406.02 | 405.39 | 405.09 | 404.88 |        |
| 13                               | 405.05 | 405.09 | 405.63      | 405.28      | 407.46                            | 406.61        | 406.08    | 406.20            | 406.18 | 405.35 | 405.06 | 404.88 |        |
| 14                               | 405.03 | 405.08 | 405.41      | 405.14      | 406.83                            | 406.84        | 406.08    | 406.27            | 406.67 | 405.34 | 404.93 | 404.88 |        |
| 15                               | 405.02 | 405.05 | 405.21      | 406.45      | 406.51                            | 406.77        | 406.06    | 406.76            | 407.08 | 405.34 | 404.97 | 404.87 |        |
| 16                               | 405.01 | 405.05 | 405.16      | 406.49      | 406.36                            | 406.84        | 406.02    | 406.45            | 406.77 | 405.33 | 404.94 | 404.87 |        |
| 17                               | 405.00 | 405.06 | 405.14      | 406.00      | 406.23                            | 406.79        | 405.99    | 406.26            | 406.54 | 405.30 | 404.90 | 404.87 |        |
| 18                               | 405.00 | 405.06 | 405.11      | 405.67      | 406.08                            | 406.72        | 406.29    | 406.22            | 406.40 | 405.29 | 404.88 | 404.89 |        |
| 19                               | 405.01 | 405.06 | 405.09      | 405.51      | 406.01                            | 406.48        | 406.88    | 405.52            | 406.20 | 405.29 | 404.88 | 404.89 |        |
| 20                               | 405.00 | 405.06 | 405.08      | 405.51      | 405.95                            | 406.26        | 407.24    | 407.20            | 406.14 | 405.29 | 404.87 | 404.88 |        |
| 21                               | 405.00 | 405.06 | 405.09      | 405.71      | 405.84                            | 406.13        | 407.59    | 407.02            | 406.11 | 405.30 | 404.87 | 404.87 |        |
| 22                               | 405.00 | 405.07 | 405.08      | 405.66      | 406.37                            | 406.06        | 407.35    | 406.65            | 406.06 | 405.29 | 404.86 | 404.87 |        |
| 23                               | 405.00 | 405.06 | 405.06      | 405.75      | 406.65                            | 406.06        | 407.17    | 406.45            | 406.01 | 405.30 | 404.86 | 404.87 |        |
| 24                               | 405.01 | 405.15 | 405.05      | 405.65      | 406.37                            | 405.99        | 407.10    | 406.33            | 405.99 | 405.30 | 404.86 | 404.87 |        |
| 25                               | 405.01 | 405.43 | 405.05      | 405.53      | 406.33                            | 406.11        | 406.94    | 406.29            | 405.96 | 405.30 | 404.85 | 404.89 |        |
| 26                               | 405.01 | 405.48 | 405.05      | 405.73      | 406.18                            | 406.37        | 406.96    | 406.25            | 405.91 | 405.30 | 404.84 | 404.89 |        |
| 27                               | 405.01 | 405.42 | 405.06      | 405.53      | 406.10                            | 406.60        | 406.72    | 406.24            | 405.89 | 405.31 | 404.83 | 404.89 |        |
| 28                               | 405.00 | 405.40 | 405.05      | 406.59      | 406.07                            | 407.79        | 406.57    | 406.26            | 405.88 | 405.29 | 404.83 | 404.89 |        |
| 29                               | 405.01 | 405.38 | 405.05      | 406.87      | 405.98                            | 407.93        | 406.51    | 406.24            | 405.86 | 405.29 |        | 404.89 |        |
| 30                               | 405.00 | 405.35 | 405.05      | 407.82      | 405.86                            | 407.65        | 406.44    | 406.32            | 405.84 | 405.30 |        | 404.89 |        |
| 31                               |        | 405.28 |             | 407.44      | 406.01                            |               | 406.77    |                   | 405.83 | 405.29 |        | 404.89 |        |
| Mean                             | 405.03 | 405.17 | 405.25      | 405.68      | 406.43                            | 406.66        | 406.72    | 406.38            | 406.15 | 405.38 | 405.03 | 404.88 |        |
| Max                              | 405.09 | 405.48 | 405.92      | 407.82      | 407.71                            | 407.93        | 407.59    | 407.20            | 407.08 | 405.72 | 405.29 | 404.89 | 407.93 |
| Min                              | 405.00 | 405.01 | 405.05      | 405.03      | 405.84                            | 405.91        | 405.99    | 406.20            | 405.83 | 405.29 | 404.84 | 404.84 | 404.83 |
| Annual Max Momentary Gage Height |        | 408.07 | m. (MSL.) , |             | at 21.00 Hours , on Sep 28 , 2013 |               |           |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 405.10 | m. (MSL.) , |             | River Bed                         | 404.78        | m. (MSL.) |                   |        |        |        |        |        |
| Left Bank Elevation              |        |        | 410.61      | m. (MSL.) , |                                   |               |           |                   |        |        |        |        |        |
| Right Bank Elevation             |        |        | 410.59      | m. (MSL.) , |                                   | Drainage Area | 2909      | Square Kilometers |        |        |        |        |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                               | May                      | Jun   | Jul    | Aug     | Sep                  | Oct     | Nov     | Dec    | Jan                      | Feb   | Mar  | Annual  |        |
|----------------|-------------------------------------------------------------------|--------------------------|-------|--------|---------|----------------------|---------|---------|--------|--------------------------|-------|------|---------|--------|
| 1              | 0.76                                                              | 0.44                     | 1.50  | 0.60   | 71.10   | 23.50                | 83.85   | 47.75   | 34.28  | 11.72                    | 2.40  | 0.16 |         |        |
| 2              | 0.76                                                              | 0.52                     | 1.70  | 0.52   | 51.12   | 29.10                | 65.70   | 49.95   | 32.85  | 8.50                     | 2.20  | 0.15 |         |        |
| 3              | 0.72                                                              | 0.64                     | 3.69  | 0.52   | 45.55   | 32.37                | 89.73   | 34.28   | 30.00  | 7.58                     | 2.00  | 0.16 |         |        |
| 4              | 0.64                                                              | 0.80                     | 5.80  | 0.56   | 35.70   | 20.72                | 104.24  | 31.90   | 27.75  | 8.04                     | 1.80  | 0.16 |         |        |
| 5              | 0.68                                                              | 1.60                     | 4.60  | 0.76   | 26.40   | 17.99                | 85.32   | 32.37   | 26.40  | 7.12                     | 1.60  | 0.14 |         |        |
| 6              | 0.68                                                              | 2.20                     | 7.12  | 0.94   | 23.90   | 42.80                | 69.75   | 32.37   | 25.50  | 6.43                     | 2.00  | 0.19 |         |        |
| 7              | 0.68                                                              | 2.30                     | 8.27  | 0.76   | 18.38   | 96.09                | 65.70   | 30.00   | 25.50  | 5.00                     | 2.20  | 0.18 |         |        |
| 8              | 0.64                                                              | 1.60                     | 4.20  | 0.68   | 19.55   | 108.38               | 53.00   | 30.00   | 24.70  | 4.20                     | 1.70  | 0.17 |         |        |
| 9              | 0.56                                                              | 1.08                     | 3.52  | 0.68   | 55.50   | 107.50               | 40.60   | 30.00   | 24.70  | 4.60                     | 1.43  | 0.17 |         |        |
| 10             | 0.64                                                              | 0.87                     | 2.40  | 0.94   | 135.01  | 106.69               | 33.80   | 30.95   | 23.10  | 4.40                     | 1.29  | 0.18 |         |        |
| 11             | 0.64                                                              | 0.80                     | 3.69  | 6.43   | 132.28  | 71.77                | 32.37   | 30.00   | 22.70  | 4.20                     | 1.01  | 0.18 |         |        |
| 12             | 0.60                                                              | 0.87                     | 18.38 | 7.58   | 129.55  | 51.12                | 48.30   | 30.00   | 22.30  | 4.03                     | 0.76  | 0.18 |         |        |
| 13             | 0.60                                                              | 0.76                     | 9.28  | 2.30   | 112.75  | 51.12                | 24.70   | 30.00   | 29.10  | 3.35                     | 0.64  | 0.18 |         |        |
| 14             | 0.52                                                              | 0.72                     | 4.40  | 1.08   | 65.02   | 65.70                | 24.70   | 33.32   | 54.88  | 3.18                     | 0.26  | 0.18 |         |        |
| 15             | 0.48                                                              | 0.60                     | 1.60  | 42.25  | 45.55   | 61.12                | 23.90   | 60.50   | 82.38  | 3.18                     | 0.34  | 0.17 |         |        |
| 16             | 0.44                                                              | 0.60                     | 1.22  | 44.45  | 37.60   | 65.70                | 22.30   | 42.25   | 61.12  | 3.01                     | 0.28  | 0.17 |         |        |
| 17             | 0.40                                                              | 0.64                     | 1.08  | 21.50  | 31.43   | 62.38                | 21.11   | 32.85   | 47.20  | 2.50                     | 0.20  | 0.17 |         |        |
| 18             | 0.40                                                              | 0.64                     | 0.87  | 10.32  | 24.70   | 58.00                | 34.28   | 30.95   | 39.50  | 2.40                     | 0.18  | 0.19 |         |        |
| 19             | 0.44                                                              | 0.64                     | 0.76  | 6.43   | 21.90   | 43.90                | 68.40   | 46.10   | 30.00  | 2.40                     | 0.18  | 0.19 |         |        |
| 20             | 0.40                                                              | 0.64                     | 0.72  | 6.43   | 19.55   | 32.85                | 94.46   | 91.20   | 27.30  | 2.40                     | 0.17  | 0.18 |         |        |
| 21             | 0.40                                                              | 0.64                     | 0.76  | 11.41  | 15.56   | 26.85                | 124.12  | 77.97   | 25.95  | 2.50                     | 0.17  | 0.17 |         |        |
| 22             | 0.40                                                              | 0.68                     | 0.72  | 10.06  | 38.07   | 23.90                | 103.43  | 53.62   | 23.90  | 2.40                     | 0.16  | 0.17 |         |        |
| 23             | 0.40                                                              | 0.64                     | 0.64  | 12.65  | 53.62   | 23.90                | 89.00   | 42.25   | 21.90  | 2.50                     | 0.16  | 0.17 |         |        |
| 24             | 0.44                                                              | 1.15                     | 0.60  | 9.80   | 38.07   | 21.11                | 83.85   | 36.17   | 21.11  | 2.50                     | 0.16  | 0.17 |         |        |
| 25             | 0.44                                                              | 4.80                     | 0.60  | 6.89   | 36.17   | 25.95                | 72.45   | 34.28   | 19.94  | 2.50                     | 0.15  | 0.19 |         |        |
| 26             | 0.44                                                              | 5.80                     | 0.60  | 12.03  | 29.10   | 38.07                | 73.80   | 32.37   | 17.99  | 2.50                     | 0.14  | 0.19 |         |        |
| 27             | 0.44                                                              | 4.60                     | 0.64  | 6.89   | 25.50   | 50.50                | 58.00   | 31.90   | 17.26  | 2.67                     | 0.13  | 0.19 |         |        |
| 28             | 0.40                                                              | 4.20                     | 0.60  | 49.95  | 24.30   | 142.29               | 48.85   | 32.85   | 16.92  | 2.40                     | 0.13  | 0.19 |         |        |
| 29             | 0.44                                                              | 3.86                     | 0.60  | 67.73  | 20.72   | 155.55               | 45.55   | 31.90   | 16.24  | 2.40                     |       | 0.19 |         |        |
| 30             | 0.40                                                              | 3.35                     | 0.60  | 145.10 | 16.24   | 129.55               | 41.70   | 35.70   | 15.56  | 2.50                     |       | 0.19 |         |        |
| 31             |                                                                   | 2.30                     |       | 111.00 | 21.90   |                      | 61.12   |         | 15.22  | 2.40                     |       | 0.19 |         |        |
| Total          | 15.88                                                             | 50.98                    | 91.16 | 599.24 | 1421.79 | 1786.47              | 1888.08 | 1185.75 | 903.25 | 125.51                   | 23.84 | 5.46 | 8097.41 | CMSDAY |
| Mean           | 0.53                                                              | 1.64                     | 3.04  | 19.33  | 45.86   | 59.55                | 60.91   | 39.53   | 29.14  | 4.05                     | 0.85  | 0.18 | 22.18   | CMS    |
| Max            | 0.76                                                              | 5.80                     | 18.38 | 145.10 | 135.01  | 155.55               | 124.12  | 91.20   | 82.38  | 11.72                    | 2.40  | 0.19 | 155.55  | CMS    |
| Min            | 0.40                                                              | 0.44                     | 0.60  | 0.52   | 15.56   | 17.99                | 21.11   | 30.00   | 15.22  | 2.40                     | 0.13  | 0.14 | 0.13    | CMS    |
| Runoff         | 1.37                                                              | 4.41                     | 7.88  | 51.77  | 122.84  | 154.35               | 163.13  | 102.45  | 78.04  | 10.84                    | 2.06  | 0.47 | 699.62  | MCM    |
| Momentary Peak | 168.85 CMS. at 408.07 m. (MSL.) at 21.00 Hours , on Sep 28 , 2013 |                          |       |        |         |                      |         |         |        |                          |       |      |         |        |
| Runoff Yield   | 7.63                                                              | Liters/Second/Square KM. |       |        |         | Momentary Peak Yield |         |         | 58,044 | Liters/Second/Square KM. |       |      |         |        |

**WATER YEAR : 2013****NAM MAE KOK RIVER BASIN****Nam Mae Suai at Ban Kariang Thung Phrao , Chiang Rai (G.9)**

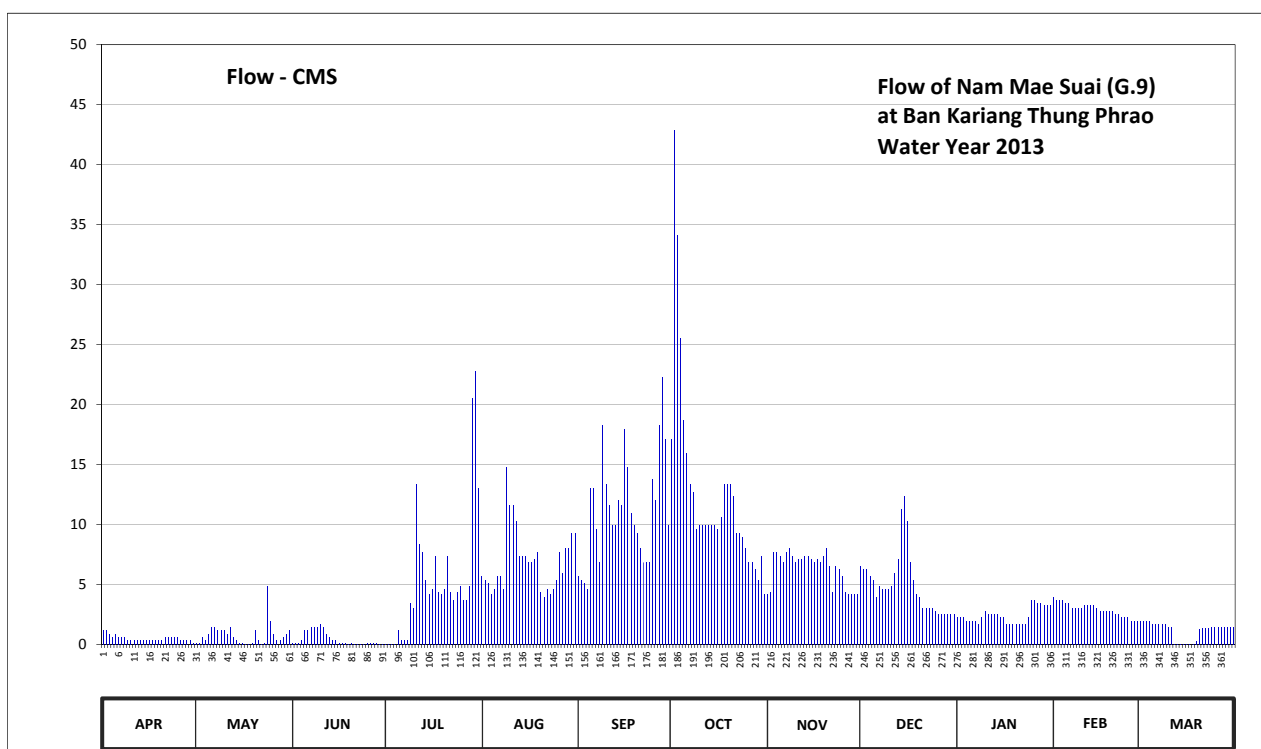
Lat 19 - 44 - 51 N Long 99 - 30 - 27 E

Location : on right bank at the bridge on road.

|                                         |                                                                                           |                     |               |          |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Kariang Thung Phrao | <b>Amphoe</b> | Mae Suai | <b>Changwat</b>  | Chiang Rai         |
| <b>Drainage Area</b>                    | 386                                                                                       | sq.km.              |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                     |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +514.656                                                                                  | m. (MSL.)           |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                     |               |          |                  |                    |
| <b>Location BM</b>                      | On right bank about 20 meters from the top staff gage.                                    |                     |               |          | <b>Elevation</b> | +522.091 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                     |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                     |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 1998 to date                                                                              |                     |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                     |               |          |                  |                    |
| <b>Period of Rating</b>                 | 1998 to date                                                                              |                     |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                     |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 1998 to date                                                                              |                     |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                     |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                     |               |          |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 43 discharge measurements made in 2013. |                     |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                              | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 515.54 | 515.49 | 515.50      | 515.46 | 515.72                           | 515.72 | 516.06            | 515.66    | 515.75 | 515.58 | 515.65 | 515.57 |        |
| 2                                | 515.54 | 515.49 | 515.50      | 515.46 | 515.71                           | 515.71 | 516.57            | 515.67    | 515.74 | 515.58 | 515.64 | 515.57 |        |
| 3                                | 515.53 | 515.52 | 515.49      | 515.46 | 515.70                           | 515.70 | 516.42            | 515.79    | 515.74 | 515.58 | 515.64 | 515.57 |        |
| 4                                | 515.52 | 515.51 | 515.51      | 515.48 | 515.66                           | 515.68 | 516.25            | 515.79    | 515.72 | 515.57 | 515.64 | 515.57 |        |
| 5                                | 515.53 | 515.53 | 515.54      | 515.54 | 515.68                           | 515.95 | 516.10            | 515.78    | 515.71 | 515.57 | 515.63 | 515.56 |        |
| 6                                | 515.52 | 515.55 | 515.54      | 515.51 | 515.72                           | 515.95 | 516.03            | 515.76    | 515.65 | 515.57 | 515.63 | 515.56 |        |
| 7                                | 515.52 | 515.55 | 515.55      | 515.51 | 515.72                           | 515.85 | 515.96            | 515.79    | 515.69 | 515.57 | 515.61 | 515.56 |        |
| 8                                | 515.52 | 515.54 | 515.55      | 515.51 | 515.68                           | 515.76 | 515.94            | 515.80    | 515.68 | 515.56 | 515.61 | 515.56 |        |
| 9                                | 515.51 | 515.54 | 515.55      | 515.63 | 516.00                           | 516.09 | 515.85            | 515.78    | 515.68 | 515.58 | 515.61 | 515.56 |        |
| 10                               | 515.51 | 515.54 | 515.56      | 515.61 | 515.91                           | 515.96 | 515.86            | 515.76    | 515.68 | 515.60 | 515.61 | 515.55 |        |
| 11                               | 515.51 | 515.53 | 515.55      | 515.96 | 515.91                           | 515.91 | 515.86            | 515.77    | 515.69 | 515.59 | 515.62 | 515.55 |        |
| 12                               | 515.51 | 515.55 | 515.53      | 515.81 | 515.87                           | 515.86 | 515.86            | 515.77    | 515.73 | 515.59 | 515.62 | 515.48 |        |
| 13                               | 515.51 | 515.52 | 515.52      | 515.79 | 515.78                           | 515.86 | 515.86            | 515.78    | 515.77 | 515.59 | 515.62 | 515.48 |        |
| 14                               | 515.51 | 515.51 | 515.51      | 515.71 | 515.78                           | 515.92 | 515.86            | 515.78    | 515.90 | 515.59 | 515.62 | 515.48 |        |
| 15                               | 515.51 | 515.50 | 515.51      | 515.66 | 515.78                           | 515.91 | 515.86            | 515.77    | 515.93 | 515.58 | 515.61 | 515.47 |        |
| 16                               | 515.51 | 515.49 | 515.50      | 515.68 | 515.76                           | 516.08 | 515.85            | 515.76    | 515.87 | 515.58 | 515.60 | 515.46 |        |
| 17                               | 515.51 | 515.48 | 515.50      | 515.78 | 515.76                           | 516.00 | 515.88            | 515.77    | 515.76 | 515.56 | 515.60 | 515.46 |        |
| 18                               | 515.51 | 515.48 | 515.49      | 515.67 | 515.77                           | 515.89 | 515.96            | 515.76    | 515.71 | 515.56 | 515.60 | 515.45 |        |
| 19                               | 515.51 | 515.49 | 515.48      | 515.66 | 515.79                           | 515.86 | 515.96            | 515.78    | 515.66 | 515.56 | 515.60 | 515.54 |        |
| 20                               | 515.51 | 515.54 | 515.49      | 515.68 | 515.67                           | 515.84 | 515.96            | 515.80    | 515.65 | 515.56 | 515.60 | 515.80 |        |
| 21                               | 515.52 | 515.51 | 515.46      | 515.78 | 515.65                           | 515.80 | 515.93            | 515.75    | 515.61 | 515.56 | 515.59 | 515.82 |        |
| 22                               | 515.52 | 515.48 | 515.46      | 515.67 | 515.68                           | 515.76 | 515.84            | 515.67    | 515.61 | 515.56 | 515.59 | 515.82 |        |
| 23                               | 515.52 | 515.49 | 515.47      | 515.64 | 515.66                           | 515.76 | 515.84            | 515.75    | 515.61 | 515.56 | 515.58 | 515.82 |        |
| 24                               | 515.52 | 515.69 | 515.48      | 515.67 | 515.68                           | 515.76 | 515.83            | 515.74    | 515.61 | 515.58 | 515.58 | 515.83 |        |
| 25                               | 515.52 | 515.57 | 515.49      | 515.69 | 515.71                           | 515.97 | 515.80            | 515.72    | 515.60 | 515.64 | 515.58 | 515.83 |        |
| 26                               | 515.51 | 515.53 | 515.49      | 515.64 | 515.79                           | 515.92 | 515.76            | 515.67    | 515.59 | 515.64 | 515.57 | 515.83 |        |
| 27                               | 515.51 | 515.51 | 515.49      | 515.64 | 515.73                           | 516.09 | 515.76            | 515.66    | 515.59 | 515.63 | 515.57 | 515.83 |        |
| 28                               | 515.51 | 515.51 | 515.49      | 515.69 | 515.80                           | 516.18 | 515.74            | 515.66    | 515.59 | 515.63 | 515.57 | 515.83 |        |
| 29                               | 515.51 | 515.52 | 515.48      | 516.14 | 515.80                           | 516.06 | 515.71            | 515.66    | 515.59 | 515.62 |        | 515.83 |        |
| 30                               | 515.49 | 515.53 | 515.46      | 516.19 | 515.84                           | 515.86 | 515.78            | 515.66    | 515.59 | 515.62 |        | 515.83 |        |
| 31                               |        | 515.54 |             | 515.95 | 515.84                           |        | 515.66            |           | 515.59 | 515.62 |        | 515.83 |        |
| Mean                             | 515.52 | 515.52 | 515.50      | 515.69 | 515.76                           | 515.89 | 515.92            | 515.74    | 515.69 | 515.59 | 515.61 | 515.64 |        |
| Max                              | 515.54 | 515.69 | 515.56      | 516.19 | 516.00                           | 516.18 | 516.57            | 515.80    | 515.93 | 515.64 | 515.65 | 515.83 | 516.57 |
| Min                              | 515.49 | 515.48 | 515.46      | 515.46 | 515.65                           | 515.68 | 515.66            | 515.66    | 515.59 | 515.56 | 515.57 | 515.45 | 515.45 |
| Annual Max Momentary Gage Height | 516.85 |        | m. (MSL.) , |        | at 17.00 Hours , on Oct 2 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 514.66 |        | m. (MSL.) , |        | River Bed                        | 514.90 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 521.61 |        | m. (MSL.) , |        |                                  |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 521.61 |        | m. (MSL.) , |        | Drainage Area                    | 386    | Square Kilometers |           |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|-------|-----------------------------------------------------------|-------|--------|----------------------|--------|--------|---------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 1.18  | 0.09                                                      | 0.10  | 0.06   | 5.68                 | 5.68   | 17.14  | 4.18    | 6.55                     | 2.26  | 3.95  | 1.99  |         |        |
| 2              | 1.18  | 0.09                                                      | 0.10  | 0.06   | 5.39                 | 5.39   | 42.84  | 4.41    | 6.26                     | 2.26  | 3.72  | 1.99  |         |        |
| 3              | 0.91  | 0.64                                                      | 0.09  | 0.06   | 5.10                 | 5.10   | 34.10  | 7.71    | 6.26                     | 2.26  | 3.72  | 1.99  |         |        |
| 4              | 0.64  | 0.37                                                      | 0.37  | 0.08   | 4.18                 | 4.64   | 25.50  | 7.71    | 5.68                     | 1.99  | 3.72  | 1.99  |         |        |
| 5              | 0.91  | 0.91                                                      | 1.18  | 1.18   | 4.64                 | 13.05  | 18.70  | 7.42    | 5.39                     | 1.99  | 3.49  | 1.72  |         |        |
| 6              | 0.64  | 1.45                                                      | 1.18  | 0.37   | 5.68                 | 13.05  | 15.97  | 6.84    | 3.95                     | 1.99  | 3.49  | 1.72  |         |        |
| 7              | 0.64  | 1.45                                                      | 1.45  | 0.37   | 5.68                 | 9.65   | 13.40  | 7.71    | 4.87                     | 1.99  | 3.03  | 1.72  |         |        |
| 8              | 0.64  | 1.18                                                      | 1.45  | 0.37   | 4.64                 | 6.84   | 12.70  | 8.00    | 4.64                     | 1.72  | 3.03  | 1.72  |         |        |
| 9              | 0.37  | 1.18                                                      | 1.45  | 3.49   | 14.80                | 18.31  | 9.65   | 7.42    | 4.64                     | 2.26  | 3.03  | 1.72  |         |        |
| 10             | 0.37  | 1.18                                                      | 1.72  | 3.03   | 11.65                | 13.40  | 9.98   | 6.84    | 4.64                     | 2.80  | 3.03  | 1.45  |         |        |
| 11             | 0.37  | 0.91                                                      | 1.45  | 13.40  | 11.65                | 11.65  | 9.98   | 7.13    | 4.87                     | 2.53  | 3.26  | 1.45  |         |        |
| 12             | 0.37  | 1.45                                                      | 0.91  | 8.33   | 10.31                | 9.98   | 9.98   | 7.13    | 5.97                     | 2.53  | 3.26  | 0.08  |         |        |
| 13             | 0.37  | 0.64                                                      | 0.64  | 7.71   | 7.42                 | 9.98   | 9.98   | 7.42    | 7.13                     | 2.53  | 3.26  | 0.08  |         |        |
| 14             | 0.37  | 0.37                                                      | 0.37  | 5.39   | 7.42                 | 12.00  | 9.98   | 7.42    | 11.30                    | 2.53  | 3.26  | 0.08  |         |        |
| 15             | 0.37  | 0.10                                                      | 0.37  | 4.18   | 7.42                 | 11.65  | 9.98   | 7.13    | 12.35                    | 2.26  | 3.03  | 0.07  |         |        |
| 16             | 0.37  | 0.09                                                      | 0.10  | 4.64   | 6.84                 | 17.92  | 9.65   | 6.84    | 10.31                    | 2.26  | 2.80  | 0.06  |         |        |
| 17             | 0.37  | 0.08                                                      | 0.10  | 7.42   | 6.84                 | 14.80  | 10.64  | 7.13    | 6.84                     | 1.72  | 2.80  | 0.06  |         |        |
| 18             | 0.37  | 0.08                                                      | 0.09  | 4.41   | 7.13                 | 10.97  | 13.40  | 6.84    | 5.39                     | 1.72  | 2.80  | 0.05  |         |        |
| 19             | 0.37  | 0.09                                                      | 0.08  | 4.18   | 7.71                 | 9.98   | 13.40  | 7.42    | 4.18                     | 1.72  | 2.80  | 0.25  |         |        |
| 20             | 0.37  | 1.18                                                      | 0.09  | 4.64   | 4.41                 | 9.32   | 13.40  | 8.00    | 3.95                     | 1.72  | 2.80  | 1.30  |         |        |
| 21             | 0.64  | 0.37                                                      | 0.06  | 7.42   | 3.95                 | 8.00   | 12.35  | 6.55    | 3.03                     | 1.72  | 2.53  | 1.40  |         |        |
| 22             | 0.64  | 0.08                                                      | 0.06  | 4.41   | 4.64                 | 6.84   | 9.32   | 4.41    | 3.03                     | 1.72  | 2.53  | 1.40  |         |        |
| 23             | 0.64  | 0.09                                                      | 0.07  | 3.72   | 4.18                 | 6.84   | 9.32   | 6.55    | 3.03                     | 1.72  | 2.26  | 1.40  |         |        |
| 24             | 0.64  | 4.87                                                      | 0.08  | 4.41   | 4.64                 | 6.84   | 8.99   | 6.26    | 3.03                     | 2.26  | 2.26  | 1.45  |         |        |
| 25             | 0.64  | 1.99                                                      | 0.09  | 4.87   | 5.39                 | 13.75  | 8.00   | 5.68    | 2.80                     | 3.72  | 2.26  | 1.45  |         |        |
| 26             | 0.37  | 0.91                                                      | 0.09  | 3.72   | 7.71                 | 12.00  | 6.84   | 4.41    | 2.53                     | 3.72  | 1.99  | 1.45  |         |        |
| 27             | 0.37  | 0.37                                                      | 0.09  | 3.72   | 5.97                 | 18.31  | 6.84   | 4.18    | 2.53                     | 3.49  | 1.99  | 1.45  |         |        |
| 28             | 0.37  | 0.37                                                      | 0.09  | 4.87   | 8.00                 | 22.30  | 6.26   | 4.18    | 2.53                     | 3.49  | 1.99  | 1.45  |         |        |
| 29             | 0.37  | 0.64                                                      | 0.08  | 20.50  | 8.00                 | 17.14  | 5.39   | 4.18    | 2.53                     | 3.26  |       | 1.45  |         |        |
| 30             | 0.09  | 0.91                                                      | 0.06  | 22.75  | 9.32                 | 9.98   | 7.42   | 4.18    | 2.53                     | 3.26  |       | 1.45  |         |        |
| 31             |       | 1.18                                                      |       | 13.05  | 9.32                 |        | 4.18   |         | 2.53                     | 3.26  |       | 1.45  |         |        |
| Total          | 15.95 | 25.31                                                     | 14.06 | 166.81 | 215.71               | 335.36 | 395.28 | 191.28  | 155.27                   | 74.66 | 82.09 | 37.29 | 1709.07 | CMSDAY |
| Mean           | 0.53  | 0.82                                                      | 0.47  | 5.38   | 6.96                 | 11.18  | 12.75  | 6.38    | 5.01                     | 2.41  | 2.93  | 1.20  | 4.68    | CMS    |
| Max            | 1.18  | 4.87                                                      | 1.72  | 22.75  | 14.80                | 22.30  | 42.84  | 8.00    | 12.35                    | 3.72  | 3.95  | 1.99  | 42.84   | CMS    |
| Min            | 0.09  | 0.08                                                      | 0.06  | 0.06   | 3.95                 | 4.64   | 4.18   | 4.18    | 2.53                     | 1.72  | 1.99  | 0.05  | 0.05    | CMS    |
| Runoff         | 1.38  | 2.19                                                      | 1.22  | 14.41  | 18.64                | 28.98  | 34.15  | 16.53   | 13.42                    | 6.45  | 7.09  | 3.22  | 147.66  | MCM    |
| Momentary Peak | 60.40 | CMS. at 516.85 m. (MSL.) at 17.00 Hours , on Oct 2 , 2013 |       |        |                      |        |        |         |                          |       |       |       |         |        |
| Runoff Yield   | 12.13 | Liters/Second/Square KM.                                  |       |        | Momentary Peak Yield |        |        | 156.477 | Liters/Second/Square KM. |       |       |       |         |        |

**WATER YEAR : 2013****NAM MAE KOK RIVER BASIN****Nam Mae Lao at Ban Nong Phum , Chiang Rai (G.10)**

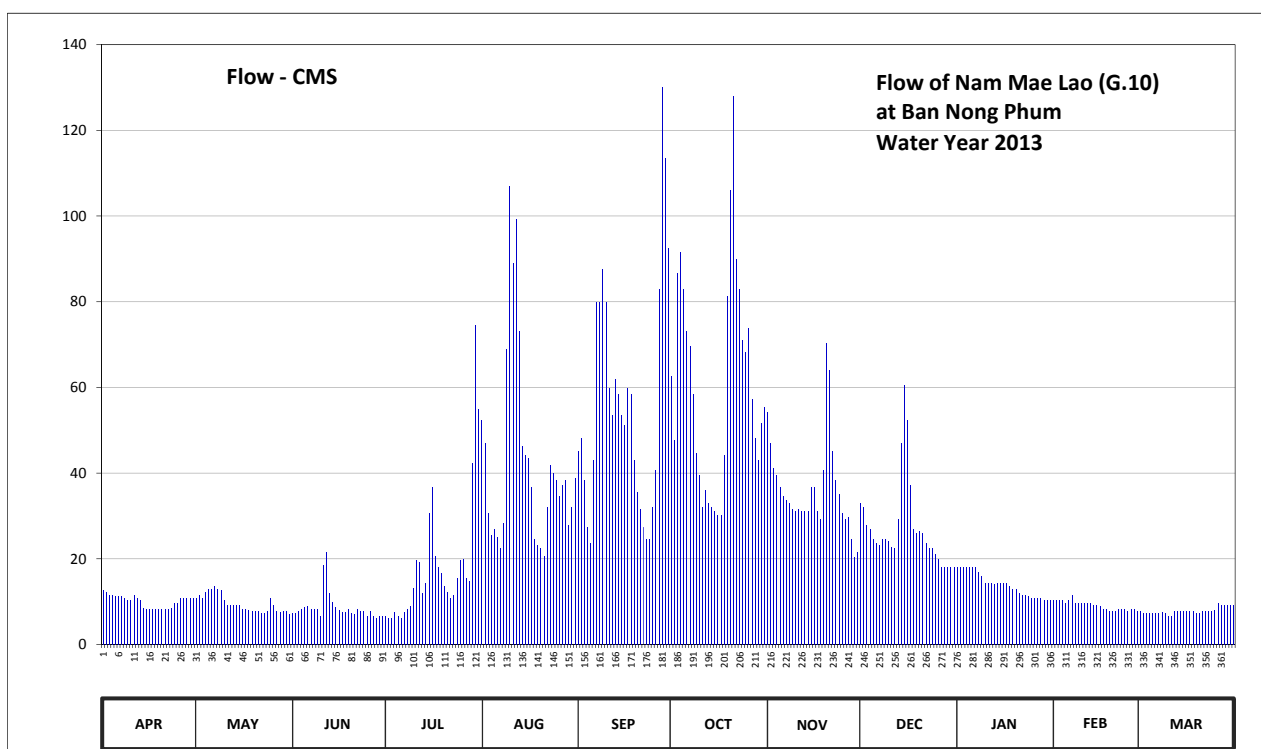
Lat 19 - 39 - 21 N Long 99 - 32 - 50 E

**Location : on right bank at Ban Nong Phum.**

|                                         |                                                                                           |                  |               |                 |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Nong Phum</b> | <b>Amphoe</b> | <b>Mae Suai</b> | <b>Changwat</b>  | <b>Chiang Rai</b>  |
| <b>Drainage Area</b>                    | 2,614                                                                                     | sq.km.           |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                  |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +433.473                                                                                  | m. (MSL.)        |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                  |               |                 |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |                  |               |                 | <b>Elevation</b> | +439.133 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                  |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                  |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                              |                  |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |                  |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |                  |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                  |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |                 |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 46 discharge measurements made in 2013. |                  |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 433.66 | 433.61 | 433.47      | 433.45 | 434.49 | 434.37        | 434.65                            | 434.52            | 434.15 | 433.81 | 433.59 | 433.49 |        |
| 2                                | 433.65 | 433.63 | 433.47      | 433.43 | 434.40 | 434.42        | 434.41                            | 434.40            | 434.13 | 433.81 | 433.59 | 433.47 |        |
| 3                                | 433.63 | 433.61 | 433.49      | 433.43 | 434.10 | 434.25        | 434.98                            | 434.30            | 434.04 | 433.81 | 433.59 | 433.47 |        |
| 4                                | 433.63 | 433.65 | 433.51      | 433.48 | 433.99 | 434.03        | 435.04                            | 434.27            | 434.02 | 433.81 | 433.60 | 433.47 |        |
| 5                                | 433.62 | 433.67 | 433.53      | 433.45 | 434.02 | 433.95        | 434.93                            | 434.22            | 433.97 | 433.81 | 433.57 | 433.47 |        |
| 6                                | 433.62 | 433.67 | 433.54      | 433.43 | 433.98 | 434.33        | 434.80                            | 434.18            | 433.95 | 433.81 | 433.60 | 433.47 |        |
| 7                                | 433.62 | 433.69 | 433.51      | 433.48 | 433.92 | 434.89        | 434.75                            | 434.16            | 433.94 | 433.81 | 433.63 | 433.47 |        |
| 8                                | 433.61 | 433.67 | 433.51      | 433.51 | 434.05 | 434.89        | 434.59                            | 434.15            | 433.97 | 433.78 | 433.57 | 433.48 |        |
| 9                                | 433.60 | 433.66 | 433.51      | 433.54 | 434.74 | 434.99        | 434.36                            | 434.12            | 433.97 | 433.75 | 433.57 | 433.47 |        |
| 10                               | 433.60 | 433.60 | 433.45      | 433.68 | 435.22 | 434.89        | 434.27                            | 434.11            | 433.96 | 433.71 | 433.57 | 433.45 |        |
| 11                               | 433.63 | 433.55 | 433.82      | 433.85 | 435.01 | 434.61        | 434.13                            | 434.12            | 433.93 | 433.71 | 433.57 | 433.45 |        |
| 12                               | 433.61 | 433.55 | 433.90      | 433.84 | 435.13 | 434.51        | 434.21                            | 434.11            | 433.92 | 433.71 | 433.57 | 433.49 |        |
| 13                               | 433.59 | 433.55 | 433.64      | 433.64 | 434.80 | 434.64        | 434.15                            | 434.11            | 434.07 | 433.70 | 433.57 | 433.49 |        |
| 14                               | 433.52 | 433.55 | 433.58      | 433.71 | 434.39 | 434.59        | 434.13                            | 434.11            | 434.40 | 433.71 | 433.55 | 433.49 |        |
| 15                               | 433.51 | 433.55 | 433.53      | 434.10 | 434.35 | 434.51        | 434.11                            | 434.22            | 434.62 | 433.71 | 433.55 | 433.49 |        |
| 16                               | 433.51 | 433.51 | 433.50      | 434.22 | 434.34 | 434.47        | 434.09                            | 434.22            | 434.49 | 433.71 | 433.54 | 433.49 |        |
| 17                               | 433.51 | 433.51 | 433.48      | 433.88 | 434.22 | 434.61        | 434.09                            | 434.11            | 434.23 | 433.71 | 433.51 | 433.49 |        |
| 18                               | 433.51 | 433.50 | 433.48      | 433.81 | 433.97 | 434.59        | 434.35                            | 434.07            | 434.02 | 433.69 | 433.51 | 433.49 |        |
| 19                               | 433.51 | 433.49 | 433.51      | 433.77 | 433.94 | 434.33        | 434.91                            | 434.29            | 434.00 | 433.67 | 433.49 | 433.47 |        |
| 20                               | 433.51 | 433.49 | 433.47      | 433.69 | 433.92 | 434.20        | 435.21                            | 434.76            | 434.01 | 433.67 | 433.49 | 433.47 |        |
| 21                               | 433.51 | 433.49 | 433.46      | 433.65 | 433.88 | 434.12        | 435.44                            | 434.67            | 434.00 | 433.64 | 433.49 | 433.49 |        |
| 22                               | 433.51 | 433.47 | 433.51      | 433.61 | 434.13 | 434.03        | 435.02                            | 434.37            | 433.95 | 433.63 | 433.51 | 433.49 |        |
| 23                               | 433.52 | 433.47 | 433.49      | 433.63 | 434.31 | 433.97        | 434.93                            | 434.25            | 433.92 | 433.63 | 433.51 | 433.49 |        |
| 24                               | 433.57 | 433.49 | 433.49      | 433.74 | 434.28 | 433.97        | 434.77                            | 434.19            | 433.92 | 433.62 | 433.51 | 433.49 |        |
| 25                               | 433.57 | 433.61 | 433.45      | 433.85 | 434.25 | 434.13        | 434.73                            | 434.10            | 433.89 | 433.61 | 433.49 | 433.50 |        |
| 26                               | 433.61 | 433.55 | 433.49      | 433.86 | 434.18 | 434.29        | 434.81                            | 434.07            | 433.86 | 433.61 | 433.51 | 433.57 |        |
| 27                               | 433.61 | 433.49 | 433.45      | 433.74 | 434.23 | 434.93        | 434.57                            | 434.08            | 433.81 | 433.61 | 433.51 | 433.55 |        |
| 28                               | 433.61 | 433.48 | 433.43      | 433.72 | 434.25 | 435.46        | 434.42                            | 433.97            | 433.81 | 433.61 | 433.49 | 433.55 |        |
| 29                               | 433.61 | 433.49 | 433.45      | 434.32 | 434.04 | 435.29        | 434.33                            | 433.87            | 433.81 | 433.59 |        | 433.55 |        |
| 30                               | 433.61 | 433.49 | 433.45      | 434.82 | 434.13 | 435.05        | 434.48                            | 433.90            | 433.81 | 433.59 |        | 433.55 |        |
| 31                               |        | 433.46 |             | 434.53 | 434.26 |               | 434.54                            |                   | 433.81 | 433.59 |        | 433.55 |        |
| Mean                             | 433.58 | 433.55 | 433.52      | 433.77 | 434.29 | 434.51        | 434.59                            | 434.20            | 434.01 | 433.70 | 433.54 | 433.49 |        |
| Max                              | 433.66 | 433.69 | 433.90      | 434.82 | 435.22 | 435.46        | 435.44                            | 434.76            | 434.62 | 433.81 | 433.63 | 433.57 | 435.46 |
| Min                              | 433.51 | 433.46 | 433.43      | 433.43 | 433.88 | 433.95        | 434.09                            | 433.87            | 433.81 | 433.59 | 433.49 | 433.45 | 433.43 |
| Annual Max Momentary Gage Height |        | 435.52 | m. (MSL.) , |        |        |               | at 06.00 Hours , on Sep 28 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 433.47 | m. (MSL.) , |        |        | River Bed     | 432.63                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 438.92 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 438.83 | m. (MSL.) , |        |        | Drainage Area | 2614                              | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------------|
| 1              | 12.60                                                             | 10.85                    | 7.25   | 6.75   | 52.40                | 45.27   | 62.50   | 54.20   | 33.12                    | 18.08  | 10.25  | 7.75   |                |
| 2              | 12.25                                                             | 11.55                    | 7.25   | 6.25   | 47.00                | 48.20   | 47.60   | 47.00   | 32.17                    | 18.08  | 10.25  | 7.25   |                |
| 3              | 11.55                                                             | 10.85                    | 7.75   | 6.25   | 30.75                | 38.37   | 86.68   | 41.25   | 27.90                    | 18.08  | 10.25  | 7.25   |                |
| 4              | 11.55                                                             | 12.25                    | 8.25   | 7.50   | 25.55                | 27.42   | 91.56   | 39.52   | 26.95                    | 18.08  | 10.50  | 7.25   |                |
| 5              | 11.20                                                             | 12.95                    | 8.75   | 6.75   | 26.95                | 23.75   | 82.88   | 36.65   | 24.65                    | 18.08  | 9.75   | 7.25   |                |
| 6              | 11.20                                                             | 12.95                    | 9.00   | 6.25   | 25.10                | 42.97   | 73.00   | 34.55   | 23.75                    | 18.08  | 10.50  | 7.25   |                |
| 7              | 11.20                                                             | 13.65                    | 8.25   | 7.50   | 22.40                | 79.84   | 69.50   | 33.60   | 23.30                    | 18.08  | 11.55  | 7.25   |                |
| 8              | 10.85                                                             | 12.95                    | 8.25   | 8.25   | 28.37                | 79.84   | 58.40   | 33.12   | 24.65                    | 16.96  | 9.75   | 7.50   |                |
| 9              | 10.50                                                             | 12.60                    | 8.25   | 9.00   | 68.80                | 87.44   | 44.70   | 31.70   | 24.65                    | 15.85  | 9.75   | 7.25   |                |
| 10             | 10.50                                                             | 10.50                    | 6.75   | 13.30  | 106.90               | 79.84   | 39.52   | 31.22   | 24.20                    | 14.37  | 9.75   | 6.75   |                |
| 11             | 11.55                                                             | 9.25                     | 18.46  | 19.60  | 89.04                | 59.70   | 32.17   | 31.70   | 22.85                    | 14.37  | 9.75   | 6.75   |                |
| 12             | 10.85                                                             | 9.25                     | 21.50  | 19.22  | 99.12                | 53.60   | 36.07   | 31.22   | 22.40                    | 14.37  | 9.75   | 7.75   |                |
| 13             | 10.25                                                             | 9.25                     | 11.90  | 11.90  | 73.00                | 61.80   | 33.12   | 31.22   | 29.33                    | 14.00  | 9.75   | 7.75   |                |
| 14             | 8.50                                                              | 9.25                     | 10.00  | 14.37  | 46.43                | 58.40   | 32.17   | 31.22   | 47.00                    | 14.37  | 9.25   | 7.75   |                |
| 15             | 8.25                                                              | 9.25                     | 8.75   | 30.75  | 44.13                | 53.60   | 31.22   | 36.65   | 60.40                    | 14.37  | 9.25   | 7.75   |                |
| 16             | 8.25                                                              | 8.25                     | 8.00   | 36.65  | 43.55                | 51.20   | 30.27   | 36.65   | 52.40                    | 14.37  | 9.00   | 7.75   |                |
| 17             | 8.25                                                              | 8.25                     | 7.50   | 20.74  | 36.65                | 59.70   | 30.27   | 31.22   | 37.23                    | 14.37  | 8.25   | 7.75   |                |
| 18             | 8.25                                                              | 8.00                     | 7.50   | 18.08  | 24.65                | 58.40   | 44.13   | 29.33   | 26.95                    | 13.65  | 8.25   | 7.75   |                |
| 19             | 8.25                                                              | 7.75                     | 8.25   | 16.59  | 23.30                | 42.97   | 81.36   | 40.68   | 26.00                    | 12.95  | 7.75   | 7.25   |                |
| 20             | 8.25                                                              | 7.75                     | 7.25   | 13.65  | 22.40                | 35.50   | 105.95  | 70.20   | 26.48                    | 12.95  | 7.75   | 7.25   |                |
| 21             | 8.25                                                              | 7.75                     | 7.00   | 12.25  | 20.74                | 31.70   | 128.00  | 63.90   | 26.00                    | 11.90  | 7.75   | 7.75   |                |
| 22             | 8.25                                                              | 7.25                     | 8.25   | 10.85  | 32.17                | 27.42   | 89.88   | 45.27   | 23.75                    | 11.55  | 8.25   | 7.75   |                |
| 23             | 8.50                                                              | 7.25                     | 7.75   | 11.55  | 41.82                | 24.65   | 82.88   | 38.37   | 22.40                    | 11.55  | 8.25   | 7.75   |                |
| 24             | 9.75                                                              | 7.75                     | 7.75   | 15.48  | 40.10                | 24.65   | 70.90   | 35.02   | 22.40                    | 11.20  | 8.25   | 7.75   |                |
| 25             | 9.75                                                              | 10.85                    | 6.75   | 19.60  | 38.37                | 32.17   | 68.10   | 30.75   | 21.12                    | 10.85  | 7.75   | 8.00   |                |
| 26             | 10.85                                                             | 9.25                     | 7.75   | 19.98  | 34.55                | 40.68   | 73.76   | 29.33   | 19.98                    | 10.85  | 8.25   | 9.75   |                |
| 27             | 10.85                                                             | 7.75                     | 6.75   | 15.48  | 37.23                | 82.88   | 57.20   | 29.80   | 18.08                    | 10.85  | 8.25   | 9.25   |                |
| 28             | 10.85                                                             | 7.50                     | 6.25   | 14.74  | 38.37                | 130.00  | 48.20   | 24.65   | 18.08                    | 10.85  | 7.75   | 9.25   |                |
| 29             | 10.85                                                             | 7.75                     | 6.75   | 42.40  | 27.90                | 113.55  | 42.97   | 20.36   | 18.08                    | 10.25  |        | 9.25   |                |
| 30             | 10.85                                                             | 7.75                     | 6.75   | 74.52  | 32.17                | 92.40   | 51.80   | 21.50   | 18.08                    | 10.25  |        | 9.25   |                |
| 31             |                                                                   | 7.00                     |        | 54.80  | 38.95                |         | 55.40   |         | 18.08                    | 10.25  |        | 9.25   |                |
| Total          | 302.80                                                            | 295.20                   | 260.61 | 571.00 | 1318.86              | 1687.91 | 1882.16 | 1091.85 | 842.43                   | 433.86 | 255.55 | 243.25 | 9185.48 CMSDAY |
| Mean           | 10.09                                                             | 9.52                     | 8.69   | 18.42  | 42.54                | 56.26   | 60.71   | 36.40   | 27.18                    | 14.00  | 9.13   | 7.85   | 25.17 CMS      |
| Max            | 12.60                                                             | 13.65                    | 21.50  | 74.52  | 106.90               | 130.00  | 128.00  | 70.20   | 60.40                    | 18.08  | 11.55  | 9.75   | 130.00 CMS     |
| Min            | 8.25                                                              | 7.00                     | 6.25   | 6.25   | 20.74                | 23.75   | 30.27   | 20.36   | 18.08                    | 10.25  | 7.75   | 6.75   | 6.25 CMS       |
| Runoff         | 26.16                                                             | 25.51                    | 22.52  | 49.33  | 113.95               | 145.84  | 162.62  | 94.34   | 72.79                    | 37.49  | 22.08  | 21.02  | 793.63 MCM     |
| Momentary Peak | 136.00 CMS. at 435.52 m. (MSL.) at 06.00 Hours , on Sep 28 , 2013 |                          |        |        |                      |         |         |         |                          |        |        |        |                |
| Runoff Yield   | 9.63                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 52.028  | Liters/Second/Square KM. |        |        |        |                |

**WATER YEAR : 2013**

## NAM MAE KOK RIVER BASIN

**Nam Mae Lao at Ban Don Salee , Chiang Rai (G.11)**

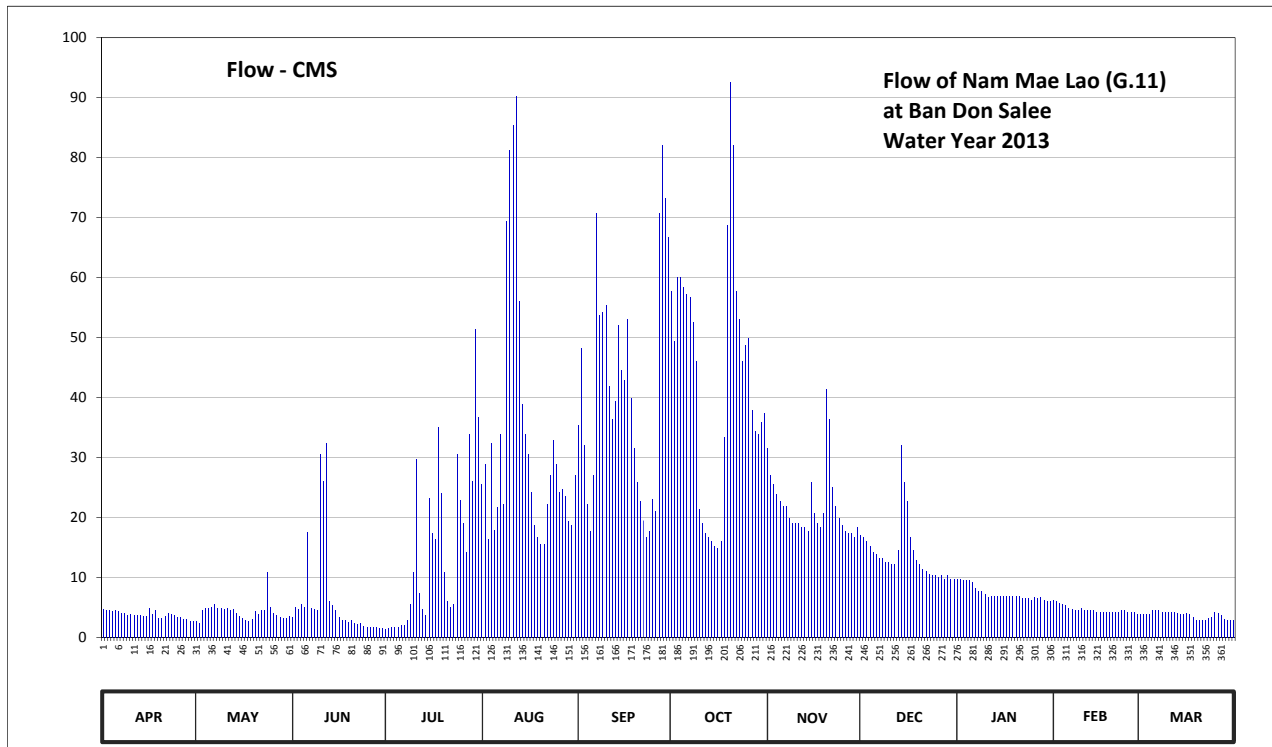
Lat 19 - 37 - 14 N    Long 99 - 28 - 50 E

**Location :** on left bank at Ban Salee.

|                                         |                                                                                           |           |               |          |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Don Salee | <b>Amphoe</b> | Mae Suai | <b>Changwat</b>  | Chiang Rai         |
| <b>Drainage Area</b>                    | 1,918                                                                                     | sq.km.    |               |          |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +462.835                                                                                  | m. (MSL.) |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |          |                  |                    |
| <b>Location BM</b>                      | Near the gage site.                                                                       |           |               |          | <b>Elevation</b> | +468.695 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00, and 18.00 hours.                                   |           |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                              |           |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                    |
| <b>Period of Rating</b>                 | 2004 to date                                                                              |           |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                              |           |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |          |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 44 discharge measurements made in 2013. |           |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 463.38 | 463.27 | 463.31      | 463.18 | 463.99                            | 464.07 | 464.49            | 463.99 | 463.63 | 463.40 | 463.26 | 463.15 |        |
| 2                                | 463.37 | 463.25 | 463.40      | 463.19 | 464.05                            | 464.32 | 464.34            | 463.89 | 463.62 | 463.40 | 463.25 | 463.15 |        |
| 3                                | 463.37 | 463.37 | 463.38      | 463.20 | 463.77                            | 464.00 | 464.53            | 463.85 | 463.60 | 463.39 | 463.24 | 463.15 |        |
| 4                                | 463.36 | 463.39 | 463.42      | 463.20 | 463.63                            | 463.77 | 464.53            | 463.81 | 463.58 | 463.39 | 463.23 | 463.15 |        |
| 5                                | 463.37 | 463.39 | 463.40      | 463.20 | 463.81                            | 463.65 | 464.50            | 463.78 | 463.55 | 463.39 | 463.22 | 463.18 |        |
| 6                                | 463.36 | 463.40 | 463.53      | 463.23 | 463.67                            | 463.89 | 464.48            | 463.76 | 463.54 | 463.38 | 463.20 | 463.18 |        |
| 7                                | 463.35 | 463.42 | 463.39      | 463.23 | 463.58                            | 464.70 | 464.47            | 463.76 | 463.52 | 463.34 | 463.19 | 463.18 |        |
| 8                                | 463.35 | 463.39 | 463.38      | 463.28 | 463.77                            | 464.42 | 464.40            | 463.71 | 463.52 | 463.32 | 463.18 | 463.17 |        |
| 9                                | 463.33 | 463.39 | 463.37      | 463.42 | 464.68                            | 464.43 | 464.28            | 463.69 | 463.50 | 463.32 | 463.18 | 463.17 |        |
| 10                               | 463.34 | 463.38 | 463.57      | 463.51 | 464.86                            | 464.45 | 463.75            | 463.69 | 463.50 | 463.30 | 463.20 | 463.17 |        |
| 11                               | 463.33 | 463.39 | 464.00      | 463.64 | 464.92                            | 464.20 | 463.69            | 463.69 | 463.49 | 463.28 | 463.18 | 463.17 |        |
| 12                               | 463.33 | 463.37 | 463.63      | 463.49 | 464.99                            | 464.09 | 463.64            | 463.67 | 463.49 | 463.29 | 463.18 | 463.17 |        |
| 13                               | 463.33 | 463.38 | 463.44      | 463.38 | 464.46                            | 464.15 | 463.62            | 463.67 | 463.56 | 463.29 | 463.18 | 463.16 |        |
| 14                               | 463.32 | 463.35 | 463.41      | 463.33 | 464.14                            | 464.39 | 463.60            | 463.65 | 464.00 | 463.29 | 463.18 | 463.15 |        |
| 15                               | 463.32 | 463.32 | 463.37      | 463.94 | 464.04                            | 464.25 | 463.58            | 463.86 | 463.86 | 463.29 | 463.17 | 463.15 |        |
| 16                               | 463.39 | 463.30 | 463.31      | 463.80 | 463.97                            | 464.22 | 463.57            | 463.73 | 463.78 | 463.29 | 463.17 | 463.16 |        |
| 17                               | 463.34 | 463.28 | 463.28      | 463.69 | 463.82                            | 464.41 | 463.60            | 463.69 | 463.62 | 463.29 | 463.17 | 463.15 |        |
| 18                               | 463.37 | 463.27 | 463.28      | 463.62 | 463.68                            | 464.16 | 464.03            | 463.67 | 463.56 | 463.29 | 463.17 | 463.13 |        |
| 19                               | 463.30 | 463.29 | 463.26      | 463.55 | 463.62                            | 463.99 | 464.67            | 463.73 | 463.51 | 463.29 | 463.17 | 463.10 |        |
| 20                               | 463.30 | 463.36 | 463.28      | 463.51 | 463.59                            | 463.86 | 465.02            | 464.19 | 463.49 | 463.29 | 463.17 | 463.10 |        |
| 21                               | 463.32 | 463.34 | 463.25      | 463.44 | 463.59                            | 463.78 | 464.87            | 464.09 | 463.46 | 463.29 | 463.17 | 463.10 |        |
| 22                               | 463.35 | 463.37 | 463.24      | 463.40 | 463.77                            | 463.70 | 464.49            | 463.84 | 463.45 | 463.27 | 463.17 | 463.10 |        |
| 23                               | 463.34 | 463.37 | 463.25      | 463.42 | 463.89                            | 463.62 | 464.41            | 463.76 | 463.43 | 463.27 | 463.18 | 463.12 |        |
| 24                               | 463.33 | 463.51 | 463.21      | 463.57 | 464.02                            | 463.65 | 464.28            | 463.71 | 463.42 | 463.27 | 463.18 | 463.13 |        |
| 25                               | 463.31 | 463.40 | 463.20      | 463.93 | 463.93                            | 463.79 | 464.33            | 463.68 | 463.42 | 463.26 | 463.17 | 463.17 |        |
| 26                               | 463.31 | 463.35 | 463.20      | 463.68 | 463.82                            | 463.74 | 464.35            | 463.65 | 463.41 | 463.28 | 463.17 | 463.16 |        |
| 27                               | 463.29 | 463.33 | 463.20      | 463.52 | 463.83                            | 464.70 | 464.12            | 463.64 | 463.42 | 463.27 | 463.17 | 463.14 |        |
| 28                               | 463.29 | 463.31 | 463.20      | 463.58 | 463.80                            | 464.87 | 464.05            | 463.64 | 463.40 | 463.28 | 463.15 | 463.11 |        |
| 29                               | 463.27 | 463.30 | 463.19      | 464.00 | 463.70                            | 464.74 | 464.04            | 463.62 | 463.42 | 463.26 |        | 463.10 |        |
| 30                               | 463.27 | 463.30 | 463.19      | 464.39 | 463.68                            | 464.64 | 464.08            | 463.67 | 463.40 | 463.25 |        | 463.10 |        |
| 31                               |        | 463.32 |             | 464.18 | 463.89                            |        | 464.11            |        | 463.40 | 463.25 |        | 463.10 |        |
| Mean                             | 463.33 | 463.35 | 463.35      | 463.54 | 463.97                            | 464.16 | 464.19            | 463.76 | 463.53 | 463.31 | 463.19 | 463.14 |        |
| Max                              | 463.39 | 463.51 | 464.00      | 464.39 | 464.99                            | 464.87 | 465.02            | 464.19 | 464.00 | 463.40 | 463.26 | 463.18 | 465.02 |
| Min                              | 463.27 | 463.25 | 463.19      | 463.18 | 463.58                            | 463.62 | 463.57            | 463.62 | 463.40 | 463.25 | 463.15 | 463.10 | 463.10 |
| Annual Max Momentary Gage Height |        | 465.08 | m. (MSL.) , |        | at 06.00 Hours , on Oct 21 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 462.83 | m. (MSL.) , |        | River Bed                         | 462.37 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 468.83 | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 468.89 | m. (MSL.) , |        | Drainage Area                     | 1918   | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|--------|----------------|
| 1              | 4.72                                                             | 2.75                     | 3.39   | 1.50                 | 25.55   | 35.43   | 57.76   | 31.55                    | 17.05  | 9.80   | 6.28   | 3.90   |                |
| 2              | 4.53                                                             | 2.45                     | 5.10   | 1.60                 | 28.90   | 48.22   | 49.29   | 27.10                    | 16.70  | 9.80   | 6.05   | 3.90   |                |
| 3              | 4.53                                                             | 4.53                     | 4.72   | 1.70                 | 16.39   | 32.00   | 60.10   | 25.50                    | 16.00  | 9.54   | 5.82   | 3.90   |                |
| 4              | 4.34                                                             | 4.91                     | 5.62   | 1.70                 | 32.49   | 22.30   | 60.10   | 23.90                    | 15.30  | 9.54   | 5.59   | 3.90   |                |
| 5              | 4.53                                                             | 4.91                     | 5.10   | 1.70                 | 17.90   | 17.75   | 58.35   | 22.70                    | 14.25  | 9.54   | 5.36   | 4.50   |                |
| 6              | 4.34                                                             | 5.10                     | 17.54  | 2.15                 | 21.81   | 27.10   | 57.18   | 21.90                    | 13.90  | 9.28   | 4.90   | 4.50   |                |
| 7              | 4.15                                                             | 5.62                     | 4.91   | 2.15                 | 33.93   | 70.65   | 56.60   | 21.90                    | 13.20  | 8.24   | 4.70   | 4.50   |                |
| 8              | 4.15                                                             | 4.91                     | 4.72   | 2.90                 | 22.30   | 53.67   | 52.50   | 19.90                    | 13.20  | 7.72   | 4.50   | 4.30   |                |
| 9              | 3.77                                                             | 4.91                     | 4.53   | 5.62                 | 69.36   | 54.25   | 46.08   | 19.15                    | 12.50  | 7.72   | 4.50   | 4.30   |                |
| 10             | 3.96                                                             | 4.72                     | 30.66  | 10.98                | 81.27   | 55.43   | 21.50   | 19.15                    | 12.50  | 7.20   | 4.90   | 4.30   |                |
| 11             | 3.77                                                             | 4.91                     | 26.00  | 29.82                | 85.44   | 41.80   | 19.15   | 19.15                    | 12.23  | 6.74   | 4.50   | 4.30   |                |
| 12             | 3.77                                                             | 4.53                     | 32.49  | 7.44                 | 90.30   | 36.41   | 17.40   | 18.45                    | 12.23  | 6.97   | 4.50   | 4.30   |                |
| 13             | 3.77                                                             | 4.72                     | 6.14   | 4.72                 | 56.01   | 39.35   | 16.70   | 18.45                    | 14.60  | 6.97   | 4.50   | 4.10   |                |
| 14             | 3.58                                                             | 4.15                     | 5.36   | 3.77                 | 38.86   | 51.97   | 16.00   | 17.75                    | 32.00  | 6.97   | 4.50   | 3.90   |                |
| 15             | 3.58                                                             | 3.58                     | 4.53   | 23.30                | 33.96   | 44.47   | 15.30   | 25.90                    | 25.90  | 6.97   | 4.30   | 3.90   |                |
| 16             | 4.91                                                             | 3.20                     | 3.39   | 17.50                | 30.65   | 42.87   | 14.95   | 20.70                    | 22.70  | 6.97   | 4.30   | 4.10   |                |
| 17             | 3.96                                                             | 2.90                     | 2.90   | 16.47                | 24.30   | 53.09   | 16.00   | 19.15                    | 16.70  | 6.97   | 4.30   | 3.90   |                |
| 18             | 4.53                                                             | 2.75                     | 2.90   | 35.16                | 18.80   | 39.84   | 33.47   | 18.45                    | 14.60  | 6.97   | 4.30   | 3.50   |                |
| 19             | 3.20                                                             | 3.05                     | 2.60   | 24.09                | 16.70   | 31.55   | 68.72   | 20.70                    | 12.85  | 6.97   | 4.30   | 2.90   |                |
| 20             | 3.20                                                             | 4.34                     | 2.90   | 10.98                | 15.65   | 25.90   | 92.60   | 41.31                    | 12.23  | 6.97   | 4.30   | 2.90   |                |
| 21             | 3.58                                                             | 3.96                     | 2.45   | 6.14                 | 15.65   | 22.70   | 81.97   | 36.41                    | 11.42  | 6.97   | 4.30   | 2.90   |                |
| 22             | 4.15                                                             | 4.53                     | 2.30   | 5.10                 | 22.30   | 19.50   | 57.76   | 25.10                    | 11.15  | 6.51   | 4.30   | 2.90   |                |
| 23             | 3.96                                                             | 4.53                     | 2.45   | 5.62                 | 27.10   | 16.70   | 53.09   | 21.90                    | 10.61  | 6.51   | 4.50   | 3.30   |                |
| 24             | 3.77                                                             | 10.98                    | 1.85   | 30.66                | 32.98   | 17.75   | 46.08   | 19.90                    | 10.34  | 6.51   | 4.50   | 3.50   |                |
| 25             | 3.39                                                             | 5.10                     | 1.70   | 22.85                | 28.85   | 23.10   | 48.75   | 18.80                    | 10.34  | 6.28   | 4.30   | 4.30   |                |
| 26             | 3.39                                                             | 4.15                     | 1.70   | 19.14                | 24.30   | 21.10   | 49.83   | 17.75                    | 10.07  | 6.74   | 4.30   | 4.10   |                |
| 27             | 3.05                                                             | 3.77                     | 1.70   | 14.26                | 24.70   | 70.65   | 37.88   | 17.40                    | 10.34  | 6.51   | 4.30   | 3.70   |                |
| 28             | 3.05                                                             | 3.39                     | 1.70   | 33.93                | 23.50   | 81.97   | 34.45   | 17.40                    | 9.80   | 6.74   | 3.90   | 3.10   |                |
| 29             | 2.75                                                             | 3.20                     | 1.60   | 26.00                | 19.50   | 73.23   | 33.96   | 16.70                    | 10.34  | 6.28   |        | 2.90   |                |
| 30             | 2.75                                                             | 3.20                     | 1.60   | 51.30                | 18.80   | 66.78   | 35.92   | 18.45                    | 9.80   | 6.05   |        | 2.90   |                |
| 31             |                                                                  | 3.58                     |        | 36.76                | 27.10   |         | 37.39   |                          | 9.80   | 6.05   |        | 2.90   |                |
| Total          | 115.13                                                           | 133.33                   | 194.55 | 457.01               | 1025.35 | 1237.53 | 1346.83 | 662.57                   | 434.65 | 229.00 | 130.80 | 116.30 | 6083.05 CMSDAY |
| Mean           | 3.84                                                             | 4.30                     | 6.48   | 14.74                | 33.08   | 41.25   | 43.45   | 22.09                    | 14.02  | 7.39   | 4.67   | 3.75   | 16.67 CMS      |
| Max            | 4.91                                                             | 10.98                    | 32.49  | 51.30                | 90.30   | 81.97   | 92.60   | 41.31                    | 32.00  | 9.80   | 6.28   | 4.50   | 92.60 CMS      |
| Min            | 2.75                                                             | 2.45                     | 1.60   | 1.50                 | 15.65   | 16.70   | 14.95   | 16.70                    | 9.80   | 6.05   | 3.90   | 2.90   | 1.50 CMS       |
| Runoff         | 9.95                                                             | 11.52                    | 16.81  | 39.49                | 88.59   | 106.92  | 116.37  | 57.25                    | 37.55  | 19.79  | 11.30  | 10.05  | 525.58 MCM     |
| Momentary Peak | 97.40 CMS. at 465.08 m. (MSL.) at 06.00 Hours , on Oct 21 , 2013 |                          |        |                      |         |         |         |                          |        |        |        |        |                |
| Runoff Yield   | 8.69                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |         |         | 50.782  | Liters/Second/Square KM. |        |        |        |        |                |

**WATER YEAR : 2013**

## CHI RIVER BASIN

## Chi River at Ban Non Puai , Chaiyaphum (E.5)

Lat 15 - 46 - 08 N      Long 101 - 49 - 01 E

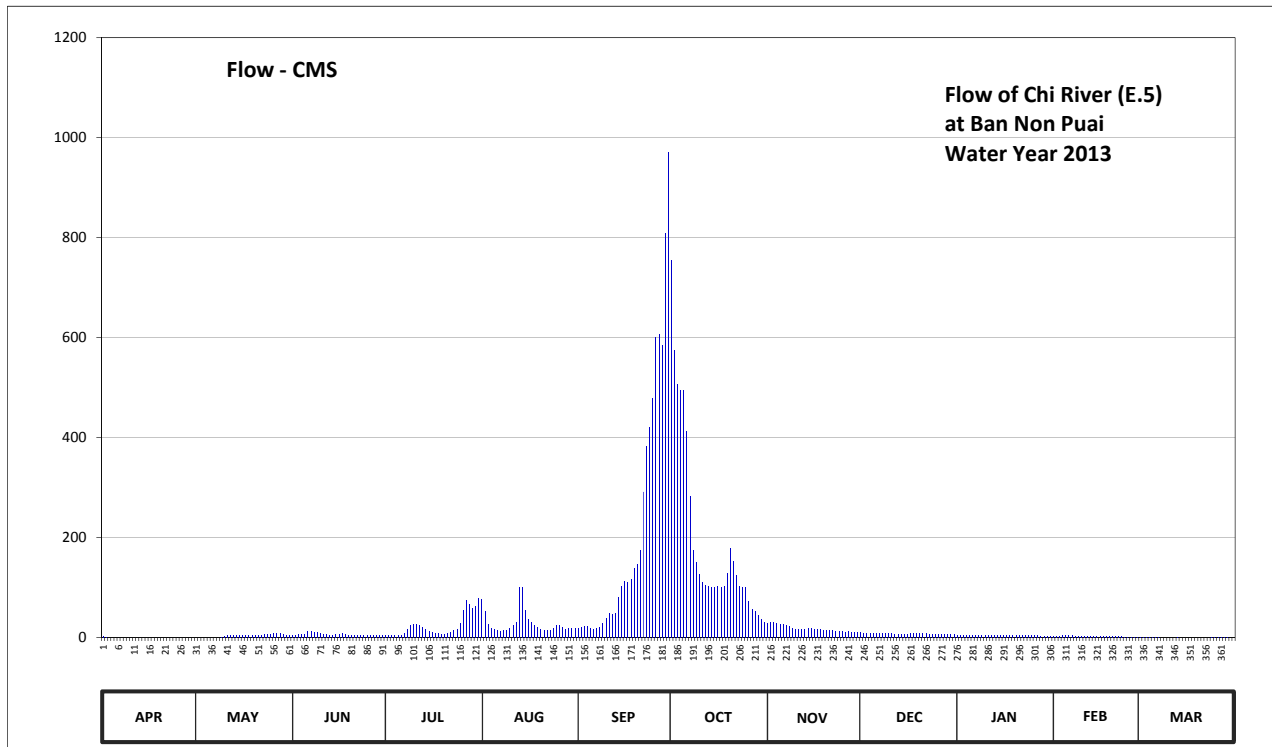
**Location : on left bank near Ban Non Puai about 30 meters downstream from Ban Tango.**

|                                         |                                                                                                                                                                      |           |               |           |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                           | Non Pua   | <b>Amphoe</b> | Ban Khwao | <b>Changwat</b>  | Chaiyaphum         |
| <b>Drainage Area</b>                    | 4,207                                                                                                                                                                | sq.km.    |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                                                                                              |           |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +186.070                                                                                                                                                             | m. (MSL.) |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                            |           |               |           |                  |                    |
| <b>Location BM</b>                      | In front of the station office.                                                                                                                                      |           |               |           | <b>Elevation</b> | +199.956 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                            |           |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                       |           |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 1958 to date                                                                                                                                                         |           |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                      |           |               |           |                  |                    |
| <b>Period of Rating</b>                 | 1967 - 1971 , 1973, 1979, 1982 to date                                                                                                                               |           |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                    |           |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 1967 - 1971 , 1973, 1979, 1982 to date                                                                                                                               |           |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                                                                                              |           |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +197.320 m.(MSL.), records are channel flow only.                                                                                  |           |               |           |                  |                    |
| <b>General Description</b>              | Records good. The local weir situated about 100 meters downstream from the gage site.<br>Stage-discharge relation defined by 26 discharge measurements made in 2013. |           |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 190.10 | 188.92 | 190.23                                           | 190.23 | 191.24 | 190.58 | 198.07 | 190.76 | 190.41 | 190.29 | 190.19 | 190.06 |        |
| 2                                | 190.02 | 188.97 | 190.26                                           | 190.21 | 191.02 | 190.61 | 197.78 | 190.78 | 190.40 | 190.29 | 190.19 | 190.05 |        |
| 3                                | 189.90 | 189.03 | 190.30                                           | 190.20 | 190.73 | 190.65 | 197.62 | 190.77 | 190.40 | 190.28 | 190.19 | 190.04 |        |
| 4                                | 189.78 | 189.15 | 190.31                                           | 190.20 | 190.59 | 190.65 | 197.58 | 190.75 | 190.39 | 190.28 | 190.20 | 190.04 |        |
| 5                                | 189.72 | 189.25 | 190.34                                           | 190.22 | 190.53 | 190.59 | 197.58 | 190.73 | 190.38 | 190.27 | 190.20 | 190.02 |        |
| 6                                | 189.61 | 189.36 | 190.44                                           | 190.27 | 190.49 | 190.55 | 197.15 | 190.71 | 190.38 | 190.27 | 190.20 | 190.01 |        |
| 7                                | 189.49 | 189.59 | 190.44                                           | 190.39 | 190.47 | 190.57 | 195.65 | 190.69 | 190.37 | 190.26 | 190.20 | 190.01 |        |
| 8                                | 189.40 | 189.84 | 190.43                                           | 190.55 | 190.48 | 190.63 | 193.89 | 190.65 | 190.37 | 190.26 | 190.19 | 189.99 |        |
| 9                                | 189.30 | 190.02 | 190.42                                           | 190.69 | 190.51 | 190.74 | 193.43 | 190.57 | 190.37 | 190.25 | 190.19 | 189.92 |        |
| 10                               | 189.25 | 190.14 | 190.36                                           | 190.73 | 190.59 | 190.89 | 192.79 | 190.55 | 190.36 | 190.25 | 190.18 | 189.88 |        |
| 11                               | 189.20 | 190.22 | 190.33                                           | 190.71 | 190.70 | 190.98 | 192.21 | 190.52 | 190.35 | 190.25 | 190.17 | 189.93 |        |
| 12                               | 189.17 | 190.25 | 190.30                                           | 190.68 | 190.77 | 190.97 | 191.91 | 190.54 | 190.34 | 190.25 | 190.17 | 189.98 |        |
| 13                               | 189.16 | 190.24 | 190.27                                           | 190.63 | 191.66 | 190.98 | 191.74 | 190.56 | 190.33 | 190.25 | 190.15 | 190.02 |        |
| 14                               | 189.14 | 190.22 | 190.28                                           | 190.52 | 191.43 | 191.27 | 191.64 | 190.58 | 190.33 | 190.25 | 190.13 | 190.00 |        |
| 15                               | 189.12 | 190.20 | 190.31                                           | 190.46 | 191.04 | 191.72 | 191.68 | 190.57 | 190.33 | 190.24 | 190.13 | 189.98 |        |
| 16                               | 189.09 | 190.20 | 190.34                                           | 190.41 | 190.85 | 192.25 | 191.70 | 190.55 | 190.34 | 190.24 | 190.12 | 189.96 |        |
| 17                               | 189.07 | 190.21 | 190.36                                           | 190.38 | 190.77 | 192.19 | 191.63 | 190.54 | 190.37 | 190.24 | 190.14 | 189.91 |        |
| 18                               | 189.07 | 190.22 | 190.32                                           | 190.35 | 190.69 | 192.48 | 191.78 | 190.53 | 190.37 | 190.24 | 190.14 | 189.88 |        |
| 19                               | 189.07 | 190.22 | 190.28                                           | 190.31 | 190.61 | 193.13 | 192.85 | 190.51 | 190.37 | 190.23 | 190.14 | 189.89 |        |
| 20                               | 189.07 | 190.22 | 190.24                                           | 190.31 | 190.54 | 193.33 | 193.98 | 190.50 | 190.36 | 190.23 | 190.13 | 189.92 |        |
| 21                               | 189.06 | 190.23 | 190.24                                           | 190.35 | 190.50 | 193.91 | 193.46 | 190.49 | 190.36 | 190.23 | 190.11 | 189.94 |        |
| 22                               | 189.06 | 190.27 | 190.24                                           | 190.42 | 190.48 | 195.76 | 192.70 | 190.48 | 190.35 | 190.23 | 190.10 | 189.97 |        |
| 23                               | 189.05 | 190.31 | 190.24                                           | 190.48 | 190.48 | 196.88 | 191.84 | 190.47 | 190.33 | 190.22 | 190.10 | 190.00 |        |
| 24                               | 189.02 | 190.32 | 190.24                                           | 190.54 | 190.59 | 197.21 | 191.57 | 190.46 | 190.33 | 190.22 | 190.09 | 190.02 |        |
| 25                               | 189.01 | 190.34 | 190.25                                           | 190.74 | 190.69 | 197.52 | 191.43 | 190.45 | 190.32 | 190.22 | 190.09 | 190.02 |        |
| 26                               | 188.98 | 190.36 | 190.26                                           | 191.05 | 190.67 | 197.83 | 191.20 | 190.42 | 190.31 | 190.21 | 190.08 | 190.02 |        |
| 27                               | 188.94 | 190.38 | 190.24                                           | 191.22 | 190.61 | 197.84 | 191.07 | 190.44 | 190.30 | 190.20 | 190.08 | 190.02 |        |
| 28                               | 188.91 | 190.38 | 190.24                                           | 191.16 | 190.56 | 197.80 | 191.02 | 190.43 | 190.30 | 190.19 | 190.08 | 190.02 |        |
| 29                               | 188.91 | 190.34 | 190.23                                           | 191.09 | 190.57 | 198.14 | 190.94 | 190.42 | 190.30 | 190.17 |        | 190.01 |        |
| 30                               | 188.91 | 190.27 | 190.23                                           | 191.12 | 190.59 | 198.31 | 190.87 | 190.42 | 190.31 | 190.17 |        | 190.00 |        |
| 31                               |        | 190.22 |                                                  | 191.25 | 190.57 |        | 190.79 |        | 190.30 | 190.19 |        | 189.99 |        |
| Mean                             | 189.25 | 190.00 | 190.30                                           | 190.58 | 190.71 | 193.23 | 193.21 | 190.56 | 190.35 | 190.24 | 190.15 | 189.98 |        |
| Max                              | 190.10 | 190.38 | 190.44                                           | 191.25 | 191.66 | 198.31 | 198.07 | 190.78 | 190.41 | 190.29 | 190.20 | 190.06 | 198.31 |
| Min                              | 188.91 | 188.92 | 190.23                                           | 190.20 | 190.47 | 190.55 | 190.79 | 190.42 | 190.30 | 190.17 | 190.08 | 189.88 | 188.91 |
| Annual Max Momentary Gage Height | 198.36 |        | m. (MSL.) , at 13.00 Hours, on Sep 30, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 186.07 |        | m. (MSL.) , River Bed 185.32 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 197.31 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 197.80 |        | m. (MSL.) , Drainage Area 4207 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                                                       | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar  | Annual          |
|----------------|---------|-----------------------------------------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|--------|-------|------|-----------------|
| 1              | 2.00    | 0.00                                                      | 4.60   | 4.60                 | 76.80  | 19.00   | 753.60                   | 29.60  | 10.50  | 5.80   | 3.80  | 1.20 |                 |
| 2              | 0.40    | 0.00                                                      | 5.20   | 4.20                 | 52.00  | 20.60   | 573.60                   | 30.80  | 10.00  | 5.80   | 3.80  | 1.00 |                 |
| 3              | 0.00    | 0.00                                                      | 6.00   | 4.00                 | 27.80  | 23.00   | 506.40                   | 30.20  | 10.00  | 5.60   | 3.80  | 0.80 |                 |
| 4              | 0.00    | 0.00                                                      | 6.40   | 4.00                 | 19.50  | 23.00   | 494.80                   | 29.00  | 9.60   | 5.60   | 4.00  | 0.80 |                 |
| 5              | 0.00    | 0.00                                                      | 7.60   | 4.40                 | 16.50  | 19.50   | 494.80                   | 27.80  | 9.20   | 5.40   | 4.00  | 0.40 |                 |
| 6              | 0.00    | 0.00                                                      | 12.00  | 5.40                 | 14.50  | 17.50   | 412.50                   | 26.60  | 9.20   | 5.40   | 4.00  | 0.20 |                 |
| 7              | 0.00    | 0.00                                                      | 12.00  | 9.60                 | 13.50  | 18.50   | 283.10                   | 25.40  | 8.80   | 5.20   | 4.00  | 0.20 |                 |
| 8              | 0.00    | 0.00                                                      | 11.50  | 17.50                | 14.00  | 21.80   | 174.28                   | 23.00  | 8.80   | 5.20   | 3.80  | 0.00 |                 |
| 9              | 0.00    | 0.40                                                      | 11.00  | 25.40                | 15.50  | 28.40   | 151.20                   | 18.50  | 8.80   | 5.00   | 3.80  | 0.00 |                 |
| 10             | 0.00    | 2.80                                                      | 8.40   | 27.80                | 19.50  | 39.20   | 127.28                   | 17.50  | 8.40   | 5.00   | 3.60  | 0.00 |                 |
| 11             | 0.00    | 4.40                                                      | 7.20   | 26.60                | 26.00  | 48.00   | 111.04                   | 16.00  | 8.00   | 5.00   | 3.40  | 0.00 |                 |
| 12             | 0.00    | 5.00                                                      | 6.00   | 24.80                | 30.20  | 47.00   | 104.20                   | 17.00  | 7.60   | 5.00   | 3.40  | 0.00 |                 |
| 13             | 0.00    | 4.80                                                      | 5.40   | 21.80                | 101.60 | 48.00   | 102.40                   | 18.00  | 7.20   | 5.00   | 3.00  | 0.40 |                 |
| 14             | 0.00    | 4.40                                                      | 5.60   | 16.00                | 100.09 | 80.40   | 101.40                   | 19.00  | 7.20   | 5.00   | 2.60  | 0.00 |                 |
| 15             | 0.00    | 4.00                                                      | 6.40   | 13.00                | 54.00  | 102.20  | 101.80                   | 18.50  | 7.20   | 4.80   | 2.60  | 0.00 |                 |
| 16             | 0.00    | 4.00                                                      | 7.60   | 10.50                | 36.00  | 112.00  | 102.00                   | 17.50  | 7.60   | 4.80   | 2.40  | 0.00 |                 |
| 17             | 0.00    | 4.20                                                      | 8.40   | 9.20                 | 30.20  | 110.56  | 101.30                   | 17.00  | 8.80   | 4.80   | 2.80  | 0.00 |                 |
| 18             | 0.00    | 4.40                                                      | 6.80   | 8.00                 | 25.40  | 117.52  | 102.80                   | 16.50  | 8.80   | 4.80   | 2.80  | 0.00 |                 |
| 19             | 0.00    | 4.40                                                      | 5.60   | 6.40                 | 20.60  | 139.20  | 129.20                   | 15.50  | 8.80   | 4.60   | 2.80  | 0.00 |                 |
| 20             | 0.00    | 4.40                                                      | 4.80   | 6.40                 | 17.00  | 147.20  | 178.96                   | 15.00  | 8.40   | 4.60   | 2.60  | 0.00 |                 |
| 21             | 0.00    | 4.60                                                      | 4.80   | 8.00                 | 15.00  | 175.32  | 152.40                   | 14.50  | 8.40   | 4.60   | 2.20  | 0.00 |                 |
| 22             | 0.00    | 5.40                                                      | 4.80   | 11.00                | 14.00  | 291.24  | 124.40                   | 14.00  | 8.00   | 4.60   | 2.00  | 0.00 |                 |
| 23             | 0.00    | 6.40                                                      | 4.80   | 14.00                | 14.00  | 382.20  | 103.40                   | 13.50  | 7.20   | 4.40   | 2.00  | 0.00 |                 |
| 24             | 0.00    | 6.80                                                      | 4.80   | 17.00                | 19.50  | 421.50  | 100.79                   | 13.00  | 7.20   | 4.40   | 1.80  | 0.40 |                 |
| 25             | 0.00    | 7.60                                                      | 5.00   | 28.40                | 25.40  | 479.20  | 100.09                   | 12.50  | 6.80   | 4.40   | 1.80  | 0.40 |                 |
| 26             | 0.00    | 8.40                                                      | 5.20   | 55.00                | 24.20  | 600.80  | 72.00                    | 11.00  | 6.40   | 4.20   | 1.60  | 0.40 |                 |
| 27             | 0.00    | 9.20                                                      | 4.80   | 74.40                | 20.60  | 606.40  | 57.00                    | 12.00  | 6.00   | 4.00   | 1.60  | 0.40 |                 |
| 28             | 0.00    | 9.20                                                      | 4.80   | 67.20                | 18.00  | 584.00  | 52.00                    | 11.50  | 6.00   | 3.80   | 1.60  | 0.40 |                 |
| 29             | 0.00    | 7.60                                                      | 4.60   | 59.00                | 18.50  | 808.40  | 44.00                    | 11.00  | 6.00   | 3.40   |       | 0.20 |                 |
| 30             | 0.00    | 5.40                                                      | 4.60   | 62.40                | 19.50  | 971.19  | 37.60                    | 11.00  | 6.40   | 3.40   |       | 0.00 |                 |
| 31             |         | 4.40                                                      |        | 78.00                | 18.50  |         | 31.40                    |        | 6.00   | 3.80   |       | 0.00 |                 |
| Total          | 2.40    | 122.20                                                    | 196.70 | 724.00               | 917.89 | 6502.83 | 5981.74                  | 552.40 | 247.30 | 147.40 | 81.60 | 7.20 | 15483.66 CMSDAY |
| Mean           | 0.08    | 3.94                                                      | 6.56   | 23.35                | 29.61  | 216.76  | 192.96                   | 18.41  | 7.98   | 4.75   | 2.91  | 0.23 | 42.42 CMS       |
| Max            | 2.00    | 9.20                                                      | 12.00  | 78.00                | 101.60 | 971.19  | 753.60                   | 30.80  | 10.50  | 5.80   | 4.00  | 1.20 | 971.19 CMS      |
| Min            | 0.00    | 0.00                                                      | 4.60   | 4.00                 | 13.50  | 17.50   | 31.40                    | 11.00  | 6.00   | 3.40   | 1.60  | 0.00 | 0.00 CMS        |
| Runoff         | 0.21    | 10.56                                                     | 17.00  | 62.55                | 79.31  | 561.85  | 516.82                   | 47.73  | 21.37  | 12.74  | 7.05  | 0.62 | 1337.79 MCM     |
| Momentary Peak | 1027.20 | CMS, at 198.36 m. (MSL.), at 13.00 Hours, on Sep 30, 2013 |        |                      |        |         |                          |        |        |        |       |      |                 |
| Runoff Yield   | 10.08   | Liters/Second/Square KM.                                  |        | Momentary Peak Yield |        | 244.164 | Liters/Second/Square KM. |        |        |        |       |      |                 |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Pa Thao at Ban Tat Ton , Chaipayhum (E.6C)**

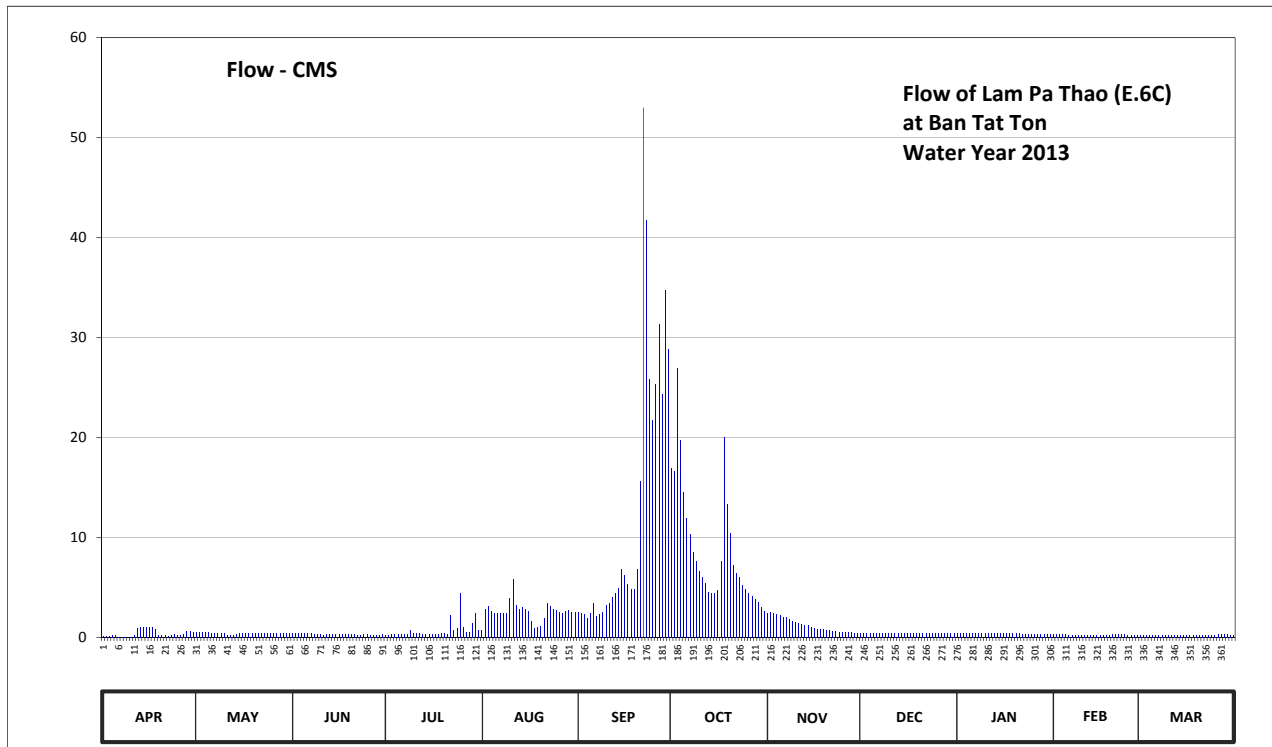
Lat 15 - 57 - 43 N Long 102 - 02 - 00 E

**Location : on right bank about 5 kilometers upstream from E.6A station at Ban Tat Ton.**

|                                         |                                                                                        |                |               |               |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------------|----------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                             | <b>Tat Ton</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b>  | <b>Chaipayhum</b>  |
| <b>Drainage Area</b>                    | 378                                                                                    | sq.km.         |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                             |                |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +192.700                                                                               | m. (MSL.)      |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                              |                |               |               |                  |                    |
| <b>Location BM</b>                      | About 2 meters from the sling pole.                                                    |                |               |               | <b>Elevation</b> | +198.412 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                 |                |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                          |                |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 1973 to date                                                                           |                |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                        |                |               |               |                  |                    |
| <b>Period of Rating</b>                 | 1973 to date                                                                           |                |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                      |                |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 1973 to date                                                                           |                |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                         |                |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                      |                |               |               |                  |                    |
| <b>General Description</b>              | Records good. Lam Pa Thao Dam situated about 2 kilometers upstream from the gage site. |                |               |               |                  |                    |
|                                         | Stage-discharge relation defined by 25 discharge measurements made in 2013.            |                |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                             | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 192.87 | 193.06      | 193.02 | 192.94 | 193.18        | 193.59                          | 195.65            | 193.56 | 193.04 | 193.01 | 192.97 | 192.94 |        |
| 2                                | 192.88 | 193.06      | 193.03 | 192.94 | 193.66        | 193.58                          | 195.62            | 193.59 | 193.03 | 193.01 | 192.97 | 192.94 |        |
| 3                                | 192.88 | 193.07      | 193.05 | 192.95 | 193.70        | 193.55                          | 196.63            | 193.58 | 193.03 | 193.01 | 192.97 | 192.94 |        |
| 4                                | 192.90 | 193.08      | 193.05 | 192.95 | 193.60        | 193.47                          | 195.92            | 193.55 | 193.03 | 193.01 | 192.97 | 192.94 |        |
| 5                                | 192.92 | 193.07      | 193.05 | 192.95 | 193.58        | 193.58                          | 195.38            | 193.52 | 193.02 | 193.01 | 192.96 | 192.93 |        |
| 6                                | 192.82 | 193.05      | 193.03 | 192.95 | 193.58        | 193.76                          | 195.09            | 193.50 | 193.02 | 193.01 | 192.94 | 192.93 |        |
| 7                                | 192.82 | 193.05      | 193.02 | 192.96 | 193.57        | 193.51                          | 194.90            | 193.48 | 193.01 | 193.01 | 192.93 | 192.93 |        |
| 8                                | 192.82 | 193.05      | 192.98 | 192.99 | 193.57        | 193.54                          | 194.67            | 193.45 | 193.00 | 193.01 | 192.92 | 192.93 |        |
| 9                                | 192.82 | 193.05      | 192.98 | 193.15 | 193.58        | 193.59                          | 194.52            | 193.42 | 193.00 | 193.01 | 192.91 | 192.93 |        |
| 10                               | 192.82 | 193.01      | 192.96 | 193.00 | 193.86        | 193.73                          | 194.35            | 193.38 | 193.00 | 193.02 | 192.91 | 192.93 |        |
| 11                               | 192.93 | 192.94      | 192.94 | 193.01 | 194.22        | 193.76                          | 194.26            | 193.36 | 193.00 | 193.02 | 192.90 | 192.92 |        |
| 12                               | 193.26 | 192.93      | 192.96 | 193.05 | 193.74        | 193.88                          | 194.16            | 193.35 | 193.00 | 193.02 | 192.90 | 192.92 |        |
| 13                               | 193.28 | 192.93      | 192.96 | 192.98 | 193.65        | 193.98                          | 193.99            | 193.34 | 193.00 | 193.03 | 192.90 | 192.92 |        |
| 14                               | 193.28 | 192.95      | 192.96 | 192.99 | 193.68        | 194.07                          | 193.96            | 193.32 | 193.00 | 193.04 | 192.90 | 192.92 |        |
| 15                               | 193.28 | 193.02      | 192.97 | 192.99 | 193.66        | 194.39                          | 193.96            | 193.29 | 193.00 | 193.04 | 192.90 | 192.92 |        |
| 16                               | 193.28 | 193.02      | 192.97 | 192.98 | 193.61        | 194.29                          | 194.03            | 193.25 | 193.01 | 193.04 | 192.91 | 192.92 |        |
| 17                               | 193.28 | 193.01      | 192.96 | 192.97 | 193.42        | 194.14                          | 194.53            | 193.22 | 193.04 | 193.03 | 192.92 | 192.92 |        |
| 18                               | 193.23 | 193.00      | 192.96 | 192.97 | 193.24        | 194.06                          | 195.95            | 193.22 | 193.00 | 193.02 | 192.93 | 192.92 |        |
| 19                               | 192.93 | 193.00      | 192.96 | 193.00 | 193.27        | 194.05                          | 195.25            | 193.20 | 193.02 | 193.02 | 192.94 | 192.92 |        |
| 20                               | 192.90 | 193.00      | 192.96 | 193.00 | 193.30        | 194.39                          | 194.92            | 193.19 | 193.03 | 193.01 | 192.95 | 192.92 |        |
| 21                               | 192.90 | 193.01      | 192.95 | 192.97 | 193.46        | 195.51                          | 194.45            | 193.17 | 193.03 | 193.01 | 192.95 | 192.92 |        |
| 22                               | 192.89 | 193.02      | 192.94 | 193.52 | 193.76        | 197.90                          | 194.33            | 193.13 | 193.03 | 192.99 | 192.95 | 192.92 |        |
| 23                               | 192.91 | 193.02      | 192.94 | 193.19 | 193.70        | 197.52                          | 194.25            | 193.10 | 193.03 | 192.98 | 192.95 | 192.92 |        |
| 24                               | 192.95 | 193.00      | 192.95 | 193.24 | 193.66        | 196.53                          | 194.13            | 193.08 | 193.03 | 192.98 | 192.95 | 192.92 |        |
| 25                               | 192.92 | 193.00      | 192.95 | 193.97 | 193.63        | 196.13                          | 194.04            | 193.08 | 193.03 | 192.97 | 192.94 | 192.93 |        |
| 26                               | 192.92 | 193.00      | 192.94 | 193.27 | 193.59        | 196.48                          | 193.97            | 193.07 | 193.03 | 192.97 | 192.94 | 192.95 |        |
| 27                               | 192.96 | 193.00      | 192.94 | 193.07 | 193.58        | 197.01                          | 193.91            | 193.07 | 193.03 | 192.97 | 192.94 | 192.95 |        |
| 28                               | 193.13 | 193.00      | 192.94 | 193.08 | 193.60        | 196.38                          | 193.84            | 193.06 | 193.03 | 192.97 | 192.94 | 192.95 |        |
| 29                               | 193.10 | 193.01      | 192.94 | 193.36 | 193.63        | 197.21                          | 193.78            | 193.04 | 193.03 | 192.97 |        | 192.95 |        |
| 30                               | 193.07 | 193.02      | 192.95 | 193.58 | 193.59        | 196.80                          | 193.68            | 193.04 | 193.02 | 192.97 |        | 192.94 |        |
| 31                               |        | 193.02      |        | 193.15 | 193.59        |                                 | 193.60            |        | 193.02 | 192.97 |        | 192.94 |        |
| Mean                             | 193.00 | 193.01      | 192.97 | 193.10 | 193.60        | 194.81                          | 194.57            | 193.29 | 193.02 | 193.00 | 192.93 | 192.93 |        |
| Max                              | 193.28 | 193.08      | 193.05 | 193.97 | 194.22        | 197.90                          | 196.63            | 193.59 | 193.04 | 193.04 | 192.97 | 192.95 | 197.90 |
| Min                              | 192.82 | 192.93      | 192.94 | 192.94 | 193.18        | 193.47                          | 193.60            | 193.04 | 193.00 | 192.97 | 192.90 | 192.92 | 192.82 |
| Annual Max Momentary Gage Height | 198.21 | m. (MSL.) , |        |        |               | at 12.00 Hours, on Sep 22, 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 192.70 | m. (MSL.) , |        |        | River Bed     | 192.54                          | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 200.03 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 199.49 | m. (MSL.) , |        |        | Drainage Area | 378                             | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                       | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb  | Mar  | Annual        |
|----------------|-------|-----------------------------------------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|------|------|---------------|
| 1              | 0.14  | 0.52                                                      | 0.44  | 0.28                 | 0.76  | 2.55    | 17.00                    | 2.40  | 0.48  | 0.42  | 0.34 | 0.28 |               |
| 2              | 0.16  | 0.52                                                      | 0.46  | 0.28                 | 2.90  | 2.50    | 16.70                    | 2.55  | 0.46  | 0.42  | 0.34 | 0.28 |               |
| 3              | 0.16  | 0.54                                                      | 0.50  | 0.30                 | 3.10  | 2.35    | 26.93                    | 2.50  | 0.46  | 0.42  | 0.34 | 0.28 |               |
| 4              | 0.20  | 0.56                                                      | 0.50  | 0.30                 | 2.60  | 1.95    | 19.70                    | 2.35  | 0.46  | 0.42  | 0.34 | 0.28 |               |
| 5              | 0.24  | 0.54                                                      | 0.50  | 0.30                 | 2.50  | 2.50    | 14.52                    | 2.20  | 0.44  | 0.42  | 0.32 | 0.26 |               |
| 6              | 0.04  | 0.50                                                      | 0.46  | 0.30                 | 2.50  | 3.40    | 11.91                    | 2.10  | 0.44  | 0.42  | 0.28 | 0.26 |               |
| 7              | 0.04  | 0.50                                                      | 0.44  | 0.32                 | 2.45  | 2.15    | 10.30                    | 2.00  | 0.42  | 0.42  | 0.26 | 0.26 |               |
| 8              | 0.04  | 0.50                                                      | 0.36  | 0.38                 | 2.45  | 2.30    | 8.59                     | 1.85  | 0.40  | 0.42  | 0.24 | 0.26 |               |
| 9              | 0.04  | 0.50                                                      | 0.36  | 0.70                 | 2.50  | 2.55    | 7.62                     | 1.70  | 0.40  | 0.42  | 0.22 | 0.26 |               |
| 10             | 0.04  | 0.42                                                      | 0.32  | 0.40                 | 3.90  | 3.25    | 6.60                     | 1.50  | 0.40  | 0.44  | 0.22 | 0.26 |               |
| 11             | 0.26  | 0.28                                                      | 0.28  | 0.42                 | 5.82  | 3.40    | 6.06                     | 1.40  | 0.40  | 0.44  | 0.20 | 0.24 |               |
| 12             | 0.98  | 0.26                                                      | 0.32  | 0.50                 | 3.30  | 4.00    | 5.46                     | 1.35  | 0.40  | 0.44  | 0.20 | 0.24 |               |
| 13             | 1.04  | 0.26                                                      | 0.32  | 0.36                 | 2.85  | 4.50    | 4.55                     | 1.30  | 0.40  | 0.46  | 0.20 | 0.24 |               |
| 14             | 1.04  | 0.30                                                      | 0.32  | 0.38                 | 3.00  | 4.95    | 4.40                     | 1.20  | 0.40  | 0.48  | 0.20 | 0.24 |               |
| 15             | 1.04  | 0.44                                                      | 0.34  | 0.38                 | 2.90  | 6.84    | 4.40                     | 1.07  | 0.40  | 0.48  | 0.20 | 0.24 |               |
| 16             | 1.04  | 0.44                                                      | 0.34  | 0.36                 | 2.65  | 6.24    | 4.75                     | 0.95  | 0.42  | 0.48  | 0.22 | 0.24 |               |
| 17             | 1.04  | 0.42                                                      | 0.32  | 0.34                 | 1.70  | 5.34    | 7.68                     | 0.86  | 0.48  | 0.46  | 0.24 | 0.24 |               |
| 18             | 0.89  | 0.40                                                      | 0.32  | 0.34                 | 0.92  | 4.90    | 20.00                    | 0.86  | 0.40  | 0.44  | 0.26 | 0.24 |               |
| 19             | 0.26  | 0.40                                                      | 0.32  | 0.40                 | 1.01  | 4.85    | 13.35                    | 0.80  | 0.44  | 0.44  | 0.28 | 0.24 |               |
| 20             | 0.20  | 0.40                                                      | 0.32  | 0.40                 | 1.10  | 6.84    | 10.46                    | 0.78  | 0.46  | 0.42  | 0.30 | 0.24 |               |
| 21             | 0.20  | 0.42                                                      | 0.30  | 0.34                 | 1.90  | 15.69   | 7.20                     | 0.74  | 0.46  | 0.42  | 0.30 | 0.24 |               |
| 22             | 0.18  | 0.44                                                      | 0.28  | 2.20                 | 3.40  | 53.00   | 6.48                     | 0.66  | 0.46  | 0.38  | 0.30 | 0.24 |               |
| 23             | 0.22  | 0.44                                                      | 0.28  | 0.78                 | 3.10  | 41.68   | 6.00                     | 0.60  | 0.46  | 0.36  | 0.30 | 0.24 |               |
| 24             | 0.30  | 0.40                                                      | 0.30  | 0.92                 | 2.90  | 25.83   | 5.28                     | 0.56  | 0.46  | 0.36  | 0.30 | 0.24 |               |
| 25             | 0.24  | 0.40                                                      | 0.30  | 4.45                 | 2.75  | 21.80   | 4.80                     | 0.56  | 0.46  | 0.34  | 0.28 | 0.26 |               |
| 26             | 0.24  | 0.40                                                      | 0.28  | 1.01                 | 2.55  | 25.30   | 4.45                     | 0.54  | 0.46  | 0.34  | 0.28 | 0.30 |               |
| 27             | 0.32  | 0.40                                                      | 0.28  | 0.54                 | 2.50  | 31.34   | 4.15                     | 0.54  | 0.46  | 0.34  | 0.28 | 0.30 |               |
| 28             | 0.66  | 0.40                                                      | 0.28  | 0.56                 | 2.60  | 24.30   | 3.80                     | 0.52  | 0.46  | 0.34  | 0.28 | 0.30 |               |
| 29             | 0.60  | 0.42                                                      | 0.28  | 1.40                 | 2.75  | 34.69   | 3.50                     | 0.48  | 0.46  | 0.34  |      | 0.30 |               |
| 30             | 0.54  | 0.44                                                      | 0.30  | 2.50                 | 2.55  | 28.80   | 3.00                     | 0.48  | 0.44  | 0.34  |      | 0.28 |               |
| 31             |       | 0.44                                                      |       | 0.70                 | 2.55  |         | 2.60                     |       | 0.44  | 0.34  |      | 0.28 |               |
| Total          | 12.39 | 13.30                                                     | 10.42 | 22.84                | 80.46 | 379.79  | 272.24                   | 37.40 | 13.58 | 12.66 | 7.52 | 8.06 | 870.66 CMSDAY |
| Mean           | 0.41  | 0.43                                                      | 0.35  | 0.74                 | 2.60  | 12.66   | 8.78                     | 1.25  | 0.44  | 0.41  | 0.27 | 0.26 | 2.39 CMS      |
| Max            | 1.04  | 0.56                                                      | 0.50  | 4.45                 | 5.82  | 53.00   | 26.93                    | 2.55  | 0.48  | 0.48  | 0.34 | 0.30 | 53.00 CMS     |
| Min            | 0.04  | 0.26                                                      | 0.28  | 0.28                 | 0.76  | 1.95    | 2.60                     | 0.48  | 0.40  | 0.34  | 0.20 | 0.24 | 0.04 CMS      |
| Runoff         | 1.07  | 1.15                                                      | 0.90  | 1.97                 | 6.95  | 32.81   | 23.52                    | 3.23  | 1.17  | 1.09  | 0.65 | 0.70 | 75.23 MCM     |
| Momentary Peak | 68.80 | CMS, at 198.21 m. (MSL.), at 12.00 Hours, on Sep 22, 2013 |       |                      |       |         |                          |       |       |       |      |      |               |
| Runoff Yield   | 6.31  | Liters/Second/Square KM.                                  |       | Momentary Peak Yield |       | 182.011 | Liters/Second/Square KM. |       |       |       |      |      |               |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Chot , Khon Kaen (E.9)**

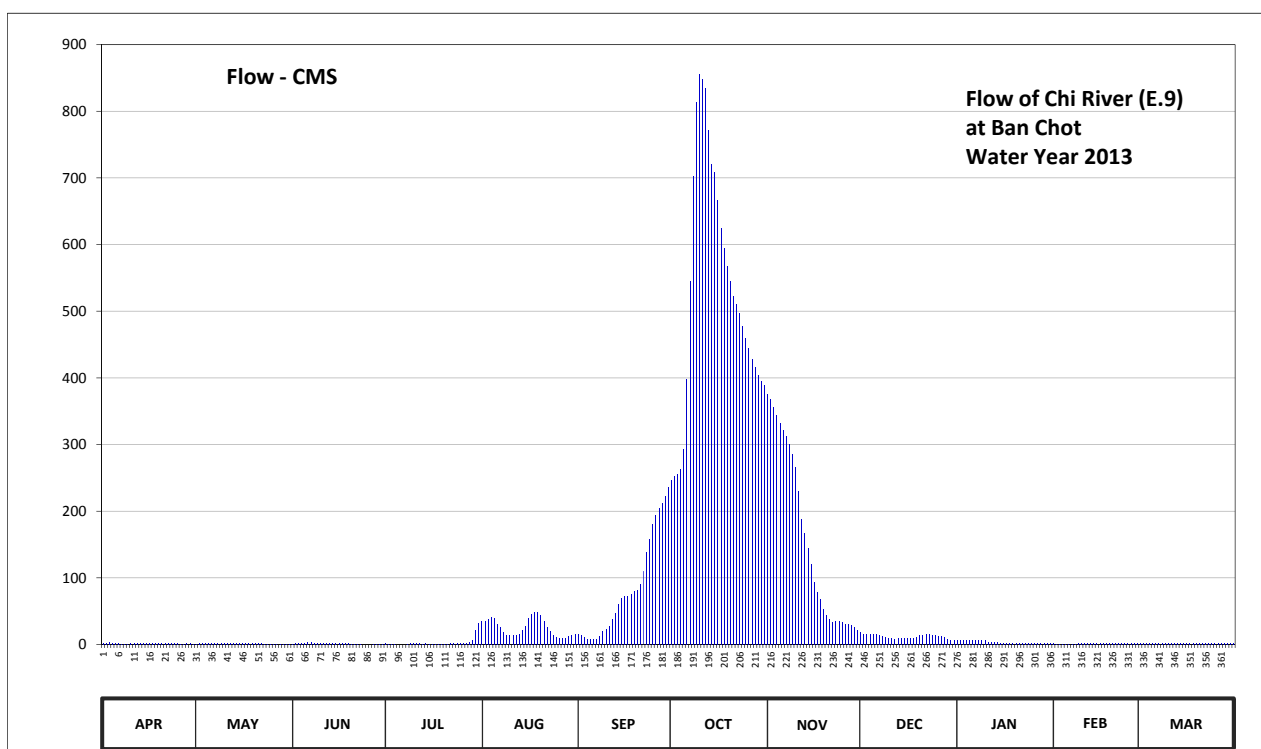
Lat 16 - 05 - 44 N Long 102 - 34 - 25 E

**Location : on left bank about 80 meters downstream from the bridge on highway.**

|                                         |                                                                                           |                           |                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------------------|---------------------------|
|                                         | <b>Ban Chot</b>                                                                           | <b>Amphoe Manchakhiri</b> | <b>Changwat Khon Kaen</b> |
| <b>Drainage Area</b>                    | 10,878 sq.km.                                                                             |                           |                           |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                           |                           |
| <b>Zero Gage at Bottom</b>              | +151.113 m. (MSL.)                                                                        |                           |                           |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |                           |                           |
| <b>Location BM</b>                      | On left bank about 25 meters from the top staff gage.                                     | <b>Elevation</b>          | +167.014 m. (MSL.)        |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                           |                           |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                           |                           |
| <b>Period of Available Gage Records</b> | 1958 to date                                                                              |                           |                           |
| <b>Rating Operation</b>                 |                                                                                           |                           |                           |
| <b>Period of Rating</b>                 | 1967 - 1973, 1986 - 1987, 1992 to date                                                    |                           |                           |
| <b>Rated by Flot</b>                    | -                                                                                         |                           |                           |
| <b>Rated by Current Meter</b>           | 1967 - 1980, 1983 - 1987, 1992 to date                                                    |                           |                           |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                           |                           |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +162.340 m.(MSL.), records are channel flow only.       |                           |                           |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 24 discharge measurements made in 2013. |                           |                           |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                             | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 152.43 | 152.28      | 152.26 | 152.32 | 155.05        | 153.84                          | 161.02            | 161.63 | 154.03 | 153.08 | 152.31 | 152.37 |        |
| 2                                | 152.54 | 152.43      | 152.30 | 152.21 | 155.07        | 153.81                          | 161.06            | 161.60 | 153.86 | 153.06 | 152.29 | 152.35 |        |
| 3                                | 152.59 | 152.40      | 152.30 | 152.11 | 155.26        | 153.52                          | 161.09            | 161.55 | 153.86 | 153.05 | 152.27 | 152.33 |        |
| 4                                | 152.50 | 152.36      | 152.30 | 152.06 | 155.38        | 153.28                          | 161.13            | 161.51 | 153.85 | 153.05 | 152.26 | 152.32 |        |
| 5                                | 152.35 | 152.37      | 152.38 | 152.00 | 155.31        | 153.18                          | 161.31            | 161.46 | 153.83 | 153.03 | 152.23 | 152.30 |        |
| 6                                | 152.34 | 152.37      | 152.59 | 151.96 | 154.88        | 153.28                          | 161.71            | 161.42 | 153.83 | 153.03 | 152.23 | 152.32 |        |
| 7                                | 152.27 | 152.36      | 152.59 | 151.95 | 154.55        | 153.28                          | 162.12            | 161.39 | 153.79 | 153.08 | 152.25 | 152.34 |        |
| 8                                | 152.25 | 152.35      | 152.53 | 152.11 | 154.07        | 153.69                          | 162.42            | 161.34 | 153.65 | 153.08 | 152.29 | 152.34 |        |
| 9                                | 152.29 | 152.33      | 152.49 | 152.34 | 153.82        | 154.17                          | 162.59            | 161.27 | 153.47 | 153.07 | 152.30 | 152.33 |        |
| 10                               | 152.35 | 152.32      | 152.48 | 152.31 | 153.77        | 154.37                          | 162.65            | 161.15 | 153.39 | 152.99 | 152.31 | 152.33 |        |
| 11                               | 152.50 | 152.33      | 152.44 | 152.30 | 153.75        | 154.69                          | 162.64            | 160.91 | 153.30 | 152.77 | 152.32 | 152.32 |        |
| 12                               | 152.47 | 152.34      | 152.33 | 152.30 | 153.75        | 155.22                          | 162.62            | 160.54 | 153.29 | 152.61 | 152.33 | 152.33 |        |
| 13                               | 152.41 | 152.34      | 152.30 | 152.29 | 153.91        | 155.68                          | 162.53            | 160.17 | 153.35 | 152.61 | 152.32 | 152.34 |        |
| 14                               | 152.34 | 152.35      | 152.31 | 152.30 | 154.31        | 156.33                          | 162.45            | 159.58 | 153.32 | 152.60 | 152.33 | 152.32 |        |
| 15                               | 152.37 | 152.35      | 152.36 | 152.24 | 154.68        | 156.78                          | 162.43            | 158.75 | 153.32 | 152.54 | 152.35 | 152.33 |        |
| 16                               | 152.50 | 152.34      | 152.35 | 152.07 | 155.29        | 156.89                          | 162.36            | 157.73 | 153.33 | 152.50 | 152.34 | 152.31 |        |
| 17                               | 152.49 | 152.34      | 152.35 | 152.04 | 155.63        | 156.89                          | 162.29            | 157.17 | 153.31 | 152.46 | 152.33 | 152.31 |        |
| 18                               | 152.49 | 152.35      | 152.35 | 152.08 | 155.80        | 157.02                          | 162.23            | 156.72 | 153.37 | 152.45 | 152.31 | 152.31 |        |
| 19                               | 152.47 | 152.36      | 152.35 | 152.04 | 155.77        | 157.19                          | 162.17            | 155.95 | 153.58 | 152.44 | 152.32 | 152.31 |        |
| 20                               | 152.42 | 152.36      | 152.29 | 152.02 | 155.53        | 157.29                          | 162.12            | 155.54 | 153.75 | 152.43 | 152.34 | 152.32 |        |
| 21                               | 152.38 | 152.36      | 152.13 | 152.11 | 155.05        | 157.64                          | 162.07            | 155.23 | 153.80 | 152.41 | 152.33 | 152.34 |        |
| 22                               | 152.37 | 152.34      | 152.07 | 152.39 | 154.58        | 158.38                          | 162.04            | 155.00 | 153.87 | 152.42 | 152.31 | 152.34 |        |
| 23                               | 152.39 | 152.27      | 152.03 | 152.45 | 154.14        | 159.41                          | 162.01            | 155.11 | 153.92 | 152.41 | 152.33 | 152.33 |        |
| 24                               | 152.40 | 152.22      | 151.97 | 152.51 | 153.75        | 159.97                          | 161.96            | 155.07 | 153.82 | 152.41 | 152.34 | 152.34 |        |
| 25                               | 152.38 | 152.18      | 151.92 | 152.55 | 153.58        | 160.42                          | 161.91            | 154.98 | 153.74 | 152.42 | 152.34 | 152.36 |        |
| 26                               | 152.28 | 152.16      | 151.93 | 152.55 | 153.37        | 160.62                          | 161.86            | 154.81 | 153.65 | 152.38 | 152.34 | 152.36 |        |
| 27                               | 152.28 | 152.14      | 152.11 | 152.56 | 153.32        | 160.73                          | 161.81            | 154.81 | 153.61 | 152.36 | 152.37 | 152.34 |        |
| 28                               | 152.41 | 152.13      | 152.24 | 152.60 | 153.40        | 160.80                          | 161.77            | 154.73 | 153.48 | 152.36 | 152.39 | 152.33 |        |
| 29                               | 152.40 | 152.11      | 152.17 | 153.06 | 153.66        | 160.86                          | 161.73            | 154.54 | 153.17 | 152.34 |        | 152.34 |        |
| 30                               | 152.27 | 152.12      | 152.18 | 154.25 | 153.82        | 160.95                          | 161.70            | 154.28 | 153.11 | 152.33 |        | 152.32 |        |
| 31                               |        | 152.11      |        | 154.96 | 153.86        |                                 | 161.68            |        | 153.10 | 152.32 |        | 152.31 |        |
| Mean                             | 152.40 | 152.30      | 152.28 | 152.42 | 154.46        | 156.67                          | 161.98            | 158.20 | 153.57 | 152.65 | 152.31 | 152.33 |        |
| Max                              | 152.59 | 152.43      | 152.59 | 154.96 | 155.80        | 160.95                          | 162.65            | 161.63 | 154.03 | 153.08 | 152.39 | 152.37 | 162.65 |
| Min                              | 152.25 | 152.11      | 151.92 | 151.95 | 153.32        | 153.18                          | 161.02            | 154.28 | 153.10 | 152.32 | 152.23 | 152.30 | 151.92 |
| Annual Max Momentary Gage Height | 162.66 | m. (MSL.) , |        |        |               | at 06.00 Hours, on Oct 10, 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 151.11 | m. (MSL.) , |        |        | River Bed     | 149.17                          | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 164.09 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 162.33 | m. (MSL.) , |        |        | Drainage Area | 10878                           | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov     | Dec    | Jan    | Feb   | Mar   | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|---------|--------|--------|-------|-------|-----------------|
| 1              | 2.15                                                             | 1.40                     | 1.30  | 1.60                 | 34.50  | 15.10   | 246.00                   | 375.80  | 17.95  | 6.80   | 1.55  | 1.85  |                 |
| 2              | 2.70                                                             | 2.15                     | 1.50  | 1.05                 | 34.90  | 14.65   | 252.00                   | 368.00  | 15.40  | 6.60   | 1.45  | 1.75  |                 |
| 3              | 2.95                                                             | 2.00                     | 1.50  | 0.55                 | 38.70  | 11.20   | 256.50                   | 355.00  | 15.40  | 6.50   | 1.35  | 1.65  |                 |
| 4              | 2.50                                                             | 1.80                     | 1.50  | 0.30                 | 41.10  | 8.80    | 262.80                   | 344.60  | 15.25  | 6.50   | 1.30  | 1.60  |                 |
| 5              | 1.75                                                             | 1.85                     | 1.90  | 0.00                 | 39.70  | 7.80    | 292.60                   | 331.60  | 14.95  | 6.30   | 1.15  | 1.50  |                 |
| 6              | 1.70                                                             | 1.85                     | 2.95  | 0.00                 | 31.24  | 8.80    | 397.10                   | 321.20  | 14.95  | 6.30   | 1.15  | 1.60  |                 |
| 7              | 1.35                                                             | 1.80                     | 2.95  | 0.00                 | 25.75  | 8.80    | 544.80                   | 313.40  | 14.35  | 6.80   | 1.25  | 1.70  |                 |
| 8              | 1.25                                                             | 1.75                     | 2.65  | 0.55                 | 18.55  | 12.90   | 702.00                   | 300.40  | 12.50  | 6.80   | 1.45  | 1.70  |                 |
| 9              | 1.45                                                             | 1.65                     | 2.45  | 1.70                 | 14.80  | 20.05   | 813.00                   | 285.20  | 10.70  | 6.70   | 1.50  | 1.65  |                 |
| 10             | 1.75                                                             | 1.60                     | 2.40  | 1.55                 | 14.05  | 23.05   | 855.00                   | 266.00  | 9.90   | 5.90   | 1.55  | 1.65  |                 |
| 11             | 2.50                                                             | 1.65                     | 2.20  | 1.50                 | 13.75  | 27.85   | 848.00                   | 229.50  | 9.00   | 3.85   | 1.60  | 1.60  |                 |
| 12             | 2.35                                                             | 1.70                     | 1.65  | 1.50                 | 13.75  | 37.90   | 834.00                   | 188.20  | 8.90   | 3.05   | 1.65  | 1.65  |                 |
| 13             | 2.05                                                             | 1.70                     | 1.50  | 1.45                 | 16.15  | 47.10   | 771.00                   | 167.50  | 9.50   | 3.05   | 1.60  | 1.70  |                 |
| 14             | 1.70                                                             | 1.75                     | 1.55  | 1.50                 | 22.15  | 60.10   | 720.00                   | 144.12  | 9.20   | 3.00   | 1.65  | 1.60  |                 |
| 15             | 1.85                                                             | 1.75                     | 1.80  | 1.20                 | 27.70  | 69.50   | 708.00                   | 120.60  | 9.20   | 2.70   | 1.75  | 1.65  |                 |
| 16             | 2.50                                                             | 1.70                     | 1.75  | 0.35                 | 39.30  | 72.25   | 666.00                   | 93.25   | 9.30   | 2.50   | 1.70  | 1.55  |                 |
| 17             | 2.45                                                             | 1.70                     | 1.75  | 0.20                 | 46.10  | 72.25   | 625.00                   | 79.25   | 9.10   | 2.30   | 1.65  | 1.55  |                 |
| 18             | 2.45                                                             | 1.75                     | 1.75  | 0.40                 | 49.50  | 75.50   | 595.00                   | 68.00   | 9.70   | 2.25   | 1.55  | 1.55  |                 |
| 19             | 2.35                                                             | 1.80                     | 1.75  | 0.20                 | 48.90  | 79.75   | 566.80                   | 52.50   | 11.80  | 2.20   | 1.60  | 1.55  |                 |
| 20             | 2.10                                                             | 1.80                     | 1.45  | 0.10                 | 44.10  | 82.25   | 544.80                   | 44.30   | 13.75  | 2.15   | 1.70  | 1.60  |                 |
| 21             | 1.90                                                             | 1.80                     | 0.65  | 0.55                 | 34.50  | 91.00   | 522.80                   | 38.10   | 14.50  | 2.05   | 1.65  | 1.70  |                 |
| 22             | 1.85                                                             | 1.70                     | 0.35  | 1.95                 | 26.20  | 110.24  | 509.60                   | 33.50   | 15.55  | 2.10   | 1.55  | 1.70  |                 |
| 23             | 1.95                                                             | 1.35                     | 0.15  | 2.25                 | 19.60  | 139.19  | 496.40                   | 35.70   | 16.30  | 2.05   | 1.65  | 1.65  |                 |
| 24             | 2.00                                                             | 1.10                     | 0.00  | 2.55                 | 13.75  | 157.65  | 477.60                   | 34.90   | 14.80  | 2.05   | 1.70  | 1.70  |                 |
| 25             | 1.90                                                             | 0.90                     | 0.00  | 2.75                 | 11.80  | 180.20  | 459.60                   | 33.12   | 13.60  | 2.10   | 1.70  | 1.80  |                 |
| 26             | 1.40                                                             | 0.80                     | 0.00  | 2.75                 | 9.70   | 194.60  | 443.60                   | 29.98   | 12.50  | 1.90   | 1.70  | 1.80  |                 |
| 27             | 1.40                                                             | 0.70                     | 0.55  | 2.80                 | 9.20   | 204.60  | 428.10                   | 29.98   | 12.10  | 1.80   | 1.85  | 1.70  |                 |
| 28             | 2.05                                                             | 0.65                     | 1.20  | 3.00                 | 10.00  | 213.00  | 415.70                   | 28.54   | 10.80  | 1.80   | 1.95  | 1.65  |                 |
| 29             | 2.00                                                             | 0.55                     | 0.85  | 6.60                 | 12.60  | 222.00  | 403.30                   | 25.60   | 7.70   | 1.70   |       | 1.70  |                 |
| 30             | 1.35                                                             | 0.60                     | 0.90  | 21.25                | 14.80  | 235.50  | 394.00                   | 21.70   | 7.10   | 1.65   |       | 1.60  |                 |
| 31             |                                                                  | 0.55                     |       | 32.74                | 15.40  |         | 388.80                   |         | 7.00   | 1.60   |       | 1.55  |                 |
| Total          | 59.65                                                            | 45.85                    | 42.90 | 94.89                | 792.24 | 2503.58 | 16439.90                 | 4759.54 | 372.75 | 113.05 | 43.90 | 51.20 | 25319.45 CMSDAY |
| Mean           | 1.99                                                             | 1.48                     | 1.43  | 3.06                 | 25.56  | 83.45   | 530.32                   | 158.65  | 12.02  | 3.65   | 1.57  | 1.65  | 69.37 CMS       |
| Max            | 2.95                                                             | 2.15                     | 2.95  | 32.74                | 49.50  | 235.50  | 855.00                   | 375.80  | 17.95  | 6.80   | 1.95  | 1.85  | 855.00 CMS      |
| Min            | 1.25                                                             | 0.55                     | 0.00  | 0.00                 | 9.20   | 7.80    | 246.00                   | 21.70   | 7.00   | 1.60   | 1.15  | 1.50  | 0.00 CMS        |
| Runoff         | 5.15                                                             | 3.96                     | 3.71  | 8.20                 | 68.45  | 216.31  | 1420.41                  | 411.22  | 32.21  | 9.77   | 3.79  | 4.42  | 2187.60 MCM     |
| Momentary Peak | 862.00 CMS, at 162.66 m. (MSL.), at 06.00 Hours, on Oct 10, 2013 |                          |       |                      |        |         |                          |         |        |        |       |       |                 |
| Runoff Yield   | 6.38                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 79.243  | Liters/Second/Square KM. |         |        |        |       |       |                 |

**WATER YEAR : 2013**

## CHI RIVER BASIN

## Chi River at Ban Tha Sa Bang , Roi Et (E.18)

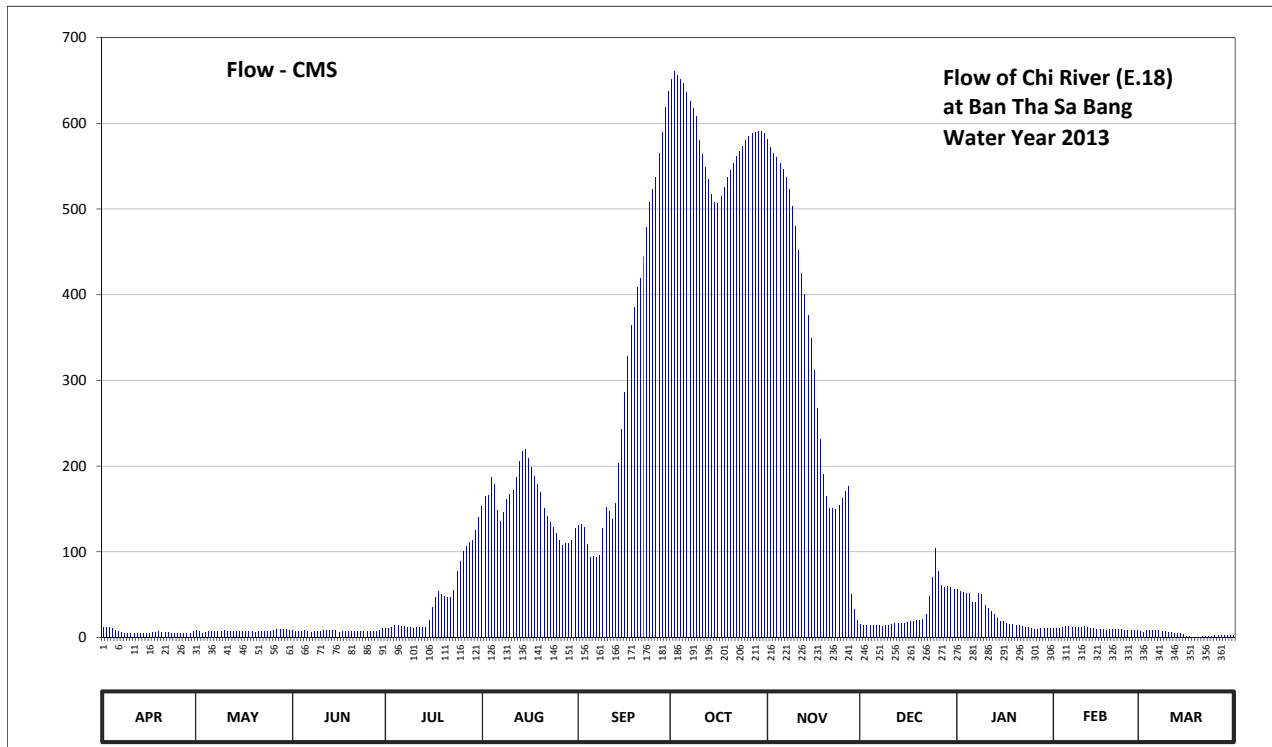
Lat 16 - 01 - 59 N    Long 103 - 54 - 41 E

**Location : on right bank at Ban Tha Sa Bang.**

|                                         |                                                                                           |             |               |                  |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Tha Sa Bang | <b>Amphoe</b> | Thung Khao Luang | <b>Changwat</b>  | Roi Et             |
| <b>Drainage Area</b>                    | 41,187                                                                                    | sq.km.      |               |                  |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |             |               |                  |                  |                    |
| <b>Zero Gage at Bottom</b>              | +122.240                                                                                  | m. (MSL.)   |               |                  |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | H.D.        |               |                  |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |             |               |                  | <b>Elevation</b> | +132.496 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |             |               |                  |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |             |               |                  |                  |                    |
| <b>Period of Available Gage Records</b> | 1954 to date                                                                              |             |               |                  |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |             |               |                  |                  |                    |
| <b>Period of Rating</b>                 | 1974 to date                                                                              |             |               |                  |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |                  |                  |                    |
| <b>Rated by Current Meter</b>           | 1974 to date                                                                              |             |               |                  |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |             |               |                  |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |                  |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 43 discharge measurements made in 2013. |             |               |                  |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                            | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 122.43 | 122.31 | 122.31      | 122.42 | 125.16                         | 124.85 | 130.31            | 129.85 | 124.50 | 125.44 | 123.97 | 123.61 |        |
| 2                                | 122.43 | 122.29 | 122.30      | 122.42 | 125.33                         | 124.87 | 130.38            | 129.78 | 124.38 | 125.42 | 124.00 | 123.57 |        |
| 3                                | 122.43 | 122.22 | 122.30      | 122.44 | 125.35                         | 124.82 | 130.34            | 129.71 | 124.34 | 125.40 | 124.01 | 123.71 |        |
| 4                                | 122.40 | 122.23 | 122.30      | 122.50 | 125.64                         | 124.51 | 130.31            | 129.67 | 124.33 | 125.39 | 124.08 | 123.77 |        |
| 5                                | 122.32 | 122.29 | 122.31      | 122.52 | 125.52                         | 124.26 | 130.28            | 129.61 | 124.31 | 125.38 | 124.21 | 123.75 |        |
| 6                                | 122.27 | 122.30 | 122.28      | 122.49 | 125.09                         | 124.28 | 130.20            | 129.54 | 124.29 | 125.24 | 124.19 | 123.78 |        |
| 7                                | 122.23 | 122.30 | 122.25      | 122.47 | 124.91                         | 124.27 | 130.13            | 129.45 | 124.30 | 125.23 | 124.14 | 123.73 |        |
| 8                                | 122.20 | 122.29 | 122.28      | 122.43 | 125.06                         | 124.31 | 130.08            | 129.32 | 124.28 | 125.39 | 124.15 | 123.66 |        |
| 9                                | 122.19 | 122.29 | 122.30      | 122.43 | 125.28                         | 124.79 | 130.02            | 129.14 | 124.30 | 125.37 | 124.16 | 123.61 |        |
| 10                               | 122.19 | 122.32 | 122.30      | 122.42 | 125.36                         | 125.15 | 129.84            | 128.91 | 124.38 | 125.19 | 124.16 | 123.57 |        |
| 11                               | 122.19 | 122.30 | 122.31      | 122.43 | 125.43                         | 125.08 | 129.70            | 128.63 | 124.46 | 125.12 | 124.22 | 123.49 |        |
| 12                               | 122.19 | 122.30 | 122.32      | 122.43 | 125.64                         | 124.95 | 129.56            | 128.35 | 124.53 | 125.05 | 124.08 | 123.48 |        |
| 13                               | 122.19 | 122.30 | 122.32      | 122.43 | 125.88                         | 125.22 | 129.43            | 128.10 | 124.60 | 124.97 | 124.01 | 123.44 |        |
| 14                               | 122.20 | 122.30 | 122.32      | 122.44 | 126.02                         | 125.85 | 129.27            | 127.85 | 124.61 | 124.84 | 123.98 | 123.39 |        |
| 15                               | 122.21 | 122.30 | 122.32      | 122.68 | 126.05                         | 126.34 | 129.18            | 127.57 | 124.62 | 124.70 | 123.94 | 123.26 |        |
| 16                               | 122.22 | 122.29 | 122.26      | 123.07 | 125.92                         | 126.88 | 129.17            | 127.16 | 124.65 | 124.69 | 123.94 | 123.11 |        |
| 17                               | 122.24 | 122.29 | 122.27      | 123.35 | 125.78                         | 127.34 | 129.25            | 126.65 | 124.70 | 124.60 | 123.90 | 123.05 |        |
| 18                               | 122.26 | 122.28 | 122.27      | 123.50 | 125.66                         | 127.72 | 129.35            | 126.20 | 124.74 | 124.50 | 123.79 | 122.98 |        |
| 19                               | 122.27 | 122.29 | 122.29      | 123.44 | 125.53                         | 127.95 | 129.45            | 125.68 | 124.77 | 124.45 | 123.88 | 122.95 |        |
| 20                               | 122.25 | 122.26 | 122.30      | 123.38 | 125.39                         | 128.19 | 129.53            | 125.32 | 124.78 | 124.40 | 123.93 | 122.95 |        |
| 21                               | 122.25 | 122.28 | 122.30      | 123.36 | 125.13                         | 128.30 | 129.61            | 125.13 | 124.82 | 124.35 | 123.92 | 123.02 |        |
| 22                               | 122.24 | 122.27 | 122.30      | 123.37 | 125.00                         | 128.56 | 129.68            | 125.13 | 124.97 | 124.20 | 123.89 | 123.04 |        |
| 23                               | 122.22 | 122.28 | 122.28      | 123.53 | 124.89                         | 128.90 | 129.74            | 125.12 | 125.33 | 124.12 | 123.83 | 123.09 |        |
| 24                               | 122.22 | 122.28 | 122.29      | 123.98 | 124.81                         | 129.18 | 129.79            | 125.18 | 125.55 | 124.08 | 123.79 | 123.12 |        |
| 25                               | 122.21 | 122.30 | 122.30      | 124.19 | 124.71                         | 129.32 | 129.84            | 125.29 | 125.68 | 124.02 | 123.79 | 123.15 |        |
| 26                               | 122.22 | 122.32 | 122.29      | 124.38 | 124.60                         | 129.45 | 129.87            | 125.41 | 125.59 | 123.94 | 123.81 | 123.17 |        |
| 27                               | 122.22 | 122.35 | 122.28      | 124.48 | 124.50                         | 129.71 | 129.89            | 125.50 | 125.50 | 123.95 | 123.80 | 123.17 |        |
| 28                               | 122.22 | 122.37 | 122.28      | 124.55 | 124.54                         | 129.90 | 129.90            | 125.36 | 125.47 | 123.98 | 123.76 | 123.17 |        |
| 29                               | 122.22 | 122.37 | 122.32      | 124.60 | 124.54                         | 130.09 | 129.91            | 125.11 | 125.49 | 124.01 |        | 123.18 |        |
| 30                               | 122.30 | 122.37 | 122.41      | 124.76 | 124.60                         | 130.21 | 129.91            | 124.76 | 125.48 | 124.00 |        | 123.19 |        |
| 31                               |        | 122.31 |             | 124.98 | 124.80                         |        | 129.89            |        | 125.44 | 123.98 |        | 123.18 |        |
| Mean                             | 122.25 | 122.30 | 122.30      | 123.22 | 125.23                         | 126.84 | 129.80            | 127.28 | 124.81 | 124.69 | 123.98 | 123.33 |        |
| Max                              | 122.43 | 122.37 | 122.41      | 124.98 | 126.05                         | 130.21 | 130.38            | 129.85 | 125.68 | 125.44 | 124.22 | 123.78 | 130.38 |
| Min                              | 122.19 | 122.22 | 122.25      | 122.42 | 124.50                         | 124.26 | 129.17            | 124.76 | 124.28 | 123.94 | 123.76 | 122.95 | 122.19 |
| Annual Max Momentary Gage Height |        | 130.40 | m. (MSL.) , |        | at 16.00 Hours, on Oct 2, 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 122.24 | m. (MSL.) , |        | River Bed                      | 120.75 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 135.03 | m. (MSL.) , |        |                                |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 135.07 | m. (MSL.) , |        | Drainage Area                  | 41187  | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun    | Jul     | Aug                  | Sep     | Oct      | Nov                      | Dec    | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|----------------------------------------------------------|--------|---------|----------------------|---------|----------|--------------------------|--------|--------|--------|--------|----------|--------|
| 1              | 11.90  | 8.30                                                     | 8.30   | 11.60   | 153.20               | 131.50  | 651.40   | 581.75                   | 16.00  | 56.20  | 10.70  | 7.10   |          |        |
| 2              | 11.90  | 7.70                                                     | 8.00   | 11.60   | 165.10               | 132.90  | 661.20   | 571.85                   | 14.80  | 54.60  | 11.00  | 6.70   |          |        |
| 3              | 11.90  | 5.60                                                     | 8.00   | 12.20   | 166.50               | 129.40  | 655.60   | 564.33                   | 14.40  | 53.00  | 11.10  | 8.10   |          |        |
| 4              | 11.00  | 5.90                                                     | 8.00   | 14.00   | 187.20               | 108.60  | 651.40   | 560.02                   | 14.30  | 52.30  | 11.80  | 8.70   |          |        |
| 5              | 8.60   | 7.70                                                     | 8.30   | 14.60   | 178.40               | 93.60   | 647.20   | 553.57                   | 14.10  | 51.60  | 13.10  | 8.50   |          |        |
| 6              | 7.10   | 8.00                                                     | 7.40   | 13.70   | 148.30               | 94.80   | 636.00   | 546.05                   | 13.90  | 41.80  | 12.90  | 8.80   |          |        |
| 7              | 5.90   | 8.00                                                     | 6.50   | 13.10   | 135.70               | 94.20   | 625.15   | 536.37                   | 14.00  | 41.10  | 12.40  | 8.30   |          |        |
| 8              | 5.00   | 7.70                                                     | 7.40   | 11.90   | 146.20               | 96.60   | 617.40   | 522.40                   | 13.80  | 52.30  | 12.50  | 7.60   |          |        |
| 9              | 4.70   | 7.70                                                     | 8.00   | 11.90   | 161.60               | 127.30  | 608.10   | 503.05                   | 14.00  | 50.90  | 12.60  | 7.10   |          |        |
| 10             | 4.70   | 8.60                                                     | 8.00   | 11.60   | 167.20               | 152.50  | 580.20   | 479.18                   | 14.80  | 38.40  | 12.60  | 6.70   |          |        |
| 11             | 4.70   | 8.00                                                     | 8.30   | 11.90   | 172.10               | 147.60  | 563.25   | 451.74                   | 15.60  | 34.20  | 13.20  | 5.90   |          |        |
| 12             | 4.70   | 8.00                                                     | 8.60   | 11.90   | 187.20               | 138.50  | 548.20   | 424.30                   | 16.30  | 30.50  | 11.80  | 5.80   |          |        |
| 13             | 4.70   | 8.00                                                     | 8.60   | 11.90   | 206.40               | 157.40  | 534.22   | 399.80                   | 17.00  | 26.80  | 11.10  | 5.40   |          |        |
| 14             | 5.00   | 8.00                                                     | 8.60   | 12.20   | 217.60               | 204.00  | 517.03   | 375.90                   | 17.20  | 22.20  | 10.80  | 4.90   |          |        |
| 15             | 5.30   | 8.00                                                     | 8.60   | 20.20   | 220.00               | 243.20  | 507.35   | 349.58                   | 17.40  | 19.00  | 10.40  | 3.60   |          |        |
| 16             | 5.60   | 7.70                                                     | 6.80   | 35.80   | 209.60               | 286.40  | 506.27   | 311.04                   | 18.00  | 18.80  | 10.40  | 2.10   |          |        |
| 17             | 6.20   | 7.70                                                     | 7.10   | 47.00   | 198.40               | 327.96  | 514.87   | 268.00                   | 19.00  | 17.00  | 10.00  | 1.50   |          |        |
| 18             | 6.80   | 7.40                                                     | 7.10   | 54.00   | 188.80               | 363.68  | 525.63   | 232.00                   | 19.80  | 16.00  | 8.90   | 0.98   |          |        |
| 19             | 7.10   | 7.70                                                     | 7.70   | 51.00   | 179.10               | 385.30  | 536.37   | 190.40                   | 20.40  | 15.50  | 9.80   | 0.95   |          |        |
| 20             | 6.50   | 6.80                                                     | 8.00   | 48.20   | 169.30               | 408.62  | 544.97   | 164.40                   | 20.60  | 15.00  | 10.30  | 0.95   |          |        |
| 21             | 6.50   | 7.40                                                     | 8.00   | 47.40   | 151.10               | 419.40  | 553.57   | 151.10                   | 21.60  | 14.50  | 10.20  | 1.20   |          |        |
| 22             | 6.20   | 7.10                                                     | 8.00   | 47.80   | 142.00               | 444.88  | 561.10   | 151.10                   | 26.80  | 13.00  | 9.90   | 1.40   |          |        |
| 23             | 5.60   | 7.40                                                     | 7.40   | 55.50   | 134.30               | 478.20  | 567.55   | 150.40                   | 48.10  | 12.20  | 9.30   | 1.90   |          |        |
| 24             | 5.60   | 7.40                                                     | 7.70   | 78.00   | 128.70               | 507.35  | 572.92   | 154.60                   | 70.50  | 11.80  | 8.90   | 2.20   |          |        |
| 25             | 5.30   | 8.00                                                     | 8.00   | 89.40   | 121.70               | 522.40  | 580.20   | 162.30                   | 104.00 | 11.20  | 8.90   | 2.50   |          |        |
| 26             | 5.60   | 8.60                                                     | 7.70   | 100.80  | 114.00               | 536.37  | 584.85   | 170.70                   | 78.10  | 10.40  | 9.10   | 2.70   |          |        |
| 27             | 5.60   | 9.50                                                     | 7.40   | 106.80  | 108.00               | 564.33  | 587.95   | 177.00                   | 61.00  | 10.50  | 9.00   | 2.70   |          |        |
| 28             | 5.60   | 10.10                                                    | 7.40   | 111.00  | 110.40               | 589.50  | 589.50   | 50.20                    | 58.60  | 10.80  | 8.60   | 2.70   |          |        |
| 29             | 5.60   | 10.10                                                    | 8.60   | 114.00  | 110.40               | 618.95  | 591.05   | 33.60                    | 60.20  | 11.10  |        | 2.80   |          |        |
| 30             | 8.00   | 10.10                                                    | 11.30  | 125.20  | 114.00               | 637.40  | 591.05   | 20.20                    | 59.40  | 11.00  |        | 2.90   |          |        |
| 31             |        | 8.30                                                     |        | 140.60  | 128.00               |         | 587.95   |                          | 56.20  | 10.80  |        | 2.80   |          |        |
| Total          | 198.90 | 246.50                                                   | 238.80 | 1446.80 | 4920.50              | 9142.84 | 17999.50 | 9806.93                  | 969.90 | 834.50 | 301.30 | 135.48 | 46241.95 | CMSDAY |
| Mean           | 6.63   | 7.95                                                     | 7.96   | 46.67   | 158.73               | 304.76  | 580.63   | 326.90                   | 31.29  | 26.92  | 10.76  | 4.37   | 126.69   | CMS    |
| Max            | 11.90  | 10.10                                                    | 11.30  | 140.60  | 220.00               | 637.40  | 661.20   | 581.75                   | 104.00 | 56.20  | 13.20  | 8.80   | 661.20   | CMS    |
| Min            | 4.70   | 5.60                                                     | 6.50   | 11.60   | 108.00               | 93.60   | 506.27   | 20.20                    | 13.80  | 10.40  | 8.60   | 0.95   | 0.95     | CMS    |
| Runoff         | 17.19  | 21.30                                                    | 20.63  | 125.00  | 425.13               | 789.94  | 1555.16  | 847.32                   | 83.80  | 72.10  | 26.03  | 11.71  | 3995.31  | MCM    |
| Momentary Peak | 664.00 | CMS, at 130.40 m. (MSL.), at 16.00 Hours, on Oct 2, 2013 |        |         |                      |         |          |                          |        |        |        |        |          |        |
| Runoff Yield   | 3.08   | Liters/Second/Square KM.                                 |        |         | Momentary Peak Yield |         | 16.122   | Liters/Second/Square KM. |        |        |        |        |          |        |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Maha Chana Chai , Yasothon (E.20A)**

Lat 15 - 31 - 22 N Long 104 - 15 - 13 E

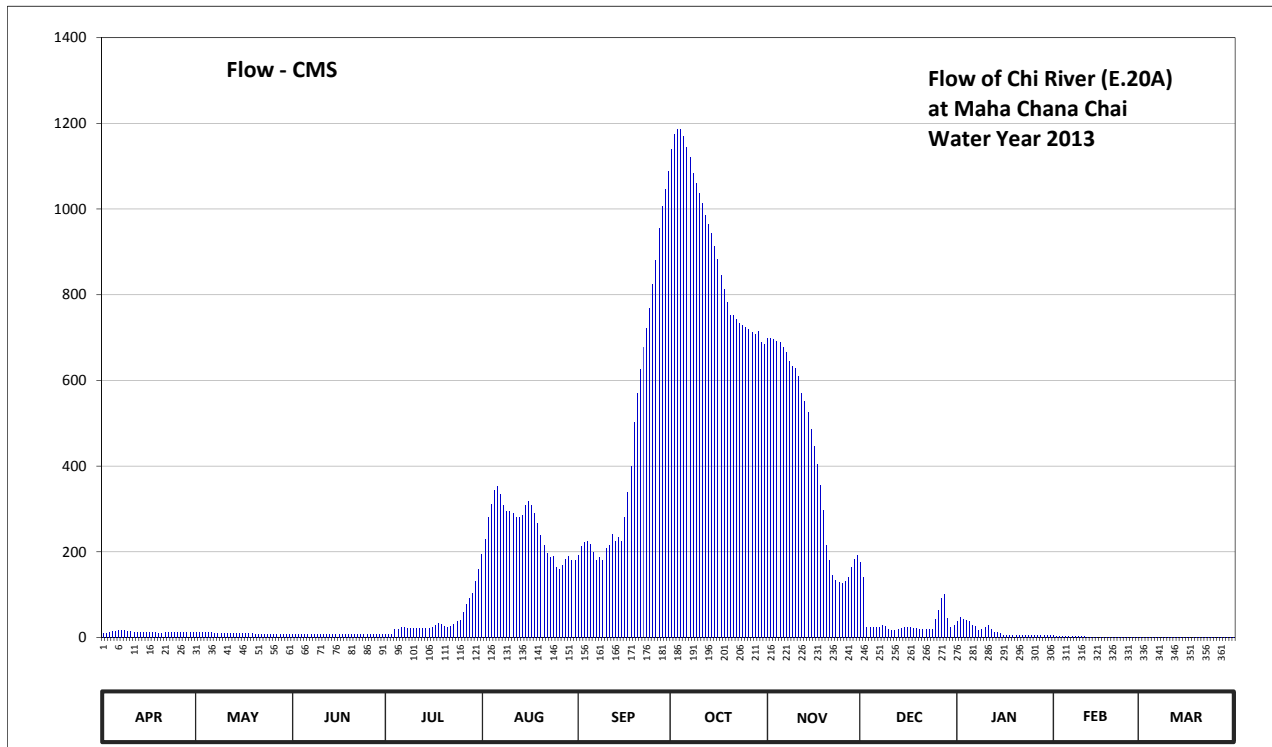
**Location : on right bank about 800 meters upstream from E.20 station.**

|                                         |                                                                                     |                 |               |                 |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------|-----------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                          | Maha Chana Chai | <b>Amphoe</b> | Maha Chana Chai | <b>Changwat</b>  | Yasothon           |
| <b>Drainage Area</b>                    | 47,800                                                                              | sq.km.          |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                          |                 |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +112.000                                                                            | m. (MSL.)       |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                          |                 |               |                 |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                        |                 |               |                 | <b>Elevation</b> | +126.610 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                              |                 |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                       |                 |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 1973 to date                                                                        |                 |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                                     |                 |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 1974 to date                                                                        |                 |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                   |                 |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 1974 to date                                                                        |                 |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                      |                 |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +121.410 m.(MSL.), records are channel flow only. |                 |               |                 |                  |                    |
| <b>General Description</b>              | Records good. Tat Noi barrage situated downstream from the gage site.               |                 |               |                 |                  |                    |
|                                         | Stage-discharge relation defined by 19 discharge measurements made in 2013.         |                 |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug           | Sep                            | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|---------------|--------------------------------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 114.21 | 114.24 | 114.18      | 114.16 | 116.96        | 116.94                         | 122.15 | 120.60            | 116.78 | 116.34 | 115.40 | 114.42 |        |
| 2                                | 114.23 | 114.24 | 114.18      | 114.16 | 117.31        | 117.14                         | 122.22 | 120.61            | 116.37 | 116.39 | 115.35 | 114.35 |        |
| 3                                | 114.26 | 114.24 | 114.18      | 114.17 | 117.76        | 117.23                         | 122.24 | 120.59            | 116.19 | 116.36 | 115.25 | 114.31 |        |
| 4                                | 114.29 | 114.24 | 114.18      | 114.39 | 118.02        | 117.27                         | 122.24 | 120.57            | 116.20 | 116.35 | 115.14 | 114.31 |        |
| 5                                | 114.31 | 114.24 | 114.18      | 114.39 | 118.30        | 117.19                         | 122.21 | 120.55            | 116.20 | 116.34 | 115.12 | 114.31 |        |
| 6                                | 114.34 | 114.24 | 114.18      | 114.50 | 118.37        | 117.02                         | 122.16 | 120.49            | 116.20 | 116.29 | 115.08 | 114.30 |        |
| 7                                | 114.34 | 114.23 | 114.18      | 114.47 | 118.22        | 116.83                         | 122.11 | 120.42            | 116.22 | 116.23 | 114.98 | 114.31 |        |
| 8                                | 114.33 | 114.22 | 114.18      | 114.45 | 118.01        | 116.90                         | 122.03 | 120.30            | 116.27 | 116.10 | 114.94 | 114.38 |        |
| 9                                | 114.28 | 114.22 | 114.18      | 114.46 | 117.89        | 116.82                         | 121.97 | 120.23            | 116.24 | 116.15 | 114.91 | 114.45 |        |
| 10                               | 114.28 | 114.22 | 114.17      | 114.46 | 117.88        | 117.10                         | 121.90 | 120.20            | 116.14 | 116.20 | 114.89 | 114.44 |        |
| 11                               | 114.26 | 114.21 | 114.17      | 114.45 | 117.84        | 117.18                         | 121.83 | 120.10            | 116.08 | 116.28 | 114.87 | 114.44 |        |
| 12                               | 114.25 | 114.20 | 114.17      | 114.45 | 117.77        | 117.41                         | 121.75 | 119.85            | 116.09 | 116.13 | 114.81 | 114.43 |        |
| 13                               | 114.25 | 114.20 | 114.17      | 114.45 | 117.77        | 117.26                         | 121.69 | 119.74            | 116.14 | 116.00 | 114.76 | 114.43 |        |
| 14                               | 114.25 | 114.21 | 114.17      | 114.45 | 117.81        | 117.35                         | 121.63 | 119.59            | 116.17 | 115.96 | 114.70 | 114.45 |        |
| 15                               | 114.25 | 114.21 | 114.17      | 114.43 | 118.00        | 117.25                         | 121.54 | 119.31            | 116.19 | 115.88 | 114.65 | 114.47 |        |
| 16                               | 114.25 | 114.20 | 114.16      | 114.47 | 118.08        | 117.77                         | 121.43 | 119.04            | 116.20 | 115.66 | 114.62 | 114.49 |        |
| 17                               | 114.24 | 114.20 | 114.16      | 114.60 | 118.01        | 118.25                         | 121.28 | 118.74            | 116.21 | 115.63 | 114.60 | 114.49 |        |
| 18                               | 114.24 | 114.19 | 114.16      | 114.67 | 117.85        | 118.71                         | 121.15 | 118.39            | 116.18 | 115.62 | 114.56 | 114.49 |        |
| 19                               | 114.23 | 114.19 | 114.16      | 114.63 | 117.64        | 119.43                         | 121.03 | 117.90            | 116.17 | 115.61 | 114.45 | 114.45 |        |
| 20                               | 114.23 | 114.18 | 114.16      | 114.54 | 117.39        | 119.86                         | 120.88 | 117.18            | 116.15 | 115.60 | 114.41 | 114.43 |        |
| 21                               | 114.24 | 114.18 | 114.16      | 114.49 | 117.16        | 120.19                         | 120.88 | 116.83            | 116.15 | 115.61 | 114.46 | 114.41 |        |
| 22                               | 114.24 | 114.18 | 114.16      | 114.54 | 116.99        | 120.50                         | 120.83 | 116.44            | 116.14 | 115.58 | 114.49 | 114.41 |        |
| 23                               | 114.25 | 114.18 | 114.16      | 114.63 | 116.89        | 120.72                         | 120.78 | 116.30            | 116.12 | 115.57 | 114.51 | 114.38 |        |
| 24                               | 114.25 | 114.18 | 114.16      | 114.76 | 116.91        | 120.96                         | 120.76 | 116.21            | 116.13 | 115.56 | 114.52 | 114.36 |        |
| 25                               | 114.26 | 114.18 | 114.16      | 114.83 | 116.66        | 121.20                         | 120.73 | 116.20            | 116.36 | 115.55 | 114.53 | 114.34 |        |
| 26                               | 114.26 | 114.18 | 114.17      | 115.17 | 116.60        | 121.42                         | 120.71 | 116.25            | 116.46 | 115.55 | 114.51 | 114.31 |        |
| 27                               | 114.26 | 114.18 | 114.17      | 115.47 | 116.71        | 121.66                         | 120.68 | 116.38            | 116.52 | 115.53 | 114.52 | 114.28 |        |
| 28                               | 114.25 | 114.18 | 114.17      | 115.69 | 116.85        | 121.81                         | 120.65 | 116.64            | 116.53 | 115.53 | 114.52 | 114.28 |        |
| 29                               | 114.24 | 114.18 | 114.16      | 115.87 | 116.91        | 121.93                         | 120.69 | 116.85            | 116.37 | 115.51 |        | 114.31 |        |
| 30                               | 114.24 | 114.18 | 114.16      | 116.24 | 116.82        | 122.04                         | 120.55 | 116.94            | 116.21 | 115.46 |        | 114.32 |        |
| 31                               |        | 114.18 |             | 116.60 | 116.83        |                                | 120.53 |                   | 116.28 | 115.45 |        | 114.34 |        |
| Mean                             | 114.26 | 114.20 | 114.17      | 114.74 | 117.49        | 118.78                         | 121.39 | 118.65            | 116.25 | 115.87 | 114.77 | 114.38 |        |
| Max                              | 114.34 | 114.24 | 114.18      | 116.60 | 118.37        | 122.04                         | 122.24 | 120.61            | 116.78 | 116.39 | 115.40 | 114.49 | 122.24 |
| Min                              | 114.21 | 114.18 | 114.16      | 114.16 | 116.60        | 116.82                         | 120.53 | 116.20            | 116.08 | 115.45 | 114.41 | 114.28 | 114.16 |
| Annual Max Momentary Gage Height | 122.24 |        | m. (MSL.) , |        |               | at 18.00 Hours, on Oct 2, 2013 |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 112.00 |        | m. (MSL.) , |        | River Bed     | 110.45                         |        | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 121.67 |        | m. (MSL.) , |        |               |                                |        |                   |        |        |        |        |        |
| Right Bank Elevation             | 121.40 |        | m. (MSL.) , |        | Drainage Area | 47800                          |        | Square Kilometers |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                                                      | Jun    | Jul                  | Aug     | Sep      | Oct                      | Nov      | Dec     | Jan    | Feb   | Mar   | Annual          |
|----------------|---------|----------------------------------------------------------|--------|----------------------|---------|----------|--------------------------|----------|---------|--------|-------|-------|-----------------|
| 1              | 10.50   | 12.00                                                    | 9.00   | 8.00                 | 194.20  | 192.20   | 1140.00                  | 697.40   | 176.90  | 38.60  | 4.60  | 0.80  |                 |
| 2              | 11.50   | 12.00                                                    | 9.00   | 8.00                 | 230.20  | 212.60   | 1175.00                  | 699.30   | 140.40  | 48.10  | 4.40  | 0.70  |                 |
| 3              | 13.00   | 12.00                                                    | 9.00   | 8.50                 | 280.20  | 221.90   | 1185.00                  | 695.50   | 23.40   | 42.40  | 4.00  | 0.60  |                 |
| 4              | 14.50   | 12.00                                                    | 9.00   | 19.50                | 310.50  | 226.10   | 1185.00                  | 691.60   | 24.00   | 40.50  | 3.60  | 0.60  |                 |
| 5              | 15.50   | 12.00                                                    | 9.00   | 19.50                | 345.20  | 217.80   | 1170.00                  | 687.70   | 24.00   | 38.60  | 3.50  | 0.60  |                 |
| 6              | 17.00   | 12.00                                                    | 9.00   | 25.00                | 353.90  | 200.10   | 1145.00                  | 676.30   | 24.00   | 30.30  | 3.30  | 0.60  |                 |
| 7              | 17.00   | 11.50                                                    | 9.00   | 23.50                | 335.30  | 181.70   | 1120.00                  | 664.40   | 25.40   | 26.10  | 2.90  | 0.60  |                 |
| 8              | 16.50   | 11.00                                                    | 9.00   | 22.50                | 309.20  | 188.40   | 1083.50                  | 644.00   | 28.90   | 18.00  | 2.80  | 0.80  |                 |
| 9              | 14.00   | 11.00                                                    | 9.00   | 23.00                | 295.20  | 180.70   | 1059.80                  | 632.10   | 26.80   | 21.00  | 2.60  | 0.90  |                 |
| 10             | 14.00   | 11.00                                                    | 8.50   | 23.00                | 294.10  | 208.40   | 1036.00                  | 627.00   | 20.40   | 24.00  | 2.60  | 0.90  |                 |
| 11             | 13.00   | 10.50                                                    | 8.50   | 22.50                | 289.40  | 216.70   | 1012.20                  | 610.00   | 17.00   | 29.60  | 2.50  | 0.90  |                 |
| 12             | 12.50   | 10.00                                                    | 8.50   | 22.50                | 281.30  | 240.60   | 985.00                   | 569.00   | 17.50   | 19.80  | 2.20  | 0.90  |                 |
| 13             | 12.50   | 10.00                                                    | 8.50   | 22.50                | 281.30  | 225.00   | 964.60                   | 551.40   | 20.40   | 13.00  | 2.00  | 0.90  |                 |
| 14             | 12.50   | 10.50                                                    | 8.50   | 22.50                | 286.00  | 234.40   | 944.20                   | 527.40   | 22.20   | 11.80  | 1.80  | 0.90  |                 |
| 15             | 12.50   | 10.50                                                    | 8.50   | 21.50                | 308.00  | 224.00   | 913.60                   | 485.30   | 23.40   | 9.60   | 1.60  | 0.90  |                 |
| 16             | 12.50   | 10.00                                                    | 8.00   | 23.50                | 317.90  | 281.30   | 882.50                   | 445.80   | 24.00   | 6.60   | 1.50  | 1.00  |                 |
| 17             | 12.00   | 10.00                                                    | 8.00   | 30.00                | 309.20  | 339.00   | 845.00                   | 403.60   | 24.70   | 6.30   | 1.40  | 1.00  |                 |
| 18             | 12.00   | 9.50                                                     | 8.00   | 33.50                | 290.60  | 399.40   | 812.50                   | 356.40   | 22.80   | 6.20   | 1.20  | 1.00  |                 |
| 19             | 11.50   | 9.50                                                     | 8.00   | 31.50                | 266.20  | 502.80   | 782.50                   | 296.40   | 22.20   | 6.10   | 0.90  | 0.90  |                 |
| 20             | 11.50   | 9.00                                                     | 8.00   | 27.00                | 238.60  | 570.60   | 751.70                   | 216.70   | 21.00   | 6.00   | 0.80  | 0.90  |                 |
| 21             | 12.00   | 9.00                                                     | 8.00   | 24.50                | 214.60  | 625.30   | 751.70                   | 181.70   | 21.00   | 6.10   | 0.90  | 0.80  |                 |
| 22             | 12.00   | 9.00                                                     | 8.00   | 27.00                | 197.00  | 678.00   | 742.00                   | 145.60   | 20.40   | 5.80   | 1.00  | 0.80  |                 |
| 23             | 12.50   | 9.00                                                     | 8.00   | 31.50                | 187.40  | 720.70   | 732.30                   | 135.20   | 19.20   | 5.70   | 1.00  | 0.80  |                 |
| 24             | 12.50   | 9.00                                                     | 8.00   | 38.00                | 189.40  | 767.20   | 728.40                   | 128.50   | 19.80   | 5.60   | 1.10  | 0.70  |                 |
| 25             | 13.00   | 9.00                                                     | 8.00   | 41.50                | 165.40  | 825.00   | 722.60                   | 127.80   | 42.40   | 5.50   | 1.10  | 0.70  |                 |
| 26             | 13.00   | 9.00                                                     | 8.50   | 60.20                | 159.60  | 880.00   | 718.70                   | 131.50   | 65.00   | 5.50   | 1.00  | 0.60  |                 |
| 27             | 13.00   | 9.00                                                     | 8.50   | 78.20                | 170.20  | 954.40   | 712.90                   | 141.10   | 91.90   | 5.30   | 1.10  | 0.60  |                 |
| 28             | 12.50   | 9.00                                                     | 8.50   | 92.50                | 183.60  | 1005.40  | 707.10                   | 163.40   | 100.40  | 5.30   | 1.10  | 0.60  |                 |
| 29             | 12.00   | 9.00                                                     | 8.00   | 104.40               | 189.40  | 1046.20  | 714.90                   | 183.60   | 44.30   | 5.10   |       | 0.60  |                 |
| 30             | 12.00   | 9.00                                                     | 8.00   | 130.80               | 180.70  | 1088.00  | 687.70                   | 192.20   | 24.70   | 4.80   |       | 0.60  |                 |
| 31             |         | 9.00                                                     |        | 159.60               | 181.70  |          | 683.80                   |          | 29.60   | 4.80   |       | 0.70  |                 |
| Total          | 390.50  | 315.00                                                   | 253.50 | 1225.70              | 7835.50 | 13853.90 | 28095.20                 | 12707.90 | 1208.10 | 502.10 | 58.50 | 23.90 | 66469.80 CMSDAY |
| Mean           | 13.00   | 10.20                                                    | 8.40   | 39.50                | 252.80  | 461.80   | 906.30                   | 423.60   | 39.00   | 16.20  | 2.10  | 0.80  | 182.10 CMS      |
| Max            | 17.00   | 12.00                                                    | 9.00   | 159.60               | 353.90  | 1088.00  | 1185.00                  | 699.30   | 176.90  | 48.10  | 4.60  | 1.00  | 1185.00 CMS     |
| Min            | 10.50   | 9.00                                                     | 8.00   | 8.00                 | 159.60  | 180.70   | 683.80                   | 127.80   | 17.00   | 4.80   | 0.80  | 0.60  | 0.60 CMS        |
| Runoff         | 33.74   | 27.22                                                    | 21.90  | 105.90               | 676.99  | 1196.98  | 2427.43                  | 1097.96  | 104.38  | 43.38  | 5.05  | 2.06  | 5742.99 MCM     |
| Momentary Peak | 1185.00 | CMS, at 122.24 m. (MSL.), at 18.00 Hours, on Oct 2, 2013 |        |                      |         |          |                          |          |         |        |       |       |                 |
| Runoff Yield   | 3.81    | Liters/Second/Square KM.                                 |        | Momentary Peak Yield |         | 24.791   | Liters/Second/Square KM. |          |         |        |       |       |                 |

**WATER YEAR : 2013**

## CHI RIVER BASIN

### Chi River at Ban Kaeng Ko , Chaiyaphum (E.21)

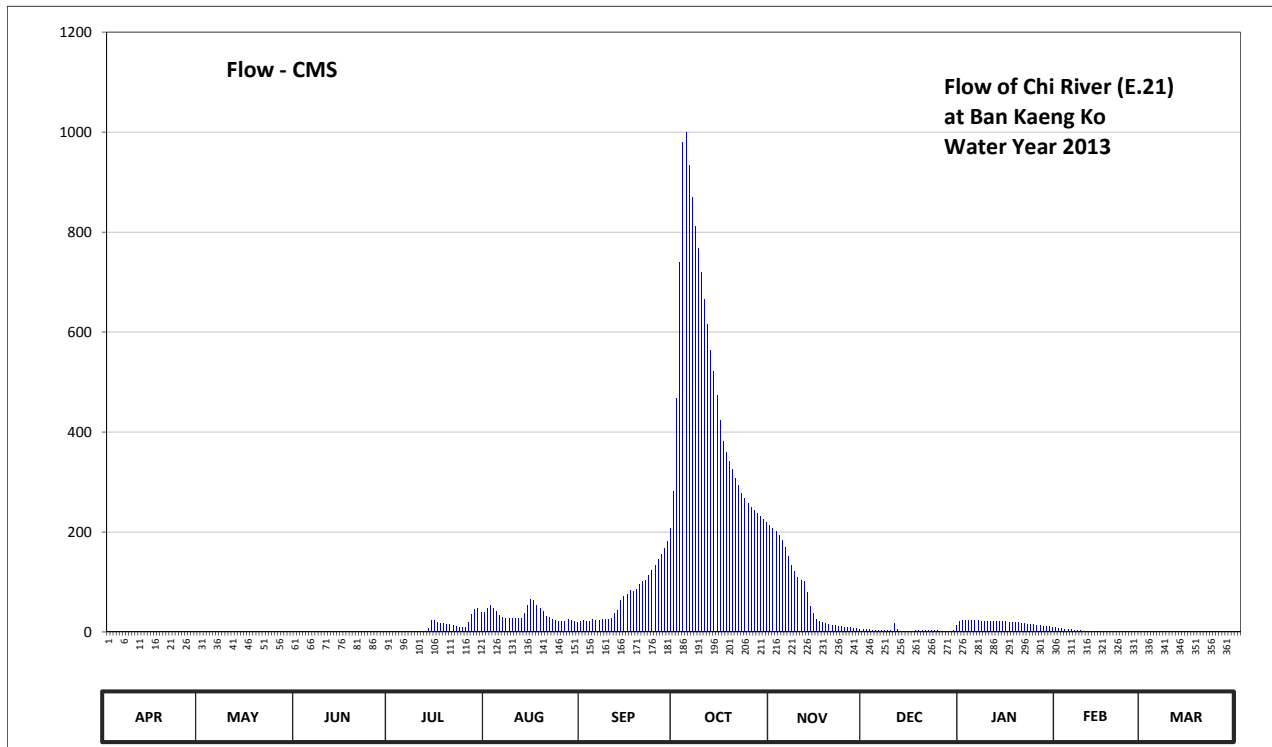
Lat 15 - 45 - 07 N      Long 102 - 15 - 25 E

**Location : on left bank about 75 meters upstream from the bridge on highway.**

|                                         |                                                                                          |           |               |        |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | Kaeng Ko  | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Chaiyaphum         |
| <b>Drainage Area</b>                    | 8,777                                                                                    | sq.km.    |               |        |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                               |           |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +164.980                                                                                 | m. (MSL.) |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                    | H.D.      |               |        |                  |                    |
| <b>Location BM</b>                      | In front of the automatic gage buiding.                                                  |           |               |        | <b>Elevation</b> | +177.385 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                   |           |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                            |           |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1955 - 1957 , 1967 to date                                                               |           |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |           |               |        |                  |                    |
| <b>Period of Rating</b>                 | 1968 - 1971 , 1973 - 1974 , 1982 to date                                                 |           |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1968 - 1971 , 1973 - 1974 , 1982 to date                                                 |           |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |        |                  |                    |
| <b>General Description</b>              | Records good. The rubber weir situated about 2 kilometers downstream from the gage site. |           |               |        |                  |                    |
|                                         | Stage-discharge relation defined by 30 discharge measurements made in 2013.              |           |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 165.37 | 165.57 | 165.89                                           | 165.81 | 168.15 | 167.61 | 174.21 | 172.60 | 167.09 | 167.63 | 167.23 | 166.24 |        |
| 2                                | 165.44 | 165.58 | 165.97                                           | 165.76 | 168.24 | 167.57 | 174.80 | 172.51 | 167.08 | 167.63 | 167.19 | 166.20 |        |
| 3                                | 165.54 | 165.58 | 165.97                                           | 165.74 | 168.16 | 167.60 | 175.01 | 172.38 | 167.06 | 167.62 | 167.16 | 166.17 |        |
| 4                                | 165.66 | 165.58 | 165.99                                           | 165.78 | 168.03 | 167.70 | 175.02 | 172.20 | 167.03 | 167.61 | 167.13 | 166.14 |        |
| 5                                | 165.74 | 165.58 | 166.03                                           | 165.78 | 167.86 | 167.64 | 174.98 | 171.90 | 167.02 | 167.61 | 167.09 | 166.12 |        |
| 6                                | 165.80 | 165.58 | 166.06                                           | 165.79 | 167.76 | 167.63 | 174.93 | 171.46 | 167.02 | 167.61 | 167.06 | 166.10 |        |
| 7                                | 165.82 | 165.59 | 166.06                                           | 165.79 | 167.73 | 167.67 | 174.88 | 170.98 | 167.00 | 167.60 | 167.02 | 166.08 |        |
| 8                                | 165.82 | 165.59 | 166.07                                           | 165.79 | 167.73 | 167.67 | 174.83 | 170.46 | 166.98 | 167.59 | 166.97 | 166.07 |        |
| 9                                | 165.83 | 165.60 | 166.07                                           | 165.79 | 167.72 | 167.69 | 174.77 | 169.92 | 167.04 | 167.59 | 166.93 | 166.05 |        |
| 10                               | 165.83 | 165.61 | 166.07                                           | 165.77 | 167.72 | 167.74 | 174.69 | 169.45 | 167.47 | 167.58 | 166.90 | 166.03 |        |
| 11                               | 165.83 | 165.60 | 166.06                                           | 165.77 | 167.71 | 167.93 | 174.59 | 169.05 | 167.12 | 167.58 | 166.86 | 166.01 |        |
| 12                               | 165.83 | 165.60 | 166.02                                           | 166.47 | 167.74 | 168.06 | 174.48 | 168.68 | 166.88 | 167.58 | 166.82 | 165.99 |        |
| 13                               | 165.82 | 165.61 | 166.01                                           | 167.22 | 167.93 | 168.41 | 174.37 | 168.23 | 166.85 | 167.58 | 166.79 | 165.98 |        |
| 14                               | 165.80 | 165.63 | 166.01                                           | 167.62 | 168.25 | 168.55 | 174.23 | 167.93 | 166.84 | 167.57 | 166.76 | 165.97 |        |
| 15                               | 165.78 | 165.64 | 166.03                                           | 167.63 | 168.45 | 168.61 | 174.06 | 167.68 | 166.86 | 167.56 | 166.71 | 165.96 |        |
| 16                               | 165.76 | 165.64 | 166.03                                           | 167.54 | 168.43 | 168.74 | 173.89 | 167.59 | 166.92 | 167.55 | 166.67 | 165.95 |        |
| 17                               | 165.73 | 165.65 | 166.03                                           | 167.49 | 168.25 | 168.72 | 173.78 | 167.54 | 167.02 | 167.54 | 166.63 | 165.95 |        |
| 18                               | 165.72 | 165.65 | 166.03                                           | 167.46 | 168.15 | 168.80 | 173.69 | 167.49 | 167.06 | 167.53 | 166.59 | 165.94 |        |
| 19                               | 165.71 | 165.67 | 166.02                                           | 167.44 | 168.03 | 168.93 | 173.60 | 167.45 | 167.06 | 167.51 | 166.57 | 165.94 |        |
| 20                               | 165.71 | 165.68 | 166.01                                           | 167.41 | 167.82 | 169.18 | 173.50 | 167.40 | 167.05 | 167.49 | 166.53 | 165.93 |        |
| 21                               | 165.70 | 165.71 | 166.00                                           | 167.37 | 167.80 | 169.58 | 173.40 | 167.37 | 167.05 | 167.47 | 166.50 | 165.88 |        |
| 22                               | 165.69 | 165.73 | 165.97                                           | 167.33 | 167.70 | 170.14 | 173.30 | 167.34 | 167.04 | 167.45 | 166.47 | 165.86 |        |
| 23                               | 165.66 | 165.75 | 165.97                                           | 167.30 | 167.65 | 170.66 | 173.22 | 167.31 | 167.01 | 167.43 | 166.45 | 165.86 |        |
| 24                               | 165.64 | 165.77 | 165.94                                           | 167.28 | 167.60 | 171.01 | 173.15 | 167.29 | 166.96 | 167.41 | 166.43 | 165.83 |        |
| 25                               | 165.64 | 165.77 | 165.83                                           | 167.24 | 167.56 | 171.29 | 173.08 | 167.27 | 166.92 | 167.39 | 166.39 | 165.79 |        |
| 26                               | 165.64 | 165.77 | 165.89                                           | 167.55 | 167.57 | 171.54 | 173.02 | 167.25 | 166.87 | 167.37 | 166.34 | 165.74 |        |
| 27                               | 165.63 | 165.77 | 165.85                                           | 167.92 | 167.67 | 171.84 | 172.96 | 167.22 | 166.86 | 167.35 | 166.28 | 165.70 |        |
| 28                               | 165.60 | 165.77 | 165.85                                           | 168.10 | 167.62 | 172.15 | 172.91 | 167.21 | 166.86 | 167.33 | 166.26 | 165.69 |        |
| 29                               | 165.56 | 165.77 | 165.85                                           | 168.13 | 167.57 | 172.59 | 172.84 | 167.15 | 167.05 | 167.31 |        | 165.69 |        |
| 30                               | 165.56 | 165.80 | 165.84                                           | 167.98 | 167.54 | 173.32 | 172.77 | 167.11 | 167.36 | 167.29 |        | 165.69 |        |
| 31                               |        | 165.85 |                                                  | 167.97 | 167.58 |        | 172.69 |        | 167.58 | 167.27 |        | 165.69 |        |
| Mean                             | 165.70 | 165.67 | 165.98                                           | 166.90 | 167.86 | 169.22 | 173.92 | 168.85 | 167.03 | 167.50 | 166.74 | 165.94 |        |
| Max                              | 165.83 | 165.85 | 166.07                                           | 168.13 | 168.45 | 173.32 | 175.02 | 172.60 | 167.58 | 167.63 | 167.23 | 166.24 | 175.02 |
| Min                              | 165.37 | 165.57 | 165.83                                           | 165.74 | 167.54 | 167.57 | 172.69 | 167.11 | 166.84 | 167.27 | 166.26 | 165.69 | 165.37 |
| Annual Max Momentary Gage Height | 175.04 |        | m. (MSL.) , at 17.00 Hours, on Oct 3, 2013       |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 164.98 |        | m. (MSL.) , River Bed 162.99 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 176.15 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 175.67 |        | m. (MSL.) , Drainage Area 8777 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun  | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec    | Jan    | Feb   | Mar  | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|------|----------------------|---------|---------|--------------------------|---------|--------|--------|-------|------|-----------------|
| 1              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 47.50   | 22.40   | 467.20                   | 207.00  | 4.30   | 23.20  | 7.90  | 0.00 |                 |
| 2              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 52.40   | 20.80   | 740.00                   | 200.70  | 4.20   | 23.20  | 6.80  | 0.00 |                 |
| 3              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 48.00   | 22.00   | 980.00                   | 193.00  | 3.90   | 22.80  | 6.00  | 0.00 |                 |
| 4              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 41.50   | 26.00   | 1000.00                  | 184.00  | 3.40   | 22.40  | 5.30  | 0.00 |                 |
| 5              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 33.00   | 23.60   | 934.00                   | 169.00  | 3.30   | 22.40  | 4.30  | 0.00 |                 |
| 6              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 28.40   | 23.20   | 869.00                   | 151.40  | 3.30   | 22.40  | 3.90  | 0.00 |                 |
| 7              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 27.20   | 24.80   | 812.00                   | 132.40  | 3.00   | 22.00  | 3.30  | 0.00 |                 |
| 8              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 27.20   | 24.80   | 767.00                   | 120.20  | 2.70   | 21.60  | 2.50  | 0.00 |                 |
| 9              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 26.80   | 25.60   | 719.00                   | 109.40  | 3.60   | 21.60  | 1.90  | 0.00 |                 |
| 10             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 26.80   | 27.60   | 665.00                   | 102.60  | 16.80  | 21.20  | 1.50  | 0.00 |                 |
| 11             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 26.40   | 36.50   | 615.00                   | 100.30  | 5.00   | 21.20  | 0.90  | 0.00 |                 |
| 12             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 27.60   | 43.00   | 562.40                   | 78.80   | 1.20   | 21.20  | 0.30  | 0.00 |                 |
| 13             | 0.00                                                             | 0.00                     | 0.00 | 7.60                 | 36.50   | 62.60   | 521.20                   | 51.80   | 0.80   | 21.20  | 0.00  | 0.00 |                 |
| 14             | 0.00                                                             | 0.00                     | 0.00 | 22.80                | 53.00   | 71.00   | 473.60                   | 36.50   | 0.60   | 20.80  | 0.00  | 0.00 |                 |
| 15             | 0.00                                                             | 0.00                     | 0.00 | 23.20                | 65.00   | 74.60   | 422.40                   | 25.20   | 0.90   | 20.40  | 0.00  | 0.00 |                 |
| 16             | 0.00                                                             | 0.00                     | 0.00 | 19.60                | 63.80   | 82.40   | 382.00                   | 21.60   | 1.80   | 20.00  | 0.00  | 0.00 |                 |
| 17             | 0.00                                                             | 0.00                     | 0.00 | 17.60                | 53.00   | 81.20   | 360.00                   | 19.60   | 3.30   | 19.60  | 0.00  | 0.00 |                 |
| 18             | 0.00                                                             | 0.00                     | 0.00 | 16.40                | 47.50   | 86.00   | 342.10                   | 17.60   | 3.90   | 19.20  | 0.00  | 0.00 |                 |
| 19             | 0.00                                                             | 0.00                     | 0.00 | 15.60                | 41.50   | 95.10   | 325.00                   | 16.00   | 3.90   | 18.40  | 0.00  | 0.00 |                 |
| 20             | 0.00                                                             | 0.00                     | 0.00 | 14.40                | 31.00   | 100.90  | 308.00                   | 14.00   | 3.70   | 17.60  | 0.00  | 0.00 |                 |
| 21             | 0.00                                                             | 0.00                     | 0.00 | 12.80                | 30.00   | 103.80  | 293.00                   | 12.80   | 3.70   | 16.80  | 0.00  | 0.00 |                 |
| 22             | 0.00                                                             | 0.00                     | 0.00 | 11.20                | 26.00   | 113.80  | 278.00                   | 11.60   | 3.60   | 16.00  | 0.00  | 0.00 |                 |
| 23             | 0.00                                                             | 0.00                     | 0.00 | 10.00                | 24.00   | 124.20  | 266.80                   | 10.40   | 3.10   | 15.20  | 0.00  | 0.00 |                 |
| 24             | 0.00                                                             | 0.00                     | 0.00 | 9.40                 | 22.00   | 133.40  | 258.00                   | 9.70    | 2.40   | 14.40  | 0.00  | 0.00 |                 |
| 25             | 0.00                                                             | 0.00                     | 0.00 | 8.20                 | 20.40   | 144.60  | 249.60                   | 9.10    | 1.80   | 13.60  | 0.00  | 0.00 |                 |
| 26             | 0.00                                                             | 0.00                     | 0.00 | 20.00                | 20.80   | 154.60  | 242.40                   | 8.50    | 1.00   | 12.80  | 0.00  | 0.00 |                 |
| 27             | 0.00                                                             | 0.00                     | 0.00 | 36.00                | 24.80   | 166.60  | 236.40                   | 7.60    | 0.90   | 12.00  | 0.00  | 0.00 |                 |
| 28             | 0.00                                                             | 0.00                     | 0.00 | 45.00                | 22.80   | 181.50  | 231.90                   | 7.30    | 0.90   | 11.20  | 0.00  | 0.00 |                 |
| 29             | 0.00                                                             | 0.00                     | 0.00 | 46.50                | 20.80   | 206.30  | 225.60                   | 5.70    | 3.70   | 10.40  |       | 0.00 |                 |
| 30             | 0.00                                                             | 0.00                     | 0.00 | 39.00                | 19.60   | 281.00  | 219.60                   | 4.70    | 12.40  | 9.70   |       | 0.00 |                 |
| 31             |                                                                  | 0.00                     |      | 38.50                | 21.20   |         | 213.30                   |         | 21.20  | 9.10   |       | 0.00 |                 |
| Total          | 0.00                                                             | 0.00                     | 0.00 | 413.80               | 1056.50 | 2583.90 | 14979.50                 | 2038.50 | 128.30 | 563.60 | 44.60 | 0.00 | 21808.70 CMSDAY |
| Mean           | 0.00                                                             | 0.00                     | 0.00 | 13.30                | 34.10   | 86.10   | 483.20                   | 67.90   | 4.10   | 18.20  | 1.60  | 0.00 | 59.70 CMS       |
| Max            | 0.00                                                             | 0.00                     | 0.00 | 46.50                | 65.00   | 281.00  | 1000.00                  | 207.00  | 21.20  | 23.20  | 7.90  | 0.00 | 1000.00 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 19.60   | 20.80   | 213.30                   | 4.70    | 0.60   | 9.10   | 0.00  | 0.00 | 0.00 CMS        |
| Runoff         | 0.00                                                             | 0.00                     | 0.00 | 35.75                | 91.28   | 223.25  | 1294.23                  | 176.13  | 11.09  | 48.70  | 3.85  | 0.00 | 1884.27 MCM     |
| Momentary Peak | 1039.98 CMS, at 175.04 m. (MSL.), at 17.00 Hours, on Oct 3, 2013 |                          |      |                      |         |         |                          |         |        |        |       |      |                 |
| Runoff Yield   | 6.81                                                             | Liters/Second/Square KM. |      | Momentary Peak Yield |         | 118.489 | Liters/Second/Square KM. |         |        |        |       |      |                 |

**WATER YEAR : 2013**

## CHI RIVER BASIN

**Lam Nam Phong at Ban Tha Mao , Khon Kaen (E.22B)**

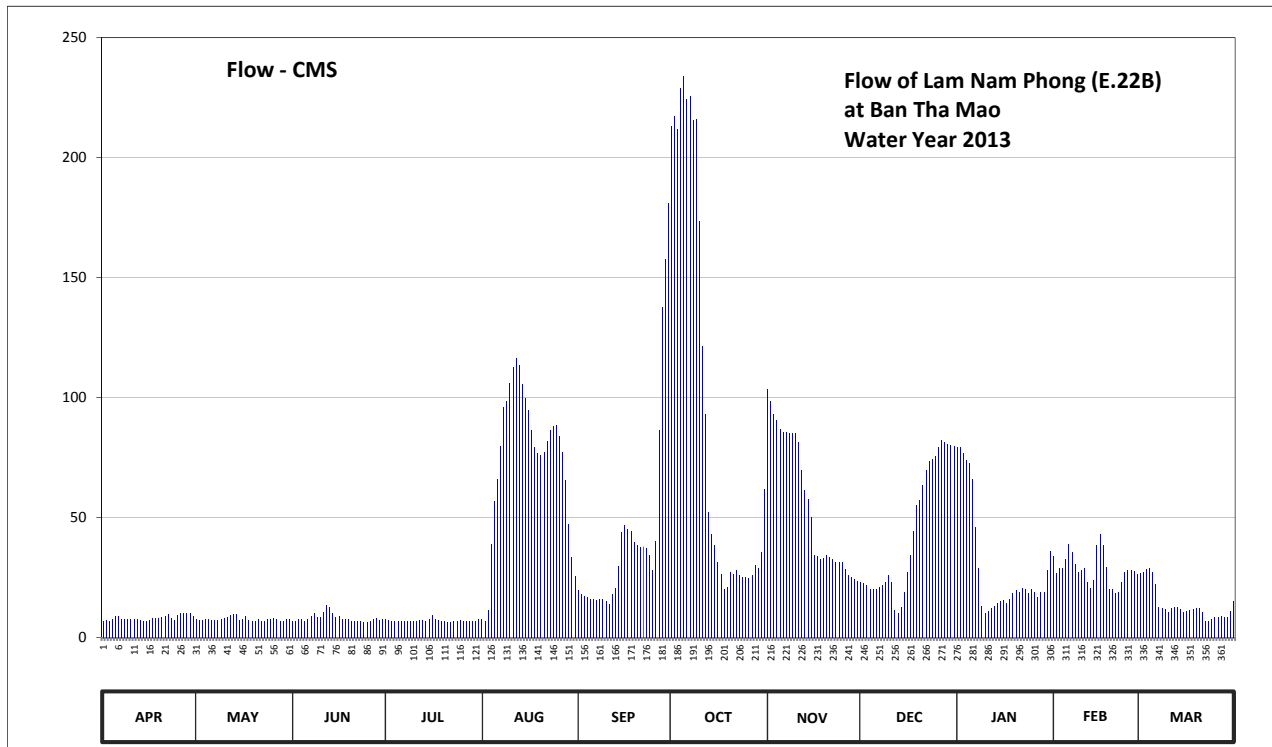
Lat 16 - 39 - 13 N      Long 102 - 49 - 39 E

**Location : on right bank at Ban Tha Mao.**

|                                         |                                                                                                                                                                                                                               |                |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                                                                                    | Tha Mao        | <b>Amphoe</b> | Nam Phong | <b>Changwat</b>  | Khon Kaen          |
| <b>Drainage Area</b>                    | 13,638                                                                                                                                                                                                                        | sq.km.         |               |           |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                                                                                                                                                         | gage           |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +150.920                                                                                                                                                                                                                      | m. (MSL.)      |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                                                                                                                                                         | Highways Dept. |               |           |                  |                    |
| <b>Location BM</b>                      | On left bank at the footpath of the bridge.                                                                                                                                                                                   |                |               |           | <b>Elevation</b> | +163.911 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                                                                                                                                                        |                |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                                                                                                                                                                 |                |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 1965 to date                                                                                                                                                                                                                  |                |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                                                                               |                |               |           |                  |                    |
| <b>Period of Rating</b>                 | 1966 - 1972 , 1982 - 1987 , 1992 to date                                                                                                                                                                                      |                |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                                                                             |                |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 1966 - 1972 , 1982 - 1987 , 1992 to date                                                                                                                                                                                      |                |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                                                                                                                                                |                |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                                                                                             |                |               |           |                  |                    |
| <b>General Description</b>              | Records good. Flow regulated by Ubonrat Dam about 35 kilometers above gage site and Nong Wai weir situated about 5 kilometers above gage site.<br>Stage-discharge relation defined by 21 discharge measurements made in 2013. |                |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                               | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 151.43 | 151.48 | 151.43                                            | 151.47 | 151.47 | 152.08 | 157.98 | 155.07 | 152.24 | 154.33 | 152.69 | 152.41 |        |
| 2                                | 151.46 | 151.46 | 151.43                                            | 151.46 | 151.44 | 152.00 | 158.08 | 154.92 | 152.21 | 154.32 | 152.41 | 152.43 |        |
| 3                                | 151.44 | 151.45 | 151.47                                            | 151.44 | 151.67 | 151.97 | 157.94 | 154.76 | 152.17 | 154.25 | 152.49 | 152.48 |        |
| 4                                | 151.47 | 151.47 | 151.47                                            | 151.42 | 152.89 | 151.94 | 158.37 | 154.68 | 152.10 | 154.15 | 152.50 | 152.50 |        |
| 5                                | 151.54 | 151.48 | 151.44                                            | 151.42 | 153.57 | 151.90 | 158.50 | 154.56 | 152.10 | 154.12 | 152.64 | 152.42 |        |
| 6                                | 151.54 | 151.46 | 151.48                                            | 151.42 | 153.89 | 151.91 | 158.26 | 154.52 | 152.11 | 153.90 | 152.88 | 152.20 |        |
| 7                                | 151.47 | 151.45 | 151.54                                            | 151.42 | 154.34 | 151.89 | 158.29 | 154.52 | 152.14 | 153.16 | 152.76 | 151.74 |        |
| 8                                | 151.48 | 151.46 | 151.60                                            | 151.42 | 154.84 | 151.90 | 158.04 | 154.50 | 152.17 | 152.50 | 152.57 | 151.71 |        |
| 9                                | 151.47 | 151.47 | 151.52                                            | 151.42 | 154.92 | 151.90 | 158.05 | 154.50 | 152.24 | 151.76 | 152.42 | 151.70 |        |
| 10                               | 151.49 | 151.50 | 151.53                                            | 151.43 | 155.14 | 151.86 | 156.99 | 154.50 | 152.36 | 151.61 | 152.46 | 151.64 |        |
| 11                               | 151.49 | 151.53 | 151.63                                            | 151.43 | 155.32 | 151.80 | 155.57 | 154.39 | 152.24 | 151.66 | 152.50 | 151.72 |        |
| 12                               | 151.48 | 151.56 | 151.77                                            | 151.46 | 155.42 | 152.01 | 154.76 | 154.03 | 151.67 | 151.71 | 152.24 | 151.73 |        |
| 13                               | 151.46 | 151.59 | 151.73                                            | 151.45 | 155.34 | 152.12 | 153.40 | 153.73 | 151.60 | 151.75 | 152.12 | 151.74 |        |
| 14                               | 151.44 | 151.59 | 151.62                                            | 151.44 | 155.12 | 152.53 | 153.05 | 153.60 | 151.73 | 151.82 | 152.28 | 151.69 |        |
| 15                               | 151.44 | 151.46 | 151.53                                            | 151.49 | 154.96 | 153.08 | 152.86 | 153.32 | 152.04 | 151.87 | 152.86 | 151.63 |        |
| 16                               | 151.46 | 151.47 | 151.54                                            | 151.57 | 154.81 | 153.18 | 152.60 | 152.71 | 152.43 | 151.88 | 153.04 | 151.66 |        |
| 17                               | 151.51 | 151.54 | 151.49                                            | 151.47 | 154.55 | 153.13 | 152.39 | 152.69 | 152.71 | 151.82 | 152.87 | 151.68 |        |
| 18                               | 151.51 | 151.46 | 151.47                                            | 151.45 | 154.32 | 153.09 | 152.11 | 152.64 | 153.09 | 151.90 | 152.51 | 151.69 |        |
| 19                               | 151.51 | 151.42 | 151.47                                            | 151.44 | 154.25 | 152.92 | 152.14 | 152.65 | 153.50 | 152.03 | 152.09 | 151.72 |        |
| 20                               | 151.52 | 151.44 | 151.44                                            | 151.42 | 154.22 | 152.86 | 152.42 | 152.70 | 153.58 | 152.08 | 152.09 | 151.72 |        |
| 21                               | 151.55 | 151.47 | 151.42                                            | 151.41 | 154.26 | 152.84 | 152.39 | 152.68 | 153.80 | 152.04 | 152.02 | 151.63 |        |
| 22                               | 151.58 | 151.42 | 151.42                                            | 151.40 | 154.40 | 152.84 | 152.45 | 152.64 | 154.02 | 152.12 | 152.05 | 151.42 |        |
| 23                               | 151.50 | 151.44 | 151.42                                            | 151.42 | 154.54 | 152.82 | 152.36 | 152.59 | 154.14 | 152.10 | 152.23 | 151.44 |        |
| 24                               | 151.46 | 151.49 | 151.41                                            | 151.43 | 154.60 | 152.70 | 152.33 | 152.60 | 154.17 | 152.03 | 152.43 | 151.49 |        |
| 25                               | 151.56 | 151.49 | 151.40                                            | 151.45 | 154.61 | 152.45 | 152.32 | 152.59 | 154.20 | 152.10 | 152.46 | 151.52 |        |
| 26                               | 151.61 | 151.50 | 151.43                                            | 151.42 | 154.47 | 152.93 | 152.31 | 152.48 | 154.33 | 152.04 | 152.45 | 151.53 |        |
| 27                               | 151.61 | 151.49 | 151.47                                            | 151.42 | 154.26 | 154.55 | 152.36 | 152.37 | 154.41 | 151.95 | 152.44 | 151.55 |        |
| 28                               | 151.61 | 151.44 | 151.50                                            | 151.42 | 153.88 | 156.01 | 152.54 | 152.32 | 154.39 | 152.04 | 152.39 | 151.52 |        |
| 29                               | 151.60 | 151.44 | 151.46                                            | 151.42 | 153.21 | 156.57 | 152.49 | 152.29 | 154.37 | 152.05 |        | 151.52 |        |
| 30                               | 151.54 | 151.49 | 151.47                                            | 151.43 | 152.67 | 157.17 | 152.76 | 152.26 | 154.35 | 152.45 |        | 151.65 |        |
| 31                               |        | 151.49 |                                                   | 151.48 | 152.34 |        | 153.75 |        | 154.34 | 152.77 |        | 151.86 |        |
| Mean                             | 151.51 | 151.48 | 151.50                                            | 151.44 | 154.06 | 152.90 | 154.51 | 153.46 | 153.00 | 152.46 | 152.46 | 151.79 |        |
| Max                              | 151.61 | 151.59 | 151.77                                            | 151.57 | 155.42 | 157.17 | 158.50 | 155.07 | 154.41 | 154.33 | 153.04 | 152.50 | 158.50 |
| Min                              | 151.43 | 151.42 | 151.40                                            | 151.40 | 151.44 | 151.80 | 152.11 | 152.26 | 151.60 | 151.61 | 152.02 | 151.42 | 151.40 |
| Annual Max Momentary Gage Height | 158.61 |        | m. (MSL.) , at 17.00 Hours, on Oct 5, 2013        |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 150.92 |        | m. (MSL.) , River Bed 150.11 m. (MSL.)            |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 163.17 |        | m. (MSL.) ,                                       |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 163.50 |        | m. (MSL.) , Drainage Area 13638 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 6.88                                                            | 7.68                     | 6.88   | 7.52   | 7.52                 | 19.76   | 213.20  | 103.52  | 23.28                    | 79.56  | 33.94  | 27.02  |          |        |
| 2              | 7.36                                                            | 7.36                     | 6.88   | 7.36   | 7.04                 | 18.00   | 217.20  | 98.44   | 22.62                    | 79.24  | 27.02  | 27.46  |          |        |
| 3              | 7.04                                                            | 7.20                     | 7.52   | 7.04   | 11.40                | 17.40   | 211.60  | 93.32   | 21.74                    | 77.00  | 28.78  | 28.56  |          |        |
| 4              | 7.52                                                            | 7.52                     | 7.52   | 6.72   | 39.14                | 16.80   | 228.80  | 90.76   | 20.20                    | 73.80  | 29.00  | 29.00  |          |        |
| 5              | 8.80                                                            | 7.68                     | 7.04   | 6.72   | 56.96                | 16.00   | 234.00  | 86.92   | 20.20                    | 72.84  | 32.64  | 27.24  |          |        |
| 6              | 8.80                                                            | 7.36                     | 7.68   | 6.72   | 65.92                | 16.20   | 224.40  | 85.64   | 20.42                    | 66.20  | 38.88  | 22.40  |          |        |
| 7              | 7.52                                                            | 7.20                     | 8.80   | 6.72   | 79.88                | 15.80   | 225.60  | 85.64   | 21.08                    | 46.16  | 35.76  | 12.80  |          |        |
| 8              | 7.68                                                            | 7.36                     | 10.00  | 6.72   | 95.88                | 16.00   | 215.60  | 85.00   | 21.74                    | 29.00  | 30.82  | 12.20  |          |        |
| 9              | 7.52                                                            | 7.52                     | 8.40   | 6.72   | 98.44                | 16.00   | 216.00  | 85.00   | 23.28                    | 13.20  | 27.24  | 12.00  |          |        |
| 10             | 7.84                                                            | 8.00                     | 8.60   | 6.88   | 106.04               | 15.20   | 173.62  | 85.00   | 25.92                    | 10.20  | 28.12  | 10.80  |          |        |
| 11             | 7.84                                                            | 8.60                     | 10.60  | 6.88   | 112.52               | 14.00   | 121.52  | 81.48   | 23.28                    | 11.20  | 29.00  | 12.40  |          |        |
| 12             | 7.68                                                            | 9.20                     | 13.40  | 7.36   | 116.12               | 18.22   | 93.32   | 69.96   | 11.40                    | 12.20  | 23.28  | 12.60  |          |        |
| 13             | 7.36                                                            | 9.80                     | 12.60  | 7.20   | 113.24               | 20.64   | 52.40   | 61.44   | 10.00                    | 13.00  | 20.64  | 12.80  |          |        |
| 14             | 7.04                                                            | 9.80                     | 10.40  | 7.04   | 105.32               | 29.78   | 43.30   | 57.80   | 12.60                    | 14.40  | 24.16  | 11.80  |          |        |
| 15             | 7.04                                                            | 7.36                     | 8.60   | 7.84   | 99.72                | 44.08   | 38.36   | 50.32   | 18.88                    | 15.40  | 38.36  | 10.60  |          |        |
| 16             | 7.36                                                            | 7.52                     | 8.80   | 9.40   | 94.92                | 46.68   | 31.60   | 34.46   | 27.46                    | 15.60  | 43.04  | 11.20  |          |        |
| 17             | 8.20                                                            | 8.80                     | 7.84   | 7.52   | 86.60                | 45.38   | 26.58   | 33.94   | 34.46                    | 14.40  | 38.62  | 11.60  |          |        |
| 18             | 8.20                                                            | 7.36                     | 7.52   | 7.20   | 79.24                | 44.34   | 20.42   | 32.64   | 44.34                    | 16.00  | 29.26  | 11.80  |          |        |
| 19             | 8.20                                                            | 6.72                     | 7.52   | 7.04   | 77.00                | 39.92   | 21.08   | 32.90   | 55.00                    | 18.66  | 19.98  | 12.40  |          |        |
| 20             | 8.40                                                            | 7.04                     | 7.04   | 6.72   | 76.04                | 38.36   | 27.24   | 34.20   | 57.24                    | 19.76  | 19.98  | 12.40  |          |        |
| 21             | 9.00                                                            | 7.52                     | 6.72   | 6.56   | 77.32                | 37.84   | 26.58   | 33.68   | 63.40                    | 18.88  | 18.44  | 10.60  |          |        |
| 22             | 9.60                                                            | 6.72                     | 6.72   | 6.40   | 81.80                | 37.84   | 27.90   | 32.64   | 69.64                    | 20.64  | 19.10  | 6.72   |          |        |
| 23             | 8.00                                                            | 7.04                     | 6.72   | 6.72   | 86.28                | 37.32   | 25.92   | 31.34   | 73.48                    | 20.20  | 23.06  | 7.04   |          |        |
| 24             | 7.36                                                            | 7.84                     | 6.56   | 6.88   | 88.20                | 34.20   | 25.26   | 31.60   | 74.44                    | 18.66  | 27.46  | 7.84   |          |        |
| 25             | 9.20                                                            | 7.84                     | 6.40   | 7.20   | 88.52                | 27.90   | 25.04   | 31.34   | 75.40                    | 20.20  | 28.12  | 8.40   |          |        |
| 26             | 10.20                                                           | 8.00                     | 6.88   | 6.72   | 84.04                | 40.18   | 24.82   | 28.56   | 79.56                    | 18.88  | 27.90  | 8.60   |          |        |
| 27             | 10.20                                                           | 7.84                     | 7.52   | 6.72   | 77.32                | 86.60   | 25.92   | 26.14   | 82.12                    | 17.00  | 27.68  | 9.00   |          |        |
| 28             | 10.20                                                           | 7.04                     | 8.00   | 6.72   | 65.64                | 137.36  | 30.04   | 25.04   | 81.48                    | 18.88  | 26.58  | 8.40   |          |        |
| 29             | 10.00                                                           | 7.04                     | 7.36   | 6.72   | 47.46                | 157.66  | 28.78   | 24.38   | 80.84                    | 19.10  |        | 8.40   |          |        |
| 30             | 8.80                                                            | 7.84                     | 7.52   | 6.88   | 33.42                | 180.80  | 35.76   | 23.72   | 80.20                    | 27.90  |        | 11.00  |          |        |
| 31             |                                                                 | 7.84                     |        | 7.68   | 25.48                |         | 62.00   |         | 79.88                    | 36.02  |        | 15.20  |          |        |
| Total          | 246.84                                                          | 239.64                   | 244.04 | 218.52 | 2284.42              | 1286.26 | 2973.86 | 1676.82 | 1355.58                  | 934.18 | 796.86 | 430.28 | 12687.30 | CMSDAY |
| Mean           | 8.23                                                            | 7.73                     | 8.13   | 7.05   | 73.69                | 42.88   | 95.93   | 55.89   | 43.73                    | 30.13  | 28.46  | 13.88  | 34.76    | CMS    |
| Max            | 10.20                                                           | 9.80                     | 13.40  | 9.40   | 116.12               | 180.80  | 234.00  | 103.52  | 82.12                    | 79.56  | 43.04  | 29.00  | 234.00   | CMS    |
| Min            | 6.88                                                            | 6.72                     | 6.40   | 6.40   | 7.04                 | 14.00   | 20.42   | 23.72   | 10.00                    | 10.20  | 18.44  | 6.72   | 6.40     | CMS    |
| Runoff         | 21.33                                                           | 20.71                    | 21.09  | 18.88  | 197.37               | 111.13  | 256.94  | 144.88  | 117.12                   | 80.71  | 68.85  | 37.18  | 1096.18  | MCM    |
| Momentary Peak | 238.40 CMS, at 158.61 m. (MSL.), at 17.00 Hours, on Oct 5, 2013 |                          |        |        |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 2.55                                                            | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 17.481  | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**

## CHI RIVER BASIN

### Chi River at Ban Khai , Chaiyaphum (E.23)

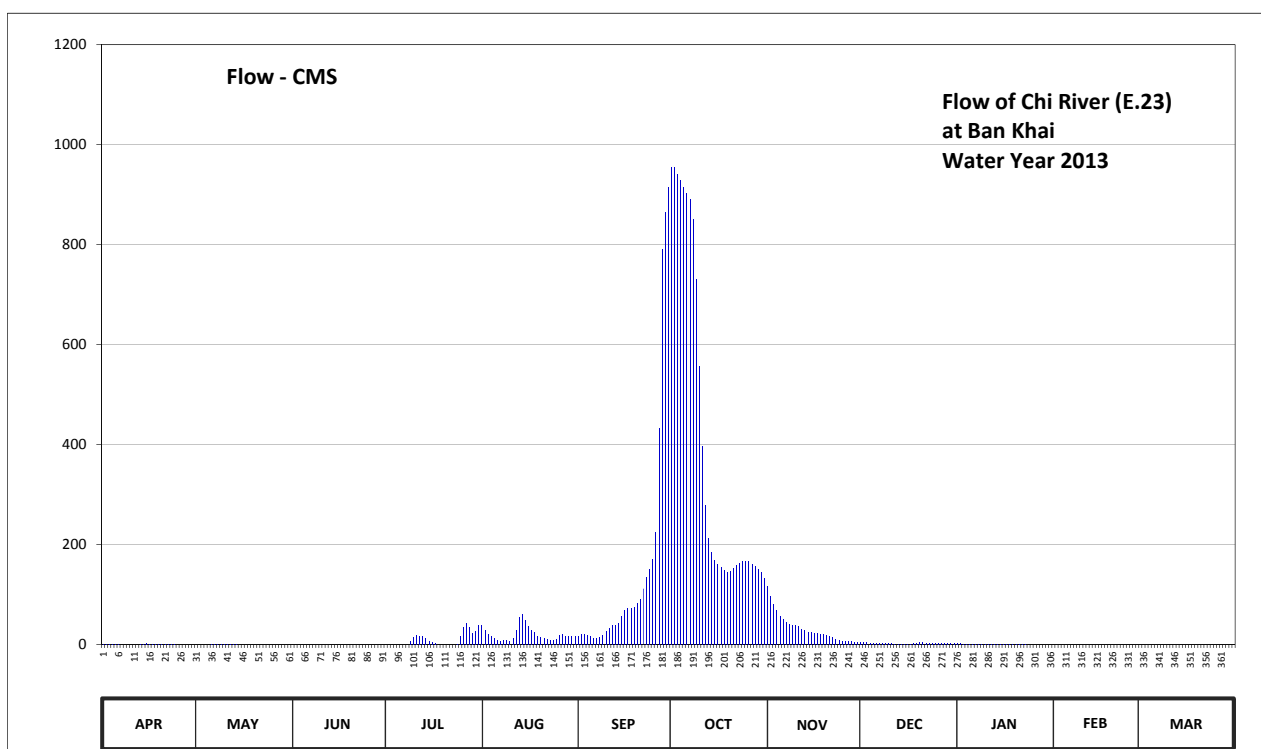
Lat 15 - 40 - 49 N      Long 102 - 00 - 46 E

**Location :** on left bank at the bridge on highway.

|                                         |                                                                                                                                                                     |                      |                                     |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------|
|                                         | <b>Ban Khai</b>                                                                                                                                                     | <b>Amphoe Mueang</b> | <b>Changwat Chaiyaphum</b>          |
| <b>Drainage Area</b>                    | 6,282                                                                                                                                                               | sq.km.               |                                     |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                                                                              |                      |                                     |
| <b>Zero Gage at Bottom</b>              | +176.200                                                                                                                                                            | m. (MSL.)            |                                     |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                                                                                          |                      |                                     |
| <b>Location BM</b>                      | On left bank about 20 meters from the automatic gage building.                                                                                                      |                      | <b>Elevation</b> +185.546 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                           |                      |                                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                      |                      |                                     |
| <b>Period of Available Gage Records</b> | 1954 - 1956 , 1967 to date                                                                                                                                          |                      |                                     |
| <b>Rating Operation</b>                 |                                                                                                                                                                     |                      |                                     |
| <b>Period of Rating</b>                 | 1968 - 1974 , 1982 to date                                                                                                                                          |                      |                                     |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                   |                      |                                     |
| <b>Rated by Current Meter</b>           | 1968 - 1974 , 1982 to date                                                                                                                                          |                      |                                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                                                                                      |                      |                                     |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +185.090 m.(MSL.), records are channel flow only.                                                                                 |                      |                                     |
| <b>General Description</b>              | Records good. The local weir situated about 50 meters downstream from the gage site.<br>Stage-discharge relation defined by 27 discharge measurements made in 2013. |                      |                                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 179.64 | 179.56 | 179.51                                           | 179.47 | 181.27 | 180.50 | 185.72 | 183.31 | 179.89 | 179.75 | 179.42 | 178.73 |        |
| 2                                | 179.61 | 179.53 | 179.51                                           | 179.48 | 180.91 | 180.61 | 185.72 | 182.92 | 179.87 | 179.76 | 179.41 | 178.94 |        |
| 3                                | 179.61 | 179.50 | 179.41                                           | 179.42 | 180.61 | 180.64 | 185.71 | 182.50 | 179.85 | 179.74 | 179.39 | 178.92 |        |
| 4                                | 179.63 | 179.53 | 179.41                                           | 179.43 | 180.41 | 180.55 | 185.70 | 182.17 | 179.84 | 179.71 | 179.38 | 178.88 |        |
| 5                                | 179.64 | 179.59 | 179.40                                           | 179.42 | 180.26 | 180.41 | 185.69 | 181.87 | 179.83 | 179.71 | 179.38 | 178.78 |        |
| 6                                | 179.62 | 179.68 | 179.39                                           | 179.37 | 180.13 | 180.27 | 185.68 | 181.65 | 179.83 | 179.70 | 179.37 | 178.68 |        |
| 7                                | 179.60 | 179.70 | 179.40                                           | 179.36 | 179.98 | 180.28 | 185.67 | 181.48 | 179.81 | 179.69 | 179.34 | 178.58 |        |
| 8                                | 179.57 | 179.68 | 179.39                                           | 179.56 | 180.06 | 180.32 | 185.64 | 181.36 | 179.80 | 179.68 | 179.28 | 178.57 |        |
| 9                                | 179.53 | 179.66 | 179.42                                           | 180.02 | 180.06 | 180.54 | 185.53 | 181.29 | 179.79 | 179.66 | 179.28 | 178.73 |        |
| 10                               | 179.48 | 179.66 | 179.53                                           | 180.34 | 180.01 | 180.85 | 185.33 | 181.23 | 179.77 | 179.65 | 179.25 | 179.03 |        |
| 11                               | 179.44 | 179.65 | 179.53                                           | 180.56 | 180.28 | 181.07 | 185.11 | 181.18 | 179.75 | 179.64 | 179.21 | 179.18 |        |
| 12                               | 179.45 | 179.64 | 179.55                                           | 180.42 | 180.91 | 181.23 | 184.87 | 181.02 | 179.73 | 179.65 | 179.16 | 178.98 |        |
| 13                               | 179.63 | 179.63 | 179.49                                           | 180.41 | 181.76 | 181.25 | 184.64 | 180.90 | 179.72 | 179.64 | 179.11 | 178.92 |        |
| 14                               | 179.74 | 179.62 | 179.46                                           | 180.24 | 181.94 | 181.41 | 184.42 | 180.78 | 179.71 | 179.64 | 179.05 | 178.90 |        |
| 15                               | 179.76 | 179.60 | 179.50                                           | 180.03 | 181.60 | 181.85 | 184.24 | 180.73 | 179.70 | 179.64 | 179.11 | 178.88 |        |
| 16                               | 179.74 | 179.58 | 179.53                                           | 179.92 | 181.20 | 182.17 | 184.11 | 180.70 | 179.72 | 179.65 | 179.25 | 178.86 |        |
| 17                               | 179.74 | 179.57 | 179.56                                           | 179.77 | 180.95 | 182.30 | 184.01 | 180.67 | 179.74 | 179.66 | 179.41 | 178.82 |        |
| 18                               | 179.74 | 179.55 | 179.49                                           | 179.56 | 180.78 | 182.28 | 183.91 | 180.64 | 179.81 | 179.65 | 179.46 | 178.64 |        |
| 19                               | 179.73 | 179.53 | 179.27                                           | 179.53 | 180.50 | 182.38 | 183.82 | 180.60 | 179.84 | 179.65 | 179.48 | 178.49 |        |
| 20                               | 179.68 | 179.51 | 179.13                                           | 179.45 | 180.36 | 182.57 | 183.86 | 180.56 | 179.85 | 179.64 | 179.29 | 178.53 |        |
| 21                               | 179.70 | 179.50 | 179.31                                           | 179.36 | 180.26 | 182.77 | 183.97 | 180.46 | 179.85 | 179.63 | 179.05 | 178.98 |        |
| 22                               | 179.68 | 179.48 | 179.30                                           | 179.23 | 180.17 | 183.21 | 184.07 | 180.37 | 179.82 | 179.62 | 178.81 | 179.09 |        |
| 23                               | 179.66 | 179.48 | 179.33                                           | 179.26 | 180.10 | 183.65 | 184.14 | 180.18 | 179.80 | 179.61 | 178.75 | 179.09 |        |
| 24                               | 179.64 | 179.50 | 179.47                                           | 179.67 | 180.09 | 183.94 | 184.20 | 180.09 | 179.78 | 179.59 | 178.71 | 179.05 |        |
| 25                               | 179.60 | 179.51 | 179.50                                           | 180.43 | 180.22 | 184.30 | 184.23 | 180.02 | 179.76 | 179.58 | 178.69 | 179.08 |        |
| 26                               | 179.59 | 179.51 | 179.50                                           | 181.11 | 180.57 | 184.70 | 184.20 | 179.97 | 179.76 | 179.57 | 178.64 | 179.06 |        |
| 27                               | 179.58 | 179.50 | 179.48                                           | 181.41 | 180.59 | 185.16 | 184.13 | 179.96 | 179.78 | 179.57 | 178.59 | 178.97 |        |
| 28                               | 179.58 | 179.49 | 179.48                                           | 181.16 | 180.50 | 185.59 | 184.06 | 179.95 | 179.77 | 179.54 | 178.58 | 178.84 |        |
| 29                               | 179.58 | 179.48 | 179.49                                           | 180.72 | 180.44 | 185.65 | 183.96 | 179.93 | 179.77 | 179.50 |        | 178.58 |        |
| 30                               | 179.57 | 179.48 | 179.45                                           | 180.84 | 180.44 | 185.69 | 183.82 | 179.90 | 179.76 | 179.46 |        | 178.44 |        |
| 31                               |        | 179.48 |                                                  | 181.29 | 180.45 |        | 183.61 |        | 179.75 | 179.43 |        | 178.41 |        |
| Mean                             | 179.63 | 179.56 | 179.44                                           | 180.01 | 180.57 | 182.27 | 184.64 | 180.95 | 179.79 | 179.63 | 179.14 | 178.83 |        |
| Max                              | 179.76 | 179.70 | 179.56                                           | 181.41 | 181.94 | 185.69 | 185.72 | 183.31 | 179.89 | 179.76 | 179.48 | 179.18 | 185.72 |
| Min                              | 179.44 | 179.48 | 179.13                                           | 179.23 | 179.98 | 180.27 | 183.61 | 179.90 | 179.70 | 179.43 | 178.58 | 178.41 | 178.41 |
| Annual Max Momentary Gage Height | 185.72 |        | m. (MSL.) , at 03.00 Hours, on Oct 1, 2013       |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 176.20 |        | m. (MSL.) , River Bed 175.29 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 185.08 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 185.44 |        | m. (MSL.) , Drainage Area 6282 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun  | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual          |
|----------------|--------|----------------------------------------------------------|------|----------------------|--------|---------|--------------------------|--------|-------|-------|------|------|-----------------|
| 1              | 0.40   | 0.00                                                     | 0.00 | 0.00                 | 39.10  | 18.00   | 954.40                   | 116.50 | 4.80  | 2.00  | 0.00 | 0.00 |                 |
| 2              | 0.10   | 0.00                                                     | 0.00 | 0.00                 | 28.66  | 20.86   | 954.40                   | 97.64  | 4.40  | 2.20  | 0.00 | 0.00 |                 |
| 3              | 0.10   | 0.00                                                     | 0.00 | 0.00                 | 20.86  | 21.64   | 941.21                   | 80.00  | 4.00  | 1.80  | 0.00 | 0.00 |                 |
| 4              | 0.30   | 0.00                                                     | 0.00 | 0.00                 | 16.02  | 19.30   | 928.00                   | 68.12  | 3.80  | 1.20  | 0.00 | 0.00 |                 |
| 5              | 0.40   | 0.00                                                     | 0.00 | 0.00                 | 12.72  | 16.02   | 915.21                   | 57.84  | 3.60  | 1.20  | 0.00 | 0.00 |                 |
| 6              | 0.20   | 0.80                                                     | 0.00 | 0.00                 | 9.86   | 12.94   | 902.39                   | 50.80  | 3.60  | 1.00  | 0.00 | 0.00 |                 |
| 7              | 0.00   | 1.00                                                     | 0.00 | 0.00                 | 6.60   | 13.16   | 889.60                   | 45.40  | 3.20  | 0.90  | 0.00 | 0.00 |                 |
| 8              | 0.00   | 0.80                                                     | 0.00 | 0.00                 | 8.32   | 14.04   | 851.20                   | 41.80  | 3.00  | 0.80  | 0.00 | 0.00 |                 |
| 9              | 0.00   | 0.60                                                     | 0.00 | 7.44                 | 8.32   | 19.04   | 730.00                   | 39.70  | 2.80  | 0.60  | 0.00 | 0.00 |                 |
| 10             | 0.00   | 0.60                                                     | 0.00 | 14.48                | 7.22   | 27.10   | 555.90                   | 37.90  | 2.40  | 0.50  | 0.00 | 0.00 |                 |
| 11             | 0.00   | 0.50                                                     | 0.00 | 19.56                | 13.16  | 33.10   | 397.00                   | 36.40  | 2.00  | 0.40  | 0.00 | 0.00 |                 |
| 12             | 0.00   | 0.40                                                     | 0.00 | 16.24                | 28.66  | 37.90   | 279.10                   | 31.60  | 1.60  | 0.50  | 0.00 | 0.00 |                 |
| 13             | 0.30   | 0.30                                                     | 0.00 | 16.02                | 54.32  | 38.50   | 213.20                   | 28.40  | 1.40  | 0.40  | 0.00 | 0.00 |                 |
| 14             | 1.80   | 0.20                                                     | 0.00 | 12.28                | 60.08  | 43.30   | 184.00                   | 25.28  | 1.20  | 0.40  | 0.00 | 0.00 |                 |
| 15             | 2.20   | 0.00                                                     | 0.00 | 7.66                 | 49.20  | 57.20   | 168.40                   | 23.98  | 1.00  | 0.40  | 0.00 | 0.00 |                 |
| 16             | 1.80   | 0.00                                                     | 0.00 | 5.40                 | 37.00  | 68.12   | 160.60                   | 23.20  | 1.40  | 0.50  | 0.00 | 0.00 |                 |
| 17             | 1.80   | 0.00                                                     | 0.00 | 2.40                 | 29.70  | 72.80   | 154.60                   | 22.42  | 1.80  | 0.60  | 0.00 | 0.00 |                 |
| 18             | 1.80   | 0.00                                                     | 0.00 | 0.00                 | 25.28  | 72.08   | 148.96                   | 21.64  | 3.20  | 0.50  | 0.00 | 0.00 |                 |
| 19             | 1.60   | 0.00                                                     | 0.00 | 0.00                 | 18.00  | 75.68   | 143.92                   | 20.60  | 3.80  | 0.50  | 0.00 | 0.00 |                 |
| 20             | 0.80   | 0.00                                                     | 0.00 | 0.00                 | 14.92  | 82.94   | 146.16                   | 19.56  | 4.00  | 0.40  | 0.00 | 0.00 |                 |
| 21             | 1.00   | 0.00                                                     | 0.00 | 0.00                 | 12.72  | 91.34   | 152.32                   | 17.12  | 4.00  | 0.30  | 0.00 | 0.00 |                 |
| 22             | 0.80   | 0.00                                                     | 0.00 | 0.00                 | 10.74  | 111.50  | 158.20                   | 15.14  | 3.40  | 0.20  | 0.00 | 0.00 |                 |
| 23             | 0.60   | 0.00                                                     | 0.00 | 0.00                 | 9.20   | 134.40  | 162.40                   | 10.96  | 3.00  | 0.10  | 0.00 | 0.00 |                 |
| 24             | 0.40   | 0.00                                                     | 0.00 | 0.70                 | 8.98   | 150.64  | 166.00                   | 8.98   | 2.60  | 0.00  | 0.00 | 0.00 |                 |
| 25             | 0.00   | 0.00                                                     | 0.00 | 16.46                | 11.84  | 172.00  | 167.80                   | 7.44   | 2.20  | 0.00  | 0.00 | 0.00 |                 |
| 26             | 0.00   | 0.00                                                     | 0.00 | 34.30                | 19.82  | 224.00  | 166.00                   | 6.40   | 2.20  | 0.00  | 0.00 | 0.00 |                 |
| 27             | 0.00   | 0.00                                                     | 0.00 | 43.30                | 20.34  | 432.00  | 161.80                   | 6.20   | 2.60  | 0.00  | 0.00 | 0.00 |                 |
| 28             | 0.00   | 0.00                                                     | 0.00 | 35.80                | 18.00  | 789.99  | 157.60                   | 6.00   | 2.40  | 0.00  | 0.00 | 0.00 |                 |
| 29             | 0.00   | 0.00                                                     | 0.00 | 23.72                | 16.68  | 863.99  | 151.76                   | 5.60   | 2.40  | 0.00  | 0.00 | 0.00 |                 |
| 30             | 0.00   | 0.00                                                     | 0.00 | 26.84                | 16.68  | 915.21  | 143.92                   | 5.00   | 2.20  | 0.00  | 0.00 | 0.00 |                 |
| 31             |        | 0.00                                                     |      | 39.70                | 16.90  |         | 132.16                   |        | 2.00  | 0.00  |      | 0.00 |                 |
| Total          | 16.40  | 5.20                                                     | 0.00 | 322.30               | 649.90 | 4648.79 | 12338.21                 | 977.62 | 86.00 | 17.40 | 0.00 | 0.00 | 19061.82 CMSDAY |
| Mean           | 0.55   | 0.17                                                     | 0.00 | 10.40                | 20.96  | 154.96  | 398.01                   | 32.59  | 2.77  | 0.56  | 0.00 | 0.00 | 52.22 CMS       |
| Max            | 2.20   | 1.00                                                     | 0.00 | 43.30                | 60.08  | 915.21  | 954.40                   | 116.50 | 4.80  | 2.20  | 0.00 | 0.00 | 954.40 CMS      |
| Min            | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 6.60   | 12.94   | 132.16                   | 5.00   | 1.00  | 0.00  | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 1.42   | 0.45                                                     | 0.00 | 27.85                | 56.15  | 401.66  | 1066.02                  | 84.47  | 7.43  | 1.50  | 0.00 | 0.00 | 1646.94 MCM     |
| Momentary Peak | 954.40 | CMS, at 185.72 m. (MSL.), at 03.00 Hours, on Oct 1, 2013 |      |                      |        |         |                          |        |       |       |      |      |                 |
| Runoff Yield   | 8.31   | Liters/Second/Square KM.                                 |      | Momentary Peak Yield |        | 151.926 | Liters/Second/Square KM. |        |       |       |      |      |                 |

## WATER YEAR : 2013

## CHI RIVER BASIN

**Lam Nam Phong at Ban Pha Nok Khao , Loei (E.29)**

Lat 16 - 50 - 44 N    Long 101 - 56 - 54 E

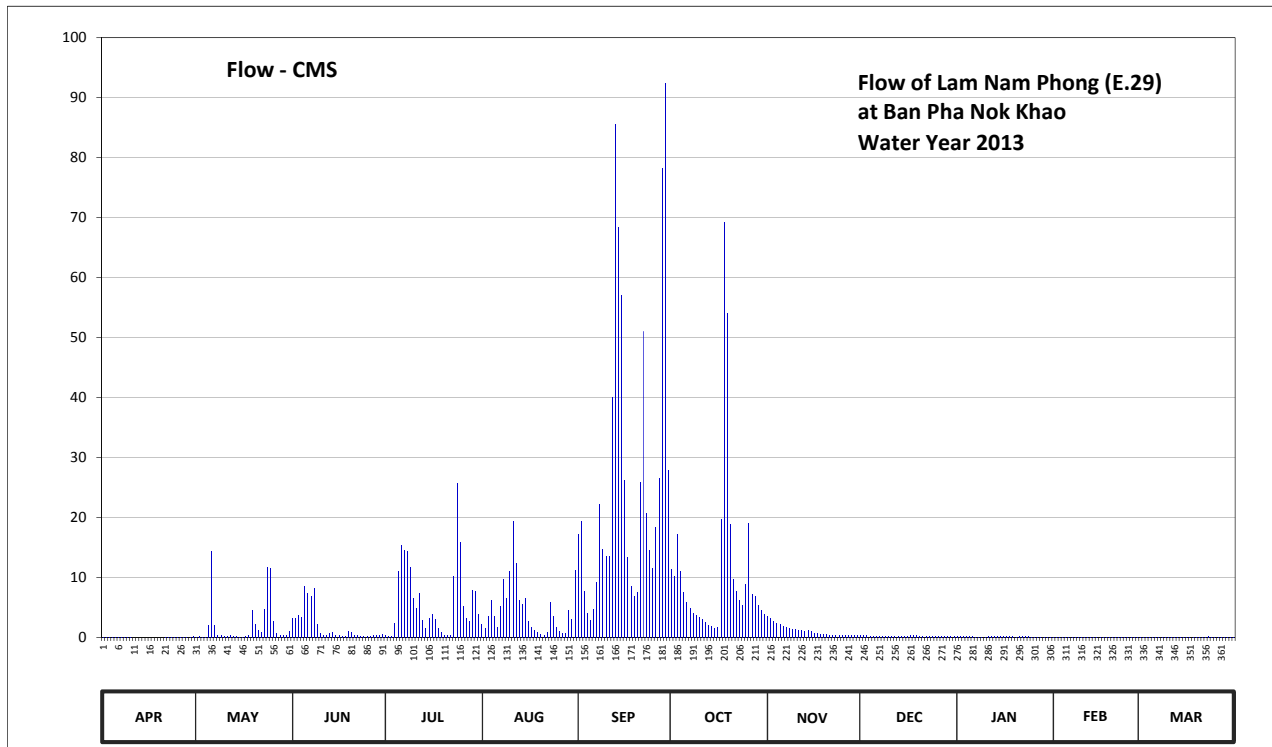
**Location :** on left bank in the vicinity of the forestry office about 400 meters from the bridge on highway.

|                                         |                                                                             |                  |               |             |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|------------------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Pha Nok Khao     | <b>Amphoe</b> | Phu Kradung | <b>Changwat</b>  | Loei               |
| <b>Drainage Area</b>                    | 949                                                                         | sq.km.           |               |             |                  |                    |
| <b>Type of Gage</b>                     | Water                                                                       | - stage recorder |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +225.000                                                                    | m. (MSL.)        |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                       | H.D.             |               |             |                  |                    |
| <b>Location BM</b>                      | In front of the automatic gage buiding.                                     |                  |               |             | <b>Elevation</b> | +236.945 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |                  |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |                  |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1956 - 1958 , 1967 to date                                                  |                  |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                  |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1978 to date                                                                |                  |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                  |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1978 to date                                                                |                  |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                  |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                  |               |             |                  |                    |
| <b>General Description</b>              | Records good. Flow effected by Ubonrat Dam.                                 |                  |               |             |                  |                    |
|                                         | Stage-discharge relation defined by 71 discharge measurements made in 2013. |                  |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 225.73 | 225.88 | 227.36                                          | 226.24 | 227.05 | 230.37 | 229.31 | 227.42 | 226.26 | 226.06 | 225.90 | 225.83 |        |
| 2                                | 225.72 | 226.08 | 227.33                                          | 226.10 | 226.84 | 230.71 | 229.10 | 227.36 | 226.24 | 226.05 | 225.89 | 225.83 |        |
| 3                                | 225.72 | 225.93 | 227.49                                          | 226.03 | 227.45 | 228.47 | 230.37 | 227.23 | 226.22 | 226.03 | 225.89 | 225.84 |        |
| 4                                | 225.70 | 225.90 | 227.40                                          | 227.11 | 228.13 | 227.57 | 229.27 | 227.13 | 226.20 | 226.02 | 225.88 | 225.85 |        |
| 5                                | 225.70 | 227.01 | 228.69                                          | 229.27 | 227.42 | 227.25 | 228.45 | 227.05 | 226.19 | 226.01 | 225.90 | 225.85 |        |
| 6                                | 225.70 | 229.88 | 228.42                                          | 230.08 | 226.93 | 227.72 | 228.03 | 226.95 | 226.18 | 225.95 | 225.89 | 225.85 |        |
| 7                                | 225.70 | 227.04 | 228.28                                          | 229.93 | 227.87 | 228.87 | 227.77 | 226.92 | 226.17 | 225.90 | 225.88 | 225.84 |        |
| 8                                | 225.70 | 226.46 | 228.63                                          | 229.90 | 228.97 | 231.11 | 227.56 | 226.87 | 226.16 | 225.89 | 225.87 | 225.84 |        |
| 9                                | 225.70 | 226.25 | 227.07                                          | 229.39 | 228.18 | 229.94 | 227.50 | 226.83 | 226.14 | 225.81 | 225.86 | 225.84 |        |
| 10                               | 225.69 | 226.15 | 226.56                                          | 228.20 | 229.25 | 229.75 | 227.38 | 226.79 | 226.11 | 225.91 | 225.87 | 225.83 |        |
| 11                               | 225.60 | 226.07 | 226.42                                          | 227.79 | 230.69 | 229.73 | 227.30 | 226.75 | 226.10 | 226.02 | 225.87 | 225.84 |        |
| 12                               | 225.60 | 226.25 | 226.43                                          | 228.40 | 229.51 | 232.92 | 227.16 | 226.72 | 226.10 | 225.97 | 225.87 | 225.86 |        |
| 13                               | 225.60 | 226.10 | 226.61                                          | 227.24 | 228.13 | 235.73 | 227.02 | 226.69 | 226.09 | 225.97 | 225.86 | 225.86 |        |
| 14                               | 225.60 | 226.00 | 226.64                                          | 226.88 | 227.95 | 234.85 | 226.95 | 226.73 | 226.09 | 225.95 | 225.85 | 225.84 |        |
| 15                               | 225.60 | 225.91 | 226.41                                          | 227.33 | 228.18 | 234.19 | 226.88 | 226.67 | 226.11 | 225.96 | 225.85 | 225.83 |        |
| 16                               | 225.60 | 225.88 | 226.25                                          | 227.54 | 227.21 | 231.63 | 226.89 | 226.61 | 226.15 | 225.95 | 225.86 | 225.83 |        |
| 17                               | 225.60 | 225.94 | 226.14                                          | 227.29 | 226.92 | 229.70 | 230.76 | 226.56 | 226.32 | 225.94 | 225.88 | 225.83 |        |
| 18                               | 225.60 | 226.25 | 226.08                                          | 226.86 | 226.77 | 228.69 | 234.90 | 226.54 | 226.41 | 225.94 | 225.89 | 225.83 |        |
| 19                               | 225.60 | 227.70 | 226.71                                          | 226.64 | 226.63 | 228.29 | 234.00 | 226.51 | 226.30 | 225.94 | 225.88 | 225.83 |        |
| 20                               | 225.61 | 227.05 | 226.65                                          | 226.47 | 226.52 | 228.44 | 230.64 | 226.48 | 226.18 | 225.93 | 225.88 | 225.83 |        |
| 21                               | 225.70 | 226.76 | 226.29                                          | 226.38 | 226.46 | 231.59 | 229.00 | 226.46 | 226.15 | 225.94 | 225.87 | 225.93 |        |
| 22                               | 225.75 | 226.66 | 226.23                                          | 226.35 | 226.66 | 233.79 | 228.47 | 226.44 | 226.15 | 225.94 | 225.86 | 225.93 |        |
| 23                               | 225.75 | 227.73 | 226.14                                          | 229.09 | 228.02 | 230.89 | 228.12 | 226.43 | 226.15 | 225.94 | 225.86 | 225.94 |        |
| 24                               | 225.74 | 229.38 | 226.08                                          | 231.57 | 227.42 | 229.92 | 227.91 | 226.41 | 226.11 | 225.94 | 225.85 | 225.87 |        |
| 25                               | 225.74 | 229.35 | 226.04                                          | 230.14 | 226.93 | 229.35 | 228.77 | 226.38 | 226.10 | 225.93 | 225.84 | 225.84 |        |
| 26                               | 225.84 | 227.21 | 226.04                                          | 227.85 | 226.71 | 230.57 | 230.65 | 226.36 | 226.11 | 225.92 | 225.84 | 225.83 |        |
| 27                               | 225.92 | 226.60 | 226.21                                          | 227.36 | 226.61 | 231.66 | 228.37 | 226.35 | 226.10 | 225.91 | 225.84 | 225.84 |        |
| 28                               | 225.87 | 226.36 | 226.47                                          | 227.18 | 226.59 | 235.36 | 228.26 | 226.34 | 226.09 | 225.90 | 225.84 | 225.84 |        |
| 29                               | 225.87 | 226.24 | 226.41                                          | 228.53 | 227.71 | 236.06 | 227.92 | 226.31 | 226.07 | 225.90 |        | 225.83 |        |
| 30                               | 226.02 | 226.27 | 226.49                                          | 228.47 | 227.32 | 231.79 | 227.71 | 226.29 | 226.05 | 225.89 |        | 225.82 |        |
| 31                               |        | 226.67 |                                                 | 227.53 | 229.29 |        | 227.54 |        | 226.07 | 225.89 |        | 225.80 |        |
| Mean                             | 225.71 | 226.74 | 226.80                                          | 227.91 | 227.62 | 230.90 | 228.71 | 226.69 | 226.16 | 225.95 | 225.87 | 225.85 |        |
| Max                              | 226.02 | 229.88 | 228.69                                          | 231.57 | 230.69 | 236.06 | 234.90 | 227.42 | 226.41 | 226.06 | 225.90 | 225.94 | 236.06 |
| Min                              | 225.60 | 225.88 | 226.04                                          | 226.03 | 226.46 | 227.25 | 226.88 | 226.29 | 226.05 | 225.81 | 225.84 | 225.80 | 225.60 |
| Annual Max Momentary Gage Height | 236.68 |        | m. (MSL.) , at 06.00 Hours, on Sep 29, 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 225.00 |        | m. (MSL.) , River Bed 225.79 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 237.89 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 238.00 |        | m. (MSL.) , Drainage Area 949 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec  | Jan  | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|-------|------|------|------|------|----------------|
| 1              | 0.06                                                             | 0.14                     | 3.30  | 0.34                 | 2.18   | 17.22   | 11.35                    | 3.51  | 0.36 | 0.24 | 0.15 | 0.11 |                |
| 2              | 0.06                                                             | 0.25                     | 3.19  | 0.26                 | 1.52   | 19.47   | 10.30                    | 3.30  | 0.34 | 0.23 | 0.14 | 0.11 |                |
| 3              | 0.06                                                             | 0.16                     | 3.76  | 0.22                 | 3.62   | 7.68    | 17.22                    | 2.83  | 0.33 | 0.22 | 0.14 | 0.12 |                |
| 4              | 0.05                                                             | 0.15                     | 3.44  | 2.40                 | 6.32   | 4.08    | 11.15                    | 2.47  | 0.32 | 0.21 | 0.14 | 0.13 |                |
| 5              | 0.05                                                             | 2.04                     | 8.56  | 11.15                | 3.51   | 2.90    | 7.60                     | 2.18  | 0.31 | 0.21 | 0.15 | 0.13 |                |
| 6              | 0.05                                                             | 14.35                    | 7.48  | 15.48                | 1.79   | 4.68    | 5.92                     | 1.85  | 0.31 | 0.17 | 0.14 | 0.13 |                |
| 7              | 0.05                                                             | 2.14                     | 6.92  | 14.62                | 5.28   | 9.28    | 4.88                     | 1.76  | 0.30 | 0.15 | 0.14 | 0.12 |                |
| 8              | 0.05                                                             | 0.48                     | 8.32  | 14.46                | 9.68   | 22.27   | 4.04                     | 1.61  | 0.30 | 0.14 | 0.13 | 0.12 |                |
| 9              | 0.05                                                             | 0.35                     | 2.25  | 11.75                | 6.52   | 14.68   | 3.80                     | 1.49  | 0.28 | 0.10 | 0.13 | 0.12 |                |
| 10             | 0.04                                                             | 0.29                     | 0.68  | 6.60                 | 11.05  | 13.65   | 3.37                     | 1.37  | 0.27 | 0.16 | 0.13 | 0.11 |                |
| 11             | 0.00                                                             | 0.24                     | 0.45  | 4.96                 | 19.33  | 13.54   | 3.08                     | 1.25  | 0.26 | 0.21 | 0.13 | 0.12 |                |
| 12             | 0.00                                                             | 0.35                     | 0.46  | 7.40                 | 12.35  | 40.04   | 2.58                     | 1.16  | 0.26 | 0.19 | 0.13 | 0.13 |                |
| 13             | 0.00                                                             | 0.26                     | 0.83  | 2.86                 | 6.32   | 85.60   | 2.07                     | 1.07  | 0.25 | 0.19 | 0.13 | 0.13 |                |
| 14             | 0.00                                                             | 0.20                     | 0.92  | 1.64                 | 5.60   | 68.30   | 1.85                     | 1.19  | 0.25 | 0.17 | 0.13 | 0.12 |                |
| 15             | 0.00                                                             | 0.16                     | 0.45  | 3.19                 | 6.52   | 57.04   | 1.64                     | 1.01  | 0.27 | 0.18 | 0.13 | 0.11 |                |
| 16             | 0.00                                                             | 0.14                     | 0.35  | 3.96                 | 2.76   | 26.30   | 1.67                     | 0.83  | 0.29 | 0.17 | 0.13 | 0.11 |                |
| 17             | 0.00                                                             | 0.17                     | 0.28  | 3.04                 | 1.76   | 13.38   | 19.82                    | 0.68  | 0.39 | 0.17 | 0.14 | 0.11 |                |
| 18             | 0.00                                                             | 0.35                     | 0.25  | 1.58                 | 1.31   | 8.56    | 69.20                    | 0.62  | 0.45 | 0.17 | 0.14 | 0.11 |                |
| 19             | 0.00                                                             | 4.60                     | 1.13  | 0.92                 | 0.89   | 6.96    | 54.00                    | 0.53  | 0.38 | 0.17 | 0.14 | 0.11 |                |
| 20             | 0.00                                                             | 2.18                     | 0.95  | 0.48                 | 0.56   | 7.56    | 18.98                    | 0.49  | 0.31 | 0.16 | 0.14 | 0.11 |                |
| 21             | 0.05                                                             | 1.28                     | 0.37  | 0.43                 | 0.48   | 25.90   | 9.80                     | 0.48  | 0.29 | 0.17 | 0.13 | 0.16 |                |
| 22             | 0.07                                                             | 0.98                     | 0.34  | 0.41                 | 0.98   | 51.06   | 7.68                     | 0.46  | 0.29 | 0.17 | 0.13 | 0.16 |                |
| 23             | 0.07                                                             | 4.72                     | 0.28  | 10.25                | 5.88   | 20.73   | 6.28                     | 0.46  | 0.29 | 0.17 | 0.13 | 0.17 |                |
| 24             | 0.07                                                             | 11.70                    | 0.25  | 25.70                | 3.51   | 14.57   | 5.44                     | 0.45  | 0.27 | 0.17 | 0.13 | 0.13 |                |
| 25             | 0.07                                                             | 11.55                    | 0.22  | 15.84                | 1.79   | 11.55   | 8.88                     | 0.43  | 0.26 | 0.16 | 0.12 | 0.12 |                |
| 26             | 0.12                                                             | 2.76                     | 0.22  | 5.20                 | 1.13   | 18.49   | 19.05                    | 0.42  | 0.27 | 0.16 | 0.12 | 0.11 |                |
| 27             | 0.16                                                             | 0.80                     | 0.33  | 3.30                 | 0.83   | 26.60   | 7.28                     | 0.41  | 0.26 | 0.16 | 0.12 | 0.12 |                |
| 28             | 0.13                                                             | 0.42                     | 0.48  | 2.65                 | 0.77   | 78.20   | 6.84                     | 0.40  | 0.25 | 0.15 | 0.12 | 0.12 |                |
| 29             | 0.13                                                             | 0.34                     | 0.45  | 7.92                 | 4.64   | 92.32   | 5.48                     | 0.39  | 0.24 | 0.15 |      | 0.11 |                |
| 30             | 0.21                                                             | 0.36                     | 0.49  | 7.68                 | 3.15   | 27.90   | 4.64                     | 0.37  | 0.23 | 0.14 |      | 0.11 |                |
| 31             |                                                                  | 1.01                     |       | 3.92                 | 11.25  |         | 3.96                     |       | 0.24 | 0.14 |      | 0.10 |                |
| Total          | 1.60                                                             | 64.92                    | 57.40 | 190.61               | 143.28 | 810.51  | 339.85                   | 35.47 | 9.12 | 5.35 | 3.73 | 3.77 | 1665.61 CMSDAY |
| Mean           | 0.05                                                             | 2.09                     | 1.91  | 6.15                 | 4.62   | 27.02   | 10.96                    | 1.18  | 0.29 | 0.17 | 0.13 | 0.12 | 4.56 CMS       |
| Max            | 0.21                                                             | 14.35                    | 8.56  | 25.70                | 19.33  | 92.32   | 69.20                    | 3.51  | 0.45 | 0.24 | 0.15 | 0.17 | 92.32 CMS      |
| Min            | 0.00                                                             | 0.14                     | 0.22  | 0.22                 | 0.48   | 2.90    | 1.64                     | 0.37  | 0.23 | 0.10 | 0.12 | 0.10 | 0.00 CMS       |
| Runoff         | 0.14                                                             | 5.61                     | 4.96  | 16.47                | 12.38  | 70.03   | 29.36                    | 3.07  | 0.79 | 0.46 | 0.32 | 0.33 | 143.91 MCM     |
| Momentary Peak | 105.96 CMS, at 236.68 m. (MSL.), at 06.00 Hours, on Sep 29, 2013 |                          |       |                      |        |         |                          |       |      |      |      |      |                |
| Runoff Yield   | 4.81                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 111.654 | Liters/Second/Square KM. |       |      |      |      |      |                |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Nong O , Chaiyaphum (E.32A)**

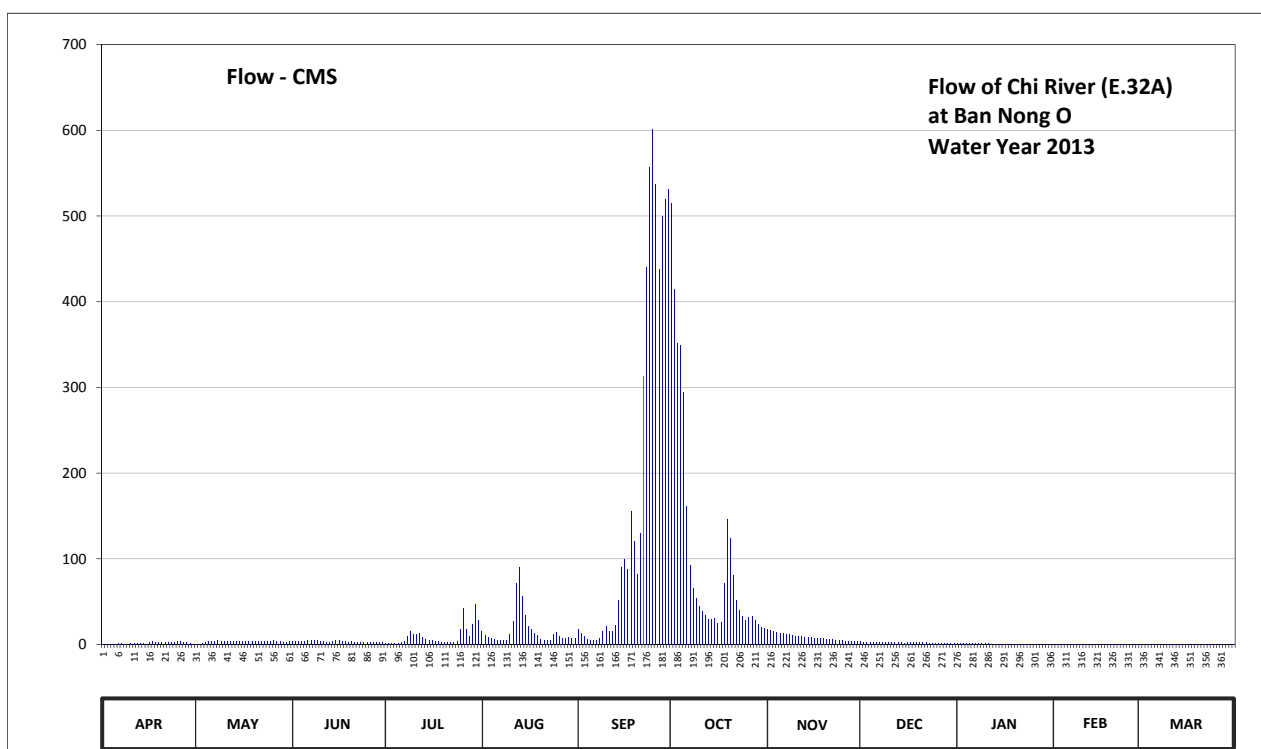
Lat 15 - 54 - 41 N Long 101 - 42 - 42 E

**Location : on right bank about 500 meters north of Ban Nong O from about 600 meters upstream from E.32 gaging station.**

|                                         |                                                                                           |                         |                            |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------------------|----------------------------|
|                                         | <b>Ban Nong O</b>                                                                         | <b>Amphoe Ban Khwao</b> | <b>Changwat Chaiyaphum</b> |
| <b>Drainage Area</b>                    | 2,867 sq.km.                                                                              |                         |                            |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                         |                            |
| <b>Zero Gage at Bottom</b>              | +198.000 m. (MSL.)                                                                        |                         |                            |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |                         |                            |
| <b>Location BM</b>                      | On right bank at the measuring line.                                                      | <b>Elevation</b>        | +211.424 m. (MSL.)         |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                         |                            |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                         |                            |
| <b>Period of Available Gage Records</b> | 1966 to date                                                                              |                         |                            |
| <b>Rating Operation</b>                 |                                                                                           |                         |                            |
| <b>Period of Rating</b>                 | 1968 to date                                                                              |                         |                            |
| <b>Rated by Flot</b>                    | -                                                                                         |                         |                            |
| <b>Rated by Current Meter</b>           | 1968 to date                                                                              |                         |                            |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                         |                            |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                                          |                         |                            |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 29 discharge measurements made in 2013. |                         |                            |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                             | Sep    | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|---------------------------------|--------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 198.59 | 198.75 | 199.28      | 199.02 | 200.38                          | 200.51 | 209.15 | 200.52            | 199.19 | 198.94 | 198.68 | 198.61 |        |
| 2                                | 198.60 | 198.82 | 199.26      | 198.95 | 199.99                          | 200.14 | 208.32 | 200.44            | 199.17 | 198.92 | 198.68 | 198.58 |        |
| 3                                | 198.61 | 198.89 | 199.27      | 198.91 | 199.77                          | 199.87 | 207.75 | 200.37            | 199.15 | 198.93 | 198.68 | 198.56 |        |
| 4                                | 198.61 | 199.10 | 199.27      | 198.93 | 199.73                          | 199.64 | 207.72 | 200.30            | 199.14 | 198.92 | 198.67 | 198.55 |        |
| 5                                | 198.65 | 199.19 | 199.27      | 198.94 | 199.59                          | 199.51 | 207.15 | 200.21            | 199.12 | 198.91 | 198.67 | 198.53 |        |
| 6                                | 198.86 | 199.23 | 199.38      | 199.18 | 199.50                          | 199.43 | 205.20 | 200.15            | 199.11 | 198.89 | 198.67 | 198.51 |        |
| 7                                | 198.86 | 199.31 | 199.41      | 199.26 | 199.42                          | 199.49 | 203.54 | 200.09            | 199.11 | 198.89 | 198.65 | 198.46 |        |
| 8                                | 198.83 | 199.34 | 199.38      | 199.92 | 199.38                          | 199.72 | 202.71 | 200.05            | 199.09 | 198.88 | 198.65 | 198.53 |        |
| 9                                | 198.82 | 199.32 | 199.37      | 200.34 | 199.50                          | 200.36 | 202.23 | 200.00            | 199.08 | 198.85 | 198.66 | 198.52 |        |
| 10                               | 198.94 | 199.30 | 199.30      | 200.13 | 200.06                          | 200.70 | 201.86 | 199.96            | 199.06 | 198.84 | 198.66 | 198.49 |        |
| 11                               | 198.95 | 199.28 | 199.23      | 200.11 | 201.05                          | 200.35 | 201.58 | 199.90            | 199.07 | 198.84 | 198.64 | 198.60 |        |
| 12                               | 198.95 | 199.27 | 199.17      | 200.17 | 202.90                          | 200.38 | 201.37 | 199.86            | 199.06 | 198.83 | 198.63 | 198.56 |        |
| 13                               | 198.93 | 199.27 | 199.17      | 199.85 | 203.46                          | 200.79 | 201.17 | 199.82            | 199.05 | 198.83 | 198.62 | 198.54 |        |
| 14                               | 198.84 | 199.29 | 199.28      | 199.62 | 202.36                          | 202.15 | 201.15 | 199.79            | 199.05 | 198.82 | 198.62 | 198.50 |        |
| 15                               | 198.83 | 199.30 | 199.34      | 199.45 | 201.39                          | 203.47 | 201.20 | 199.78            | 199.03 | 198.74 | 198.63 | 198.47 |        |
| 16                               | 199.09 | 199.27 | 199.35      | 199.35 | 200.69                          | 203.74 | 200.94 | 199.74            | 199.06 | 198.75 | 198.62 | 198.48 |        |
| 17                               | 199.20 | 199.25 | 199.29      | 199.27 | 200.52                          | 203.41 | 200.96 | 199.70            | 199.08 | 198.77 | 198.61 | 198.52 |        |
| 18                               | 199.13 | 199.25 | 199.21      | 199.20 | 200.22                          | 205.07 | 202.88 | 199.68            | 199.15 | 198.77 | 198.62 | 198.60 |        |
| 19                               | 199.14 | 199.24 | 199.15      | 199.14 | 199.97                          | 204.29 | 204.89 | 199.66            | 199.18 | 198.77 | 198.61 | 198.53 |        |
| 20                               | 199.17 | 199.24 | 199.21      | 199.10 | 199.57                          | 203.25 | 204.37 | 199.64            | 199.12 | 198.74 | 198.59 | 198.55 |        |
| 21                               | 199.18 | 199.31 | 199.17      | 199.09 | 199.41                          | 204.53 | 203.21 | 199.60            | 199.07 | 198.74 | 198.58 | 198.51 |        |
| 22                               | 199.18 | 199.31 | 199.13      | 199.05 | 199.40                          | 207.36 | 202.18 | 199.54            | 199.04 | 198.73 | 198.61 | 198.48 |        |
| 23                               | 199.18 | 199.30 | 199.13      | 199.05 | 199.45                          | 208.55 | 201.66 | 199.47            | 199.02 | 198.74 | 198.60 | 198.50 |        |
| 24                               | 199.17 | 199.29 | 199.10      | 199.23 | 200.06                          | 209.47 | 201.33 | 199.42            | 199.01 | 198.74 | 198.57 | 198.43 |        |
| 25                               | 199.19 | 199.30 | 199.08      | 200.49 | 200.33                          | 209.79 | 201.10 | 199.36            | 198.99 | 198.75 | 198.58 | 198.44 |        |
| 26                               | 199.20 | 199.44 | 199.09      | 201.73 | 199.89                          | 209.32 | 201.26 | 199.31            | 198.95 | 198.73 | 198.59 | 198.44 |        |
| 27                               | 199.17 | 199.26 | 199.13      | 200.51 | 199.70                          | 208.53 | 201.32 | 199.28            | 198.97 | 198.70 | 198.57 | 198.37 |        |
| 28                               | 199.14 | 199.20 | 199.12      | 199.93 | 199.74                          | 209.03 | 201.09 | 199.25            | 198.96 | 198.66 | 198.60 | 198.30 |        |
| 29                               | 198.97 | 199.16 | 199.10      | 200.82 | 199.80                          | 209.19 | 200.85 | 199.23            | 198.96 | 198.69 |        | 198.29 |        |
| 30                               | 198.77 | 199.18 | 199.10      | 201.96 | 199.73                          | 209.28 | 200.67 | 199.22            | 198.94 | 198.70 |        | 198.40 |        |
| 31                               |        | 199.20 |             | 201.13 | 199.70                          |        | 200.61 |                   | 198.93 | 198.68 |        | 198.40 |        |
| Mean                             | 198.96 | 199.22 | 199.22      | 199.74 | 200.21                          | 203.71 | 202.95 | 199.78            | 199.06 | 198.80 | 198.63 | 198.49 |        |
| Max                              | 199.20 | 199.44 | 199.41      | 201.96 | 203.46                          | 209.79 | 209.15 | 200.52            | 199.19 | 198.94 | 198.68 | 198.61 | 209.79 |
| Min                              | 198.59 | 198.75 | 199.08      | 198.91 | 199.38                          | 199.43 | 200.61 | 199.22            | 198.93 | 198.66 | 198.57 | 198.29 | 198.29 |
| Annual Max Momentary Gage Height | 209.83 |        | m. (MSL.) , |        | at 05.00 Hours, on Sep 25, 2013 |        |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 198.00 |        | m. (MSL.) , |        | River Bed                       | 196.57 |        | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 210.03 |        | m. (MSL.) , |        |                                 |        |        |                   |        |        |        |        |        |
| Right Bank Elevation             | 211.18 |        | m. (MSL.) , |        | Drainage Area                   | 2867   |        | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar  | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|------|-----------------|
| 1              | 0.48                                                             | 0.87                     | 4.10   | 2.15                 | 15.75  | 17.92   | 514.50                   | 18.10  | 3.43  | 1.70  | 0.70  | 0.52 |                 |
| 2              | 0.50                                                             | 1.10                     | 3.95   | 1.75                 | 10.88  | 12.75   | 413.80                   | 16.70  | 3.27  | 1.60  | 0.70  | 0.46 |                 |
| 3              | 0.52                                                             | 1.45                     | 4.03   | 1.55                 | 8.20   | 9.37    | 351.75                   | 15.63  | 3.12  | 1.65  | 0.70  | 0.42 |                 |
| 4              | 0.52                                                             | 2.75                     | 4.03   | 1.65                 | 7.80   | 6.90    | 348.60                   | 14.75  | 3.05  | 1.60  | 0.67  | 0.40 |                 |
| 5              | 0.62                                                             | 3.43                     | 4.03   | 1.70                 | 6.42   | 5.82    | 294.50                   | 13.63  | 2.90  | 1.55  | 0.67  | 0.36 |                 |
| 6              | 1.30                                                             | 3.72                     | 4.85   | 3.35                 | 5.75   | 5.22    | 162.00                   | 12.87  | 2.82  | 1.45  | 0.67  | 0.32 |                 |
| 7              | 1.30                                                             | 4.32                     | 5.07   | 3.95                 | 5.15   | 5.68    | 92.90                    | 12.12  | 2.82  | 1.45  | 0.62  | 0.22 |                 |
| 8              | 1.15                                                             | 4.55                     | 4.85   | 10.00                | 4.85   | 7.70    | 66.53                    | 11.63  | 2.67  | 1.40  | 0.62  | 0.36 |                 |
| 9              | 1.10                                                             | 4.40                     | 4.77   | 15.25                | 5.75   | 15.50   | 53.75                    | 11.00  | 2.60  | 1.25  | 0.65  | 0.34 |                 |
| 10             | 1.70                                                             | 4.25                     | 4.25   | 12.63                | 11.75  | 21.25   | 44.85                    | 10.50  | 2.45  | 1.20  | 0.65  | 0.28 |                 |
| 11             | 1.75                                                             | 4.10                     | 3.72   | 12.38                | 27.50  | 15.38   | 38.55                    | 9.75   | 2.53  | 1.20  | 0.60  | 0.50 |                 |
| 12             | 1.75                                                             | 4.03                     | 3.27   | 13.13                | 72.00  | 15.75   | 33.90                    | 9.25   | 2.45  | 1.15  | 0.57  | 0.42 |                 |
| 13             | 1.65                                                             | 4.03                     | 3.27   | 9.13                 | 90.10  | 22.82   | 29.90                    | 8.75   | 2.38  | 1.15  | 0.55  | 0.38 |                 |
| 14             | 1.20                                                             | 4.17                     | 4.10   | 6.70                 | 57.00  | 51.75   | 29.50                    | 8.40   | 2.38  | 1.10  | 0.55  | 0.30 |                 |
| 15             | 1.15                                                             | 4.25                     | 4.55   | 5.37                 | 34.30  | 90.45   | 30.50                    | 8.30   | 2.22  | 0.85  | 0.57  | 0.24 |                 |
| 16             | 2.67                                                             | 4.03                     | 4.63   | 4.63                 | 21.08  | 99.90   | 25.45                    | 7.90   | 2.45  | 0.87  | 0.55  | 0.26 |                 |
| 17             | 3.50                                                             | 3.87                     | 4.17   | 4.03                 | 18.10  | 88.35   | 25.80                    | 7.50   | 2.60  | 0.93  | 0.52  | 0.34 |                 |
| 18             | 2.98                                                             | 3.87                     | 3.58   | 3.50                 | 13.75  | 155.50  | 71.40                    | 7.30   | 3.12  | 0.93  | 0.55  | 0.50 |                 |
| 19             | 3.05                                                             | 3.80                     | 3.12   | 3.05                 | 10.63  | 120.60  | 146.50                   | 7.10   | 3.35  | 0.93  | 0.52  | 0.36 |                 |
| 20             | 3.27                                                             | 3.80                     | 3.58   | 2.75                 | 6.28   | 82.75   | 123.80                   | 6.90   | 2.90  | 0.85  | 0.48  | 0.40 |                 |
| 21             | 3.35                                                             | 4.32                     | 3.27   | 2.67                 | 5.07   | 130.20  | 81.35                    | 6.50   | 2.53  | 0.85  | 0.46  | 0.32 |                 |
| 22             | 3.35                                                             | 4.32                     | 2.98   | 2.38                 | 5.00   | 313.40  | 52.50                    | 6.05   | 2.30  | 0.82  | 0.52  | 0.26 |                 |
| 23             | 3.35                                                             | 4.25                     | 2.98   | 2.38                 | 5.37   | 440.25  | 40.35                    | 5.52   | 2.15  | 0.85  | 0.50  | 0.30 |                 |
| 24             | 3.27                                                             | 4.17                     | 2.75   | 3.72                 | 11.75  | 556.45  | 33.10                    | 5.15   | 2.07  | 0.85  | 0.44  | 0.16 |                 |
| 25             | 3.43                                                             | 4.25                     | 2.60   | 17.58                | 15.13  | 601.55  | 28.50                    | 4.70   | 1.95  | 0.87  | 0.46  | 0.18 |                 |
| 26             | 3.50                                                             | 5.30                     | 2.67   | 41.92                | 9.62   | 536.60  | 31.70                    | 4.32   | 1.75  | 0.82  | 0.48  | 0.18 |                 |
| 27             | 3.27                                                             | 3.95                     | 2.98   | 17.92                | 7.50   | 437.95  | 32.90                    | 4.10   | 1.85  | 0.75  | 0.44  | 0.07 |                 |
| 28             | 3.05                                                             | 3.50                     | 2.90   | 10.12                | 7.90   | 498.90  | 28.30                    | 3.87   | 1.80  | 0.65  | 0.50  | 0.00 |                 |
| 29             | 1.85                                                             | 3.20                     | 2.75   | 23.35                | 8.50   | 519.70  | 23.88                    | 3.72   | 1.80  | 0.72  |       | 0.00 |                 |
| 30             | 0.93                                                             | 3.35                     | 2.75   | 47.10                | 7.80   | 531.40  | 20.73                    | 3.65   | 1.70  | 0.75  |       | 0.10 |                 |
| 31             |                                                                  | 3.50                     |        | 29.10                | 7.50   |         | 19.68                    |        | 1.65  | 0.70  |       | 0.10 |                 |
| Total          | 61.51                                                            | 114.90                   | 110.55 | 316.89               | 524.18 | 5417.76 | 3291.47                  | 265.66 | 77.06 | 33.44 | 15.91 | 9.05 | 10238.38 CMSDAY |
| Mean           | 2.05                                                             | 3.71                     | 3.69   | 10.22                | 16.91  | 180.59  | 106.18                   | 8.86   | 2.49  | 1.08  | 0.57  | 0.29 | 28.05 CMS       |
| Max            | 3.50                                                             | 5.30                     | 5.07   | 47.10                | 90.10  | 601.55  | 514.50                   | 18.10  | 3.43  | 1.70  | 0.70  | 0.52 | 601.55 CMS      |
| Min            | 0.48                                                             | 0.87                     | 2.60   | 1.55                 | 4.85   | 5.22    | 19.68                    | 3.65   | 1.65  | 0.65  | 0.44  | 0.00 | 0.00 CMS        |
| Runoff         | 5.31                                                             | 9.93                     | 9.55   | 27.38                | 45.29  | 468.10  | 284.38                   | 22.95  | 6.66  | 2.89  | 1.38  | 0.78 | 884.60 MCM      |
| Momentary Peak | 607.50 CMS, at 209.83 m. (MSL.), at 05.00 Hours, on Sep 25, 2013 |                          |        |                      |        |         |                          |        |       |       |       |      |                 |
| Runoff Yield   | 9.78                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 211.894 | Liters/Second/Square KM. |        |       |       |       |      |                 |

**WATER YEAR : 2013**

## CHI RIVER BASIN

**Nam Yang at Ban Kaeng Yao , Kalasin (E.54)**

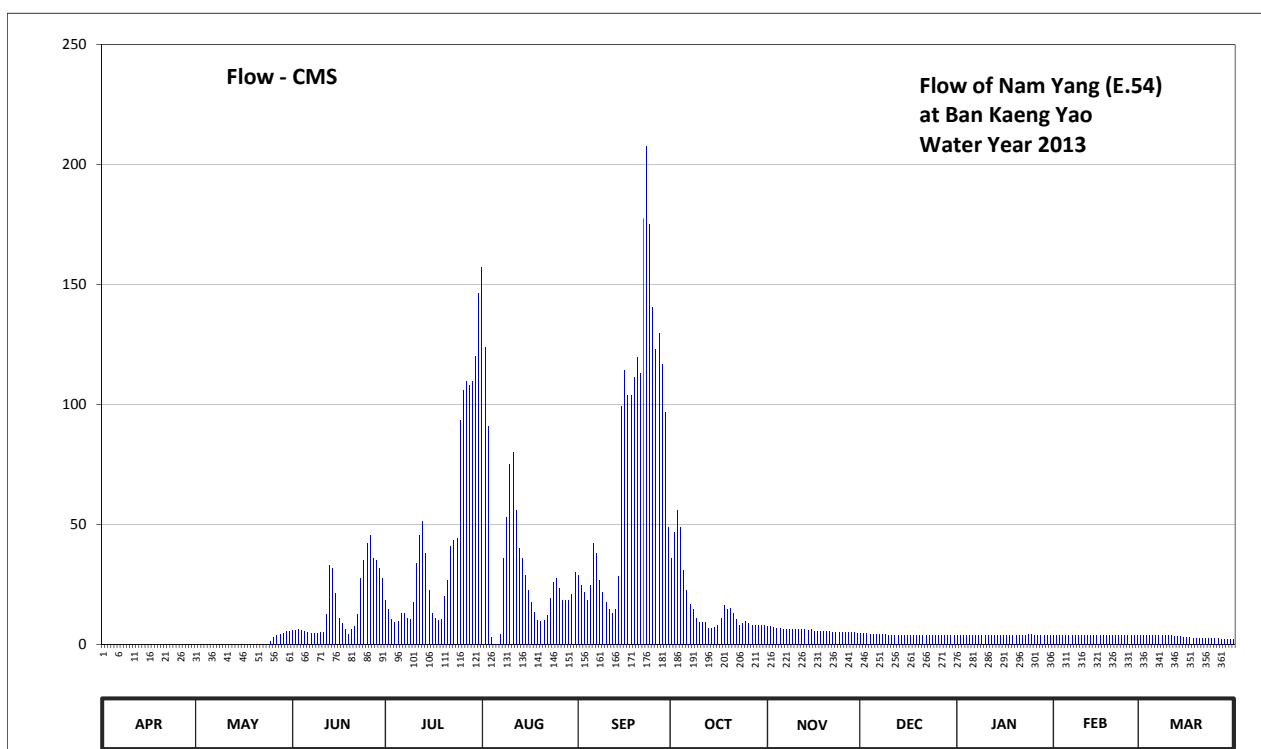
Lat 16 - 26 - 28 N    Long 104 - 02 - 05 E

**Location : on right bank at Ban Kaeng Yao about 2 kilometers downstream from proposed of USBR Damsite.**

|                                         |                                                                                                                                                                |           |               |            |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                     | Kaeng Yao | <b>Amphoe</b> | Kuchinarai | <b>Changwat</b>  | Kalasin            |
| <b>Drainage Area</b>                    | 1,548                                                                                                                                                          | sq.km.    |               |            |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                                                                         |           |               |            |                  |                    |
| <b>Zero Gage at Bottom</b>              | +138.340                                                                                                                                                       | m. (MSL.) |               |            |                  |                    |
| <b>Bench Mark</b>                       | B.M. - H.D.                                                                                                                                                    |           |               |            |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                                                                                                   |           |               |            | <b>Elevation</b> | +149.988 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                      |           |               |            |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                 |           |               |            |                  |                    |
| <b>Period of Available Gage Records</b> | 1969 to date                                                                                                                                                   |           |               |            |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                |           |               |            |                  |                    |
| <b>Period of Rating</b>                 | 1969 - 1977 , 1983 to date                                                                                                                                     |           |               |            |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                              |           |               |            |                  |                    |
| <b>Rated by Current Meter</b>           | 1969 - 1977 , 1983 to date                                                                                                                                     |           |               |            |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                                                                                        |           |               |            |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                              |           |               |            |                  |                    |
| <b>General Description</b>              | Records fair. The weir situated about 100 meters downstream from the gage site.<br>Stage-discharge relation defined by 14 discharge measurements made in 2013. |           |               |            |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                         | Jul    | Aug    | Sep           | Oct       | Nov               | Dec       | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|---------------------------------------------|--------|--------|---------------|-----------|-------------------|-----------|--------|--------|--------|--------|
| 1                                | 138.70 | 138.69 | 140.34                                      | 140.64 | 142.90 | 140.80        | 140.87    | 140.40            | 140.29    | 140.24 | 140.24 | 140.22 |        |
| 2                                | 138.70 | 138.69 | 140.34                                      | 140.57 | 142.16 | 140.74        | 140.97    | 140.40            | 140.29    | 140.24 | 140.24 | 140.22 |        |
| 3                                | 138.70 | 138.69 | 140.36                                      | 140.49 | 141.25 | 140.70        | 141.04    | 140.39            | 140.28    | 140.24 | 140.24 | 140.22 |        |
| 4                                | 138.70 | 138.69 | 140.34                                      | 140.45 | 140.17 | 140.64        | 140.99    | 140.37            | 140.27    | 140.24 | 140.24 | 140.22 |        |
| 5                                | 138.69 | 138.70 | 140.32                                      | 140.47 | 139.98 | 140.74        | 140.82    | 140.37            | 140.26    | 140.24 | 140.24 | 140.22 |        |
| 6                                | 138.69 | 138.70 | 140.30                                      | 140.54 | 139.97 | 140.93        | 140.71    | 140.36            | 140.26    | 140.24 | 140.24 | 140.22 |        |
| 7                                | 138.69 | 138.70 | 140.29                                      | 140.54 | 140.25 | 140.89        | 140.61    | 140.36            | 140.26    | 140.24 | 140.23 | 140.22 |        |
| 8                                | 138.69 | 138.70 | 140.28                                      | 140.50 | 140.87 | 140.77        | 140.57    | 140.36            | 140.26    | 140.24 | 140.23 | 140.22 |        |
| 9                                | 138.69 | 138.70 | 140.29                                      | 140.49 | 141.02 | 140.70        | 140.50    | 140.36            | 140.25    | 140.24 | 140.23 | 140.22 |        |
| 10                               | 138.69 | 138.70 | 140.30                                      | 140.62 | 141.14 | 140.62        | 140.45    | 140.36            | 140.24    | 140.24 | 140.23 | 140.22 |        |
| 11                               | 138.70 | 138.70 | 140.31                                      | 140.85 | 141.16 | 140.57        | 140.45    | 140.36            | 140.24    | 140.24 | 140.23 | 140.22 |        |
| 12                               | 138.70 | 138.70 | 140.53                                      | 140.96 | 141.04 | 140.54        | 140.45    | 140.36            | 140.24    | 140.24 | 140.23 | 140.21 |        |
| 13                               | 138.70 | 138.70 | 140.84                                      | 141.01 | 140.91 | 140.57        | 140.38    | 140.35            | 140.24    | 140.24 | 140.23 | 140.20 |        |
| 14                               | 138.70 | 138.70 | 140.83                                      | 140.89 | 140.87 | 140.79        | 140.38    | 140.34            | 140.24    | 140.24 | 140.23 | 140.19 |        |
| 15                               | 138.70 | 138.70 | 140.69                                      | 140.71 | 140.80 | 141.53        | 140.39    | 140.35            | 140.24    | 140.24 | 140.23 | 140.18 |        |
| 16                               | 138.69 | 138.70 | 140.50                                      | 140.54 | 140.71 | 141.93        | 140.42    | 140.33            | 140.24    | 140.24 | 140.22 | 140.17 |        |
| 17                               | 138.69 | 138.70 | 140.44                                      | 140.50 | 140.62 | 141.65        | 140.50    | 140.32            | 140.24    | 140.24 | 140.22 | 140.16 |        |
| 18                               | 138.69 | 138.74 | 140.36                                      | 140.48 | 140.55 | 141.65        | 140.60    | 140.32            | 140.24    | 140.24 | 140.22 | 140.15 |        |
| 19                               | 138.69 | 138.84 | 140.27                                      | 140.49 | 140.48 | 141.85        | 140.57    | 140.32            | 140.24    | 140.24 | 140.22 | 140.14 |        |
| 20                               | 138.70 | 138.86 | 140.35                                      | 140.67 | 140.47 | 142.06        | 140.58    | 140.32            | 140.24    | 140.24 | 140.22 | 140.14 |        |
| 21                               | 138.70 | 138.95 | 140.40                                      | 140.77 | 140.48 | 141.90        | 140.54    | 140.32            | 140.24    | 140.24 | 140.22 | 140.14 |        |
| 22                               | 138.70 | 139.13 | 140.53                                      | 140.92 | 140.52 | 143.30        | 140.49    | 140.30            | 140.24    | 140.24 | 140.22 | 140.14 |        |
| 23                               | 138.69 | 139.43 | 140.78                                      | 140.94 | 140.65 | 143.82        | 140.42    | 140.30            | 140.24    | 140.24 | 140.22 | 140.14 |        |
| 24                               | 138.69 | 139.88 | 140.86                                      | 140.95 | 140.76 | 143.25        | 140.44    | 140.30            | 140.24    | 140.25 | 140.22 | 140.14 |        |
| 25                               | 138.70 | 140.06 | 140.93                                      | 141.35 | 140.78 | 142.55        | 140.47    | 140.30            | 140.24    | 140.26 | 140.22 | 140.14 |        |
| 26                               | 138.70 | 140.17 | 140.96                                      | 141.71 | 140.72 | 142.14        | 140.44    | 140.30            | 140.24    | 140.24 | 140.22 | 140.14 |        |
| 27                               | 138.70 | 140.24 | 140.87                                      | 141.81 | 140.64 | 142.30        | 140.42    | 140.30            | 140.24    | 140.24 | 140.22 | 140.13 |        |
| 28                               | 138.70 | 140.26 | 140.86                                      | 141.76 | 140.64 | 141.99        | 140.42    | 140.30            | 140.24    | 140.24 | 140.22 | 140.13 |        |
| 29                               | 138.70 | 140.29 | 140.83                                      | 141.81 | 140.64 | 141.46        | 140.42    | 140.30            | 140.24    | 140.24 |        | 140.13 |        |
| 30                               | 138.70 | 140.32 | 140.78                                      | 142.07 | 140.68 | 140.99        | 140.42    | 140.29            | 140.24    | 140.24 |        | 140.13 |        |
| 31                               |        | 140.33 |                                             | 142.67 | 140.81 |               | 140.42    |                   | 140.24    | 140.24 |        | 140.13 |        |
| Mean                             | 138.70 | 139.14 | 140.54                                      | 140.94 | 140.79 | 141.48        | 140.55    | 140.34            | 140.25    | 140.24 | 140.23 | 140.18 |        |
| Max                              | 138.70 | 140.33 | 140.96                                      | 142.67 | 142.90 | 143.82        | 141.04    | 140.40            | 140.29    | 140.26 | 140.24 | 140.22 | 143.82 |
| Min                              | 138.69 | 138.69 | 140.27                                      | 140.45 | 139.97 | 140.54        | 140.38    | 140.29            | 140.24    | 140.24 | 140.22 | 140.13 | 138.69 |
| Annual Max Momentary Gage Height | 144.48 |        | m. (MSL.) , at 19.00 Hours, on Sep 22, 2013 |        |        |               |           |                   |           |        |        |        |        |
| Zero Gage at Bottom Elevation    | 138.34 |        | m. (MSL.) ,                                 |        |        |               | River Bed | 137.97            | m. (MSL.) |        |        |        |        |
| Left Bank Elevation              | 148.08 |        | m. (MSL.) ,                                 |        |        |               |           |                   |           |        |        |        |        |
| Right Bank Elevation             | 147.68 |        | m. (MSL.) ,                                 |        |        | Drainage Area | 1548      | Square Kilometers |           |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|-------|----------------|
| 1              | 0.00                                                             | 0.00                     | 6.00   | 18.70                | 157.20  | 29.00   | 36.00                    | 7.50   | 4.85   | 4.10   | 4.10   | 3.80  |                |
| 2              | 0.00                                                             | 0.00                     | 6.00   | 14.85                | 123.72  | 24.80   | 46.70                    | 7.50   | 4.85   | 4.10   | 4.10   | 3.80  |                |
| 3              | 0.00                                                             | 0.00                     | 6.50   | 10.65                | 91.00   | 22.00   | 56.00                    | 7.25   | 4.70   | 4.10   | 4.10   | 3.80  |                |
| 4              | 0.00                                                             | 0.00                     | 6.00   | 9.25                 | 3.05    | 18.70   | 48.90                    | 6.75   | 4.55   | 4.10   | 4.10   | 3.80  |                |
| 5              | 0.00                                                             | 0.00                     | 5.50   | 9.95                 | 0.40    | 24.80   | 31.00                    | 6.75   | 4.40   | 4.10   | 4.10   | 3.80  |                |
| 6              | 0.00                                                             | 0.00                     | 5.00   | 13.20                | 0.35    | 42.30   | 22.70                    | 6.50   | 4.40   | 4.10   | 4.10   | 3.80  |                |
| 7              | 0.00                                                             | 0.00                     | 4.85   | 13.20                | 4.25    | 38.00   | 17.05                    | 6.50   | 4.40   | 4.10   | 3.95   | 3.80  |                |
| 8              | 0.00                                                             | 0.00                     | 4.70   | 11.00                | 36.00   | 26.90   | 14.85                    | 6.50   | 4.40   | 4.10   | 3.95   | 3.80  |                |
| 9              | 0.00                                                             | 0.00                     | 4.85   | 10.65                | 53.00   | 22.00   | 11.00                    | 6.50   | 4.25   | 4.10   | 3.95   | 3.80  |                |
| 10             | 0.00                                                             | 0.00                     | 5.00   | 17.60                | 75.00   | 17.60   | 9.25                     | 6.50   | 4.10   | 4.10   | 3.95   | 3.80  |                |
| 11             | 0.00                                                             | 0.00                     | 5.25   | 34.00                | 80.00   | 14.85   | 9.25                     | 6.50   | 4.10   | 4.10   | 3.95   | 3.80  |                |
| 12             | 0.00                                                             | 0.00                     | 12.65  | 45.60                | 56.00   | 13.20   | 9.25                     | 6.50   | 4.10   | 4.10   | 3.95   | 3.65  |                |
| 13             | 0.00                                                             | 0.00                     | 33.00  | 51.50                | 40.10   | 14.85   | 7.00                     | 6.25   | 4.10   | 4.10   | 3.95   | 3.50  |                |
| 14             | 0.00                                                             | 0.00                     | 32.00  | 38.00                | 36.00   | 28.30   | 7.00                     | 6.00   | 4.10   | 4.10   | 3.95   | 3.35  |                |
| 15             | 0.00                                                             | 0.00                     | 21.45  | 22.70                | 29.00   | 99.14   | 7.25                     | 6.25   | 4.10   | 4.10   | 3.95   | 3.20  |                |
| 16             | 0.00                                                             | 0.00                     | 11.00  | 13.20                | 22.70   | 114.34  | 8.20                     | 5.75   | 4.10   | 4.10   | 3.80   | 3.05  |                |
| 17             | 0.00                                                             | 0.00                     | 8.90   | 11.00                | 17.60   | 103.70  | 11.00                    | 5.50   | 4.10   | 4.10   | 3.80   | 2.90  |                |
| 18             | 0.00                                                             | 0.00                     | 6.50   | 10.30                | 13.75   | 103.70  | 16.50                    | 5.50   | 4.10   | 4.10   | 3.80   | 2.75  |                |
| 19             | 0.00                                                             | 0.00                     | 4.55   | 10.65                | 10.30   | 111.30  | 14.85                    | 5.50   | 4.10   | 4.10   | 3.80   | 2.60  |                |
| 20             | 0.00                                                             | 0.00                     | 6.25   | 20.35                | 9.95    | 119.52  | 15.40                    | 5.50   | 4.10   | 4.10   | 3.80   | 2.60  |                |
| 21             | 0.00                                                             | 0.00                     | 7.50   | 26.90                | 10.30   | 113.20  | 13.20                    | 5.50   | 4.10   | 4.10   | 3.80   | 2.60  |                |
| 22             | 0.00                                                             | 0.00                     | 12.65  | 41.20                | 12.10   | 177.60  | 10.65                    | 5.00   | 4.10   | 4.10   | 3.80   | 2.60  |                |
| 23             | 0.00                                                             | 0.00                     | 27.60  | 43.40                | 19.25   | 207.84  | 8.20                     | 5.00   | 4.10   | 4.10   | 3.80   | 2.60  |                |
| 24             | 0.00                                                             | 0.00                     | 35.00  | 44.50                | 26.20   | 175.00  | 8.90                     | 5.00   | 4.10   | 4.25   | 3.80   | 2.60  |                |
| 25             | 0.00                                                             | 1.40                     | 42.30  | 93.50                | 27.60   | 140.40  | 9.95                     | 5.00   | 4.10   | 4.40   | 3.80   | 2.60  |                |
| 26             | 0.00                                                             | 3.05                     | 45.60  | 105.98               | 23.40   | 122.88  | 8.90                     | 5.00   | 4.10   | 4.10   | 3.80   | 2.60  |                |
| 27             | 0.00                                                             | 4.10                     | 36.00  | 109.78               | 18.70   | 129.60  | 8.20                     | 5.00   | 4.10   | 4.10   | 3.80   | 2.45  |                |
| 28             | 0.00                                                             | 4.40                     | 35.00  | 107.88               | 18.70   | 116.62  | 8.20                     | 5.00   | 4.10   | 4.10   | 3.80   | 2.45  |                |
| 29             | 0.00                                                             | 4.85                     | 32.00  | 109.78               | 18.70   | 96.80   | 8.20                     | 5.00   | 4.10   | 4.10   |        | 2.45  |                |
| 30             | 0.00                                                             | 5.50                     | 27.60  | 119.94               | 20.90   | 48.90   | 8.20                     | 4.85   | 4.10   | 4.10   |        | 2.45  |                |
| 31             |                                                                  | 5.75                     |        | 146.16               | 30.00   |         | 8.20                     |        | 4.10   | 4.10   |        | 2.45  |                |
| Total          | 0.00                                                             | 29.05                    | 497.20 | 1335.37              | 1085.22 | 2317.84 | 499.95                   | 177.85 | 131.00 | 127.55 | 109.55 | 97.25 | 6407.83 CMSDAY |
| Mean           | 0.00                                                             | 0.94                     | 16.57  | 43.08                | 35.01   | 77.26   | 16.13                    | 5.93   | 4.23   | 4.11   | 3.91   | 3.14  | 17.56 CMS      |
| Max            | 0.00                                                             | 5.75                     | 45.60  | 146.16               | 157.20  | 207.84  | 56.00                    | 7.50   | 4.85   | 4.40   | 4.10   | 3.80  | 207.84 CMS     |
| Min            | 0.00                                                             | 0.00                     | 4.55   | 9.25                 | 0.35    | 13.20   | 7.00                     | 4.85   | 4.10   | 4.10   | 3.80   | 2.45  | 0.00 CMS       |
| Runoff         | 0.00                                                             | 2.51                     | 42.96  | 115.38               | 93.76   | 200.26  | 43.20                    | 15.37  | 11.32  | 11.02  | 9.47   | 8.40  | 553.64 MCM     |
| Momentary Peak | 254.52 CMS, at 144.48 m. (MSL.), at 19.00 Hours, on Sep 22, 2013 |                          |        |                      |         |         |                          |        |        |        |        |       |                |
| Runoff Yield   | 11.34                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 164.419 | Liters/Second/Square KM. |        |        |        |        |       |                |

**WATER YEAR : 2013**

## CHI RIVER BASIN

**Nam Yang at Ban Kut Chim Khum Yai , Kalasin (E.57)**

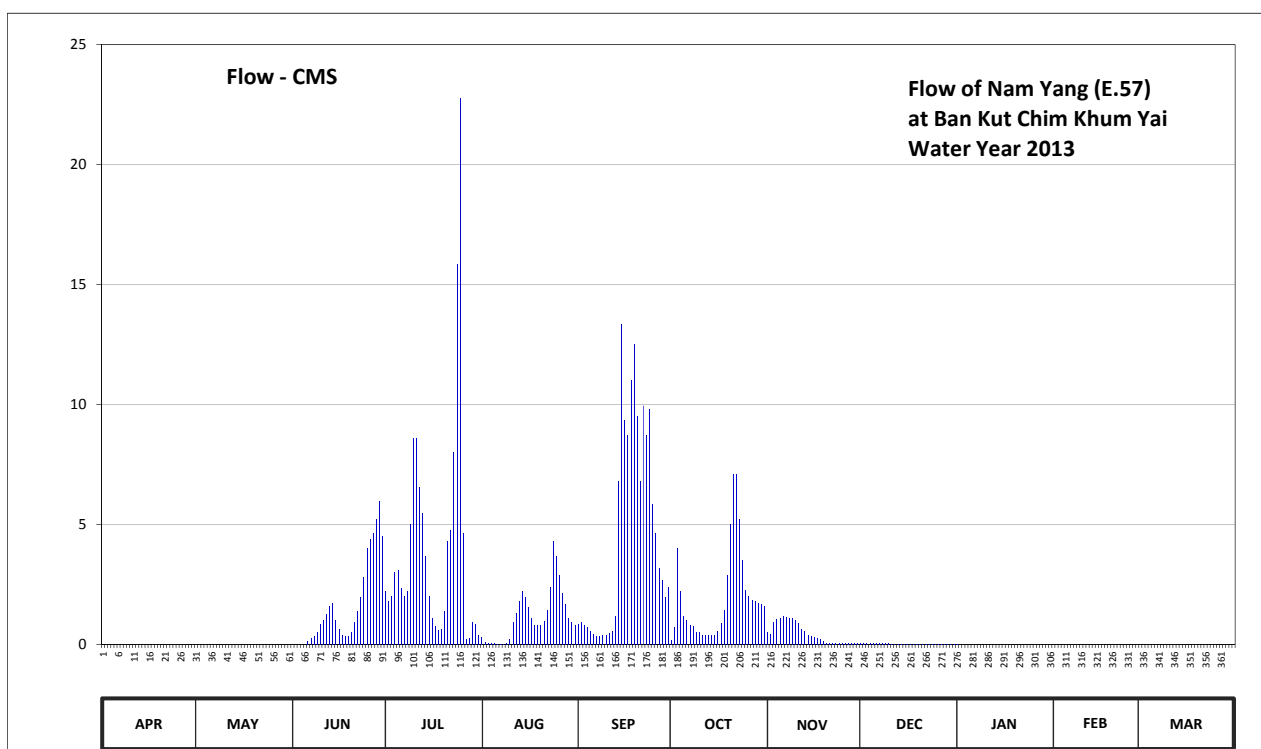
Lat 16 - 41 - 02 N    Long 104 - 05 - 06 E

**Location :** on right bank at the bridge on highway Ban Kut Chim Khum Yai.

|                                         |                                                                             |                   |               |           |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-------------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Kut Chim Khum Yai | <b>Amphoe</b> | Khao Wong | <b>Changwat</b>  | Kalasin            |
| <b>Drainage Area</b>                    | 103                                                                         | sq.km.            |               |           |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                  |                   |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +170.100                                                                    | m. (MSL.)         |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                       | Highways Dept.    |               |           |                  |                    |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                |                   |               |           | <b>Elevation</b> | +177.810 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                      |                   |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                               |                   |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 1969 - 1971 , 1983 to date                                                  |                   |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                   |               |           |                  |                    |
| <b>Period of Rating</b>                 | 1969 - 1970 , 1984 to date                                                  |                   |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                   |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 1969 - 1970 , 1984 to date                                                  |                   |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                   |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                   |               |           |                  |                    |
| <b>General Description</b>              | Records fair. The local weir situated about 100 meters from the gage site.  |                   |               |           |                  |                    |
|                                         | Stage-discharge relation defined by 15 discharge measurements made in 2013. |                   |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 170.06 | 170.03 | 169.84                                          | 170.77 | 170.34 | 170.51 | 170.26 | 170.43 | 170.17 | 170.11 | 169.96 | 169.95 |        |
| 2                                | 170.06 | 170.02 | 169.93                                          | 170.70 | 170.19 | 170.53 | 170.48 | 170.41 | 170.15 | 170.10 | 169.96 | 169.92 |        |
| 3                                | 170.06 | 170.02 | 169.97                                          | 170.74 | 170.16 | 170.50 | 170.96 | 170.53 | 170.15 | 170.10 | 169.96 | 169.92 |        |
| 4                                | 170.05 | 170.02 | 170.01                                          | 170.86 | 170.16 | 170.48 | 170.77 | 170.57 | 170.16 | 170.09 | 169.96 | 169.91 |        |
| 5                                | 170.05 | 170.02 | 170.10                                          | 170.87 | 170.15 | 170.44 | 170.60 | 170.58 | 170.16 | 170.09 | 169.96 | 169.90 |        |
| 6                                | 170.05 | 170.02 | 170.23                                          | 170.79 | 170.14 | 170.41 | 170.56 | 170.60 | 170.16 | 170.09 | 169.97 | 169.89 |        |
| 7                                | 170.05 | 170.02 | 170.31                                          | 170.74 | 170.14 | 170.37 | 170.50 | 170.59 | 170.16 | 170.09 | 169.97 | 169.89 |        |
| 8                                | 170.05 | 170.01 | 170.36                                          | 170.77 | 170.14 | 170.37 | 170.49 | 170.58 | 170.15 | 170.09 | 169.97 | 169.89 |        |
| 9                                | 170.05 | 170.00 | 170.43                                          | 171.05 | 170.15 | 170.40 | 170.43 | 170.58 | 170.15 | 170.09 | 169.97 | 169.89 |        |
| 10                               | 170.04 | 169.99 | 170.51                                          | 171.32 | 170.27 | 170.40 | 170.43 | 170.56 | 170.15 | 170.09 | 169.98 | 169.89 |        |
| 11                               | 170.04 | 169.97 | 170.56                                          | 171.32 | 170.53 | 170.42 | 170.40 | 170.52 | 170.14 | 170.09 | 169.98 | 169.88 |        |
| 12                               | 170.04 | 169.95 | 170.61                                          | 171.18 | 170.62 | 170.44 | 170.40 | 170.46 | 170.14 | 170.09 | 169.98 | 169.88 |        |
| 13                               | 170.04 | 169.93 | 170.67                                          | 171.09 | 170.70 | 170.60 | 170.40 | 170.44 | 170.14 | 170.09 | 169.97 | 169.88 |        |
| 14                               | 170.04 | 169.97 | 170.69                                          | 170.93 | 170.77 | 171.20 | 170.40 | 170.40 | 170.14 | 170.09 | 169.99 | 169.88 |        |
| 15                               | 170.03 | 170.04 | 170.55                                          | 170.74 | 170.73 | 171.63 | 170.40 | 170.36 | 170.14 | 170.09 | 169.99 | 169.88 |        |
| 16                               | 170.03 | 170.04 | 170.46                                          | 170.58 | 170.66 | 171.37 | 170.44 | 170.34 | 170.13 | 170.09 | 169.99 | 169.87 |        |
| 17                               | 170.03 | 170.05 | 170.40                                          | 170.49 | 170.58 | 171.33 | 170.52 | 170.30 | 170.13 | 170.09 | 169.99 | 169.87 |        |
| 18                               | 170.03 | 170.05 | 170.37                                          | 170.45 | 170.50 | 171.48 | 170.64 | 170.28 | 170.13 | 170.08 | 170.00 | 169.87 |        |
| 19                               | 170.03 | 170.04 | 170.36                                          | 170.46 | 170.50 | 171.58 | 170.85 | 170.23 | 170.13 | 170.08 | 170.00 | 169.87 |        |
| 20                               | 170.03 | 170.02 | 170.43                                          | 170.63 | 170.50 | 171.38 | 171.05 | 170.18 | 170.13 | 170.05 | 170.00 | 169.87 |        |
| 21                               | 169.99 | 170.00 | 170.53                                          | 170.99 | 170.54 | 171.20 | 171.22 | 170.18 | 170.13 | 169.97 | 170.01 | 169.86 |        |
| 22                               | 169.92 | 169.90 | 170.63                                          | 171.03 | 170.64 | 171.41 | 171.22 | 170.17 | 170.13 | 169.96 | 170.01 | 169.86 |        |
| 23                               | 169.92 | 169.72 | 170.73                                          | 171.28 | 170.80 | 171.33 | 171.07 | 170.17 | 170.13 | 169.96 | 170.01 | 169.86 |        |
| 24                               | 169.92 | 169.75 | 170.84                                          | 171.77 | 170.99 | 171.40 | 170.91 | 170.17 | 170.13 | 169.95 | 170.01 | 169.86 |        |
| 25                               | 169.92 | 169.82 | 170.96                                          | 172.09 | 170.93 | 171.12 | 170.78 | 170.17 | 170.12 | 169.96 | 170.01 | 169.85 |        |
| 26                               | 169.93 | 169.83 | 171.00                                          | 171.02 | 170.85 | 171.02 | 170.74 | 170.17 | 170.12 | 169.96 | 170.01 | 169.85 |        |
| 27                               | 169.94 | 169.86 | 171.02                                          | 170.27 | 170.76 | 170.88 | 170.71 | 170.17 | 170.12 | 169.96 | 170.01 | 169.85 |        |
| 28                               | 170.00 | 169.91 | 171.07                                          | 170.31 | 170.68 | 170.83 | 170.70 | 170.17 | 170.12 | 169.96 | 170.01 | 169.85 |        |
| 29                               | 170.02 | 169.89 | 171.13                                          | 170.53 | 170.58 | 170.73 | 170.69 | 170.17 | 170.12 | 169.96 |        | 169.85 |        |
| 30                               | 170.03 | 169.86 | 171.01                                          | 170.51 | 170.53 | 170.80 | 170.68 | 170.17 | 170.12 | 169.96 |        | 169.85 |        |
| 31                               |        | 169.84 |                                                 | 170.40 | 170.50 |        | 170.67 |        | 170.12 | 169.96 |        | 169.85 |        |
| Mean                             | 170.01 | 169.95 | 170.52                                          | 170.86 | 170.51 | 170.89 | 170.66 | 170.35 | 170.14 | 170.04 | 169.99 | 169.88 |        |
| Max                              | 170.06 | 170.05 | 171.13                                          | 172.09 | 170.99 | 171.63 | 171.22 | 170.60 | 170.17 | 170.11 | 170.01 | 169.95 | 172.09 |
| Min                              | 169.92 | 169.72 | 169.84                                          | 170.27 | 170.14 | 170.37 | 170.26 | 170.17 | 170.12 | 169.95 | 169.96 | 169.85 | 169.72 |
| Annual Max Momentary Gage Height |        | 172.29 | m. (MSL.) , at 05.00 Hours, on Jul 25, 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 170.10 | m. (MSL.) , River Bed 169.37 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 177.34 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 177.60 | m. (MSL.) , Drainage Area 103 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul                  | Aug   | Sep    | Oct                      | Nov   | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------|-------|-----------------------------------------------------------|-------|----------------------|-------|--------|--------------------------|-------|------|------|------|------|--------|
| 1              | 0.00  | 0.00                                                      | 0.00  | 2.22                 | 0.31  | 0.84   | 0.19                     | 0.52  | 0.07 | 0.01 | 0.00 | 0.00 |        |
| 2              | 0.00  | 0.00                                                      | 0.00  | 1.80                 | 0.09  | 0.92   | 0.72                     | 0.44  | 0.05 | 0.00 | 0.00 | 0.00 |        |
| 3              | 0.00  | 0.00                                                      | 0.00  | 2.04                 | 0.06  | 0.80   | 4.00                     | 0.92  | 0.05 | 0.00 | 0.00 | 0.00 |        |
| 4              | 0.00  | 0.00                                                      | 0.00  | 3.00                 | 0.06  | 0.72   | 2.22                     | 1.08  | 0.06 | 0.00 | 0.00 | 0.00 |        |
| 5              | 0.00  | 0.00                                                      | 0.00  | 3.10                 | 0.05  | 0.56   | 1.20                     | 1.12  | 0.06 | 0.00 | 0.00 | 0.00 |        |
| 6              | 0.00  | 0.00                                                      | 0.14  | 2.34                 | 0.04  | 0.44   | 1.04                     | 1.20  | 0.06 | 0.00 | 0.00 | 0.00 |        |
| 7              | 0.00  | 0.00                                                      | 0.27  | 2.04                 | 0.04  | 0.36   | 0.80                     | 1.16  | 0.06 | 0.00 | 0.00 | 0.00 |        |
| 8              | 0.00  | 0.00                                                      | 0.34  | 2.22                 | 0.04  | 0.36   | 0.76                     | 1.12  | 0.05 | 0.00 | 0.00 | 0.00 |        |
| 9              | 0.00  | 0.00                                                      | 0.52  | 5.00                 | 0.05  | 0.40   | 0.52                     | 1.12  | 0.05 | 0.00 | 0.00 | 0.00 |        |
| 10             | 0.00  | 0.00                                                      | 0.84  | 8.60                 | 0.21  | 0.40   | 0.52                     | 1.04  | 0.05 | 0.00 | 0.00 | 0.00 |        |
| 11             | 0.00  | 0.00                                                      | 1.04  | 8.60                 | 0.92  | 0.48   | 0.40                     | 0.88  | 0.04 | 0.00 | 0.00 | 0.00 |        |
| 12             | 0.00  | 0.00                                                      | 1.26  | 6.56                 | 1.32  | 0.56   | 0.40                     | 0.64  | 0.04 | 0.00 | 0.00 | 0.00 |        |
| 13             | 0.00  | 0.00                                                      | 1.62  | 5.48                 | 1.80  | 1.20   | 0.40                     | 0.56  | 0.04 | 0.00 | 0.00 | 0.00 |        |
| 14             | 0.00  | 0.00                                                      | 1.74  | 3.70                 | 2.22  | 6.80   | 0.40                     | 0.40  | 0.04 | 0.00 | 0.00 | 0.00 |        |
| 15             | 0.00  | 0.00                                                      | 1.00  | 2.04                 | 1.98  | 13.34  | 0.40                     | 0.34  | 0.04 | 0.00 | 0.00 | 0.00 |        |
| 16             | 0.00  | 0.00                                                      | 0.64  | 1.12                 | 1.56  | 9.35   | 0.56                     | 0.31  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 17             | 0.00  | 0.00                                                      | 0.40  | 0.76                 | 1.12  | 8.75   | 0.88                     | 0.25  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 18             | 0.00  | 0.00                                                      | 0.36  | 0.60                 | 0.80  | 11.00  | 1.44                     | 0.22  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 19             | 0.00  | 0.00                                                      | 0.34  | 0.64                 | 0.80  | 12.50  | 2.90                     | 0.14  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 20             | 0.00  | 0.00                                                      | 0.52  | 1.38                 | 0.80  | 9.50   | 5.00                     | 0.08  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 21             | 0.00  | 0.00                                                      | 0.92  | 4.30                 | 0.96  | 6.80   | 7.10                     | 0.08  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 22             | 0.00  | 0.00                                                      | 1.38  | 4.76                 | 1.44  | 9.95   | 7.10                     | 0.07  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 23             | 0.00  | 0.00                                                      | 1.98  | 8.00                 | 2.40  | 8.75   | 5.24                     | 0.07  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 24             | 0.00  | 0.00                                                      | 2.80  | 15.86                | 4.30  | 9.80   | 3.50                     | 0.07  | 0.03 | 0.00 | 0.00 | 0.00 |        |
| 25             | 0.00  | 0.00                                                      | 4.00  | 22.76                | 3.70  | 5.84   | 2.28                     | 0.07  | 0.02 | 0.00 | 0.00 | 0.00 |        |
| 26             | 0.00  | 0.00                                                      | 4.40  | 4.64                 | 2.90  | 4.64   | 2.04                     | 0.07  | 0.02 | 0.00 | 0.00 | 0.00 |        |
| 27             | 0.00  | 0.00                                                      | 4.64  | 0.21                 | 2.16  | 3.20   | 1.86                     | 0.07  | 0.02 | 0.00 | 0.00 | 0.00 |        |
| 28             | 0.00  | 0.00                                                      | 5.24  | 0.27                 | 1.68  | 2.70   | 1.80                     | 0.07  | 0.02 | 0.00 | 0.00 | 0.00 |        |
| 29             | 0.00  | 0.00                                                      | 5.96  | 0.92                 | 1.12  | 1.98   | 1.74                     | 0.07  | 0.02 | 0.00 |      | 0.00 |        |
| 30             | 0.00  | 0.00                                                      | 4.52  | 0.84                 | 0.92  | 2.40   | 1.68                     | 0.07  | 0.02 | 0.00 |      | 0.00 |        |
| 31             |       | 0.00                                                      |       | 0.40                 | 0.80  |        | 1.62                     |       | 0.02 | 0.00 |      | 0.00 |        |
| Total          | 0.00  | 0.00                                                      | 46.87 | 126.20               | 36.65 | 135.34 | 60.71                    | 14.25 | 1.17 | 0.01 | 0.00 | 0.00 | 421.20 |
| Mean           | 0.00  | 0.00                                                      | 1.56  | 4.07                 | 1.18  | 4.51   | 1.96                     | 0.47  | 0.04 | 0.00 | 0.00 | 0.00 | 1.15   |
| Max            | 0.00  | 0.00                                                      | 5.96  | 22.76                | 4.30  | 13.34  | 7.10                     | 1.20  | 0.07 | 0.01 | 0.00 | 0.00 | 22.76  |
| Min            | 0.00  | 0.00                                                      | 0.00  | 0.21                 | 0.04  | 0.36   | 0.19                     | 0.07  | 0.02 | 0.00 | 0.00 | 0.00 | 0.00   |
| Runoff         | 0.00  |                                                           | 4.05  | 10.90                | 3.17  | 11.69  | 5.25                     | 1.23  | 0.10 | 0.00 | 0.00 | 0.00 | 36.39  |
| Momentary Peak | 27.74 | CMS, at 172.29 m. (MSL.), at 05.00 Hours, on Jul 25, 2013 |       |                      |       |        |                          |       |      |      |      |      |        |
| Runoff Yield   | 11.20 | Liters/Second/Square KM.                                  |       | Momentary Peak Yield |       | 269.32 | Liters/Second/Square KM. |       |      |      |      |      |        |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Phaniang at Ban Na Klang , Nong Bua Lamphu (E.64)**

Lat 17 - 19 - 16 N Long 102 - 05 - 32 E

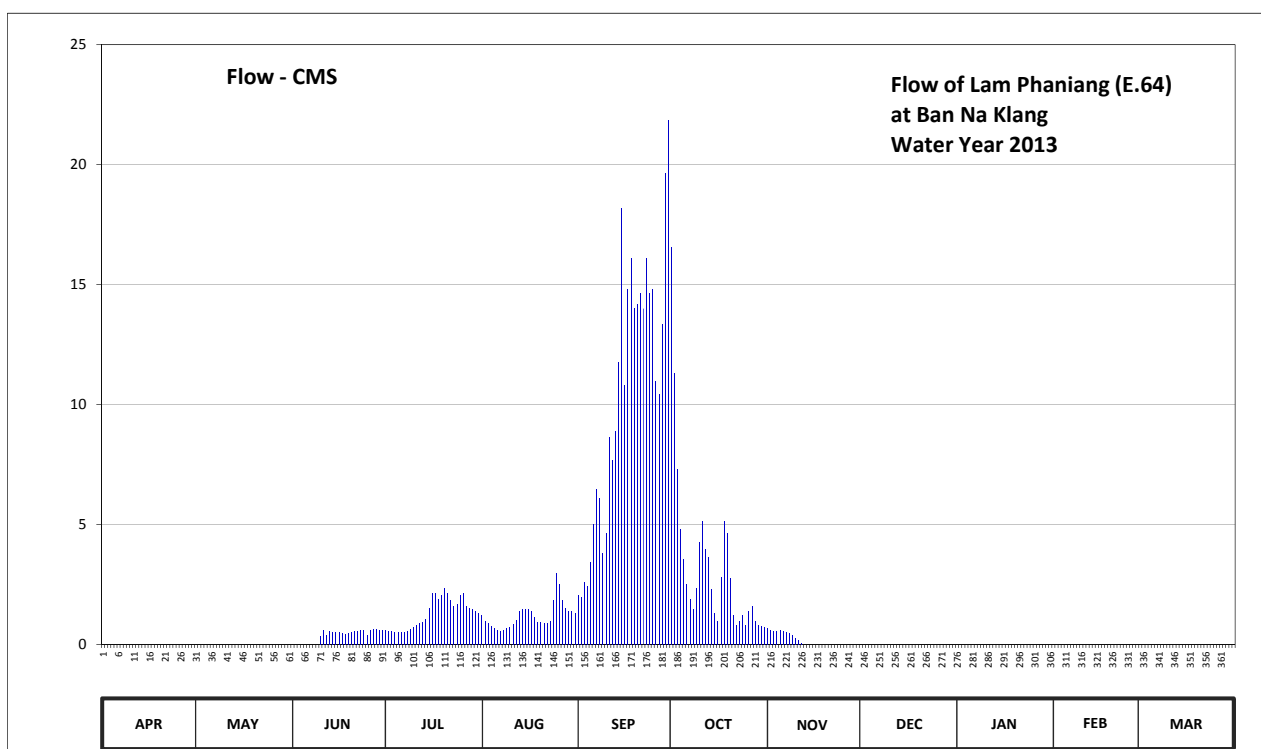
**Location : on right bank at the bridge of Udon Thani - Loei Highway.**

|                                         |                                                                                                                                                        |          |               |         |                  |                    |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                             | Na Klang | <b>Amphoe</b> | Na Wang | <b>Changwat</b>  | Nong Bua Lamphu    |
| <b>Drainage Area</b>                    | 362                                                                                                                                                    | sq.km.   |               |         |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                                                                             |          |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +254.473 m. (MSL.)                                                                                                                                     |          |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                                                                                   |          |               |         |                  |                    |
| <b>Location BM</b>                      | On right bank downstream side at the footpath of the bridge.                                                                                           |          |               |         | <b>Elevation</b> | +261.680 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                                                                                 |          |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                                                                                          |          |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1979 to date                                                                                                                                           |          |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                        |          |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1979 - 1980 , 1997 to date                                                                                                                             |          |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                      |          |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1979 - 1980 , 1997 to date                                                                                                                             |          |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                                                                                |          |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +258.460 m.(MSL.), records are channel flow only.                                                                    |          |               |         |                  |                    |
| <b>General Description</b>              | Records fair. The concrete weir situated downstream from the gage site.<br>Stage-discharge relation defined by 15 discharge measurements made in 2013. |          |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                             | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|---------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 255.27 | 255.27 | 255.70      | 257.30 | 257.53                          | 257.64 | 258.86            | 257.34    | 256.96 | 256.95 | 256.86 | 256.83 |        |
| 2                                | 255.27 | 255.27 | 255.69      | 257.29 | 257.49                          | 257.63 | 258.53            | 257.31    | 256.95 | 256.94 | 256.86 | 256.83 |        |
| 3                                | 255.27 | 255.27 | 255.67      | 257.28 | 257.44                          | 257.71 | 258.21            | 257.28    | 256.94 | 256.93 | 256.87 | 256.83 |        |
| 4                                | 255.27 | 255.27 | 255.67      | 257.27 | 257.38                          | 257.69 | 258.00            | 257.28    | 256.93 | 256.92 | 256.86 | 256.83 |        |
| 5                                | 255.27 | 255.27 | 255.82      | 257.26 | 257.34                          | 257.82 | 257.84            | 257.30    | 256.92 | 256.90 | 256.85 | 256.83 |        |
| 6                                | 255.27 | 255.27 | 256.18      | 257.25 | 257.30                          | 258.02 | 257.70            | 257.29    | 256.91 | 256.89 | 256.84 | 256.82 |        |
| 7                                | 255.27 | 255.27 | 256.47      | 257.26 | 257.28                          | 258.14 | 257.62            | 257.27    | 256.90 | 256.86 | 256.83 | 256.82 |        |
| 8                                | 255.27 | 255.27 | 256.72      | 257.29 | 257.31                          | 258.11 | 257.56            | 257.24    | 256.89 | 256.83 | 256.82 | 256.82 |        |
| 9                                | 255.27 | 255.27 | 256.97      | 257.33 | 257.34                          | 257.87 | 257.68            | 257.20    | 256.88 | 256.81 | 256.82 | 256.82 |        |
| 10                               | 255.27 | 255.27 | 257.18      | 257.37 | 257.36                          | 257.98 | 257.93            | 257.14    | 256.87 | 256.77 | 256.81 | 256.81 |        |
| 11                               | 255.27 | 255.27 | 257.31      | 257.41 | 257.42                          | 258.32 | 258.03            | 257.09    | 256.86 | 256.78 | 256.81 | 256.81 |        |
| 12                               | 255.27 | 255.27 | 257.19      | 257.44 | 257.50                          | 258.24 | 257.89            | 257.03    | 256.85 | 256.79 | 256.82 | 256.81 |        |
| 13                               | 255.27 | 255.33 | 257.29      | 257.46 | 257.55                          | 258.34 | 257.85            | 257.00    | 256.84 | 256.80 | 256.83 | 256.81 |        |
| 14                               | 255.27 | 255.40 | 257.27      | 257.51 | 257.56                          | 258.56 | 257.67            | 256.99    | 256.84 | 256.83 | 256.83 | 256.80 |        |
| 15                               | 255.27 | 255.52 | 257.26      | 257.57 | 257.56                          | 258.96 | 257.54            | 256.98    | 256.83 | 256.87 | 256.82 | 256.80 |        |
| 16                               | 255.27 | 255.61 | 257.25      | 257.65 | 257.56                          | 258.50 | 257.48            | 256.97    | 256.83 | 256.88 | 256.82 | 256.80 |        |
| 17                               | 255.27 | 255.63 | 257.24      | 257.65 | 257.55                          | 258.75 | 257.74            | 256.97    | 256.83 | 256.88 | 256.82 | 256.81 |        |
| 18                               | 255.27 | 255.65 | 257.22      | 257.62 | 257.52                          | 258.83 | 258.03            | 256.97    | 256.83 | 256.87 | 256.83 | 256.81 |        |
| 19                               | 255.27 | 255.66 | 257.23      | 257.64 | 257.47                          | 258.70 | 257.98            | 256.98    | 256.84 | 256.87 | 256.83 | 256.81 |        |
| 20                               | 255.27 | 255.67 | 257.26      | 257.68 | 257.46                          | 258.71 | 257.73            | 256.98    | 256.85 | 256.87 | 256.84 | 256.81 |        |
| 21                               | 255.27 | 255.68 | 257.28      | 257.65 | 257.45                          | 258.74 | 257.53            | 256.99    | 256.84 | 256.86 | 256.84 | 256.82 |        |
| 22                               | 255.27 | 255.69 | 257.29      | 257.61 | 257.44                          | 258.70 | 257.40            | 257.00    | 256.85 | 256.86 | 256.84 | 256.82 |        |
| 23                               | 255.27 | 255.70 | 257.30      | 257.58 | 257.49                          | 258.83 | 257.48            | 257.00    | 256.85 | 256.86 | 256.84 | 256.82 |        |
| 24                               | 255.27 | 255.71 | 257.30      | 257.59 | 257.61                          | 258.74 | 257.53            | 256.99    | 256.86 | 256.86 | 256.84 | 256.82 |        |
| 25                               | 255.27 | 255.71 | 257.19      | 257.64 | 257.76                          | 258.75 | 257.40            | 256.99    | 256.86 | 256.87 | 256.84 | 256.83 |        |
| 26                               | 255.27 | 255.72 | 257.31      | 257.65 | 257.70                          | 258.51 | 257.55            | 256.98    | 256.88 | 256.87 | 256.83 | 256.83 |        |
| 27                               | 255.27 | 255.72 | 257.32      | 257.58 | 257.61                          | 258.47 | 257.58            | 256.98    | 256.90 | 256.87 | 256.83 | 256.83 |        |
| 28                               | 255.27 | 255.72 | 257.32      | 257.57 | 257.57                          | 258.66 | 257.48            | 256.97    | 256.91 | 256.87 | 256.83 | 256.83 |        |
| 29                               | 255.27 | 255.71 | 257.31      | 257.56 | 257.55                          | 259.04 | 257.40            | 256.97    | 256.92 | 256.87 |        | 256.84 |        |
| 30                               | 255.27 | 255.71 | 257.31      | 257.55 | 257.55                          | 259.15 | 257.38            | 256.97    | 256.93 | 256.86 |        | 256.84 |        |
| 31                               |        | 255.70 |             | 257.54 | 257.54                          |        | 257.36            |           | 256.94 | 256.86 |        | 256.84 |        |
| Mean                             | 255.27 | 255.50 | 256.92      | 257.49 | 257.49                          | 258.40 | 257.74            | 257.08    | 256.88 | 256.86 | 256.83 | 256.82 |        |
| Max                              | 255.27 | 255.72 | 257.32      | 257.68 | 257.76                          | 259.15 | 258.86            | 257.34    | 256.96 | 256.95 | 256.87 | 256.84 | 259.15 |
| Min                              | 255.27 | 255.27 | 255.67      | 257.25 | 257.28                          | 257.63 | 257.36            | 256.97    | 256.83 | 256.77 | 256.81 | 256.80 | 255.27 |
| Annual Max Momentary Gage Height | 259.20 |        | m. (MSL.) , |        | at 07.00 Hours, on Sep 30, 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 254.47 |        | m. (MSL.) , |        | River Bed                       | 254.73 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 258.85 |        | m. (MSL.) , |        |                                 |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 259.07 |        | m. (MSL.) , |        | Drainage Area                   | 362    | Square Kilometers |           |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                       | Jun   | Jul                  | Aug   | Sep    | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual        |
|----------------|-------|-----------------------------------------------------------|-------|----------------------|-------|--------|--------------------------|------|------|------|------|------|---------------|
| 1              | 0.00  | 0.00                                                      | 0.00  | 0.60                 | 1.23  | 2.06   | 16.56                    | 0.68 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 2              | 0.00  | 0.00                                                      | 0.00  | 0.58                 | 0.98  | 1.99   | 11.28                    | 0.62 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 3              | 0.00  | 0.00                                                      | 0.00  | 0.56                 | 0.88  | 2.60   | 7.32                     | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 4              | 0.00  | 0.00                                                      | 0.00  | 0.54                 | 0.76  | 2.44   | 4.80                     | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 5              | 0.00  | 0.00                                                      | 0.00  | 0.52                 | 0.68  | 3.43   | 3.58                     | 0.60 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 6              | 0.00  | 0.00                                                      | 0.00  | 0.50                 | 0.60  | 5.04   | 2.52                     | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 7              | 0.00  | 0.00                                                      | 0.00  | 0.52                 | 0.56  | 6.48   | 1.91                     | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 8              | 0.00  | 0.00                                                      | 0.00  | 0.58                 | 0.62  | 6.12   | 1.46                     | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 9              | 0.00  | 0.00                                                      | 0.00  | 0.66                 | 0.68  | 3.81   | 2.37                     | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 10             | 0.00  | 0.00                                                      | 0.36  | 0.74                 | 0.72  | 4.65   | 4.27                     | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 11             | 0.00  | 0.00                                                      | 0.62  | 0.82                 | 0.84  | 8.64   | 5.16                     | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 12             | 0.00  | 0.00                                                      | 0.38  | 0.88                 | 1.00  | 7.68   | 3.96                     | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 13             | 0.00  | 0.00                                                      | 0.58  | 0.92                 | 1.38  | 8.88   | 3.66                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 14             | 0.00  | 0.00                                                      | 0.54  | 1.08                 | 1.46  | 11.76  | 2.29                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 15             | 0.00  | 0.00                                                      | 0.52  | 1.53                 | 1.46  | 18.16  | 1.30                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 16             | 0.00  | 0.00                                                      | 0.50  | 2.14                 | 1.46  | 10.80  | 0.96                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 17             | 0.00  | 0.00                                                      | 0.48  | 2.14                 | 1.38  | 14.80  | 2.82                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 18             | 0.00  | 0.00                                                      | 0.44  | 1.91                 | 1.15  | 16.08  | 5.16                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 19             | 0.00  | 0.00                                                      | 0.46  | 2.06                 | 0.94  | 14.00  | 4.65                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 20             | 0.00  | 0.00                                                      | 0.52  | 2.37                 | 0.92  | 14.16  | 2.75                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 21             | 0.00  | 0.00                                                      | 0.56  | 2.14                 | 0.90  | 14.64  | 1.23                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 22             | 0.00  | 0.00                                                      | 0.58  | 1.84                 | 0.88  | 14.00  | 0.80                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 23             | 0.00  | 0.00                                                      | 0.60  | 1.61                 | 0.98  | 16.08  | 0.96                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 24             | 0.00  | 0.00                                                      | 0.60  | 1.68                 | 1.84  | 14.64  | 1.23                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 25             | 0.00  | 0.00                                                      | 0.38  | 2.06                 | 2.98  | 14.80  | 0.80                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 26             | 0.00  | 0.00                                                      | 0.62  | 2.14                 | 2.52  | 10.96  | 1.38                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 27             | 0.00  | 0.00                                                      | 0.64  | 1.61                 | 1.84  | 10.44  | 1.61                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 28             | 0.00  | 0.00                                                      | 0.64  | 1.53                 | 1.53  | 13.36  | 0.96                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 29             | 0.00  | 0.00                                                      | 0.62  | 1.46                 | 1.38  | 19.62  | 0.80                     | 0.00 | 0.00 | 0.00 |      | 0.00 |               |
| 30             | 0.00  | 0.00                                                      | 0.62  | 1.38                 | 1.38  | 21.86  | 0.76                     | 0.00 | 0.00 | 0.00 |      | 0.00 |               |
| 31             |       | 0.00                                                      |       | 1.30                 | 1.30  |        | 0.72                     |      | 0.00 | 0.00 |      | 0.00 |               |
| Total          | 0.00  | 0.00                                                      | 11.26 | 40.40                | 37.23 | 313.98 | 100.03                   | 5.54 | 0.00 | 0.00 | 0.00 | 0.00 | 508.44 CMSDAY |
| Mean           | 0.00  | 0.00                                                      | 0.38  | 1.30                 | 1.20  | 10.47  | 3.23                     | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 1.39 CMS      |
| Max            | 0.00  | 0.00                                                      | 0.64  | 2.37                 | 2.98  | 21.86  | 16.56                    | 0.68 | 0.00 | 0.00 | 0.00 | 0.00 | 21.86 CMS     |
| Min            | 0.00  | 0.00                                                      | 0.00  | 0.50                 | 0.56  | 1.99   | 0.72                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 0.00  | 0.00                                                      | 0.97  | 3.49                 | 3.22  | 27.13  | 8.64                     | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 | 43.93 MCM     |
| Momentary Peak | 22.88 | CMS, at 259.20 m. (MSL.), at 07.00 Hours, on Sep 30, 2013 |       |                      |       |        |                          |      |      |      |      |      |               |
| Runoff Yield   | 3.85  | Liters/Second/Square KM.                                  |       | Momentary Peak Yield |       | 63.204 | Liters/Second/Square KM. |      |      |      |      |      |               |

**WATER YEAR : 2013**

## CHI RIVER BASIN

**Lam Pao at Ban Tha Hai , Udon Thani (E.65)**

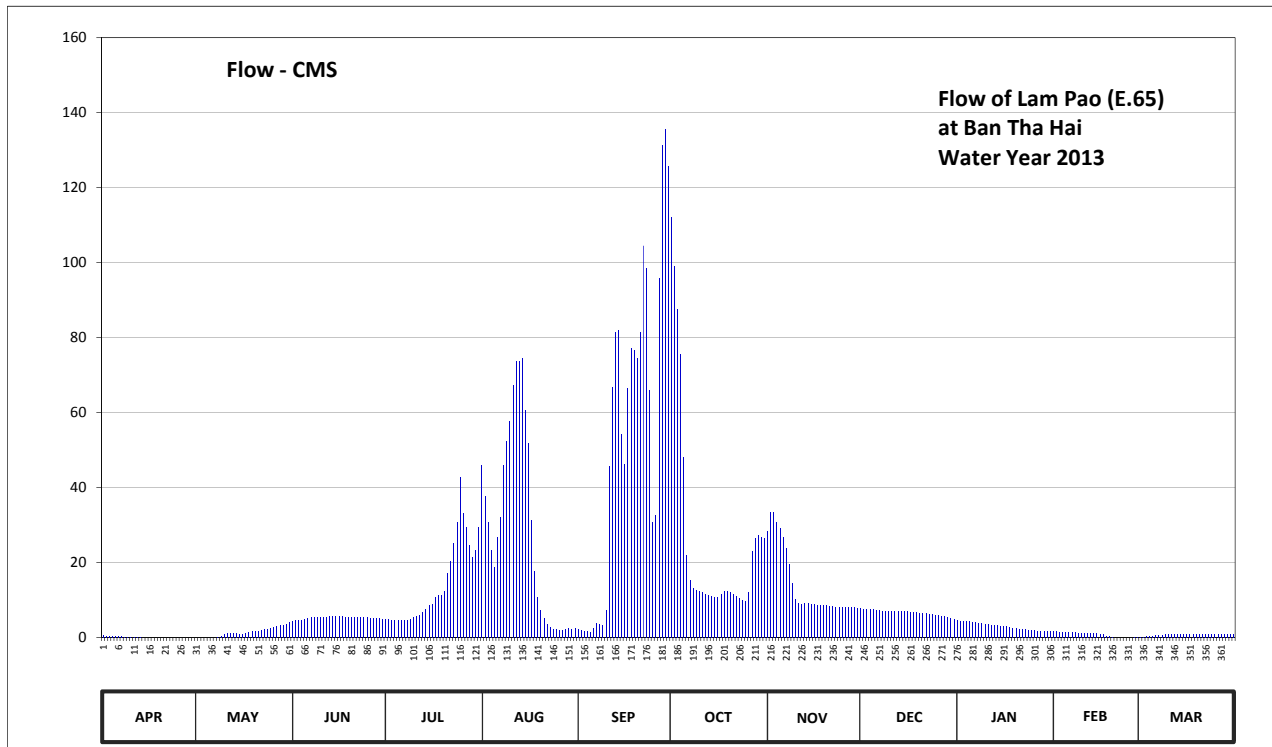
Lat 16 - 57 - 02 N      Long 103 - 10 - 16 E

**Location : on left bank at the bridge on highway.**

|                                         |                                                                             |           |               |         |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Tha Hai   | <b>Amphoe</b> | Si That | <b>Changwat</b>  | Udon Thani         |
| <b>Drainage Area</b>                    | 2,149                                                                       | sq.km.    |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +158.990                                                                    | m. (MSL.) |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                        |           |               |         |                  |                    |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                 |           |               |         | <b>Elevation</b> | +169.494 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                |           |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |           |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1983 to date                                                                |           |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1983 to date                                                                |           |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |           |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |         |                  |                    |
| <b>General Description</b>              | Records fair. Flow effected by Lam Pao Dam.                                 |           |               |         |                  |                    |
|                                         | Stage-discharge relation defined by 14 discharge measurements made in 2013. |           |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 159.96 | 159.88 | 161.06                                           | 161.16 | 163.39 | 160.59 | 164.69 | 162.84 | 161.57 | 161.10 | 160.35 | 159.92 |        |
| 2                                | 159.95 | 159.88 | 161.09                                           | 161.14 | 163.16 | 160.47 | 164.48 | 163.04 | 161.56 | 161.08 | 160.32 | 159.92 |        |
| 3                                | 159.95 | 159.88 | 161.10                                           | 161.12 | 162.95 | 160.38 | 164.26 | 163.04 | 161.55 | 161.07 | 160.29 | 159.93 |        |
| 4                                | 159.94 | 159.88 | 161.12                                           | 161.11 | 162.61 | 160.32 | 164.03 | 162.95 | 161.54 | 161.06 | 160.27 | 159.94 |        |
| 5                                | 159.94 | 159.88 | 161.16                                           | 161.10 | 162.37 | 160.28 | 163.45 | 162.87 | 161.54 | 161.05 | 160.25 | 159.95 |        |
| 6                                | 159.93 | 159.88 | 161.21                                           | 161.09 | 162.76 | 160.64 | 162.55 | 162.77 | 161.53 | 161.03 | 160.23 | 159.96 |        |
| 7                                | 159.93 | 159.89 | 161.23                                           | 161.09 | 163.00 | 160.99 | 162.15 | 162.63 | 161.52 | 161.00 | 160.21 | 159.96 |        |
| 8                                | 159.92 | 159.92 | 161.22                                           | 161.11 | 163.39 | 160.93 | 162.02 | 162.42 | 161.51 | 160.97 | 160.19 | 159.97 |        |
| 9                                | 159.92 | 159.95 | 161.22                                           | 161.14 | 163.55 | 160.82 | 161.98 | 162.09 | 161.51 | 160.94 | 160.16 | 159.98 |        |
| 10                               | 159.92 | 159.98 | 161.22                                           | 161.22 | 163.66 | 161.53 | 161.94 | 161.78 | 161.50 | 160.90 | 160.14 | 159.99 |        |
| 11                               | 159.92 | 160.05 | 161.24                                           | 161.29 | 163.86 | 163.38 | 161.92 | 161.69 | 161.50 | 160.87 | 160.12 | 160.00 |        |
| 12                               | 159.91 | 160.07 | 161.26                                           | 161.34 | 163.99 | 163.85 | 161.89 | 161.67 | 161.49 | 160.85 | 160.09 | 160.01 |        |
| 13                               | 159.91 | 160.05 | 161.28                                           | 161.45 | 163.99 | 164.14 | 161.87 | 161.68 | 161.49 | 160.83 | 160.07 | 160.01 |        |
| 14                               | 159.90 | 160.02 | 161.29                                           | 161.56 | 164.01 | 164.15 | 161.84 | 161.68 | 161.49 | 160.81 | 160.05 | 160.01 |        |
| 15                               | 159.90 | 159.99 | 161.28                                           | 161.64 | 163.72 | 163.59 | 161.81 | 161.67 | 161.49 | 160.79 | 160.03 | 160.01 |        |
| 16                               | 159.90 | 159.98 | 161.28                                           | 161.67 | 163.54 | 163.40 | 161.81 | 161.66 | 161.49 | 160.76 | 160.00 | 160.01 |        |
| 17                               | 159.90 | 160.06 | 161.27                                           | 161.81 | 162.97 | 163.84 | 161.89 | 161.64 | 161.48 | 160.73 | 159.98 | 160.01 |        |
| 18                               | 159.90 | 160.23 | 161.25                                           | 161.85 | 162.29 | 164.06 | 161.94 | 161.64 | 161.47 | 160.69 | 159.95 | 160.01 |        |
| 19                               | 159.90 | 160.30 | 161.24                                           | 161.85 | 161.82 | 164.05 | 161.94 | 161.63 | 161.45 | 160.64 | 159.93 | 160.01 |        |
| 20                               | 159.90 | 160.35 | 161.24                                           | 161.95 | 161.53 | 164.01 | 161.93 | 161.63 | 161.44 | 160.61 | 159.92 | 160.01 |        |
| 21                               | 159.90 | 160.38 | 161.23                                           | 162.27 | 161.20 | 164.14 | 161.89 | 161.62 | 161.43 | 160.59 | 159.90 | 160.01 |        |
| 22                               | 159.90 | 160.43 | 161.23                                           | 162.46 | 160.92 | 164.57 | 161.84 | 161.61 | 161.41 | 160.57 | 159.89 | 160.01 |        |
| 23                               | 159.90 | 160.54 | 161.23                                           | 162.69 | 160.72 | 164.47 | 161.79 | 161.60 | 161.38 | 160.54 | 159.89 | 160.01 |        |
| 24                               | 159.89 | 160.60 | 161.23                                           | 162.95 | 160.59 | 163.83 | 161.76 | 161.59 | 161.36 | 160.50 | 159.89 | 160.01 |        |
| 25                               | 159.89 | 160.65 | 161.22                                           | 163.30 | 160.53 | 162.94 | 161.73 | 161.59 | 161.35 | 160.47 | 159.89 | 160.01 |        |
| 26                               | 159.89 | 160.70 | 161.21                                           | 163.03 | 160.45 | 163.02 | 161.92 | 161.59 | 161.33 | 160.44 | 159.90 | 160.01 |        |
| 27                               | 159.89 | 160.79 | 161.21                                           | 162.89 | 160.48 | 164.42 | 162.59 | 161.59 | 161.30 | 160.41 | 159.91 | 160.01 |        |
| 28                               | 159.88 | 160.83 | 161.19                                           | 162.67 | 160.60 | 164.99 | 162.75 | 161.59 | 161.27 | 160.40 | 159.92 | 160.01 |        |
| 29                               | 159.88 | 160.85 | 161.18                                           | 162.52 | 160.63 | 165.05 | 162.79 | 161.59 | 161.23 | 160.39 |        | 160.00 |        |
| 30                               | 159.88 | 160.89 | 161.17                                           | 162.61 | 160.59 | 164.90 | 162.77 | 161.58 | 161.20 | 160.38 |        | 160.00 |        |
| 31                               |        | 161.03 |                                                  | 162.88 | 160.61 |        | 162.75 |        | 161.16 | 160.36 |        | 160.00 |        |
| Mean                             | 159.91 | 160.25 | 161.21                                           | 161.87 | 162.25 | 162.93 | 162.42 | 161.97 | 161.44 | 160.74 | 160.06 | 159.99 |        |
| Max                              | 159.96 | 161.03 | 161.29                                           | 163.30 | 164.01 | 165.05 | 164.69 | 163.04 | 161.57 | 161.10 | 160.35 | 160.01 | 165.05 |
| Min                              | 159.88 | 159.88 | 161.06                                           | 161.09 | 160.45 | 160.28 | 161.73 | 161.58 | 161.16 | 160.36 | 159.89 | 159.92 | 159.88 |
| Annual Max Momentary Gage Height |        | 165.07 | m. (MSL.) , at 05.00 Hours, on Sep 29, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 158.99 | m. (MSL.) , River Bed 159.85 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 166.28 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 166.11 | m. (MSL.) , Drainage Area 2149 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 0.60                                                             | 0.00                     | 4.36   | 4.96                 | 46.04  | 2.36    | 112.16                   | 28.48  | 7.84   | 4.60  | 1.70  | 0.20  |                |
| 2              | 0.50                                                             | 0.00                     | 4.54   | 4.84                 | 37.76  | 1.94    | 98.96                    | 33.44  | 7.72   | 4.48  | 1.64  | 0.20  |                |
| 3              | 0.50                                                             | 0.00                     | 4.60   | 4.72                 | 30.90  | 1.76    | 87.52                    | 33.44  | 7.60   | 4.42  | 1.58  | 0.30  |                |
| 4              | 0.40                                                             | 0.00                     | 4.72   | 4.66                 | 23.42  | 1.64    | 75.56                    | 30.90  | 7.48   | 4.36  | 1.54  | 0.40  |                |
| 5              | 0.40                                                             | 0.00                     | 4.96   | 4.60                 | 18.92  | 1.56    | 48.20                    | 29.14  | 7.48   | 4.30  | 1.50  | 0.50  |                |
| 6              | 0.30                                                             | 0.00                     | 5.26   | 4.54                 | 26.72  | 2.56    | 22.10                    | 26.94  | 7.36   | 4.18  | 1.46  | 0.60  |                |
| 7              | 0.30                                                             | 0.00                     | 5.38   | 4.54                 | 32.00  | 3.96    | 15.40                    | 23.86  | 7.24   | 4.00  | 1.42  | 0.60  |                |
| 8              | 0.20                                                             | 0.20                     | 5.32   | 4.66                 | 46.04  | 3.72    | 13.32                    | 19.72  | 7.12   | 3.88  | 1.38  | 0.70  |                |
| 9              | 0.20                                                             | 0.50                     | 5.32   | 4.84                 | 52.40  | 3.28    | 12.76                    | 14.44  | 7.12   | 3.76  | 1.32  | 0.80  |                |
| 10             | 0.20                                                             | 0.80                     | 5.32   | 5.32                 | 57.68  | 7.36    | 12.28                    | 10.36  | 7.00   | 3.60  | 1.28  | 0.90  |                |
| 11             | 0.20                                                             | 1.10                     | 5.44   | 5.74                 | 67.28  | 45.68   | 12.04                    | 9.28   | 7.00   | 3.48  | 1.24  | 1.00  |                |
| 12             | 0.10                                                             | 1.14                     | 5.56   | 6.04                 | 73.52  | 66.80   | 11.68                    | 9.04   | 6.94   | 3.40  | 1.18  | 1.02  |                |
| 13             | 0.10                                                             | 1.10                     | 5.68   | 6.70                 | 73.52  | 81.28   | 11.44                    | 9.16   | 6.94   | 3.32  | 1.14  | 1.02  |                |
| 14             | 0.00                                                             | 1.04                     | 5.74   | 7.72                 | 74.52  | 81.80   | 11.08                    | 9.16   | 6.94   | 3.24  | 1.10  | 1.02  |                |
| 15             | 0.00                                                             | 0.90                     | 5.68   | 8.68                 | 60.56  | 54.32   | 10.72                    | 9.04   | 6.94   | 3.16  | 1.06  | 1.02  |                |
| 16             | 0.00                                                             | 0.80                     | 5.68   | 9.04                 | 51.92  | 46.40   | 10.72                    | 8.92   | 6.94   | 3.04  | 1.00  | 1.02  |                |
| 17             | 0.00                                                             | 1.12                     | 5.62   | 10.72                | 31.34  | 66.32   | 11.68                    | 8.68   | 6.88   | 2.92  | 0.80  | 1.02  |                |
| 18             | 0.00                                                             | 1.46                     | 5.50   | 11.20                | 17.64  | 77.12   | 12.28                    | 8.68   | 6.82   | 2.76  | 0.50  | 1.02  |                |
| 19             | 0.00                                                             | 1.60                     | 5.44   | 11.20                | 10.84  | 76.60   | 12.28                    | 8.56   | 6.70   | 2.56  | 0.30  | 1.02  |                |
| 20             | 0.00                                                             | 1.70                     | 5.44   | 12.40                | 7.36   | 74.52   | 12.16                    | 8.56   | 6.64   | 2.44  | 0.20  | 1.02  |                |
| 21             | 0.00                                                             | 1.76                     | 5.38   | 17.32                | 5.20   | 81.28   | 11.68                    | 8.44   | 6.58   | 2.36  | 0.00  | 1.02  |                |
| 22             | 0.00                                                             | 1.86                     | 5.38   | 20.36                | 3.68   | 104.48  | 11.08                    | 8.32   | 6.46   | 2.28  | 0.00  | 1.02  |                |
| 23             | 0.00                                                             | 2.16                     | 5.38   | 25.18                | 2.88   | 98.44   | 10.48                    | 8.20   | 6.28   | 2.16  | 0.00  | 1.02  |                |
| 24             | 0.00                                                             | 2.40                     | 5.38   | 30.90                | 2.36   | 65.84   | 10.12                    | 8.08   | 6.16   | 2.00  | 0.00  | 1.02  |                |
| 25             | 0.00                                                             | 2.60                     | 5.32   | 42.80                | 2.12   | 30.68   | 9.76                     | 8.08   | 6.10   | 1.94  | 0.00  | 1.02  |                |
| 26             | 0.00                                                             | 2.80                     | 5.26   | 33.08                | 1.90   | 32.72   | 12.04                    | 8.08   | 5.98   | 1.88  | 0.00  | 1.02  |                |
| 27             | 0.00                                                             | 3.16                     | 5.26   | 29.58                | 1.96   | 95.84   | 22.98                    | 8.08   | 5.80   | 1.82  | 0.10  | 1.02  |                |
| 28             | 0.00                                                             | 3.32                     | 5.14   | 24.74                | 2.40   | 131.36  | 26.50                    | 8.08   | 5.62   | 1.80  | 0.20  | 1.02  |                |
| 29             | 0.00                                                             | 3.40                     | 5.08   | 21.44                | 2.52   | 135.60  | 27.38                    | 8.08   | 5.38   | 1.78  |       | 1.00  |                |
| 30             | 0.00                                                             | 3.56                     | 5.02   | 23.42                | 2.36   | 125.60  | 26.94                    | 7.96   | 5.20   | 1.76  |       | 1.00  |                |
| 31             |                                                                  | 4.18                     |        | 29.36                | 2.44   |         | 26.50                    |        | 4.96   | 1.72  |       | 1.00  |                |
| Total          | 4.00                                                             | 44.66                    | 158.16 | 435.30               | 870.20 | 1602.82 | 809.80                   | 421.20 | 207.22 | 93.40 | 23.64 | 26.54 | 4696.94 CMSDAY |
| Mean           | 0.13                                                             | 1.44                     | 5.27   | 14.04                | 28.07  | 53.43   | 26.12                    | 14.04  | 6.68   | 3.01  | 0.84  | 0.86  | 12.87 CMS      |
| Max            | 0.60                                                             | 4.18                     | 5.74   | 42.80                | 74.52  | 135.60  | 112.16                   | 33.44  | 7.84   | 4.60  | 1.70  | 1.02  | 135.60 CMS     |
| Min            | 0.00                                                             | 0.00                     | 4.36   | 4.54                 | 1.90   | 1.56    | 9.76                     | 7.96   | 4.96   | 1.72  | 0.00  | 0.20  | 0.00 CMS       |
| Runoff         | 0.35                                                             | 3.86                     | 13.67  | 37.61                | 75.19  | 138.48  | 69.97                    | 36.39  | 17.90  | 8.07  | 2.04  | 2.29  | 405.82 MCM     |
| Momentary Peak | 137.04 CMS, at 165.07 m. (MSL.), at 05.00 Hours, on Sep 29, 2013 |                          |        |                      |        |         |                          |        |        |       |       |       |                |
| Runoff Yield   | 5.99                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 63.769  | Liters/Second/Square KM. |        |        |       |       |       |                |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Muang Lat , Roi Et (E.66A)**

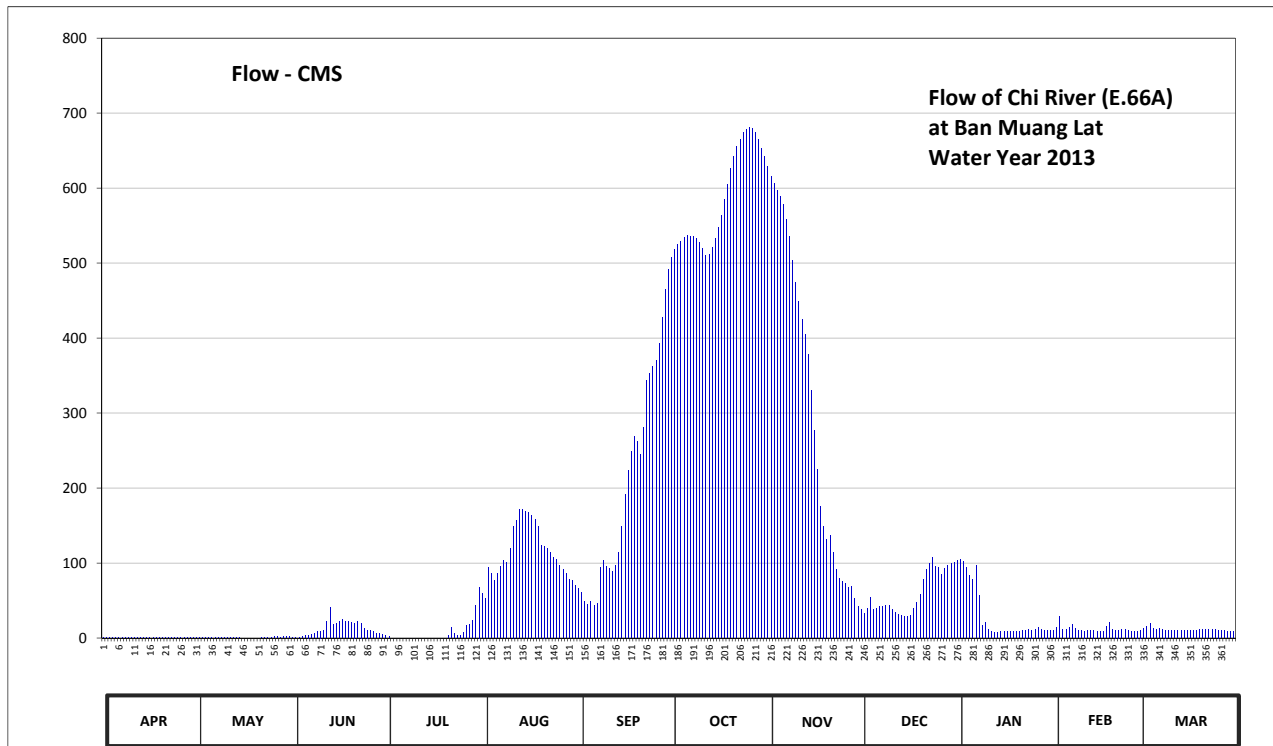
Lat 16 - 12 - 08 N Long 103 - 31 - 41 E

Location : on right bank at the bridge.

|                                         |                                                                                           |                  |               |                  |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Muang Lat</b> | <b>Amphoe</b> | <b>Chang Han</b> | <b>Changwat</b>  | <b>Roi Et</b>      |
| <b>Drainage Area</b>                    | 31,879                                                                                    | sq.km.           |               |                  |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage             |               |                  |                  |                    |
| <b>Zero Gage at Bottom</b>              | +126.900                                                                                  | m. (MSL.)        |               |                  |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept.   |               |                  |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |                  |               |                  | <b>Elevation</b> | +143.406 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                  |               |                  |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                  |               |                  |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |                  |               |                  |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |                  |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |                  |               |                  |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |                  |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |                  |               |                  |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                  |               |                  |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |                  |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 27 discharge measurements made in 2013. |                  |               |                  |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

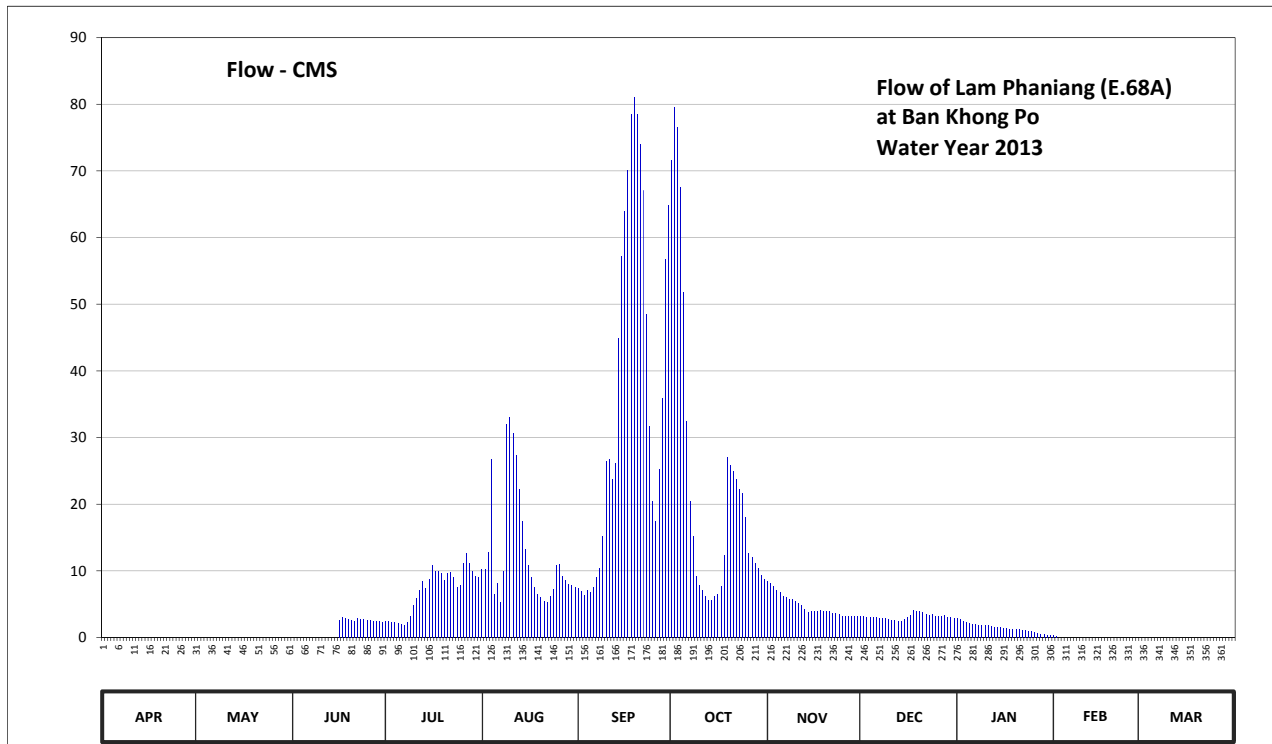
| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                             | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 128.83 | 128.83 | 128.87      | 128.97 | 130.57 | 130.70        | 136.32                          | 137.45            | 130.04 | 131.41 | 130.42 | 130.46 |        |
| 2                                | 128.83 | 128.84 | 128.86      | 128.90 | 130.42 | 130.60        | 136.42                          | 137.33            | 129.89 | 131.43 | 130.64 | 130.56 |        |
| 3                                | 128.82 | 128.82 | 128.86      | 128.77 | 131.26 | 130.31        | 136.49                          | 137.24            | 130.10 | 131.39 | 130.90 | 130.67 |        |
| 4                                | 128.82 | 128.82 | 128.88      | 128.67 | 131.12 | 130.22        | 136.53                          | 137.16            | 130.45 | 131.29 | 130.50 | 130.74 |        |
| 5                                | 128.83 | 128.83 | 128.96      | 128.61 | 130.92 | 130.31        | 136.58                          | 137.08            | 130.05 | 131.24 | 130.49 | 130.56 |        |
| 6                                | 128.83 | 128.82 | 129.00      | 128.57 | 131.12 | 130.18        | 136.60                          | 136.98            | 130.09 | 131.22 | 130.61 | 130.49 |        |
| 7                                | 128.83 | 128.81 | 129.03      | 128.54 | 131.28 | 130.24        | 136.59                          | 136.80            | 130.15 | 131.30 | 130.72 | 130.57 |        |
| 8                                | 128.82 | 128.81 | 129.09      | 128.58 | 131.41 | 131.25        | 136.59                          | 136.59            | 130.17 | 131.12 | 130.59 | 130.52 |        |
| 9                                | 128.82 | 128.82 | 129.15      | 128.68 | 131.37 | 131.42        | 136.56                          | 136.28            | 130.20 | 130.69 | 130.37 | 130.48 |        |
| 10                               | 128.82 | 128.82 | 129.18      | 128.76 | 131.68 | 131.28        | 136.51                          | 135.98            | 130.18 | 130.78 | 130.40 | 130.44 |        |
| 11                               | 128.82 | 128.83 | 129.20      | 128.74 | 132.14 | 131.23        | 136.43                          | 135.73            | 130.04 | 130.49 | 130.35 | 130.38 |        |
| 12                               | 128.81 | 128.84 | 129.61      | 128.74 | 132.24 | 131.17        | 136.34                          | 135.49            | 129.96 | 130.25 | 130.37 | 130.39 |        |
| 13                               | 128.82 | 128.85 | 130.12      | 128.73 | 132.46 | 131.30        | 136.36                          | 135.27            | 129.87 | 130.13 | 130.43 | 130.41 |        |
| 14                               | 128.84 | 128.85 | 129.48      | 128.75 | 132.47 | 131.60        | 136.45                          | 134.98            | 129.82 | 130.13 | 130.46 | 130.41 |        |
| 15                               | 128.83 | 128.82 | 129.52      | 128.76 | 132.42 | 132.13        | 136.56                          | 134.45            | 129.79 | 130.23 | 130.32 | 130.43 |        |
| 16                               | 128.86 | 128.76 | 129.59      | 128.73 | 132.41 | 132.74        | 136.70                          | 133.84            | 129.78 | 130.32 | 130.21 | 130.44 |        |
| 17                               | 128.85 | 128.76 | 129.67      | 128.71 | 132.34 | 133.17        | 136.85                          | 133.20            | 129.83 | 130.33 | 130.28 | 130.44 |        |
| 18                               | 128.83 | 128.71 | 129.61      | 128.69 | 132.27 | 133.51        | 137.04                          | 132.52            | 130.07 | 130.33 | 130.65 | 130.42 |        |
| 19                               | 128.84 | 128.79 | 129.58      | 128.71 | 132.13 | 133.75        | 137.23                          | 132.14            | 130.30 | 130.32 | 130.78 | 130.43 |        |
| 20                               | 128.85 | 128.80 | 129.55      | 128.76 | 131.75 | 133.67        | 137.43                          | 131.87            | 130.54 | 130.31 | 130.55 | 130.49 |        |
| 21                               | 128.85 | 128.80 | 129.53      | 128.94 | 131.73 | 133.45        | 137.58                          | 131.96            | 130.97 | 130.32 | 130.46 | 130.54 |        |
| 22                               | 128.84 | 128.81 | 129.59      | 129.35 | 131.67 | 133.89        | 137.70                          | 131.60            | 131.21 | 130.40 | 130.48 | 130.54 |        |
| 23                               | 128.87 | 128.83 | 129.53      | 129.06 | 131.59 | 134.60        | 137.79                          | 131.21            | 131.36 | 130.47 | 130.52 | 130.51 |        |
| 24                               | 128.85 | 128.86 | 129.30      | 128.99 | 131.50 | 134.71        | 137.87                          | 130.98            | 131.48 | 130.50 | 130.49 | 130.53 |        |
| 25                               | 128.85 | 128.87 | 129.22      | 128.94 | 131.43 | 134.81        | 137.91                          | 130.90            | 131.28 | 130.48 | 130.38 | 130.50 |        |
| 26                               | 128.87 | 128.88 | 129.19      | 129.12 | 131.29 | 134.90        | 137.94                          | 130.84            | 131.29 | 130.53 | 130.30 | 130.46 |        |
| 27                               | 128.85 | 128.88 | 129.15      | 129.42 | 131.20 | 135.14        | 137.92                          | 130.73            | 131.25 | 130.61 | 130.32 | 130.43 |        |
| 28                               | 128.84 | 128.87 | 129.08      | 129.47 | 131.10 | 135.51        | 137.87                          | 130.78            | 131.28 | 130.49 | 130.34 | 130.40 |        |
| 29                               | 128.85 | 128.88 | 129.06      | 129.64 | 130.97 | 135.89        | 137.79                          | 130.42            | 131.30 | 130.48 |        | 130.33 |        |
| 30                               | 128.84 | 128.89 | 129.03      | 130.19 | 130.93 | 136.16        | 137.67                          | 130.16            | 131.34 | 130.47 |        | 130.26 |        |
| 31                               |        | 128.88 |             | 130.75 | 130.80 |               | 137.57                          |                   | 131.37 | 130.43 |        | 130.24 |        |
| Mean                             | 128.84 | 128.83 | 129.28      | 128.98 | 131.55 | 132.66        | 137.04                          | 133.93            | 130.50 | 130.64 | 130.48 | 130.47 |        |
| Max                              | 128.87 | 128.89 | 130.12      | 130.75 | 132.47 | 136.16        | 137.94                          | 137.45            | 131.48 | 131.43 | 130.90 | 130.74 | 137.94 |
| Min                              | 128.81 | 128.71 | 128.86      | 128.54 | 130.42 | 130.18        | 136.32                          | 130.16            | 129.78 | 130.13 | 130.21 | 130.24 | 128.54 |
| Annual Max Momentary Gage Height |        | 137.95 | m. (MSL.) , |        |        |               | at 12.00 Hours, on Oct 26, 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 126.90 | m. (MSL.) , |        |        | River Bed     | 126.89                          | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 138.51 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 138.98 | m. (MSL.) , |        |        | Drainage Area | 31879                           | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|-----------------------------------------------------------|--------|----------------------|---------|---------|--------------------------|---------|---------|--------|--------|--------|----------|--------|
| 1              | 0.60   | 0.60                                                      | 1.40   | 3.40                 | 59.36   | 65.60   | 508.00                   | 628.60  | 37.60   | 102.96 | 10.20  | 10.60  |          |        |
| 2              | 0.60   | 0.80                                                      | 1.20   | 2.00                 | 52.80   | 60.80   | 518.00                   | 615.64  | 32.26   | 104.08 | 14.60  | 12.20  |          |        |
| 3              | 0.40   | 0.40                                                      | 1.20   | 0.00                 | 94.56   | 48.40   | 525.00                   | 605.92  | 40.00   | 101.84 | 29.00  | 15.80  |          |        |
| 4              | 0.40   | 0.40                                                      | 1.60   | 0.00                 | 86.72   | 44.80   | 529.24                   | 597.28  | 54.00   | 94.52  | 11.00  | 19.00  |          |        |
| 5              | 0.60   | 0.60                                                      | 3.20   | 0.00                 | 76.16   | 48.40   | 534.64                   | 588.64  | 38.00   | 83.12  | 10.90  | 12.20  |          |        |
| 6              | 0.60   | 0.40                                                      | 4.00   | 0.00                 | 86.72   | 43.20   | 536.80                   | 577.84  | 39.60   | 78.56  | 13.40  | 10.90  |          |        |
| 7              | 0.60   | 0.20                                                      | 4.90   | 0.00                 | 95.68   | 45.60   | 535.72                   | 558.40  | 42.00   | 96.80  | 18.00  | 12.40  |          |        |
| 8              | 0.40   | 0.20                                                      | 6.70   | 0.00                 | 102.96  | 94.00   | 535.72                   | 535.72  | 42.80   | 56.40  | 12.80  | 11.40  |          |        |
| 9              | 0.40   | 0.40                                                      | 8.50   | 0.00                 | 100.72  | 103.52  | 532.48                   | 504.00  | 44.00   | 16.60  | 9.70   | 10.80  |          |        |
| 10             | 0.40   | 0.40                                                      | 9.40   | 0.00                 | 119.52  | 95.68   | 527.08                   | 474.00  | 43.20   | 21.00  | 10.00  | 10.40  |          |        |
| 11             | 0.40   | 0.60                                                      | 10.00  | 0.00                 | 149.52  | 92.88   | 519.00                   | 449.00  | 37.60   | 10.90  | 9.50   | 9.80   |          |        |
| 12             | 0.20   | 0.80                                                      | 22.74  | 0.00                 | 156.32  | 89.52   | 510.00                   | 425.08  | 34.64   | 8.50   | 9.70   | 9.90   |          |        |
| 13             | 0.40   | 1.00                                                      | 40.80  | 0.00                 | 171.28  | 96.80   | 512.00                   | 404.84  | 31.58   | 7.30   | 10.30  | 10.10  |          |        |
| 14             | 0.80   | 1.00                                                      | 18.40  | 0.00                 | 171.96  | 114.40  | 521.00                   | 378.16  | 29.88   | 7.30   | 10.60  | 10.10  |          |        |
| 15             | 0.60   | 0.40                                                      | 19.68  | 0.00                 | 168.56  | 148.84  | 532.48                   | 329.60  | 28.86   | 8.30   | 9.20   | 10.30  |          |        |
| 16             | 1.20   | 0.00                                                      | 22.06  | 0.00                 | 167.88  | 191.28  | 547.60                   | 276.56  | 28.52   | 9.20   | 8.10   | 10.40  |          |        |
| 17             | 1.00   | 0.00                                                      | 24.78  | 0.00                 | 163.12  | 222.92  | 563.80                   | 225.20  | 30.22   | 9.30   | 8.80   | 10.40  |          |        |
| 18             | 0.60   | 0.00                                                      | 22.74  | 0.00                 | 158.36  | 248.84  | 584.32                   | 175.44  | 38.80   | 9.30   | 15.00  | 10.20  |          |        |
| 19             | 0.80   | 0.00                                                      | 21.72  | 0.00                 | 148.84  | 269.00  | 604.84                   | 149.52  | 48.00   | 9.20   | 21.00  | 10.30  |          |        |
| 20             | 1.00   | 0.00                                                      | 20.70  | 0.00                 | 124.00  | 262.28  | 626.44                   | 131.68  | 57.92   | 9.10   | 12.00  | 10.90  |          |        |
| 21             | 1.00   | 0.00                                                      | 20.02  | 2.80                 | 122.72  | 244.20  | 642.64                   | 137.44  | 78.56   | 9.20   | 10.60  | 11.80  |          |        |
| 22             | 0.80   | 0.20                                                      | 22.06  | 14.50                | 118.88  | 280.76  | 655.60                   | 114.40  | 91.76   | 10.00  | 10.80  | 11.80  |          |        |
| 23             | 1.40   | 0.60                                                      | 20.02  | 5.80                 | 113.76  | 343.20  | 665.32                   | 91.76   | 100.16  | 10.70  | 11.40  | 11.20  |          |        |
| 24             | 1.00   | 1.20                                                      | 13.00  | 3.80                 | 108.00  | 353.32  | 673.96                   | 79.04   | 106.88  | 11.00  | 10.90  | 11.60  |          |        |
| 25             | 1.00   | 1.40                                                      | 10.60  | 2.80                 | 104.08  | 362.52  | 678.28                   | 75.20   | 95.68   | 10.80  | 9.80   | 11.00  |          |        |
| 26             | 1.40   | 1.60                                                      | 9.70   | 7.60                 | 96.24   | 370.80  | 681.52                   | 72.32   | 94.52   | 11.60  | 9.00   | 10.60  |          |        |
| 27             | 1.00   | 1.60                                                      | 8.50   | 16.60                | 91.20   | 392.88  | 679.36                   | 67.04   | 85.40   | 13.40  | 9.20   | 10.30  |          |        |
| 28             | 0.80   | 1.40                                                      | 6.40   | 18.10                | 85.60   | 427.00  | 673.96                   | 69.44   | 92.24   | 10.90  | 9.40   | 10.00  |          |        |
| 29             | 1.00   | 1.60                                                      | 5.80   | 23.76                | 78.56   | 465.00  | 665.32                   | 52.80   | 96.80   | 10.80  |        | 9.30   |          |        |
| 30             | 0.80   | 1.80                                                      | 4.90   | 43.60                | 76.64   | 492.00  | 652.36                   | 42.40   | 99.04   | 10.70  |        | 8.60   |          |        |
| 31             |        | 1.60                                                      |        | 68.00                | 70.40   |         | 641.56                   |         | 100.72  | 10.30  |        | 8.40   |          |        |
| Total          | 22.20  | 21.20                                                     | 386.72 | 212.76               | 3521.12 | 6118.44 | 18114.04                 | 9432.96 | 1821.24 | 963.68 | 334.90 | 342.70 | 41291.96 | CMSDAY |
| Mean           | 0.74   | 0.68                                                      | 12.89  | 6.86                 | 113.58  | 203.95  | 584.32                   | 314.43  | 58.75   | 31.09  | 11.96  | 11.05  | 113.13   | CMS    |
| Max            | 1.40   | 1.80                                                      | 40.80  | 68.00                | 171.96  | 492.00  | 681.52                   | 628.60  | 106.88  | 104.08 | 29.00  | 19.00  | 681.52   | CMS    |
| Min            | 0.20   | 0.00                                                      | 1.20   | 0.00                 | 52.80   | 43.20   | 508.00                   | 42.40   | 28.52   | 7.30   | 8.10   | 8.40   | 0.00     | CMS    |
| Runoff         | 1.92   | 1.83                                                      | 33.41  | 18.38                | 304.23  | 528.63  | 1565.05                  | 815.01  | 157.36  | 83.26  | 28.94  | 29.61  | 3567.63  | MCM    |
| Momentary Peak | 682.60 | CMS, at 137.95 m. (MSL.), at 12.00 Hours, on Oct 26, 2013 |        |                      |         |         |                          |         |         |        |        |        |          |        |
| Runoff Yield   | 3.55   | Liters/Second/Square KM.                                  |        | Momentary Peak Yield |         | 21.412  | Liters/Second/Square KM. |         |         |        |        |        |          |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual  |        |
|----------------|-------|----------------------------------------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|------|------|---------|--------|
| 1              | 0.00  | 0.00                                                     | 0.00  | 2.45                 | 10.20  | 7.40    | 71.50                    | 8.40   | 3.20  | 2.90  | 0.30 | 0.00 |         |        |
| 2              | 0.00  | 0.00                                                     | 0.00  | 2.45                 | 10.20  | 6.95    | 79.50                    | 8.20   | 3.20  | 2.75  | 0.20 | 0.00 |         |        |
| 3              | 0.00  | 0.00                                                     | 0.00  | 2.30                 | 12.80  | 6.35    | 76.50                    | 7.70   | 3.05  | 2.45  | 0.00 | 0.00 |         |        |
| 4              | 0.00  | 0.00                                                     | 0.00  | 2.30                 | 26.80  | 7.10    | 67.55                    | 7.10   | 3.05  | 2.30  | 0.00 | 0.00 |         |        |
| 5              | 0.00  | 0.00                                                     | 0.00  | 2.15                 | 6.50   | 6.80    | 51.80                    | 6.80   | 3.05  | 2.15  | 0.00 | 0.00 |         |        |
| 6              | 0.00  | 0.00                                                     | 0.00  | 2.00                 | 8.20   | 7.55    | 32.40                    | 6.20   | 3.05  | 2.00  | 0.00 | 0.00 |         |        |
| 7              | 0.00  | 0.00                                                     | 0.00  | 1.90                 | 5.30   | 9.00    | 20.50                    | 6.05   | 2.90  | 2.00  | 0.00 | 0.00 |         |        |
| 8              | 0.00  | 0.00                                                     | 0.00  | 2.30                 | 10.00  | 10.40   | 15.25                    | 5.75   | 2.90  | 1.90  | 0.00 | 0.00 |         |        |
| 9              | 0.00  | 0.00                                                     | 0.00  | 3.20                 | 32.05  | 15.25   | 9.20                     | 5.75   | 2.90  | 1.90  | 0.00 | 0.00 |         |        |
| 10             | 0.00  | 0.00                                                     | 0.00  | 4.85                 | 33.10  | 26.50   | 7.85                     | 5.45   | 2.75  | 1.80  | 0.00 | 0.00 |         |        |
| 11             | 0.00  | 0.00                                                     | 0.00  | 5.90                 | 30.70  | 26.80   | 7.10                     | 5.15   | 2.60  | 1.80  | 0.00 | 0.00 |         |        |
| 12             | 0.00  | 0.00                                                     | 0.00  | 7.10                 | 27.40  | 23.80   | 6.20                     | 4.85   | 2.60  | 1.70  | 0.00 | 0.00 |         |        |
| 13             | 0.00  | 0.00                                                     | 0.00  | 8.40                 | 22.30  | 26.20   | 5.60                     | 4.25   | 2.45  | 1.60  | 0.00 | 0.00 |         |        |
| 14             | 0.00  | 0.00                                                     | 0.00  | 7.40                 | 17.50  | 44.80   | 5.60                     | 3.80   | 2.45  | 1.50  | 0.00 | 0.00 |         |        |
| 15             | 0.00  | 0.00                                                     | 0.00  | 8.80                 | 13.20  | 57.20   | 6.20                     | 3.95   | 2.75  | 1.50  | 0.00 | 0.00 |         |        |
| 16             | 0.00  | 0.00                                                     | 2.60  | 10.80                | 10.80  | 63.95   | 6.50                     | 3.95   | 3.05  | 1.40  | 0.00 | 0.00 |         |        |
| 17             | 0.00  | 0.00                                                     | 3.05  | 10.00                | 9.00   | 70.00   | 7.70                     | 3.95   | 3.35  | 1.40  | 0.00 | 0.00 |         |        |
| 18             | 0.00  | 0.00                                                     | 2.90  | 10.00                | 7.55   | 78.50   | 12.40                    | 4.10   | 4.10  | 1.30  | 0.00 | 0.00 |         |        |
| 19             | 0.00  | 0.00                                                     | 2.75  | 9.60                 | 6.50   | 81.00   | 27.10                    | 3.95   | 3.95  | 1.30  | 0.00 | 0.00 |         |        |
| 20             | 0.00  | 0.00                                                     | 2.60  | 8.60                 | 6.05   | 78.50   | 25.90                    | 3.95   | 3.95  | 1.20  | 0.00 | 0.00 |         |        |
| 21             | 0.00  | 0.00                                                     | 2.45  | 9.60                 | 5.45   | 74.00   | 25.00                    | 3.95   | 3.80  | 1.20  | 0.00 | 0.00 |         |        |
| 22             | 0.00  | 0.00                                                     | 2.90  | 9.80                 | 5.30   | 67.10   | 23.80                    | 3.65   | 3.50  | 1.10  | 0.00 | 0.00 |         |        |
| 23             | 0.00  | 0.00                                                     | 2.75  | 9.00                 | 6.20   | 48.40   | 22.30                    | 3.65   | 3.35  | 1.10  | 0.00 | 0.00 |         |        |
| 24             | 0.00  | 0.00                                                     | 2.75  | 7.55                 | 7.25   | 31.70   | 21.70                    | 3.50   | 3.50  | 1.00  | 0.00 | 0.00 |         |        |
| 25             | 0.00  | 0.00                                                     | 2.60  | 7.85                 | 10.80  | 20.50   | 18.00                    | 3.20   | 3.20  | 0.90  | 0.00 | 0.00 |         |        |
| 26             | 0.00  | 0.00                                                     | 2.60  | 11.20                | 11.00  | 17.50   | 12.60                    | 3.20   | 3.20  | 0.80  | 0.00 | 0.00 |         |        |
| 27             | 0.00  | 0.00                                                     | 2.45  | 12.60                | 9.20   | 25.30   | 12.00                    | 3.20   | 3.20  | 0.60  | 0.00 | 0.00 |         |        |
| 28             | 0.00  | 0.00                                                     | 2.45  | 11.20                | 8.60   | 35.90   | 11.20                    | 3.20   | 3.35  | 0.50  | 0.00 | 0.00 |         |        |
| 29             | 0.00  | 0.00                                                     | 2.45  | 10.00                | 8.00   | 56.75   | 10.40                    | 3.20   | 3.05  | 0.50  |      | 0.00 |         |        |
| 30             | 0.00  | 0.00                                                     | 2.30  | 9.20                 | 7.85   | 64.85   | 9.40                     | 3.20   | 3.05  | 0.40  |      | 0.00 |         |        |
| 31             |       | 0.00                                                     |       | 9.00                 | 7.55   |         | 8.80                     |        | 2.90  | 0.30  |      | 0.00 |         |        |
| Total          | 0.00  | 0.00                                                     | 39.60 | 219.50               | 393.35 | 1096.05 | 717.55                   | 143.25 | 97.40 | 45.25 | 0.50 | 0.00 | 2752.45 | CMSDAY |
| Mean           | 0.00  | 0.00                                                     | 1.32  | 7.08                 | 12.69  | 36.53   | 23.15                    | 4.77   | 3.14  | 1.46  | 0.02 | 0.00 | 7.54    | CMS    |
| Max            | 0.00  | 0.00                                                     | 3.05  | 12.60                | 33.10  | 81.00   | 79.50                    | 8.40   | 4.10  | 2.90  | 0.30 | 0.00 | 81.00   | CMS    |
| Min            | 0.00  | 0.00                                                     | 0.00  | 1.90                 | 5.30   | 6.35    | 5.60                     | 3.20   | 2.45  | 0.30  | 0.00 | 0.00 | 0.00    | CMS    |
| Runoff         | 0.00  | 0.00                                                     | 3.42  | 18.97                | 33.99  | 94.70   | 62.00                    | 12.38  | 8.42  | 3.91  | 0.04 | 0.00 | 237.81  | MCM    |
| Momentary Peak | 82.50 | CMS, at 199.29 m. (MSL.), at 19.00 Hours, on Oct 2, 2013 |       |                      |        |         |                          |        |       |       |      |      |         |        |
| Runoff Yield   | 5.53  | Liters/Second/Square KM.                                 |       | Momentary Peak Yield |        | 60.484  | Liters/Second/Square KM. |        |       |       |      |      |         |        |

**WATER YEAR : 2013**

## CHI RIVER BASIN

**Lam Nam Yang at Ban Kut Kwang , Roi Et (E.70**

Lat 16 - 17 - 14 N      Long 104 - 00 - 34 E

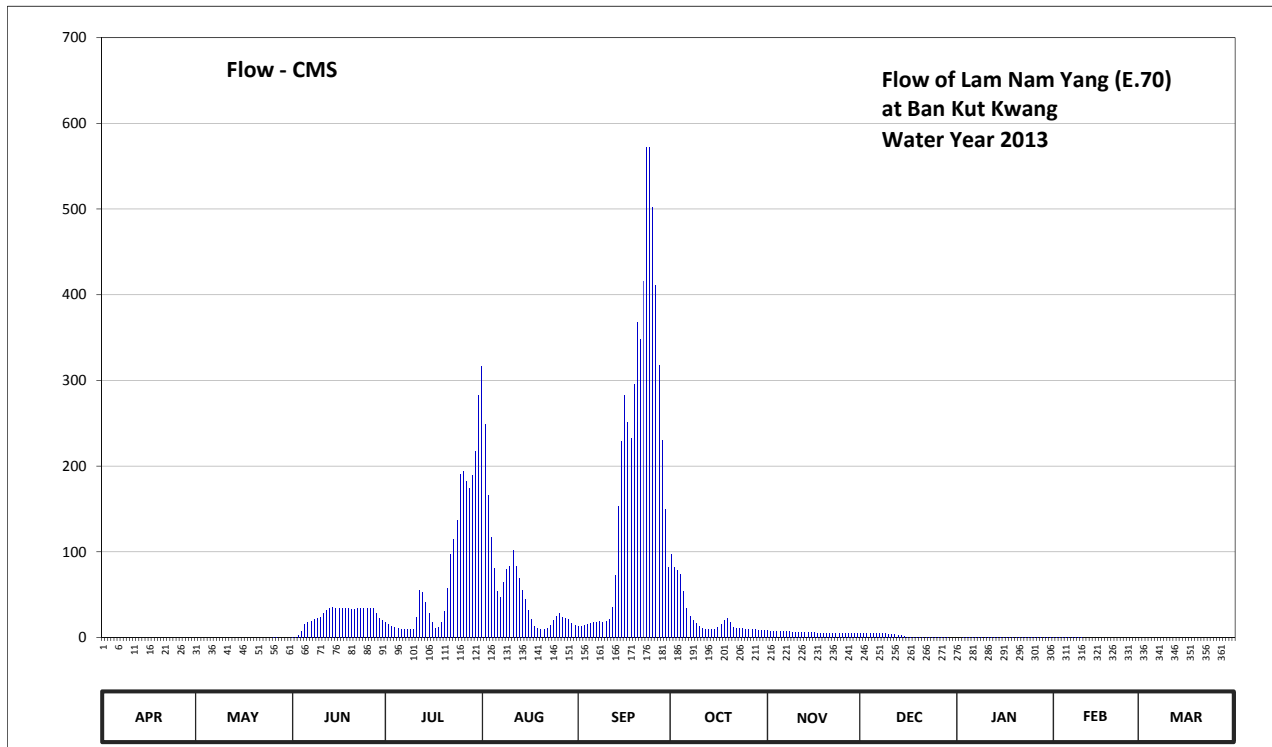
**Location : on right bank at the bridge on highway**

|                                         |                                                                                           |                |               |            |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Kut Kwang      | <b>Amphoe</b> | Phon Thong | <b>Changwat</b>  | Roi Et             |
| <b>Drainage Area</b>                    | 2,647                                                                                     | sq.km.         |               |            |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |            |                  |                    |
| <b>Zero Gage at Bottom</b>              | +132.120                                                                                  | m. (MSL.)      |               |            |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |            |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |                |               |            | <b>Elevation</b> | +144.037 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                |               |            |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |            |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                              |                |               |            |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |            |                  |                    |
| <b>Period of Rating</b>                 | 1984 to date                                                                              |                |               |            |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |            |                  |                    |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                              |                |               |            |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                |               |            |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +139.010 m.(MSL.), records are channel flow only.       |                |               |            |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2013. |                |               |            |                  |                    |

**Gage Height in Meter (MSL) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 131.45 | 131.44 | 131.70                                           | 133.28 | 138.17 | 133.05 | 135.26 | 132.69 | 132.36 | 131.66 | 131.78 | 131.33 |        |
| 2                                | 131.45 | 131.42 | 131.92                                           | 133.17 | 137.46 | 133.07 | 134.97 | 132.67 | 132.35 | 131.66 | 131.77 | 131.33 |        |
| 3                                | 131.45 | 131.42 | 132.16                                           | 133.06 | 136.40 | 133.12 | 134.90 | 132.65 | 132.34 | 131.67 | 131.76 | 131.33 |        |
| 4                                | 131.45 | 131.43 | 132.66                                           | 132.97 | 135.62 | 133.16 | 134.79 | 132.63 | 132.34 | 131.67 | 131.75 | 131.33 |        |
| 5                                | 131.45 | 131.43 | 133.16                                           | 132.91 | 134.94 | 133.23 | 134.36 | 132.62 | 132.33 | 131.67 | 131.74 | 131.29 |        |
| 6                                | 131.44 | 131.44 | 133.25                                           | 132.85 | 134.35 | 133.27 | 133.82 | 132.61 | 132.33 | 131.68 | 131.72 | 131.20 |        |
| 7                                | 131.44 | 131.46 | 133.35                                           | 132.83 | 134.17 | 133.27 | 133.56 | 132.59 | 132.34 | 131.68 | 131.71 | 131.20 |        |
| 8                                | 131.44 | 131.47 | 133.43                                           | 132.82 | 134.59 | 133.31 | 133.39 | 132.58 | 132.34 | 131.69 | 131.70 | 131.20 |        |
| 9                                | 131.44 | 131.47 | 133.48                                           | 132.81 | 134.92 | 133.29 | 133.22 | 132.57 | 132.34 | 131.69 | 131.69 | 131.20 |        |
| 10                               | 131.44 | 131.50 | 133.54                                           | 132.84 | 134.99 | 133.32 | 133.05 | 132.56 | 132.30 | 131.69 | 131.68 | 131.20 |        |
| 11                               | 131.44 | 131.53 | 133.65                                           | 133.54 | 135.34 | 133.43 | 132.91 | 132.55 | 132.24 | 131.70 | 131.66 | 131.20 |        |
| 12                               | 131.44 | 131.54 | 133.75                                           | 134.39 | 134.99 | 133.87 | 132.86 | 132.54 | 132.22 | 131.70 | 131.65 | 131.20 |        |
| 13                               | 131.43 | 131.58 | 133.83                                           | 134.34 | 134.70 | 134.78 | 132.82 | 132.53 | 132.15 | 131.71 | 131.64 | 131.20 |        |
| 14                               | 131.43 | 131.59 | 133.86                                           | 134.03 | 134.37 | 136.20 | 132.78 | 132.52 | 132.07 | 131.71 | 131.63 | 131.19 |        |
| 15                               | 131.43 | 131.60 | 133.85                                           | 133.67 | 134.11 | 137.22 | 132.80 | 132.49 | 131.99 | 131.72 | 131.61 | 131.19 |        |
| 16                               | 131.43 | 131.60 | 133.82                                           | 133.27 | 133.78 | 137.81 | 132.98 | 132.50 | 131.88 | 131.72 | 131.60 | 131.19 |        |
| 17                               | 131.43 | 131.60 | 133.82                                           | 132.89 | 133.44 | 137.48 | 133.18 | 132.48 | 131.78 | 131.73 | 131.58 | 131.19 |        |
| 18                               | 131.43 | 131.61 | 133.83                                           | 132.97 | 133.08 | 137.26 | 133.38 | 132.46 | 131.70 | 131.73 | 131.56 | 131.19 |        |
| 19                               | 131.43 | 131.62 | 133.83                                           | 133.29 | 132.92 | 137.95 | 133.47 | 132.45 | 131.70 | 131.74 | 131.54 | 131.19 |        |
| 20                               | 131.43 | 131.63 | 133.81                                           | 133.72 | 132.87 | 138.69 | 133.28 | 132.44 | 131.70 | 131.74 | 131.53 | 131.19 |        |
| 21                               | 131.42 | 131.63 | 133.80                                           | 134.43 | 132.85 | 138.50 | 133.02 | 132.43 | 131.69 | 131.75 | 131.51 | 131.18 |        |
| 22                               | 131.42 | 131.64 | 133.82                                           | 135.26 | 132.88 | 139.16 | 132.96 | 132.42 | 131.69 | 131.75 | 131.49 | 131.18 |        |
| 23                               | 131.42 | 131.64 | 133.82                                           | 135.58 | 133.13 | 140.57 | 132.93 | 132.41 | 131.69 | 131.75 | 131.47 | 131.18 |        |
| 24                               | 131.42 | 131.65 | 133.83                                           | 135.95 | 133.38 | 140.57 | 132.90 | 132.40 | 131.68 | 131.76 | 131.45 | 131.18 |        |
| 25                               | 131.42 | 131.66 | 133.83                                           | 136.74 | 133.57 | 139.95 | 132.86 | 132.39 | 131.68 | 131.76 | 131.42 | 131.18 |        |
| 26                               | 131.42 | 131.67 | 133.84                                           | 136.78 | 133.65 | 139.11 | 132.82 | 132.39 | 131.68 | 131.76 | 131.39 | 131.18 |        |
| 27                               | 131.42 | 131.67 | 133.83                                           | 136.63 | 133.51 | 138.18 | 132.79 | 132.41 | 131.67 | 131.76 | 131.36 | 131.18 |        |
| 28                               | 131.42 | 131.66 | 133.65                                           | 136.52 | 133.49 | 137.23 | 132.77 | 132.38 | 131.67 | 131.77 | 131.33 | 131.18 |        |
| 29                               | 131.42 | 131.65 | 133.50                                           | 136.73 | 133.41 | 136.16 | 132.75 | 132.37 | 131.67 | 131.77 |        | 131.18 |        |
| 30                               | 131.42 | 131.64 | 133.39                                           | 137.09 | 133.23 | 134.97 | 132.74 | 132.36 | 131.66 | 131.77 |        | 131.18 |        |
| 31                               |        | 131.64 |                                                  | 137.81 | 133.09 |        | 132.73 |        | 131.66 | 131.77 |        | 131.18 |        |
| Mean                             | 131.43 | 131.57 | 133.47                                           | 134.36 | 134.24 | 136.04 | 133.32 | 132.50 | 131.98 | 131.72 | 131.60 | 131.21 |        |
| Max                              | 131.45 | 131.67 | 133.86                                           | 137.81 | 138.17 | 140.57 | 135.26 | 132.69 | 132.36 | 131.77 | 131.78 | 131.33 | 140.57 |
| Min                              | 131.42 | 131.42 | 131.70                                           | 132.81 | 132.85 | 133.05 | 132.73 | 132.36 | 131.66 | 131.66 | 131.33 | 131.18 | 131.18 |
| Annual Max Momentary Gage Height |        | 140.71 | m. (MSL.) , at 06.00 Hours, on Sep 24, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 132.12 | m. (MSL.) , River Bed 129.81 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 140.74 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 139.00 | m. (MSL.) , Drainage Area 2647 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

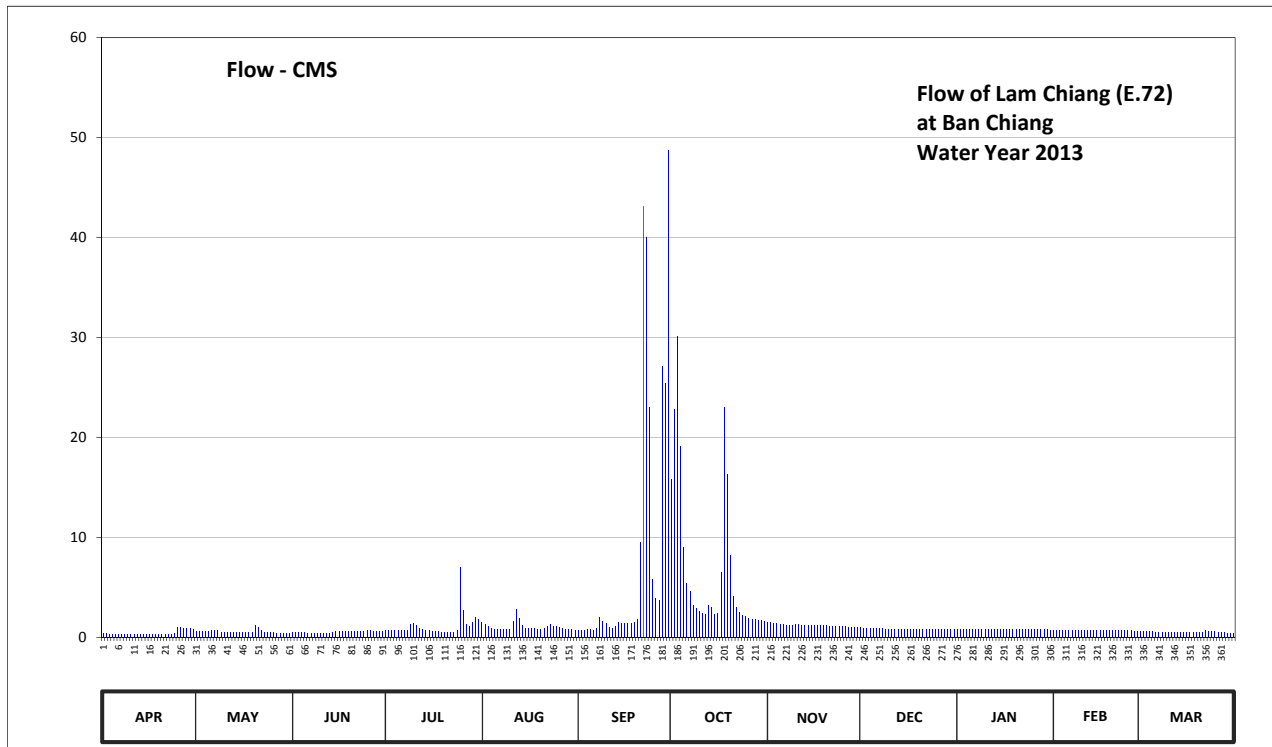




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|-------|------|------|------|-----------------|
| 1              | 0.00                                                             | 0.00                     | 0.20   | 18.16                | 316.32  | 13.10   | 97.52                    | 8.28   | 4.82  | 0.04 | 0.44 | 0.00 |                 |
| 2              | 0.00                                                             | 0.00                     | 1.16   | 15.74                | 249.56  | 13.54   | 82.56                    | 8.04   | 4.74  | 0.04 | 0.41 | 0.00 |                 |
| 3              | 0.00                                                             | 0.00                     | 3.14   | 13.32                | 166.40  | 14.64   | 79.20                    | 7.80   | 4.66  | 0.08 | 0.38 | 0.00 |                 |
| 4              | 0.00                                                             | 0.00                     | 7.92   | 11.64                | 117.20  | 15.52   | 73.92                    | 7.56   | 4.66  | 0.08 | 0.35 | 0.00 |                 |
| 5              | 0.00                                                             | 0.00                     | 15.52  | 10.92                | 81.12   | 17.06   | 54.40                    | 7.44   | 4.57  | 0.08 | 0.32 | 0.00 |                 |
| 6              | 0.00                                                             | 0.00                     | 17.50  | 10.20                | 54.00   | 17.94   | 33.88                    | 7.32   | 4.57  | 0.12 | 0.26 | 0.00 |                 |
| 7              | 0.00                                                             | 0.00                     | 19.70  | 9.96                 | 46.80   | 17.94   | 25.04                    | 7.08   | 4.66  | 0.12 | 0.23 | 0.00 |                 |
| 8              | 0.00                                                             | 0.00                     | 21.46  | 9.84                 | 64.32   | 18.82   | 20.58                    | 6.96   | 4.66  | 0.16 | 0.20 | 0.00 |                 |
| 9              | 0.00                                                             | 0.00                     | 22.56  | 9.72                 | 80.16   | 18.38   | 16.84                    | 6.84   | 4.66  | 0.16 | 0.16 | 0.00 |                 |
| 10             | 0.00                                                             | 0.00                     | 24.36  | 10.08                | 83.52   | 19.04   | 13.10                    | 6.72   | 4.32  | 0.16 | 0.12 | 0.00 |                 |
| 11             | 0.00                                                             | 0.00                     | 28.10  | 24.36                | 101.68  | 21.46   | 10.92                    | 6.60   | 3.82  | 0.20 | 0.04 | 0.00 |                 |
| 12             | 0.00                                                             | 0.00                     | 31.50  | 55.60                | 83.52   | 35.58   | 10.32                    | 6.48   | 3.65  | 0.20 | 0.00 | 0.00 |                 |
| 13             | 0.00                                                             | 0.00                     | 34.22  | 53.60                | 69.60   | 73.44   | 9.84                     | 6.36   | 3.06  | 0.23 | 0.00 | 0.00 |                 |
| 14             | 0.00                                                             | 0.00                     | 35.24  | 41.20                | 54.80   | 153.20  | 9.36                     | 6.24   | 2.39  | 0.23 | 0.00 | 0.00 |                 |
| 15             | 0.00                                                             | 0.00                     | 34.90  | 28.78                | 44.40   | 228.92  | 9.60                     | 5.92   | 1.72  | 0.26 | 0.00 | 0.00 |                 |
| 16             | 0.00                                                             | 0.00                     | 33.88  | 17.94                | 32.52   | 282.14  | 11.76                    | 6.00   | 0.90  | 0.26 | 0.00 | 0.00 |                 |
| 17             | 0.00                                                             | 0.00                     | 33.88  | 10.68                | 21.68   | 251.28  | 15.96                    | 5.83   | 0.44  | 0.29 | 0.00 | 0.00 |                 |
| 18             | 0.00                                                             | 0.00                     | 34.22  | 11.64                | 13.76   | 232.36  | 20.36                    | 5.66   | 0.20  | 0.29 | 0.00 | 0.00 |                 |
| 19             | 0.00                                                             | 0.00                     | 34.22  | 18.38                | 11.04   | 295.30  | 22.34                    | 5.58   | 0.20  | 0.32 | 0.00 | 0.00 |                 |
| 20             | 0.00                                                             | 0.00                     | 33.54  | 30.48                | 10.44   | 367.38  | 18.16                    | 5.50   | 0.20  | 0.32 | 0.00 | 0.00 |                 |
| 21             | 0.00                                                             | 0.00                     | 33.20  | 57.20                | 10.20   | 348.00  | 12.44                    | 5.41   | 0.16  | 0.35 | 0.00 | 0.00 |                 |
| 22             | 0.00                                                             | 0.00                     | 33.88  | 97.52                | 10.56   | 415.96  | 11.52                    | 5.33   | 0.16  | 0.35 | 0.00 | 0.00 |                 |
| 23             | 0.00                                                             | 0.00                     | 33.88  | 114.80               | 14.86   | 572.26  | 11.16                    | 5.24   | 0.16  | 0.35 | 0.00 | 0.00 |                 |
| 24             | 0.00                                                             | 0.00                     | 34.22  | 137.00               | 20.36   | 572.26  | 10.80                    | 5.16   | 0.12  | 0.38 | 0.00 | 0.00 |                 |
| 25             | 0.00                                                             | 0.04                     | 34.22  | 190.76               | 25.38   | 501.50  | 10.32                    | 5.08   | 0.12  | 0.38 | 0.00 | 0.00 |                 |
| 26             | 0.00                                                             | 0.08                     | 34.56  | 193.72               | 28.10   | 410.66  | 9.84                     | 5.08   | 0.12  | 0.38 | 0.00 | 0.00 |                 |
| 27             | 0.00                                                             | 0.08                     | 34.22  | 182.62               | 23.34   | 317.28  | 9.48                     | 5.24   | 0.08  | 0.38 | 0.00 | 0.00 |                 |
| 28             | 0.00                                                             | 0.04                     | 28.10  | 174.48               | 22.78   | 229.78  | 9.24                     | 4.99   | 0.08  | 0.41 | 0.00 | 0.00 |                 |
| 29             | 0.00                                                             | 0.00                     | 23.00  | 190.02               | 21.02   | 150.56  | 9.00                     | 4.91   | 0.08  | 0.41 |      | 0.00 |                 |
| 30             | 0.00                                                             | 0.00                     | 20.58  | 217.74               | 17.06   | 82.56   | 8.88                     | 4.82   | 0.04  | 0.41 |      | 0.00 |                 |
| 31             |                                                                  | 0.00                     |        | 282.14               | 13.98   |         | 8.76                     |        | 0.04  | 0.41 |      | 0.00 |                 |
| Total          | 0.00                                                             | 0.24                     | 777.08 | 2250.24              | 1910.48 | 5707.86 | 747.10                   | 185.47 | 64.06 | 7.85 | 2.91 | 0.00 | 11653.29 CMSDAY |
| Mean           | 0.00                                                             | 0.01                     | 25.90  | 72.59                | 61.63   | 190.26  | 24.10                    | 6.18   | 2.07  | 0.25 | 0.10 | 0.00 | 31.93 CMS       |
| Max            | 0.00                                                             | 0.08                     | 35.24  | 282.14               | 316.32  | 572.26  | 97.52                    | 8.28   | 4.82  | 0.41 | 0.44 | 0.00 | 572.26 CMS      |
| Min            | 0.00                                                             | 0.00                     | 0.20   | 9.72                 | 10.20   | 13.10   | 8.76                     | 4.82   | 0.04  | 0.04 | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 0.00                                                             | 0.02                     | 67.14  | 194.42               | 165.07  | 493.16  | 64.55                    | 16.03  | 5.54  | 0.68 | 0.25 | 0.00 | 1006.84 MCM     |
| Momentary Peak | 588.78 CMS, at 140.71 m. (MSL.), at 06.00 Hours, on Sep 24, 2013 |                          |        |                      |         |         |                          |        |       |      |      |      |                 |
| Runoff Yield   | 12.06                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 222.433 | Liters/Second/Square KM. |        |       |      |      |      |                 |

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 234.43 | 234.58 | 234.52                                          | 234.60 | 234.91 | 234.61 | 237.30 | 234.91 | 234.74 | 234.68 | 234.64 | 234.57 |        |
| 2                                | 234.43 | 234.57 | 234.52                                          | 234.60 | 234.86 | 234.62 | 238.05 | 234.90 | 234.73 | 234.68 | 234.64 | 234.57 |        |
| 3                                | 234.42 | 234.56 | 234.52                                          | 234.60 | 234.78 | 234.63 | 238.67 | 234.88 | 234.72 | 234.68 | 234.64 | 234.56 |        |
| 4                                | 234.42 | 234.55 | 234.51                                          | 234.60 | 234.72 | 234.65 | 237.67 | 234.87 | 234.71 | 234.67 | 234.64 | 234.55 |        |
| 5                                | 234.42 | 234.55 | 234.51                                          | 234.60 | 234.70 | 234.65 | 236.37 | 234.86 | 234.71 | 234.66 | 234.64 | 234.55 |        |
| 6                                | 234.41 | 234.60 | 234.50                                          | 234.64 | 234.69 | 234.64 | 235.78 | 234.85 | 234.71 | 234.66 | 234.64 | 234.54 |        |
| 7                                | 234.41 | 234.60 | 234.50                                          | 234.61 | 234.68 | 234.71 | 235.65 | 234.83 | 234.71 | 234.66 | 234.64 | 234.54 |        |
| 8                                | 234.41 | 234.60 | 234.50                                          | 234.62 | 234.68 | 235.06 | 235.37 | 234.82 | 234.71 | 234.66 | 234.64 | 234.54 |        |
| 9                                | 234.41 | 234.53 | 234.50                                          | 234.86 | 234.69 | 234.95 | 235.29 | 234.82 | 234.70 | 234.66 | 234.64 | 234.54 |        |
| 10                               | 234.41 | 234.52 | 234.50                                          | 234.89 | 234.68 | 234.87 | 235.20 | 234.84 | 234.70 | 234.66 | 234.64 | 234.54 |        |
| 11                               | 234.41 | 234.52 | 234.49                                          | 234.81 | 234.96 | 234.74 | 235.15 | 234.84 | 234.70 | 234.66 | 234.64 | 234.53 |        |
| 12                               | 234.41 | 234.52 | 234.49                                          | 234.73 | 235.27 | 234.72 | 235.13 | 234.83 | 234.70 | 234.66 | 234.64 | 234.53 |        |
| 13                               | 234.40 | 234.52 | 234.49                                          | 234.65 | 235.04 | 234.77 | 235.36 | 234.82 | 234.70 | 234.66 | 234.64 | 234.53 |        |
| 14                               | 234.40 | 234.52 | 234.52                                          | 234.61 | 234.83 | 234.90 | 235.32 | 234.82 | 234.70 | 234.66 | 234.64 | 234.52 |        |
| 15                               | 234.40 | 234.52 | 234.57                                          | 234.60 | 234.72 | 234.89 | 235.14 | 234.81 | 234.70 | 234.66 | 234.64 | 234.52 |        |
| 16                               | 234.40 | 234.51 | 234.57                                          | 234.57 | 234.72 | 234.88 | 235.16 | 234.81 | 234.70 | 234.66 | 234.64 | 234.52 |        |
| 17                               | 234.40 | 234.51 | 234.57                                          | 234.57 | 234.71 | 234.88 | 235.97 | 234.81 | 234.70 | 234.66 | 234.64 | 234.52 |        |
| 18                               | 234.40 | 234.51 | 234.57                                          | 234.56 | 234.71 | 234.89 | 238.07 | 234.80 | 234.70 | 234.66 | 234.64 | 234.52 |        |
| 19                               | 234.40 | 234.54 | 234.57                                          | 234.52 | 234.70 | 234.90 | 237.36 | 234.80 | 234.70 | 234.66 | 234.64 | 234.52 |        |
| 20                               | 234.42 | 234.81 | 234.57                                          | 234.52 | 234.70 | 235.00 | 236.24 | 234.80 | 234.70 | 234.66 | 234.64 | 234.52 |        |
| 21                               | 234.42 | 234.76 | 234.57                                          | 234.52 | 234.71 | 236.44 | 235.56 | 234.79 | 234.70 | 234.65 | 234.64 | 234.52 |        |
| 22                               | 234.42 | 234.61 | 234.56                                          | 234.52 | 234.78 | 239.62 | 235.30 | 234.79 | 234.70 | 234.65 | 234.64 | 234.61 |        |
| 23                               | 234.42 | 234.54 | 234.56                                          | 234.51 | 234.85 | 239.41 | 235.18 | 234.79 | 234.70 | 234.65 | 234.64 | 234.58 |        |
| 24                               | 234.45 | 234.53 | 234.57                                          | 234.61 | 234.79 | 238.07 | 235.12 | 234.78 | 234.70 | 234.65 | 234.64 | 234.56 |        |
| 25                               | 234.76 | 234.52 | 234.63                                          | 236.06 | 234.77 | 235.86 | 235.08 | 234.77 | 234.70 | 234.66 | 234.64 | 234.55 |        |
| 26                               | 234.76 | 234.51 | 234.60                                          | 235.23 | 234.76 | 235.53 | 235.03 | 234.77 | 234.70 | 234.67 | 234.61 | 234.54 |        |
| 27                               | 234.73 | 234.50 | 234.59                                          | 234.86 | 234.71 | 235.49 | 235.01 | 234.76 | 234.70 | 234.67 | 234.58 | 234.53 |        |
| 28                               | 234.72 | 234.50 | 234.57                                          | 234.78 | 234.67 | 238.43 | 235.00 | 234.76 | 234.70 | 234.66 | 234.57 | 234.51 |        |
| 29                               | 234.71 | 234.49 | 234.56                                          | 234.91 | 234.66 | 238.28 | 234.98 | 234.75 | 234.69 | 234.65 |        | 234.47 |        |
| 30                               | 234.70 | 234.49 | 234.55                                          | 235.06 | 234.66 | 239.98 | 234.97 | 234.75 | 234.69 | 234.65 |        | 234.46 |        |
| 31                               |        | 234.48 |                                                 | 235.01 | 234.64 |        | 234.95 |        | 234.69 | 234.64 |        | 234.46 |        |
| Mean                             | 234.48 | 234.55 | 234.54                                          | 234.74 | 234.77 | 235.77 | 235.82 | 234.81 | 234.70 | 234.66 | 234.63 | 234.53 |        |
| Max                              | 234.76 | 234.81 | 234.63                                          | 236.06 | 235.27 | 239.98 | 238.67 | 234.91 | 234.74 | 234.68 | 234.64 | 234.61 | 239.98 |
| Min                              | 234.40 | 234.48 | 234.49                                          | 234.51 | 234.64 | 234.61 | 234.95 | 234.75 | 234.69 | 234.64 | 234.57 | 234.46 | 234.40 |
| Annual Max Momentary Gage Height | 240.67 |        | m. (MSL.) , at 06.00 Hours, on Sep 30, 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 234.12 |        | m. (MSL.) , River Bed 234.01 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 243.30 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 238.86 |        | m. (MSL.) , Drainage Area 323 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 0.39                                                            | 0.66                     | 0.54  | 0.70                 | 1.53  | 0.72    | 15.86                    | 1.53  | 1.02  | 0.86  | 0.78  | 0.64  |               |
| 2              | 0.39                                                            | 0.64                     | 0.54  | 0.70                 | 1.38  | 0.74    | 22.86                    | 1.50  | 0.99  | 0.86  | 0.78  | 0.64  |               |
| 3              | 0.38                                                            | 0.62                     | 0.54  | 0.70                 | 1.14  | 0.76    | 30.08                    | 1.44  | 0.96  | 0.86  | 0.78  | 0.62  |               |
| 4              | 0.38                                                            | 0.60                     | 0.52  | 0.70                 | 0.96  | 0.80    | 19.13                    | 1.41  | 0.93  | 0.84  | 0.78  | 0.60  |               |
| 5              | 0.38                                                            | 0.60                     | 0.52  | 0.70                 | 0.90  | 0.80    | 9.07                     | 1.38  | 0.93  | 0.82  | 0.78  | 0.60  |               |
| 6              | 0.37                                                            | 0.70                     | 0.50  | 0.78                 | 0.88  | 0.78    | 5.42                     | 1.35  | 0.93  | 0.82  | 0.78  | 0.58  |               |
| 7              | 0.37                                                            | 0.70                     | 0.50  | 0.72                 | 0.86  | 0.93    | 4.67                     | 1.29  | 0.93  | 0.82  | 0.78  | 0.58  |               |
| 8              | 0.37                                                            | 0.70                     | 0.50  | 0.74                 | 0.86  | 2.04    | 3.28                     | 1.26  | 0.93  | 0.82  | 0.78  | 0.58  |               |
| 9              | 0.37                                                            | 0.56                     | 0.50  | 1.38                 | 0.88  | 1.65    | 2.96                     | 1.26  | 0.90  | 0.82  | 0.78  | 0.58  |               |
| 10             | 0.37                                                            | 0.54                     | 0.50  | 1.47                 | 0.86  | 1.41    | 2.60                     | 1.32  | 0.90  | 0.82  | 0.78  | 0.58  |               |
| 11             | 0.37                                                            | 0.54                     | 0.49  | 1.23                 | 1.68  | 1.02    | 2.40                     | 1.32  | 0.90  | 0.82  | 0.78  | 0.56  |               |
| 12             | 0.37                                                            | 0.54                     | 0.49  | 0.99                 | 2.88  | 0.96    | 2.32                     | 1.29  | 0.90  | 0.82  | 0.78  | 0.56  |               |
| 13             | 0.35                                                            | 0.54                     | 0.49  | 0.80                 | 1.96  | 1.11    | 3.24                     | 1.26  | 0.90  | 0.82  | 0.78  | 0.56  |               |
| 14             | 0.35                                                            | 0.54                     | 0.54  | 0.72                 | 1.29  | 1.50    | 3.08                     | 1.26  | 0.90  | 0.82  | 0.78  | 0.54  |               |
| 15             | 0.35                                                            | 0.54                     | 0.64  | 0.70                 | 0.96  | 1.47    | 2.36                     | 1.23  | 0.90  | 0.82  | 0.78  | 0.54  |               |
| 16             | 0.35                                                            | 0.52                     | 0.64  | 0.64                 | 0.96  | 1.44    | 2.44                     | 1.23  | 0.90  | 0.82  | 0.78  | 0.54  |               |
| 17             | 0.35                                                            | 0.52                     | 0.64  | 0.64                 | 0.93  | 1.44    | 6.53                     | 1.23  | 0.90  | 0.82  | 0.78  | 0.54  |               |
| 18             | 0.35                                                            | 0.52                     | 0.64  | 0.62                 | 0.93  | 1.47    | 23.08                    | 1.20  | 0.90  | 0.82  | 0.78  | 0.54  |               |
| 19             | 0.35                                                            | 0.58                     | 0.64  | 0.54                 | 0.90  | 1.50    | 16.35                    | 1.20  | 0.90  | 0.82  | 0.78  | 0.54  |               |
| 20             | 0.38                                                            | 1.23                     | 0.64  | 0.54                 | 0.90  | 1.80    | 8.24                     | 1.20  | 0.90  | 0.82  | 0.78  | 0.54  |               |
| 21             | 0.38                                                            | 1.08                     | 0.64  | 0.54                 | 0.93  | 9.52    | 4.15                     | 1.17  | 0.90  | 0.80  | 0.78  | 0.54  |               |
| 22             | 0.38                                                            | 0.72                     | 0.62  | 0.54                 | 1.14  | 43.15   | 3.00                     | 1.17  | 0.90  | 0.80  | 0.78  | 0.72  |               |
| 23             | 0.38                                                            | 0.58                     | 0.62  | 0.52                 | 1.35  | 40.04   | 2.52                     | 1.17  | 0.90  | 0.80  | 0.78  | 0.66  |               |
| 24             | 0.42                                                            | 0.56                     | 0.64  | 0.72                 | 1.17  | 23.08   | 2.28                     | 1.14  | 0.90  | 0.80  | 0.78  | 0.62  |               |
| 25             | 1.08                                                            | 0.54                     | 0.76  | 7.08                 | 1.11  | 5.89    | 2.12                     | 1.11  | 0.90  | 0.82  | 0.78  | 0.60  |               |
| 26             | 1.08                                                            | 0.52                     | 0.70  | 2.72                 | 1.08  | 3.97    | 1.92                     | 1.11  | 0.90  | 0.84  | 0.72  | 0.58  |               |
| 27             | 0.99                                                            | 0.50                     | 0.68  | 1.38                 | 0.93  | 3.76    | 1.84                     | 1.08  | 0.90  | 0.84  | 0.66  | 0.56  |               |
| 28             | 0.96                                                            | 0.50                     | 0.64  | 1.14                 | 0.84  | 27.12   | 1.80                     | 1.08  | 0.90  | 0.82  | 0.64  | 0.52  |               |
| 29             | 0.93                                                            | 0.49                     | 0.62  | 1.53                 | 0.82  | 25.44   | 1.74                     | 1.05  | 0.88  | 0.80  |       | 0.46  |               |
| 30             | 0.90                                                            | 0.49                     | 0.60  | 2.04                 | 0.82  | 48.69   | 1.71                     | 1.05  | 0.88  | 0.80  |       | 0.44  |               |
| 31             |                                                                 | 0.47                     |       | 1.84                 | 0.78  |         | 1.65                     |       | 0.88  | 0.78  |       | 0.44  |               |
| Total          | 14.84                                                           | 18.84                    | 17.53 | 36.06                | 34.61 | 255.00  | 210.70                   | 37.29 | 28.26 | 25.44 | 21.52 | 17.60 | 717.69 CMSDAY |
| Mean           | 0.49                                                            | 0.61                     | 0.58  | 1.16                 | 1.12  | 8.50    | 6.80                     | 1.24  | 0.91  | 0.82  | 0.77  | 0.57  | 1.97 CMS      |
| Max            | 1.08                                                            | 1.23                     | 0.76  | 7.08                 | 2.88  | 48.69   | 30.08                    | 1.53  | 1.02  | 0.86  | 0.78  | 0.72  | 48.69 CMS     |
| Min            | 0.35                                                            | 0.47                     | 0.49  | 0.52                 | 0.78  | 0.72    | 1.65                     | 1.05  | 0.88  | 0.78  | 0.64  | 0.44  | 0.35 CMS      |
| Runoff         | 1.28                                                            | 1.63                     | 1.52  | 3.12                 | 2.99  | 22.03   | 18.20                    | 3.22  | 2.44  | 2.20  | 1.86  | 1.52  | 62.01 MCM     |
| Momentary Peak | 61.23 CMS, at 240.67 m. (MSL.), at 06.00 Hours, on Sep 30, 2013 |                          |       |                      |       |         |                          |       |       |       |       |       |               |
| Runoff Yield   | 6.09                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 189.567 | Liters/Second/Square KM. |       |       |       |       |       |               |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Chao at Ban Wang Taku , Chaiyaphum (E.73)**

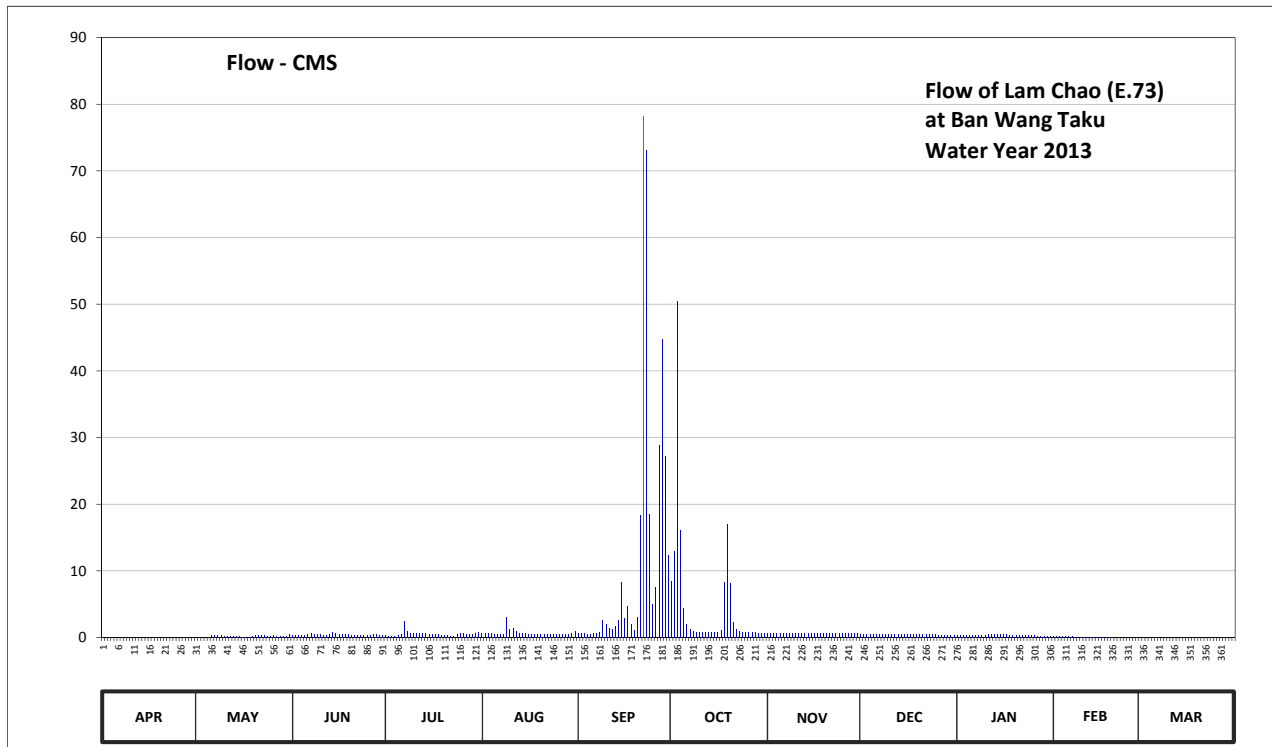
Lat 15 - 56 - 59 N Long 101 - 26 - 44 E

**Location : on left bank at Ban Wang Taku, Tambon Ban Chiang.**

|                                         |                                                                                                                                                                        |                  |               |                         |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|-------------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                             | <b>Wang Taku</b> | <b>Amphoe</b> | <b>Phak Di Chumphon</b> | <b>Changwat</b>  | <b>Chaiyaphum</b>  |
| <b>Drainage Area</b>                    | 251                                                                                                                                                                    | sq.km.           |               |                         |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                                                                                             |                  |               |                         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +247.240                                                                                                                                                               | m. (MSL.)        |               |                         |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                                                                                             |                  |               |                         |                  |                    |
| <b>Location BM</b>                      | On left bank about 2 meters from the top staff gage.                                                                                                                   |                  |               |                         | <b>Elevation</b> | +254.832 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                                                                                                 |                  |               |                         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                                                                                                          |                  |               |                         |                  |                    |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                                                                                                           |                  |               |                         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                        |                  |               |                         |                  |                    |
| <b>Period of Rating</b>                 | 1987 to date                                                                                                                                                           |                  |               |                         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                      |                  |               |                         |                  |                    |
| <b>Rated by Current Meter</b>           | 1987 to date                                                                                                                                                           |                  |               |                         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                                                                                         |                  |               |                         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                                      |                  |               |                         |                  |                    |
| <b>General Description</b>              | Records good. The local weir situated about 4 kilometers downstream from the gage site.<br>Stage-discharge relation defined by 29 discharge measurements made in 2013. |                  |               |                         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                             | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 248.99 | 248.58      | 249.54 | 249.49 | 249.70        | 249.69                          | 250.66            | 249.68 | 249.63 | 249.51 | 249.42 | 249.10 |        |
| 2                                | 248.95 | 248.58      | 249.52 | 249.46 | 249.69        | 249.66                          | 251.03            | 249.68 | 249.63 | 249.51 | 249.40 | 249.09 |        |
| 3                                | 248.76 | 248.57      | 249.50 | 249.43 | 249.66        | 249.64                          | 253.05            | 249.68 | 249.63 | 249.50 | 249.39 | 249.08 |        |
| 4                                | 248.73 | 248.56      | 249.48 | 249.44 | 249.64        | 249.63                          | 251.26            | 249.67 | 249.62 | 249.49 | 249.38 | 249.07 |        |
| 5                                | 248.73 | 249.08      | 249.47 | 249.49 | 249.63        | 249.63                          | 250.27            | 249.67 | 249.62 | 249.49 | 249.37 | 249.06 |        |
| 6                                | 248.71 | 249.51      | 249.58 | 249.59 | 249.62        | 249.67                          | 249.98            | 249.67 | 249.62 | 249.50 | 249.36 | 249.05 |        |
| 7                                | 248.70 | 249.52      | 249.65 | 250.04 | 249.61        | 249.65                          | 249.85            | 249.68 | 249.62 | 249.51 | 249.35 | 249.04 |        |
| 8                                | 248.69 | 249.49      | 249.63 | 249.77 | 249.63        | 249.74                          | 249.79            | 249.68 | 249.62 | 249.52 | 249.34 | 249.03 |        |
| 9                                | 248.68 | 249.48      | 249.60 | 249.65 | 250.12        | 250.05                          | 249.75            | 249.67 | 249.61 | 249.54 | 249.32 | 249.03 |        |
| 10                               | 248.66 | 249.46      | 249.57 | 249.66 | 249.84        | 249.98                          | 249.73            | 249.67 | 249.61 | 249.55 | 249.31 | 249.01 |        |
| 11                               | 248.65 | 249.44      | 249.55 | 249.67 | 249.87        | 249.86                          | 249.73            | 249.67 | 249.61 | 249.56 | 249.30 | 249.00 |        |
| 12                               | 248.64 | 249.42      | 249.53 | 249.70 | 249.78        | 249.85                          | 249.72            | 249.67 | 249.61 | 249.56 | 249.29 | 248.99 |        |
| 13                               | 248.62 | 249.39      | 249.57 | 249.66 | 249.69        | 249.91                          | 249.73            | 249.66 | 249.61 | 249.56 | 249.27 | 248.98 |        |
| 14                               | 248.62 | 249.38      | 249.73 | 249.64 | 249.66        | 250.06                          | 249.73            | 249.66 | 249.61 | 249.56 | 249.26 | 248.96 |        |
| 15                               | 248.61 | 249.36      | 249.64 | 249.61 | 249.64        | 250.65                          | 249.73            | 249.66 | 249.61 | 249.56 | 249.25 | 248.96 |        |
| 16                               | 248.61 | 249.34      | 249.62 | 249.60 | 249.63        | 250.09                          | 249.72            | 249.66 | 249.61 | 249.56 | 249.24 | 248.95 |        |
| 17                               | 248.60 | 249.31      | 249.60 | 249.59 | 249.63        | 250.30                          | 249.81            | 249.66 | 249.61 | 249.56 | 249.23 | 248.95 |        |
| 18                               | 248.60 | 249.33      | 249.59 | 249.57 | 249.62        | 249.96                          | 250.65            | 249.65 | 249.61 | 249.55 | 249.22 | 248.94 |        |
| 19                               | 248.59 | 249.43      | 249.56 | 249.54 | 249.61        | 249.81                          | 251.33            | 249.65 | 249.60 | 249.54 | 249.21 | 248.93 |        |
| 20                               | 248.58 | 249.50      | 249.53 | 249.50 | 249.61        | 250.12                          | 250.63            | 249.65 | 249.60 | 249.53 | 249.20 | 248.92 |        |
| 21                               | 248.57 | 249.52      | 249.51 | 249.48 | 249.62        | 251.42                          | 250.01            | 249.65 | 249.59 | 249.52 | 249.18 | 248.91 |        |
| 22                               | 248.56 | 249.51      | 249.49 | 249.46 | 249.62        | 254.13                          | 249.84            | 249.65 | 249.59 | 249.51 | 249.17 | 248.94 |        |
| 23                               | 248.57 | 249.50      | 249.49 | 249.46 | 249.62        | 253.95                          | 249.76            | 249.64 | 249.58 | 249.50 | 249.17 | 248.90 |        |
| 24                               | 248.57 | 249.46      | 249.48 | 249.59 | 249.62        | 251.43                          | 249.73            | 249.64 | 249.57 | 249.49 | 249.16 | 248.89 |        |
| 25                               | 248.57 | 249.45      | 249.49 | 249.65 | 249.62        | 250.34                          | 249.72            | 249.64 | 249.56 | 249.48 | 249.15 | 248.89 |        |
| 26                               | 248.57 | 249.47      | 249.55 | 249.64 | 249.62        | 250.58                          | 249.71            | 249.64 | 249.55 | 249.47 | 249.13 | 248.88 |        |
| 27                               | 248.60 | 249.45      | 249.57 | 249.62 | 249.62        | 252.03                          | 249.72            | 249.64 | 249.54 | 249.46 | 249.11 | 248.87 |        |
| 28                               | 248.60 | 249.44      | 249.56 | 249.63 | 249.61        | 252.80                          | 249.71            | 249.64 | 249.53 | 249.45 | 249.11 | 248.86 |        |
| 29                               | 248.60 | 249.42      | 249.54 | 249.63 | 249.60        | 251.94                          | 249.70            | 249.64 | 249.53 | 249.44 |        | 248.85 |        |
| 30                               | 248.59 | 249.43      | 249.52 | 249.67 | 249.65        | 250.99                          | 249.69            | 249.64 | 249.52 | 249.44 |        | 248.84 |        |
| 31                               |        | 249.56      |        | 249.73 | 249.79        |                                 | 249.69            |        | 249.52 | 249.44 |        | 248.84 |        |
| Mean                             | 248.65 | 249.32      | 249.56 | 249.60 | 249.67        | 250.59                          | 250.11            | 249.66 | 249.59 | 249.51 | 249.26 | 248.96 |        |
| Max                              | 248.99 | 249.56      | 249.73 | 250.04 | 250.12        | 254.13                          | 253.05            | 249.68 | 249.63 | 249.56 | 249.42 | 249.10 | 254.13 |
| Min                              | 248.56 | 248.56      | 249.47 | 249.43 | 249.60        | 249.63                          | 249.69            | 249.64 | 249.52 | 249.44 | 249.11 | 248.84 | 248.56 |
| Annual Max Momentary Gage Height | 255.37 | m. (MSL.) , |        |        |               | at 17.00 Hours, on Sep 23, 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 247.24 | m. (MSL.) , |        |        | River Bed     | 247.59                          | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 258.32 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 256.33 | m. (MSL.) , |        |        | Drainage Area | 251                             | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb  | Mar  | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|------|------|---------------|
| 1              | 0.00                                                             | 0.00                     | 0.41  | 0.34                 | 0.75  | 0.72    | 8.46                     | 0.70  | 0.57  | 0.36  | 0.23 | 0.00 |               |
| 2              | 0.00                                                             | 0.00                     | 0.38  | 0.29                 | 0.72  | 0.65    | 12.91                    | 0.70  | 0.57  | 0.36  | 0.20 | 0.00 |               |
| 3              | 0.00                                                             | 0.00                     | 0.35  | 0.24                 | 0.65  | 0.60    | 50.44                    | 0.70  | 0.57  | 0.35  | 0.19 | 0.00 |               |
| 4              | 0.00                                                             | 0.00                     | 0.32  | 0.26                 | 0.60  | 0.57    | 16.07                    | 0.67  | 0.55  | 0.34  | 0.18 | 0.00 |               |
| 5              | 0.00                                                             | 0.00                     | 0.31  | 0.34                 | 0.57  | 0.57    | 4.37                     | 0.67  | 0.55  | 0.34  | 0.17 | 0.00 |               |
| 6              | 0.00                                                             | 0.36                     | 0.47  | 0.48                 | 0.55  | 0.67    | 2.08                     | 0.67  | 0.55  | 0.35  | 0.16 | 0.00 |               |
| 7              | 0.00                                                             | 0.38                     | 0.62  | 2.50                 | 0.52  | 0.62    | 1.30                     | 0.70  | 0.55  | 0.36  | 0.15 | 0.00 |               |
| 8              | 0.00                                                             | 0.34                     | 0.57  | 0.93                 | 0.57  | 0.85    | 0.97                     | 0.70  | 0.55  | 0.38  | 0.14 | 0.00 |               |
| 9              | 0.00                                                             | 0.32                     | 0.50  | 0.62                 | 3.10  | 2.58    | 0.87                     | 0.67  | 0.52  | 0.41  | 0.12 | 0.00 |               |
| 10             | 0.00                                                             | 0.29                     | 0.46  | 0.65                 | 1.24  | 2.08    | 0.82                     | 0.67  | 0.52  | 0.43  | 0.11 | 0.00 |               |
| 11             | 0.00                                                             | 0.26                     | 0.43  | 0.67                 | 1.42  | 1.36    | 0.82                     | 0.67  | 0.52  | 0.44  | 0.10 | 0.00 |               |
| 12             | 0.00                                                             | 0.23                     | 0.39  | 0.75                 | 0.95  | 1.30    | 0.80                     | 0.67  | 0.52  | 0.44  | 0.09 | 0.00 |               |
| 13             | 0.00                                                             | 0.19                     | 0.46  | 0.65                 | 0.72  | 1.66    | 0.82                     | 0.65  | 0.52  | 0.44  | 0.07 | 0.00 |               |
| 14             | 0.00                                                             | 0.18                     | 0.82  | 0.60                 | 0.65  | 2.65    | 0.82                     | 0.65  | 0.52  | 0.44  | 0.06 | 0.00 |               |
| 15             | 0.00                                                             | 0.16                     | 0.60  | 0.52                 | 0.60  | 8.35    | 0.82                     | 0.65  | 0.52  | 0.44  | 0.05 | 0.00 |               |
| 16             | 0.00                                                             | 0.14                     | 0.55  | 0.50                 | 0.57  | 2.87    | 0.80                     | 0.65  | 0.52  | 0.44  | 0.04 | 0.00 |               |
| 17             | 0.00                                                             | 0.11                     | 0.50  | 0.48                 | 0.57  | 4.65    | 1.06                     | 0.65  | 0.52  | 0.44  | 0.03 | 0.00 |               |
| 18             | 0.00                                                             | 0.13                     | 0.48  | 0.46                 | 0.55  | 1.96    | 8.35                     | 0.62  | 0.52  | 0.43  | 0.02 | 0.00 |               |
| 19             | 0.00                                                             | 0.24                     | 0.44  | 0.41                 | 0.52  | 1.06    | 17.04                    | 0.62  | 0.50  | 0.41  | 0.01 | 0.00 |               |
| 20             | 0.00                                                             | 0.35                     | 0.39  | 0.35                 | 0.52  | 3.10    | 8.13                     | 0.62  | 0.50  | 0.39  | 0.00 | 0.00 |               |
| 21             | 0.00                                                             | 0.38                     | 0.36  | 0.32                 | 0.55  | 18.33   | 2.27                     | 0.62  | 0.48  | 0.38  | 0.00 | 0.00 |               |
| 22             | 0.00                                                             | 0.36                     | 0.34  | 0.29                 | 0.55  | 78.24   | 1.24                     | 0.62  | 0.48  | 0.36  | 0.00 | 0.00 |               |
| 23             | 0.00                                                             | 0.35                     | 0.34  | 0.29                 | 0.55  | 73.12   | 0.90                     | 0.60  | 0.47  | 0.35  | 0.00 | 0.00 |               |
| 24             | 0.00                                                             | 0.29                     | 0.32  | 0.48                 | 0.55  | 18.49   | 0.82                     | 0.60  | 0.46  | 0.34  | 0.00 | 0.00 |               |
| 25             | 0.00                                                             | 0.28                     | 0.34  | 0.62                 | 0.55  | 5.03    | 0.80                     | 0.60  | 0.44  | 0.32  | 0.00 | 0.00 |               |
| 26             | 0.00                                                             | 0.31                     | 0.43  | 0.60                 | 0.55  | 7.58    | 0.78                     | 0.60  | 0.43  | 0.31  | 0.00 | 0.00 |               |
| 27             | 0.00                                                             | 0.28                     | 0.46  | 0.55                 | 0.55  | 28.85   | 0.80                     | 0.60  | 0.41  | 0.29  | 0.00 | 0.00 |               |
| 28             | 0.00                                                             | 0.26                     | 0.44  | 0.57                 | 0.52  | 44.75   | 0.78                     | 0.60  | 0.39  | 0.28  | 0.00 | 0.00 |               |
| 29             | 0.00                                                             | 0.23                     | 0.41  | 0.57                 | 0.50  | 27.20   | 0.75                     | 0.60  | 0.39  | 0.26  |      | 0.00 |               |
| 30             | 0.00                                                             | 0.24                     | 0.38  | 0.67                 | 0.62  | 12.38   | 0.72                     | 0.60  | 0.38  | 0.26  |      | 0.00 |               |
| 31             |                                                                  | 0.44                     |       | 0.82                 | 0.97  |         | 0.72                     |       | 0.38  | 0.26  |      | 0.00 |               |
| Total          | 0.00                                                             | 7.10                     | 13.27 | 17.82                | 22.80 | 352.84  | 148.33                   | 19.34 | 15.37 | 11.40 | 2.12 | 0.00 | 610.39 CMSDAY |
| Mean           | 0.00                                                             | 0.23                     | 0.44  | 0.57                 | 0.74  | 11.76   | 4.78                     | 0.64  | 0.50  | 0.37  | 0.08 | 0.00 | 1.67 CMS      |
| Max            | 0.00                                                             | 0.44                     | 0.82  | 2.50                 | 3.10  | 78.24   | 50.44                    | 0.70  | 0.57  | 0.44  | 0.23 | 0.00 | 78.24 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.31  | 0.24                 | 0.50  | 0.57    | 0.72                     | 0.60  | 0.38  | 0.26  | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 0.00                                                             | 0.61                     | 1.15  | 1.54                 | 1.97  | 30.49   | 12.82                    | 1.67  | 1.33  | 0.99  | 0.18 | 0.00 | 52.74 MCM     |
| Momentary Peak | 115.27 CMS, at 255.37 m. (MSL.), at 17.00 Hours, on Sep 23, 2013 |                          |       |                      |       |         |                          |       |       |       |      |      |               |
| Runoff Yield   | 6.66                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 459,243 | Liters/Second/Square KM. |       |       |       |      |      |               |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Pao at Ban Nong Muang , Kalasin (E.75)**

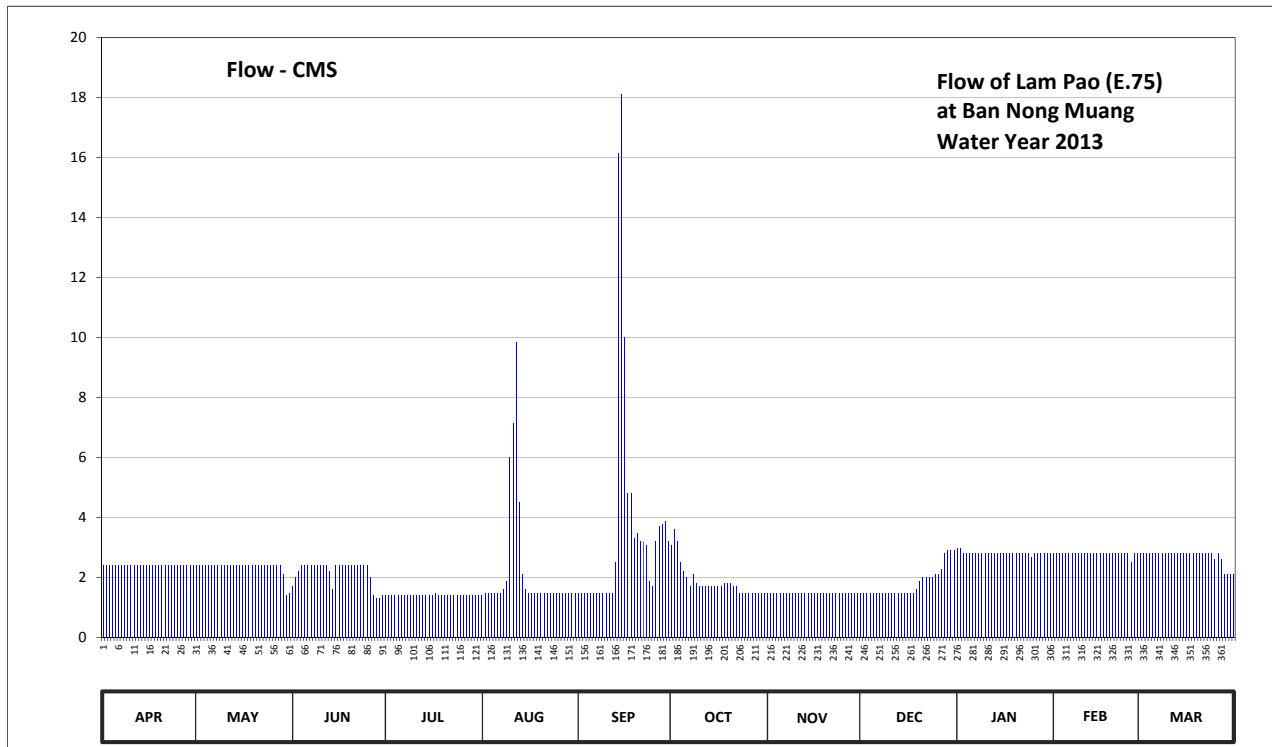
Lat 16 - 34 - 36 N Long 103 - 26 - 35 E

**Location : on left bank about 3 kilometers downstream from Lam Pao Damsite.**

|                                         |                                                                             |                   |               |               |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-------------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | <b>Nong Muang</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b>  | <b>Kalasin</b>     |
| <b>Drainage Area</b>                    | 6,013                                                                       | sq.km.            |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                       | gage              |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +138.018                                                                    | m. (MSL.)         |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                       | H.D.              |               |               |                  |                    |
| <b>Location BM</b>                      | On left bank in front of gage observer's house.                             |                   |               |               | <b>Elevation</b> | +149.762 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                      |                   |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                               |                   |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                |                   |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                   |               |               |                  |                    |
| <b>Period of Rating</b>                 | 1987 to date                                                                |                   |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                   |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 1987 to date                                                                |                   |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                   |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                   |               |               |                  |                    |
| <b>General Description</b>              | Records fair. Flow regulated by Lam Pao Dam.                                |                   |               |               |                  |                    |
|                                         | Stage-discharge relation defined by 24 discharge measurements made in 2013. |                   |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                             | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 137.64 | 137.64 | 137.57      | 137.54 | 137.54 | 137.55        | 137.71                          | 137.55            | 137.55 | 137.70 | 137.68 | 137.68 |        |
| 2                                | 137.64 | 137.64 | 137.60      | 137.54 | 137.55 | 137.55        | 137.76                          | 137.55            | 137.55 | 137.70 | 137.68 | 137.68 |        |
| 3                                | 137.64 | 137.64 | 137.62      | 137.54 | 137.55 | 137.55        | 137.72                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 4                                | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.55        | 137.65                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 5                                | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.55        | 137.62                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 6                                | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.55        | 137.60                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 7                                | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.55        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 8                                | 137.64 | 137.64 | 137.64      | 137.54 | 137.56 | 137.55        | 137.61                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 9                                | 137.64 | 137.64 | 137.64      | 137.54 | 137.59 | 137.55        | 137.58                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 10                               | 137.64 | 137.64 | 137.64      | 137.54 | 138.00 | 137.55        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 11                               | 137.64 | 137.64 | 137.64      | 137.54 | 138.11 | 137.55        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 12                               | 137.64 | 137.64 | 137.64      | 137.54 | 138.29 | 137.55        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 13                               | 137.64 | 137.64 | 137.62      | 137.54 | 137.85 | 137.65        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 14                               | 137.64 | 137.64 | 137.56      | 137.54 | 137.61 | 138.71        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 15                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.56 | 138.84        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 16                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 138.30        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 17                               | 137.64 | 137.64 | 137.64      | 137.55 | 137.55 | 137.88        | 137.57                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 18                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.88        | 137.58                          | 137.55            | 137.55 | 137.68 | 137.68 | 137.68 |        |
| 19                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.73        | 137.58                          | 137.55            | 137.56 | 137.68 | 137.68 | 137.68 |        |
| 20                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.75        | 137.58                          | 137.55            | 137.59 | 137.68 | 137.68 | 137.68 |        |
| 21                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.72        | 137.57                          | 137.55            | 137.60 | 137.68 | 137.68 | 137.68 |        |
| 22                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.72        | 137.57                          | 137.55            | 137.60 | 137.68 | 137.68 | 137.68 |        |
| 23                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.71        | 137.55                          | 137.55            | 137.60 | 137.68 | 137.68 | 137.68 |        |
| 24                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.59        | 137.55                          | 137.55            | 137.60 | 137.68 | 137.68 | 137.68 |        |
| 25                               | 137.64 | 137.64 | 137.64      | 137.54 | 137.55 | 137.57        | 137.55                          | 137.55            | 137.61 | 137.67 | 137.68 | 137.66 |        |
| 26                               | 137.64 | 137.64 | 137.60      | 137.54 | 137.55 | 137.72        | 137.55                          | 137.55            | 137.61 | 137.68 | 137.65 | 137.68 |        |
| 27                               | 137.64 | 137.64 | 137.54      | 137.54 | 137.55 | 137.77        | 137.55                          | 137.55            | 137.63 | 137.68 | 137.68 | 137.66 |        |
| 28                               | 137.64 | 137.64 | 137.53      | 137.54 | 137.55 | 137.78        | 137.55                          | 137.55            | 137.68 | 137.68 | 137.68 | 137.61 |        |
| 29                               | 137.64 | 137.61 | 137.53      | 137.54 | 137.55 | 137.79        | 137.55                          | 137.55            | 137.69 | 137.68 |        | 137.61 |        |
| 30                               | 137.64 | 137.54 | 137.54      | 137.54 | 137.55 | 137.72        | 137.55                          | 137.55            | 137.69 | 137.68 |        | 137.61 |        |
| 31                               |        | 137.55 |             | 137.54 | 137.55 |               | 137.55                          |                   | 137.69 | 137.68 |        | 137.61 |        |
| Mean                             | 137.64 | 137.63 | 137.62      | 137.54 | 137.62 | 137.75        | 137.59                          | 137.55            | 137.58 | 137.68 | 137.68 | 137.67 |        |
| Max                              | 137.64 | 137.64 | 137.64      | 137.55 | 138.29 | 138.84        | 137.76                          | 137.55            | 137.69 | 137.70 | 137.68 | 137.68 | 138.84 |
| Min                              | 137.64 | 137.54 | 137.53      | 137.54 | 137.54 | 137.55        | 137.55                          | 137.55            | 137.55 | 137.67 | 137.65 | 137.61 | 137.53 |
| Annual Max Momentary Gage Height |        | 138.86 | m. (MSL.) , |        |        |               | at 18.00 Hours, on Sep 15, 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 138.02 | m. (MSL.) , |        |        | River Bed     | 137.33                          | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 149.33 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 149.81 | m. (MSL.) , |        |        | Drainage Area | 6013                            | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep    | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|--------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 2.40                                                            | 2.40                     | 1.70  | 1.40                 | 1.40  | 1.50   | 3.10                     | 1.50  | 1.50  | 3.00  | 2.80  | 2.80  |               |
| 2              | 2.40                                                            | 2.40                     | 2.00  | 1.40                 | 1.50  | 1.50   | 3.60                     | 1.50  | 1.50  | 3.00  | 2.80  | 2.80  |               |
| 3              | 2.40                                                            | 2.40                     | 2.20  | 1.40                 | 1.50  | 1.50   | 3.20                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 4              | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 1.50   | 2.50                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 5              | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 1.50   | 2.20                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 6              | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 1.50   | 2.00                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 7              | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 1.50   | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 8              | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.60  | 1.50   | 2.10                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 9              | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.90  | 1.50   | 1.80                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 10             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 6.00  | 1.50   | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 11             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 7.15  | 1.50   | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 12             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 9.85  | 1.50   | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 13             | 2.40                                                            | 2.40                     | 2.20  | 1.40                 | 4.50  | 2.50   | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 14             | 2.40                                                            | 2.40                     | 1.60  | 1.40                 | 2.10  | 16.15  | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 15             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.60  | 18.10  | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 16             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 10.00  | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 17             | 2.40                                                            | 2.40                     | 2.40  | 1.50                 | 1.50  | 4.80   | 1.70                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 18             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 4.80   | 1.80                     | 1.50  | 1.50  | 2.80  | 2.80  | 2.80  |               |
| 19             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 3.30   | 1.80                     | 1.50  | 1.60  | 2.80  | 2.80  | 2.80  |               |
| 20             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 3.50   | 1.80                     | 1.50  | 1.90  | 2.80  | 2.80  | 2.80  |               |
| 21             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 3.20   | 1.70                     | 1.50  | 2.00  | 2.80  | 2.80  | 2.80  |               |
| 22             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 3.20   | 1.70                     | 1.50  | 2.00  | 2.80  | 2.80  | 2.80  |               |
| 23             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 3.10   | 1.50                     | 1.50  | 2.00  | 2.80  | 2.80  | 2.80  |               |
| 24             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 1.90   | 1.50                     | 1.50  | 2.00  | 2.80  | 2.80  | 2.80  |               |
| 25             | 2.40                                                            | 2.40                     | 2.40  | 1.40                 | 1.50  | 1.70   | 1.50                     | 1.50  | 2.10  | 2.70  | 2.80  | 2.60  |               |
| 26             | 2.40                                                            | 2.40                     | 2.00  | 1.40                 | 1.50  | 3.20   | 1.50                     | 1.50  | 2.10  | 2.80  | 2.50  | 2.80  |               |
| 27             | 2.40                                                            | 2.40                     | 1.40  | 1.40                 | 1.50  | 3.70   | 1.50                     | 1.50  | 2.30  | 2.80  | 2.80  | 2.60  |               |
| 28             | 2.40                                                            | 2.40                     | 1.30  | 1.40                 | 1.50  | 3.80   | 1.50                     | 1.50  | 2.80  | 2.80  | 2.80  | 2.10  |               |
| 29             | 2.40                                                            | 2.10                     | 1.30  | 1.40                 | 1.50  | 3.90   | 1.50                     | 1.50  | 2.90  | 2.80  |       | 2.10  |               |
| 30             | 2.40                                                            | 1.40                     | 1.40  | 1.40                 | 1.50  | 3.20   | 1.50                     | 1.50  | 2.90  | 2.80  |       | 2.10  |               |
| 31             |                                                                 | 1.50                     |       | 1.40                 | 1.50  |        | 1.50                     |       | 2.90  | 2.80  |       | 2.10  |               |
| Total          | 72.00                                                           | 72.20                    | 65.10 | 43.50                | 69.10 | 112.05 | 58.10                    | 45.00 | 56.50 | 87.10 | 78.10 | 83.60 | 842.35 CMSDAY |
| Mean           | 2.40                                                            | 2.33                     | 2.17  | 1.40                 | 2.23  | 3.74   | 1.87                     | 1.50  | 1.82  | 2.81  | 2.79  | 2.70  | 2.31 CMS      |
| Max            | 2.40                                                            | 2.40                     | 2.40  | 1.50                 | 9.85  | 18.10  | 3.60                     | 1.50  | 2.90  | 3.00  | 2.80  | 2.80  | 18.10 CMS     |
| Min            | 2.40                                                            | 1.40                     | 1.30  | 1.40                 | 1.40  | 1.50   | 1.50                     | 1.50  | 1.50  | 2.70  | 2.50  | 2.10  | 1.30 CMS      |
| Runoff         | 6.22                                                            | 6.24                     | 5.63  | 3.76                 | 5.97  | 9.68   | 5.02                     | 3.89  | 4.88  | 7.53  | 6.75  | 7.22  | 72.78 MCM     |
| Momentary Peak | 18.40 CMS, at 138.86 m. (MSL.), at 18.00 Hours, on Sep 15, 2013 |                          |       |                      |       |        |                          |       |       |       |       |       |               |
| Runoff Yield   | 0.38                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 3.06   | Liters/Second/Square KM. |       |       |       |       |       |               |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Saphung at Ban Na Charoen , Chaiyaphum (E.83)**

Lat 16 - 09 - 21 N Long 101 - 39 - 13 E

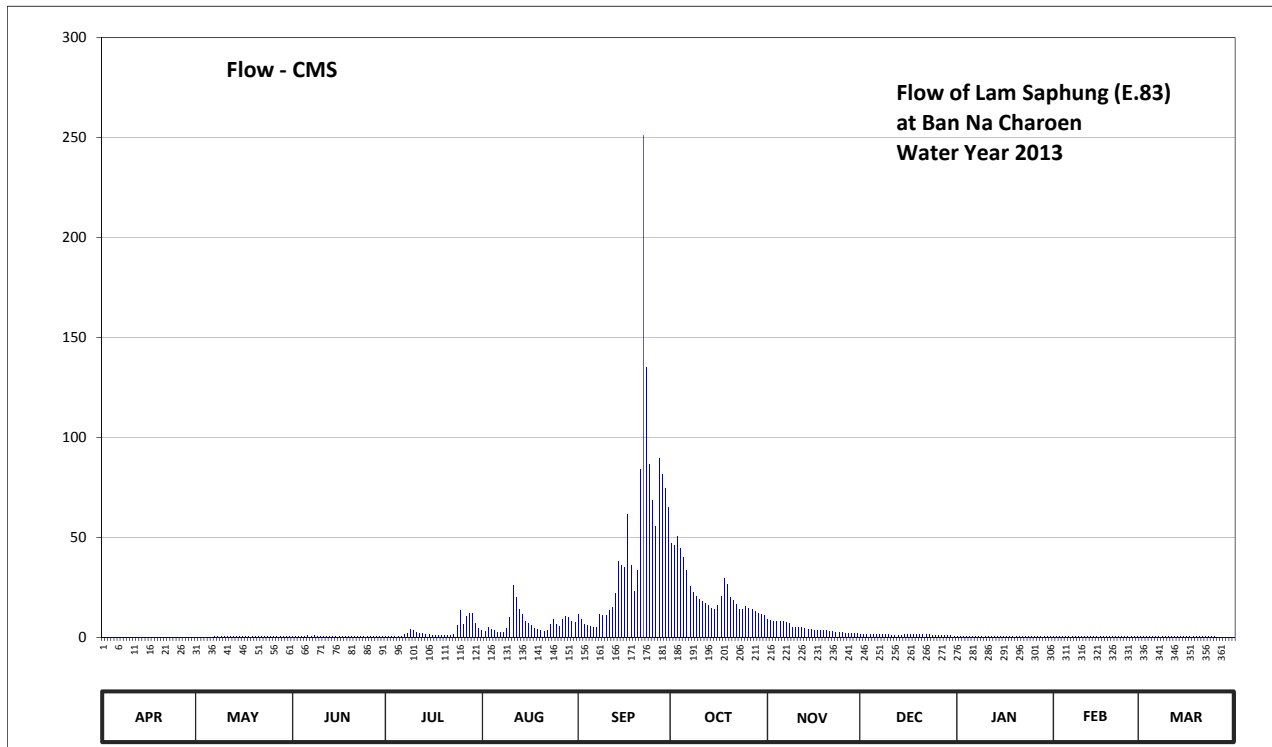
Location : on left bank at Ban Na Charoen.

|                                         |                                                                                           |            |               |                |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Na Charoen | <b>Amphoe</b> | Nong Bua Daeng | <b>Changwat</b>  | Chaiyaphum         |
| <b>Drainage Area</b>                    | 744                                                                                       | sq.km.     |               |                |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |                |                  |                    |
| <b>Zero Gage at Bottom</b>              | +222.750 m. (MSL.)                                                                        |            |               |                |                  |                    |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                      |            |               |                |                  |                    |
| <b>Location BM</b>                      | On left bank downstream at the footpath of the bridge.                                    |            |               |                | <b>Elevation</b> | +236.237 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |            |               |                |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |            |               |                |                  |                    |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                              |            |               |                |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |            |               |                |                  |                    |
| <b>Period of Rating</b>                 | 2004 to date                                                                              |            |               |                |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |                |                  |                    |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                              |            |               |                |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |            |               |                |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +232.690 m.(MSL.), records are channel flow only.       |            |               |                |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 33 discharge measurements made in 2013. |            |               |                |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                             | Sep    | Oct    | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|---------------------------------|--------|--------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 222.96 | 222.92 | 223.27      | 223.22 | 224.45                          | 225.59 | 229.17 | 225.27 | 223.91            | 223.48 | 223.24 | 223.08 |        |
| 2                                | 222.96 | 222.92 | 223.24      | 223.21 | 224.34                          | 225.25 | 229.08 | 225.23 | 223.89            | 223.48 | 223.23 | 223.07 |        |
| 3                                | 222.96 | 222.91 | 223.22      | 223.20 | 224.73                          | 224.99 | 229.40 | 225.18 | 223.88            | 223.48 | 223.22 | 223.07 |        |
| 4                                | 222.96 | 222.92 | 223.31      | 223.31 | 224.56                          | 224.84 | 228.99 | 225.17 | 223.85            | 223.47 | 223.22 | 223.06 |        |
| 5                                | 222.96 | 222.93 | 223.40      | 223.32 | 224.45                          | 224.76 | 228.62 | 225.16 | 223.84            | 223.47 | 223.22 | 223.06 |        |
| 6                                | 222.96 | 222.97 | 223.69      | 223.36 | 224.23                          | 224.74 | 228.04 | 225.14 | 223.82            | 223.47 | 223.22 | 223.06 |        |
| 7                                | 222.95 | 223.16 | 223.46      | 223.81 | 224.16                          | 224.69 | 227.28 | 225.11 | 223.81            | 223.47 | 223.22 | 223.05 |        |
| 8                                | 222.95 | 223.15 | 223.49      | 224.09 | 224.23                          | 225.57 | 226.98 | 225.00 | 223.80            | 223.46 | 223.21 | 223.05 |        |
| 9                                | 222.95 | 223.11 | 223.39      | 224.56 | 224.60                          | 225.52 | 226.73 | 224.74 | 223.78            | 223.46 | 223.21 | 223.05 |        |
| 10                               | 222.95 | 223.12 | 223.31      | 224.47 | 225.41                          | 225.51 | 226.54 | 224.72 | 223.76            | 223.46 | 223.20 | 223.04 |        |
| 11                               | 222.94 | 223.12 | 223.22      | 224.18 | 227.31                          | 225.86 | 226.40 | 224.70 | 223.71            | 223.44 | 223.20 | 223.04 |        |
| 12                               | 222.94 | 223.11 | 223.27      | 224.03 | 226.62                          | 226.01 | 226.27 | 224.67 | 223.66            | 223.43 | 223.19 | 223.04 |        |
| 13                               | 222.94 | 223.10 | 223.30      | 224.03 | 225.93                          | 226.87 | 226.13 | 224.65 | 223.64            | 223.42 | 223.19 | 223.03 |        |
| 14                               | 222.94 | 223.12 | 223.29      | 223.86 | 225.61                          | 228.43 | 225.96 | 224.55 | 223.61            | 223.42 | 223.18 | 223.03 |        |
| 15                               | 222.93 | 223.15 | 223.30      | 223.81 | 225.17                          | 228.29 | 225.87 | 224.53 | 223.74            | 223.41 | 223.17 | 223.03 |        |
| 16                               | 222.93 | 223.12 | 223.30      | 223.73 | 225.05                          | 228.20 | 226.12 | 224.46 | 223.84            | 223.41 | 223.16 | 223.02 |        |
| 17                               | 222.93 | 223.10 | 223.29      | 223.66 | 224.86                          | 230.19 | 226.71 | 224.44 | 223.85            | 223.41 | 223.15 | 223.02 |        |
| 18                               | 222.93 | 223.10 | 223.28      | 223.60 | 224.63                          | 228.25 | 227.68 | 224.43 | 223.83            | 223.40 | 223.14 | 223.02 |        |
| 19                               | 222.92 | 223.11 | 223.25      | 223.56 | 224.51                          | 227.04 | 227.38 | 224.42 | 223.81            | 223.39 | 223.14 | 223.02 |        |
| 20                               | 222.91 | 223.19 | 223.22      | 223.55 | 224.45                          | 228.04 | 226.68 | 224.40 | 223.79            | 223.38 | 223.13 | 223.01 |        |
| 21                               | 222.91 | 223.13 | 223.22      | 223.58 | 224.32                          | 231.55 | 226.49 | 224.35 | 223.78            | 223.37 | 223.12 | 223.01 |        |
| 22                               | 222.92 | 223.11 | 223.22      | 223.64 | 224.38                          | 234.19 | 226.20 | 224.27 | 223.76            | 223.35 | 223.12 | 223.00 |        |
| 23                               | 222.94 | 223.11 | 223.22      | 223.75 | 224.94                          | 233.00 | 225.92 | 224.24 | 223.74            | 223.31 | 223.11 | 223.00 |        |
| 24                               | 222.95 | 223.14 | 223.22      | 224.87 | 225.27                          | 231.66 | 225.91 | 224.21 | 223.71            | 223.27 | 223.10 | 223.00 |        |
| 25                               | 222.94 | 223.18 | 223.22      | 225.81 | 224.98                          | 230.67 | 226.09 | 224.16 | 223.68            | 223.28 | 223.10 | 223.00 |        |
| 26                               | 222.93 | 223.30 | 223.22      | 224.99 | 224.82                          | 229.75 | 225.94 | 224.12 | 223.63            | 223.28 | 223.09 | 222.99 |        |
| 27                               | 222.93 | 223.19 | 223.21      | 225.45 | 225.25                          | 231.78 | 225.88 | 224.10 | 223.58            | 223.27 | 223.08 | 222.99 |        |
| 28                               | 222.93 | 223.21 | 223.20      | 225.64 | 225.45                          | 231.44 | 225.80 | 224.07 | 223.55            | 223.26 | 223.08 | 222.99 |        |
| 29                               | 222.92 | 223.43 | 223.20      | 225.62 | 225.43                          | 231.04 | 225.67 | 224.05 | 223.52            | 223.25 |        | 222.98 |        |
| 30                               | 222.92 | 223.34 | 223.19      | 225.05 | 225.16                          | 230.45 | 225.57 | 224.04 | 223.50            | 223.25 |        | 222.98 |        |
| 31                               |        | 223.31 |             | 224.65 | 225.06                          |        | 225.50 |        | 223.48            | 223.24 |        | 222.98 |        |
| Mean                             | 222.94 | 223.12 | 223.29      | 224.12 | 224.98                          | 228.14 | 226.81 | 224.59 | 223.73            | 223.39 | 223.17 | 223.02 |        |
| Max                              | 222.96 | 223.43 | 223.69      | 225.81 | 227.31                          | 234.19 | 229.40 | 225.27 | 223.91            | 223.48 | 223.24 | 223.08 | 234.19 |
| Min                              | 222.91 | 222.91 | 223.19      | 223.20 | 224.16                          | 224.69 | 225.50 | 224.04 | 223.48            | 223.24 | 223.08 | 222.98 | 222.91 |
| Annual Max Momentary Gage Height | 234.95 |        | m. (MSL.) , |        | at 06.00 Hours, on Sep 22, 2013 |        |        |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 222.75 |        | m. (MSL.) , |        | River Bed                       |        | 222.82 |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 233.14 |        | m. (MSL.) , |        |                                 |        |        |        |                   |        |        |        |        |
| Right Bank Elevation             | 232.69 |        | m. (MSL.) , |        | Drainage Area                   |        | 744    |        | Square Kilometers |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.30                                                             | 0.10                     | 0.77  | 0.72                 | 3.80   | 11.72   | 47.38                    | 9.16   | 1.82  | 0.98  | 0.74  | 0.58  |                |
| 2              | 0.30                                                             | 0.10                     | 0.74  | 0.71                 | 3.36   | 9.00    | 46.12                    | 8.84   | 1.78  | 0.98  | 0.73  | 0.57  |                |
| 3              | 0.30                                                             | 0.05                     | 0.72  | 0.70                 | 5.38   | 6.94    | 50.60                    | 8.44   | 1.76  | 0.98  | 0.72  | 0.57  |                |
| 4              | 0.30                                                             | 0.10                     | 0.81  | 0.81                 | 4.36   | 6.04    | 44.88                    | 8.36   | 1.70  | 0.97  | 0.72  | 0.56  |                |
| 5              | 0.30                                                             | 0.15                     | 0.90  | 0.82                 | 3.80   | 5.56    | 40.44                    | 8.28   | 1.68  | 0.97  | 0.72  | 0.56  |                |
| 6              | 0.30                                                             | 0.35                     | 1.38  | 0.86                 | 2.92   | 5.44    | 33.48                    | 8.12   | 1.64  | 0.97  | 0.72  | 0.56  |                |
| 7              | 0.25                                                             | 0.66                     | 0.96  | 1.62                 | 2.64   | 5.14    | 25.80                    | 7.88   | 1.62  | 0.97  | 0.72  | 0.55  |                |
| 8              | 0.25                                                             | 0.65                     | 0.99  | 2.36                 | 2.92   | 11.56   | 22.84                    | 7.00   | 1.60  | 0.96  | 0.71  | 0.55  |                |
| 9              | 0.25                                                             | 0.61                     | 0.89  | 4.36                 | 4.60   | 11.16   | 20.84                    | 5.44   | 1.56  | 0.96  | 0.71  | 0.55  |                |
| 10             | 0.25                                                             | 0.62                     | 0.81  | 3.88                 | 10.28  | 11.08   | 19.32                    | 5.32   | 1.52  | 0.96  | 0.70  | 0.54  |                |
| 11             | 0.20                                                             | 0.62                     | 0.72  | 2.72                 | 26.10  | 13.88   | 18.20                    | 5.20   | 1.42  | 0.94  | 0.70  | 0.54  |                |
| 12             | 0.20                                                             | 0.61                     | 0.77  | 2.12                 | 19.96  | 15.08   | 17.16                    | 5.02   | 1.32  | 0.93  | 0.69  | 0.54  |                |
| 13             | 0.20                                                             | 0.60                     | 0.80  | 2.12                 | 14.44  | 21.96   | 16.04                    | 4.90   | 1.28  | 0.92  | 0.69  | 0.53  |                |
| 14             | 0.20                                                             | 0.62                     | 0.79  | 1.72                 | 11.88  | 38.16   | 14.68                    | 4.30   | 1.22  | 0.92  | 0.68  | 0.53  |                |
| 15             | 0.15                                                             | 0.65                     | 0.80  | 1.62                 | 8.36   | 36.48   | 13.96                    | 4.18   | 1.48  | 0.91  | 0.67  | 0.53  |                |
| 16             | 0.15                                                             | 0.62                     | 0.80  | 1.46                 | 7.40   | 35.40   | 15.96                    | 3.84   | 1.68  | 0.91  | 0.66  | 0.52  |                |
| 17             | 0.15                                                             | 0.60                     | 0.79  | 1.32                 | 6.16   | 61.66   | 20.68                    | 3.76   | 1.70  | 0.91  | 0.65  | 0.52  |                |
| 18             | 0.15                                                             | 0.60                     | 0.78  | 1.20                 | 4.78   | 36.00   | 29.80                    | 3.72   | 1.66  | 0.90  | 0.64  | 0.52  |                |
| 19             | 0.10                                                             | 0.61                     | 0.75  | 1.12                 | 4.06   | 23.40   | 26.80                    | 3.68   | 1.62  | 0.89  | 0.64  | 0.52  |                |
| 20             | 0.05                                                             | 0.69                     | 0.72  | 1.10                 | 3.80   | 33.48   | 20.44                    | 3.60   | 1.58  | 0.88  | 0.63  | 0.51  |                |
| 21             | 0.05                                                             | 0.63                     | 0.72  | 1.16                 | 3.28   | 84.20   | 18.92                    | 3.40   | 1.56  | 0.87  | 0.62  | 0.51  |                |
| 22             | 0.10                                                             | 0.61                     | 0.72  | 1.28                 | 3.52   | 251.22  | 16.60                    | 3.08   | 1.52  | 0.85  | 0.62  | 0.50  |                |
| 23             | 0.20                                                             | 0.61                     | 0.72  | 1.50                 | 6.64   | 135.00  | 14.36                    | 2.96   | 1.48  | 0.81  | 0.61  | 0.50  |                |
| 24             | 0.25                                                             | 0.64                     | 0.72  | 6.22                 | 9.16   | 86.84   | 14.28                    | 2.84   | 1.42  | 0.77  | 0.60  | 0.50  |                |
| 25             | 0.20                                                             | 0.68                     | 0.72  | 13.48                | 6.88   | 68.72   | 15.72                    | 2.64   | 1.36  | 0.78  | 0.60  | 0.50  |                |
| 26             | 0.15                                                             | 0.80                     | 0.72  | 6.94                 | 5.92   | 55.50   | 14.52                    | 2.48   | 1.26  | 0.78  | 0.59  | 0.45  |                |
| 27             | 0.15                                                             | 0.69                     | 0.71  | 10.60                | 9.00   | 89.72   | 14.04                    | 2.40   | 1.16  | 0.77  | 0.58  | 0.45  |                |
| 28             | 0.15                                                             | 0.71                     | 0.70  | 12.12                | 10.60  | 81.92   | 13.40                    | 2.28   | 1.10  | 0.76  | 0.58  | 0.45  |                |
| 29             | 0.10                                                             | 0.93                     | 0.70  | 11.96                | 10.44  | 74.72   | 12.36                    | 2.20   | 1.04  | 0.75  |       | 0.40  |                |
| 30             | 0.10                                                             | 0.84                     | 0.69  | 7.40                 | 8.28   | 65.30   | 11.56                    | 2.16   | 1.00  | 0.75  |       | 0.40  |                |
| 31             |                                                                  | 0.81                     |       | 4.90                 | 7.48   |         | 11.00                    |        | 0.98  | 0.74  |       | 0.40  |                |
| Total          | 5.80                                                             | 17.56                    | 23.81 | 110.90               | 232.20 | 1392.28 | 702.18                   | 145.48 | 45.52 | 27.44 | 18.64 | 15.91 | 2737.72 CMSDAY |
| Mean           | 0.19                                                             | 0.57                     | 0.79  | 3.58                 | 7.49   | 46.41   | 22.65                    | 4.85   | 1.47  | 0.89  | 0.67  | 0.51  | 7.50 CMS       |
| Max            | 0.30                                                             | 0.93                     | 1.38  | 13.48                | 26.10  | 251.22  | 50.60                    | 9.16   | 1.82  | 0.98  | 0.74  | 0.58  | 251.22 CMS     |
| Min            | 0.05                                                             | 0.05                     | 0.69  | 0.70                 | 2.64   | 5.14    | 11.00                    | 2.16   | 0.98  | 0.74  | 0.58  | 0.40  | 0.05 CMS       |
| Runoff         | 0.50                                                             | 1.52                     | 2.06  | 9.58                 | 20.06  | 120.29  | 60.67                    | 12.57  | 3.93  | 2.37  | 1.61  | 1.38  | 236.54 MCM     |
| Momentary Peak | 398.40 CMS, at 234.95 m. (MSL.), at 06.00 Hours, on Sep 22, 2013 |                          |       |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 10.08                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 535.484 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Nang Dad Khok , Chaiyaphum (E.84)**

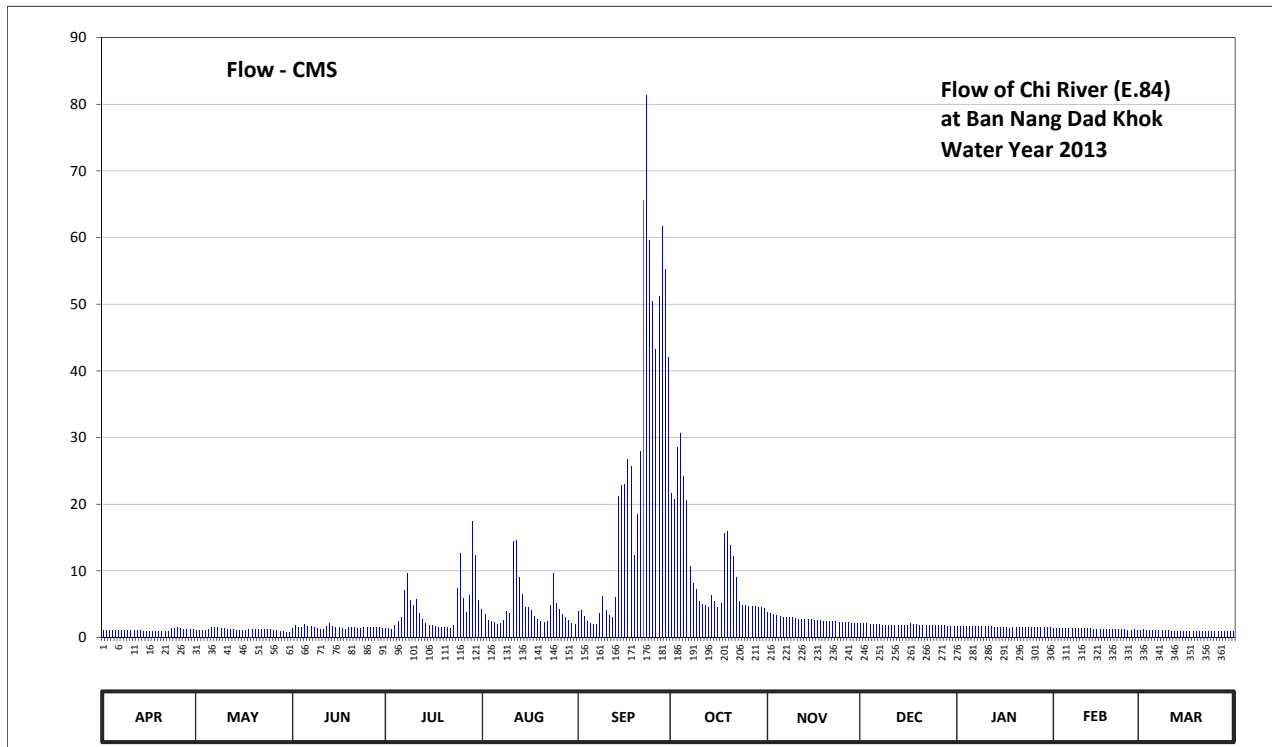
Lat 16 - 09 - 08 N Long 101 - 35 - 07 E

**Location : on left bank at Ban Nang Dad Khok.**

|                                         |                                                                                           |                |               |                |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Nang Dad Khok  | <b>Amphoe</b> | Nong Bua Daeng | <b>Changwat</b>  | Chaiyaphum         |
| <b>Drainage Area</b>                    | 508                                                                                       | sq.km.         |               |                |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage           |               |                |                  |                    |
| <b>Zero Gage at Bottom</b>              | +237.650                                                                                  | m. (MSL.)      |               |                |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |                |                  |                    |
| <b>Location BM</b>                      | On left bank downstream at the footpath of the bridge.                                    |                |               |                | <b>Elevation</b> | +246.755 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                |               |                |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |                |                  |                    |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                              |                |               |                |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |                |                  |                    |
| <b>Period of Rating</b>                 | 2004 to date                                                                              |                |               |                |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |                |                  |                    |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                              |                |               |                |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |                |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |                |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 32 discharge measurements made in 2013. |                |               |                |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

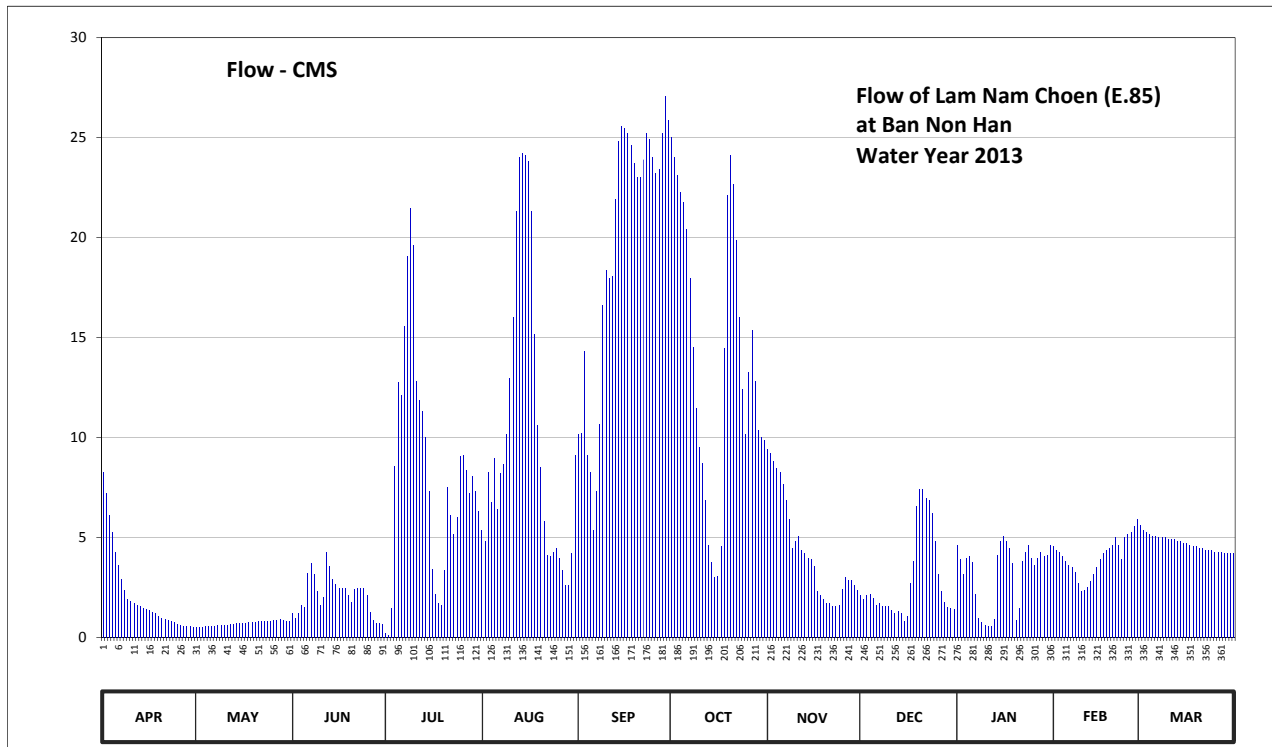
| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                             | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 239.33 | 239.33      | 239.39 | 239.38 | 239.96        | 239.90                          | 241.68            | 239.86 | 239.52 | 239.45 | 239.39 | 239.33 |        |
| 2                                | 239.33 | 239.32      | 239.47 | 239.38 | 239.80        | 239.92                          | 241.62            | 239.82 | 239.52 | 239.45 | 239.39 | 239.34 |        |
| 3                                | 239.33 | 239.32      | 239.40 | 239.37 | 239.62        | 239.74                          | 242.13            | 239.79 | 239.52 | 239.44 | 239.39 | 239.33 |        |
| 4                                | 239.32 | 239.33      | 239.40 | 239.46 | 239.60        | 239.59                          | 242.23            | 239.76 | 239.51 | 239.44 | 239.39 | 239.33 |        |
| 5                                | 239.32 | 239.34      | 239.51 | 239.60 | 239.55        | 239.54                          | 241.85            | 239.74 | 239.51 | 239.44 | 239.38 | 239.33 |        |
| 6                                | 239.32 | 239.42      | 239.45 | 239.72 | 239.51        | 239.51                          | 241.61            | 239.73 | 239.50 | 239.44 | 239.38 | 239.33 |        |
| 7                                | 239.32 | 239.42      | 239.43 | 240.37 | 239.53        | 239.50                          | 240.77            | 239.71 | 239.50 | 239.44 | 239.38 | 239.32 |        |
| 8                                | 239.32 | 239.41      | 239.41 | 240.67 | 239.62        | 239.83                          | 240.49            | 239.70 | 239.49 | 239.44 | 239.38 | 239.32 |        |
| 9                                | 239.32 | 239.39      | 239.38 | 240.18 | 239.90        | 240.25                          | 240.39            | 239.70 | 239.49 | 239.43 | 239.38 | 239.31 |        |
| 10                               | 239.31 | 239.38      | 239.35 | 240.07 | 239.84        | 239.93                          | 240.16            | 239.67 | 239.49 | 239.43 | 239.38 | 239.31 |        |
| 11                               | 239.31 | 239.37      | 239.35 | 240.20 | 241.15        | 239.77                          | 240.11            | 239.66 | 239.48 | 239.43 | 239.38 | 239.30 |        |
| 12                               | 239.31 | 239.36      | 239.43 | 239.82 | 241.17        | 239.71                          | 240.06            | 239.66 | 239.48 | 239.43 | 239.38 | 239.30 |        |
| 13                               | 239.31 | 239.34      | 239.52 | 239.64 | 240.61        | 240.24                          | 240.00            | 239.65 | 239.48 | 239.42 | 239.38 | 239.30 |        |
| 14                               | 239.30 | 239.33      | 239.44 | 239.52 | 240.29        | 241.65                          | 240.27            | 239.65 | 239.48 | 239.41 | 239.37 | 239.29 |        |
| 15                               | 239.30 | 239.33      | 239.42 | 239.49 | 240.00        | 241.76                          | 240.15            | 239.64 | 239.48 | 239.41 | 239.37 | 239.29 |        |
| 16                               | 239.30 | 239.32      | 239.40 | 239.49 | 240.00        | 241.77                          | 240.02            | 239.63 | 239.48 | 239.40 | 239.37 | 239.29 |        |
| 17                               | 239.30 | 239.32      | 239.38 | 239.44 | 239.92        | 242.02                          | 240.13            | 239.63 | 239.53 | 239.40 | 239.37 | 239.28 |        |
| 18                               | 239.30 | 239.35      | 239.37 | 239.42 | 239.74        | 241.95                          | 241.25            | 239.62 | 239.50 | 239.39 | 239.37 | 239.28 |        |
| 19                               | 239.30 | 239.37      | 239.40 | 239.40 | 239.66        | 240.93                          | 241.28            | 239.61 | 239.50 | 239.40 | 239.37 | 239.29 |        |
| 20                               | 239.30 | 239.36      | 239.40 | 239.40 | 239.60        | 241.47                          | 241.09            | 239.60 | 239.49 | 239.40 | 239.37 | 239.29 |        |
| 21                               | 239.29 | 239.36      | 239.41 | 239.40 | 239.57        | 242.10                          | 240.92            | 239.60 | 239.48 | 239.40 | 239.36 | 239.29 |        |
| 22                               | 239.30 | 239.35      | 239.39 | 239.39 | 239.60        | 243.29                          | 240.60            | 239.59 | 239.48 | 239.40 | 239.36 | 239.29 |        |
| 23                               | 239.38 | 239.35      | 239.39 | 239.47 | 240.08        | 243.58                          | 240.15            | 239.58 | 239.48 | 239.40 | 239.36 | 239.30 |        |
| 24                               | 239.39 | 239.35      | 239.40 | 240.41 | 240.66        | 243.14                          | 240.08            | 239.57 | 239.48 | 239.40 | 239.34 | 239.30 |        |
| 25                               | 239.40 | 239.34      | 239.41 | 240.97 | 240.13        | 242.90                          | 240.06            | 239.56 | 239.48 | 239.40 | 239.33 | 239.30 |        |
| 26                               | 239.39 | 239.33      | 239.42 | 240.21 | 239.95        | 242.69                          | 240.05            | 239.55 | 239.48 | 239.40 | 239.33 | 239.30 |        |
| 27                               | 239.36 | 239.33      | 239.41 | 239.87 | 239.81        | 242.92                          | 240.04            | 239.55 | 239.47 | 239.40 | 239.34 | 239.30 |        |
| 28                               | 239.35 | 239.30      | 239.40 | 240.27 | 239.70        | 243.19                          | 240.03            | 239.54 | 239.46 | 239.40 | 239.33 | 239.30 |        |
| 29                               | 239.34 | 239.28      | 239.40 | 241.39 | 239.62        | 243.03                          | 240.02            | 239.54 | 239.45 | 239.40 |        | 239.29 |        |
| 30                               | 239.34 | 239.25      | 239.39 | 240.94 | 239.53        | 242.65                          | 240.01            | 239.53 | 239.45 | 239.40 |        | 239.29 |        |
| 31                               |        | 239.24      |        | 240.18 | 239.50        |                                 | 239.98            |        | 239.44 | 239.40 |        | 239.29 |        |
| Mean                             | 239.33 | 239.34      | 239.41 | 239.89 | 239.91        | 241.28                          | 240.62            | 239.65 | 239.49 | 239.42 | 239.37 | 239.30 |        |
| Max                              | 239.40 | 239.42      | 239.52 | 241.39 | 241.17        | 243.58                          | 242.23            | 239.86 | 239.53 | 239.45 | 239.39 | 239.34 | 243.58 |
| Min                              | 239.29 | 239.24      | 239.35 | 239.37 | 239.50        | 239.50                          | 239.98            | 239.53 | 239.44 | 239.39 | 239.33 | 239.28 | 239.24 |
| Annual Max Momentary Gage Height | 243.85 | m. (MSL.) , |        |        |               | at 18.00 Hours, on Sep 22, 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 237.65 | m. (MSL.) , |        |        | River Bed     | 238.35                          | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 246.45 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 246.45 | m. (MSL.) , |        |        | Drainage Area | 508                             | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|-------|----------------|
| 1              | 1.15                                                            | 1.15                     | 1.45  | 1.40                 | 4.30   | 4.00    | 21.70                    | 3.80  | 2.10  | 1.75  | 1.45  | 1.15  |                |
| 2              | 1.15                                                            | 1.10                     | 1.85  | 1.40                 | 3.50   | 4.10    | 20.80                    | 3.60  | 2.10  | 1.75  | 1.45  | 1.20  |                |
| 3              | 1.15                                                            | 1.10                     | 1.50  | 1.35                 | 2.60   | 3.20    | 28.60                    | 3.45  | 2.10  | 1.70  | 1.45  | 1.15  |                |
| 4              | 1.10                                                            | 1.15                     | 1.50  | 1.80                 | 2.50   | 2.45    | 30.60                    | 3.30  | 2.05  | 1.70  | 1.45  | 1.15  |                |
| 5              | 1.10                                                            | 1.20                     | 2.05  | 2.50                 | 2.25   | 2.20    | 24.25                    | 3.20  | 2.05  | 1.70  | 1.40  | 1.15  |                |
| 6              | 1.10                                                            | 1.60                     | 1.75  | 3.10                 | 2.05   | 2.05    | 20.65                    | 3.15  | 2.00  | 1.70  | 1.40  | 1.15  |                |
| 7              | 1.10                                                            | 1.60                     | 1.65  | 7.16                 | 2.15   | 2.00    | 10.70                    | 3.05  | 2.00  | 1.70  | 1.40  | 1.10  |                |
| 8              | 1.10                                                            | 1.55                     | 1.55  | 9.70                 | 2.60   | 3.65    | 8.12                     | 3.00  | 1.95  | 1.70  | 1.40  | 1.10  |                |
| 9              | 1.10                                                            | 1.45                     | 1.40  | 5.64                 | 4.00   | 6.20    | 7.32                     | 3.00  | 1.95  | 1.65  | 1.40  | 1.05  |                |
| 10             | 1.05                                                            | 1.40                     | 1.25  | 4.85                 | 3.70   | 4.15    | 5.48                     | 2.85  | 1.95  | 1.65  | 1.40  | 1.05  |                |
| 11             | 1.05                                                            | 1.35                     | 1.25  | 5.80                 | 14.50  | 3.35    | 5.08                     | 2.80  | 1.90  | 1.65  | 1.40  | 1.00  |                |
| 12             | 1.05                                                            | 1.30                     | 1.65  | 3.60                 | 14.70  | 3.05    | 4.80                     | 2.80  | 1.90  | 1.65  | 1.40  | 1.00  |                |
| 13             | 1.05                                                            | 1.20                     | 2.10  | 2.70                 | 9.10   | 6.12    | 4.50                     | 2.75  | 1.90  | 1.60  | 1.40  | 1.00  |                |
| 14             | 1.00                                                            | 1.15                     | 1.70  | 2.10                 | 6.52   | 21.25   | 6.36                     | 2.75  | 1.90  | 1.55  | 1.35  | 0.96  |                |
| 15             | 1.00                                                            | 1.15                     | 1.60  | 1.95                 | 4.50   | 22.90   | 5.40                     | 2.70  | 1.90  | 1.55  | 1.35  | 0.96  |                |
| 16             | 1.00                                                            | 1.10                     | 1.50  | 1.95                 | 4.50   | 23.05   | 4.60                     | 2.65  | 1.90  | 1.50  | 1.35  | 0.96  |                |
| 17             | 1.00                                                            | 1.10                     | 1.40  | 1.70                 | 4.10   | 26.80   | 5.24                     | 2.65  | 2.15  | 1.50  | 1.35  | 0.92  |                |
| 18             | 1.00                                                            | 1.25                     | 1.35  | 1.60                 | 3.20   | 25.75   | 15.65                    | 2.60  | 2.00  | 1.45  | 1.35  | 0.92  |                |
| 19             | 1.00                                                            | 1.35                     | 1.50  | 1.50                 | 2.80   | 12.30   | 16.04                    | 2.55  | 2.00  | 1.50  | 1.35  | 0.96  |                |
| 20             | 1.00                                                            | 1.30                     | 1.50  | 1.50                 | 2.50   | 18.58   | 13.90                    | 2.50  | 1.95  | 1.50  | 1.35  | 0.96  |                |
| 21             | 0.96                                                            | 1.30                     | 1.55  | 1.50                 | 2.35   | 28.00   | 12.20                    | 2.50  | 1.90  | 1.50  | 1.30  | 0.96  |                |
| 22             | 1.00                                                            | 1.25                     | 1.45  | 1.45                 | 2.50   | 65.60   | 9.00                     | 2.45  | 1.90  | 1.50  | 1.30  | 0.96  |                |
| 23             | 1.40                                                            | 1.25                     | 1.45  | 1.85                 | 4.90   | 81.40   | 5.40                     | 2.40  | 1.90  | 1.50  | 1.30  | 1.00  |                |
| 24             | 1.45                                                            | 1.25                     | 1.50  | 7.48                 | 9.60   | 59.60   | 4.90                     | 2.35  | 1.90  | 1.50  | 1.20  | 1.00  |                |
| 25             | 1.50                                                            | 1.20                     | 1.55  | 12.70                | 5.24   | 50.50   | 4.80                     | 2.30  | 1.90  | 1.50  | 1.15  | 1.00  |                |
| 26             | 1.45                                                            | 1.15                     | 1.60  | 5.88                 | 4.25   | 43.20   | 4.75                     | 2.25  | 1.90  | 1.50  | 1.15  | 1.00  |                |
| 27             | 1.30                                                            | 1.15                     | 1.55  | 3.85                 | 3.55   | 51.20   | 4.70                     | 2.25  | 1.85  | 1.50  | 1.20  | 1.00  |                |
| 28             | 1.25                                                            | 1.00                     | 1.50  | 6.36                 | 3.00   | 61.60   | 4.65                     | 2.20  | 1.80  | 1.50  | 1.15  | 1.00  |                |
| 29             | 1.20                                                            | 0.92                     | 1.50  | 17.47                | 2.60   | 55.20   | 4.60                     | 2.20  | 1.75  | 1.50  |       | 0.96  |                |
| 30             | 1.20                                                            | 0.80                     | 1.45  | 12.40                | 2.15   | 42.00   | 4.55                     | 2.15  | 1.75  | 1.50  |       | 0.96  |                |
| 31             |                                                                 | 0.76                     |       | 5.64                 | 2.00   |         | 4.40                     |       | 1.70  | 1.50  |       | 0.96  |                |
| Total          | 33.96                                                           | 37.58                    | 46.60 | 139.88               | 138.21 | 735.45  | 323.74                   | 82.20 | 60.00 | 48.95 | 37.60 | 31.69 | 1715.86 CMSDAY |
| Mean           | 1.13                                                            | 1.21                     | 1.55  | 4.51                 | 4.46   | 24.52   | 10.44                    | 2.74  | 1.94  | 1.58  | 1.34  | 1.02  | 4.70 CMS       |
| Max            | 1.50                                                            | 1.60                     | 2.10  | 17.47                | 14.70  | 81.40   | 30.60                    | 3.80  | 2.15  | 1.75  | 1.45  | 1.20  | 81.40 CMS      |
| Min            | 0.96                                                            | 0.76                     | 1.25  | 1.35                 | 2.00   | 2.00    | 4.40                     | 2.15  | 1.70  | 1.45  | 1.15  | 0.92  | 0.76 CMS       |
| Runoff         | 2.93                                                            | 3.25                     | 4.03  | 12.09                | 11.94  | 63.54   | 27.97                    | 7.10  | 5.18  | 4.23  | 3.25  | 2.74  | 148.25 MCM     |
| Momentary Peak | 98.50 CMS, at 243.85 m. (MSL.), at 18.00 Hours, on Sep 22, 2013 |                          |       |                      |        |         |                          |       |       |       |       |       |                |
| Runoff Yield   | 9.25                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 193.898 | Liters/Second/Square KM. |       |       |       |       |       |                |

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 227.42 | 226.31 | 226.49                                           | 226.20 | 227.13 | 227.95 | 230.00 | 227.77 | 226.68 | 227.05 | 227.04 | 227.16 |        |
| 2                                | 227.31 | 226.31 | 226.44                                           | 226.08 | 227.07 | 227.96 | 229.90 | 227.72 | 226.64 | 226.96 | 227.02 | 227.13 |        |
| 3                                | 227.21 | 226.31 | 226.50                                           | 226.55 | 227.43 | 228.72 | 229.81 | 227.61 | 226.68 | 226.85 | 227.01 | 227.12 |        |
| 4                                | 227.12 | 226.32 | 226.58                                           | 227.52 | 227.27 | 227.69 | 229.72 | 227.49 | 226.69 | 226.97 | 226.98 | 227.11 |        |
| 5                                | 227.01 | 226.32 | 226.56                                           | 228.46 | 227.65 | 227.42 | 229.66 | 227.43 | 226.65 | 226.98 | 226.95 | 227.10 |        |
| 6                                | 226.92 | 226.33 | 226.86                                           | 228.34 | 227.24 | 227.13 | 229.51 | 227.35 | 226.58 | 226.94 | 226.92 | 227.10 |        |
| 7                                | 226.82 | 226.33 | 226.93                                           | 228.91 | 227.40 | 227.32 | 229.22 | 227.28 | 226.60 | 226.69 | 226.90 | 227.09 |        |
| 8                                | 226.72 | 226.34 | 226.85                                           | 229.36 | 227.55 | 228.05 | 228.75 | 227.19 | 226.57 | 226.44 | 226.87 | 227.09 |        |
| 9                                | 226.64 | 226.34 | 226.71                                           | 229.63 | 227.95 | 229.05 | 228.22 | 227.03 | 226.57 | 226.39 | 226.79 | 227.09 |        |
| 10                               | 226.62 | 226.35 | 226.58                                           | 229.42 | 228.49 | 229.27 | 227.81 | 227.07 | 226.57 | 226.34 | 226.71 | 227.08 |        |
| 11                               | 226.60 | 226.35 | 226.66                                           | 228.47 | 228.97 | 229.22 | 227.58 | 227.10 | 226.53 | 226.32 | 226.72 | 227.08 |        |
| 12                               | 226.58 | 226.36 | 227.01                                           | 228.29 | 229.61 | 229.23 | 227.28 | 227.02 | 226.50 | 226.32 | 226.75 | 227.08 |        |
| 13                               | 226.57 | 226.36 | 226.91                                           | 228.19 | 229.90 | 229.68 | 227.05 | 227.00 | 226.52 | 226.43 | 226.80 | 227.07 |        |
| 14                               | 226.55 | 226.37 | 226.82                                           | 227.91 | 229.92 | 229.98 | 226.94 | 226.97 | 226.49 | 226.99 | 226.85 | 227.07 |        |
| 15                               | 226.54 | 226.37 | 226.78                                           | 227.32 | 229.91 | 230.05 | 226.83 | 226.96 | 226.40 | 227.07 | 226.90 | 227.06 |        |
| 16                               | 226.53 | 226.38 | 226.74                                           | 226.89 | 229.88 | 230.04 | 226.84 | 226.91 | 226.46 | 227.10 | 226.96 | 227.06 |        |
| 17                               | 226.51 | 226.38 | 226.74                                           | 226.69 | 229.61 | 230.02 | 227.04 | 226.71 | 226.79 | 227.07 | 227.00 | 227.05 |        |
| 18                               | 226.49 | 226.39 | 226.74                                           | 226.60 | 228.85 | 229.96 | 228.74 | 226.68 | 226.95 | 227.03 | 227.02 | 227.04 |        |
| 19                               | 226.46 | 226.39 | 226.68                                           | 226.59 | 228.04 | 229.87 | 229.70 | 226.64 | 227.25 | 226.93 | 227.03 | 227.04 |        |
| 20                               | 226.44 | 226.39 | 226.61                                           | 226.88 | 227.51 | 229.80 | 229.91 | 226.60 | 227.33 | 226.42 | 227.05 | 227.03 |        |
| 21                               | 226.43 | 226.40 | 226.73                                           | 227.34 | 227.18 | 229.80 | 229.76 | 226.60 | 227.33 | 226.55 | 227.09 | 227.03 |        |
| 22                               | 226.42 | 226.40 | 226.74                                           | 227.21 | 226.99 | 229.89 | 229.45 | 226.57 | 227.29 | 226.95 | 227.05 | 227.02 |        |
| 23                               | 226.41 | 226.40 | 226.74                                           | 227.11 | 226.98 | 230.02 | 228.97 | 226.57 | 227.28 | 227.01 | 226.96 | 227.02 |        |
| 24                               | 226.39 | 226.41 | 226.74                                           | 227.20 | 227.01 | 229.99 | 228.40 | 226.58 | 227.22 | 227.05 | 227.09 | 227.02 |        |
| 25                               | 226.36 | 226.41 | 226.68                                           | 227.68 | 227.03 | 229.90 | 227.95 | 226.73 | 227.07 | 226.97 | 227.11 | 227.01 |        |
| 26                               | 226.34 | 226.42 | 226.51                                           | 227.69 | 226.97 | 229.82 | 228.54 | 226.83 | 226.85 | 226.92 | 227.12 | 227.01 |        |
| 27                               | 226.33 | 226.42 | 226.42                                           | 227.46 | 226.88 | 229.84 | 228.88 | 226.81 | 226.71 | 226.97 | 227.15 | 227.01 |        |
| 28                               | 226.32 | 226.43 | 226.38                                           | 227.31 | 226.77 | 230.02 | 228.47 | 226.81 | 226.61 | 227.01 | 227.19 | 227.00 |        |
| 29                               | 226.32 | 226.42 | 226.37                                           | 227.39 | 226.77 | 230.19 | 227.99 | 226.77 | 226.56 | 226.98 |        | 227.00 |        |
| 30                               | 226.31 | 226.41 | 226.36                                           | 227.32 | 227.00 | 230.08 | 227.91 | 226.72 | 226.55 | 226.99 |        | 227.00 |        |
| 31                               |        | 226.40 |                                                  | 227.23 | 227.70 |        | 227.89 |        | 226.54 | 227.05 |        | 227.00 |        |
| Mean                             | 226.62 | 226.37 | 226.66                                           | 227.59 | 227.89 | 229.27 | 228.54 | 226.98 | 226.76 | 226.83 | 226.97 | 227.06 |        |
| Max                              | 227.42 | 226.43 | 227.01                                           | 229.63 | 229.92 | 230.19 | 230.00 | 227.77 | 227.33 | 227.10 | 227.19 | 227.16 | 230.19 |
| Min                              | 226.31 | 226.31 | 226.36                                           | 226.08 | 226.77 | 227.13 | 226.83 | 226.57 | 226.40 | 226.32 | 226.71 | 227.00 | 226.08 |
| Annual Max Momentary Gage Height | 230.23 |        | m. (MSL.) , at 09.00 Hours, on Sep 29, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 224.84 |        | m. (MSL.) , River Bed 225.54 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 223.92 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 232.60 |        | m. (MSL.) , Drainage Area 1218 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec   | Jan    | Feb    | Mar    | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|--------------------------|--------|-------|--------|--------|--------|----------------|
| 1              | 8.26                                                            | 0.53                     | 1.21  | 0.20                 | 5.37   | 10.17  | 25.00                    | 9.40   | 2.14  | 4.65   | 4.56   | 5.64   |                |
| 2              | 7.21                                                            | 0.53                     | 0.98  | 0.14                 | 4.83   | 10.22  | 24.00                    | 9.22   | 1.92  | 3.92   | 4.38   | 5.37   |                |
| 3              | 6.11                                                            | 0.53                     | 1.25  | 1.48                 | 8.29   | 14.32  | 23.10                    | 8.83   | 2.14  | 3.15   | 4.29   | 5.28   |                |
| 4              | 5.28                                                            | 0.56                     | 1.61  | 8.56                 | 6.77   | 9.11   | 22.28                    | 8.47   | 2.19  | 3.99   | 4.06   | 5.19   |                |
| 5              | 4.29                                                            | 0.56                     | 1.52  | 12.76                | 8.97   | 8.26   | 21.74                    | 8.29   | 1.97  | 4.06   | 3.85   | 5.10   |                |
| 6              | 3.64                                                            | 0.59                     | 3.22  | 12.10                | 6.44   | 5.37   | 20.39                    | 7.65   | 1.61  | 3.78   | 3.64   | 5.10   |                |
| 7              | 2.94                                                            | 0.59                     | 3.71  | 15.57                | 8.20   | 7.32   | 17.96                    | 6.88   | 1.70  | 2.19   | 3.50   | 5.01   |                |
| 8              | 2.36                                                            | 0.62                     | 3.15  | 19.08                | 8.65   | 10.65  | 14.50                    | 5.91   | 1.57  | 0.98   | 3.29   | 5.01   |                |
| 9              | 1.92                                                            | 0.62                     | 2.31  | 21.47                | 10.17  | 16.60  | 11.50                    | 4.47   | 1.57  | 0.77   | 2.74   | 5.01   |                |
| 10             | 1.81                                                            | 0.65                     | 1.61  | 19.58                | 12.94  | 18.36  | 9.54                     | 4.83   | 1.57  | 0.62   | 2.31   | 4.92   |                |
| 11             | 1.70                                                            | 0.65                     | 2.03  | 12.82                | 15.99  | 17.96  | 8.74                     | 5.10   | 1.38  | 0.56   | 2.36   | 4.92   |                |
| 12             | 1.61                                                            | 0.68                     | 4.29  | 11.85                | 21.29  | 18.04  | 6.88                     | 4.38   | 1.25  | 0.56   | 2.52   | 4.92   |                |
| 13             | 1.57                                                            | 0.68                     | 3.57  | 11.35                | 24.00  | 21.92  | 4.65                     | 4.20   | 1.34  | 0.93   | 2.80   | 4.83   |                |
| 14             | 1.48                                                            | 0.71                     | 2.94  | 10.00                | 24.20  | 24.80  | 3.78                     | 3.99   | 1.21  | 4.13   | 3.15   | 4.83   |                |
| 15             | 1.43                                                            | 0.71                     | 2.69  | 7.32                 | 24.10  | 25.55  | 3.01                     | 3.92   | 0.80  | 4.83   | 3.50   | 4.74   |                |
| 16             | 1.38                                                            | 0.74                     | 2.47  | 3.43                 | 23.80  | 25.44  | 3.08                     | 3.57   | 1.07  | 5.10   | 3.92   | 4.74   |                |
| 17             | 1.29                                                            | 0.74                     | 2.47  | 2.19                 | 21.29  | 25.22  | 4.56                     | 2.31   | 2.74  | 4.83   | 4.20   | 4.65   |                |
| 18             | 1.21                                                            | 0.77                     | 2.47  | 1.70                 | 15.15  | 24.60  | 14.44                    | 2.14   | 3.85  | 4.47   | 4.38   | 4.56   |                |
| 19             | 1.07                                                            | 0.77                     | 2.14  | 1.65                 | 10.60  | 23.70  | 22.10                    | 1.92   | 6.55  | 3.71   | 4.47   | 4.56   |                |
| 20             | 0.98                                                            | 0.77                     | 1.75  | 3.36                 | 8.53   | 23.00  | 24.10                    | 1.70   | 7.43  | 0.89   | 4.65   | 4.47   |                |
| 21             | 0.93                                                            | 0.80                     | 2.41  | 7.54                 | 5.82   | 23.00  | 22.64                    | 1.70   | 7.43  | 1.48   | 5.01   | 4.47   |                |
| 22             | 0.89                                                            | 0.80                     | 2.47  | 6.11                 | 4.13   | 23.90  | 19.85                    | 1.57   | 6.99  | 3.85   | 4.65   | 4.38   |                |
| 23             | 0.85                                                            | 0.80                     | 2.47  | 5.19                 | 4.06   | 25.22  | 15.99                    | 1.57   | 6.88  | 4.29   | 3.92   | 4.38   |                |
| 24             | 0.77                                                            | 0.85                     | 2.47  | 6.00                 | 4.29   | 24.90  | 12.40                    | 1.61   | 6.22  | 4.65   | 5.01   | 4.38   |                |
| 25             | 0.68                                                            | 0.85                     | 2.14  | 9.08                 | 4.47   | 24.00  | 10.17                    | 2.41   | 4.83  | 3.99   | 5.19   | 4.29   |                |
| 26             | 0.62                                                            | 0.89                     | 1.29  | 9.11                 | 3.99   | 23.20  | 13.24                    | 3.01   | 3.15  | 3.64   | 5.28   | 4.29   |                |
| 27             | 0.59                                                            | 0.89                     | 0.89  | 8.38                 | 3.36   | 23.40  | 15.36                    | 2.87   | 2.31  | 3.99   | 5.55   | 4.29   |                |
| 28             | 0.56                                                            | 0.93                     | 0.74  | 7.21                 | 2.64   | 25.22  | 12.82                    | 2.87   | 1.75  | 4.29   | 5.91   | 4.20   |                |
| 29             | 0.56                                                            | 0.89                     | 0.71  | 8.09                 | 2.64   | 27.09  | 10.36                    | 2.64   | 1.52  | 4.06   |        | 4.20   |                |
| 30             | 0.53                                                            | 0.85                     | 0.68  | 7.32                 | 4.20   | 25.88  | 10.00                    | 2.36   | 1.48  | 4.13   |        | 4.20   |                |
| 31             |                                                                 | 0.80                     |       | 6.33                 | 9.15   |        | 9.90                     |        | 1.43  | 4.65   |        | 4.20   |                |
| Total          | 64.52                                                           | 22.35                    | 63.66 | 256.97               | 318.33 | 586.42 | 438.08                   | 129.79 | 89.99 | 101.14 | 113.09 | 146.13 | 2330.47 CMSDAY |
| Mean           | 2.15                                                            | 0.72                     | 2.12  | 8.29                 | 10.27  | 19.55  | 14.13                    | 4.33   | 2.90  | 3.26   | 4.04   | 4.71   | 6.38 CMS       |
| Max            | 8.26                                                            | 0.93                     | 4.29  | 21.47                | 24.20  | 27.09  | 25.00                    | 9.40   | 7.43  | 5.10   | 5.91   | 5.64   | 27.09 CMS      |
| Min            | 0.53                                                            | 0.53                     | 0.68  | 0.14                 | 2.64   | 5.37   | 3.01                     | 1.57   | 0.80  | 0.56   | 2.31   | 4.20   | 0.14 CMS       |
| Runoff         | 5.58                                                            | 1.93                     | 5.50  | 22.20                | 27.50  | 50.67  | 37.85                    | 11.21  | 7.78  | 8.74   | 9.77   | 12.63  | 201.35 MCM     |
| Momentary Peak | 27.56 CMS, at 230.23 m. (MSL.), at 09.00 Hours, on Sep 29, 2013 |                          |       |                      |        |        |                          |        |       |        |        |        |                |
| Runoff Yield   | 5.24                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 22.627 | Liters/Second/Square KM. |        |       |        |        |        |                |

## WATER YEAR : 2013

## CHI RIVER BASIN

**Lam Pao at Ban Wang Hin , Kalasin (E.87)**

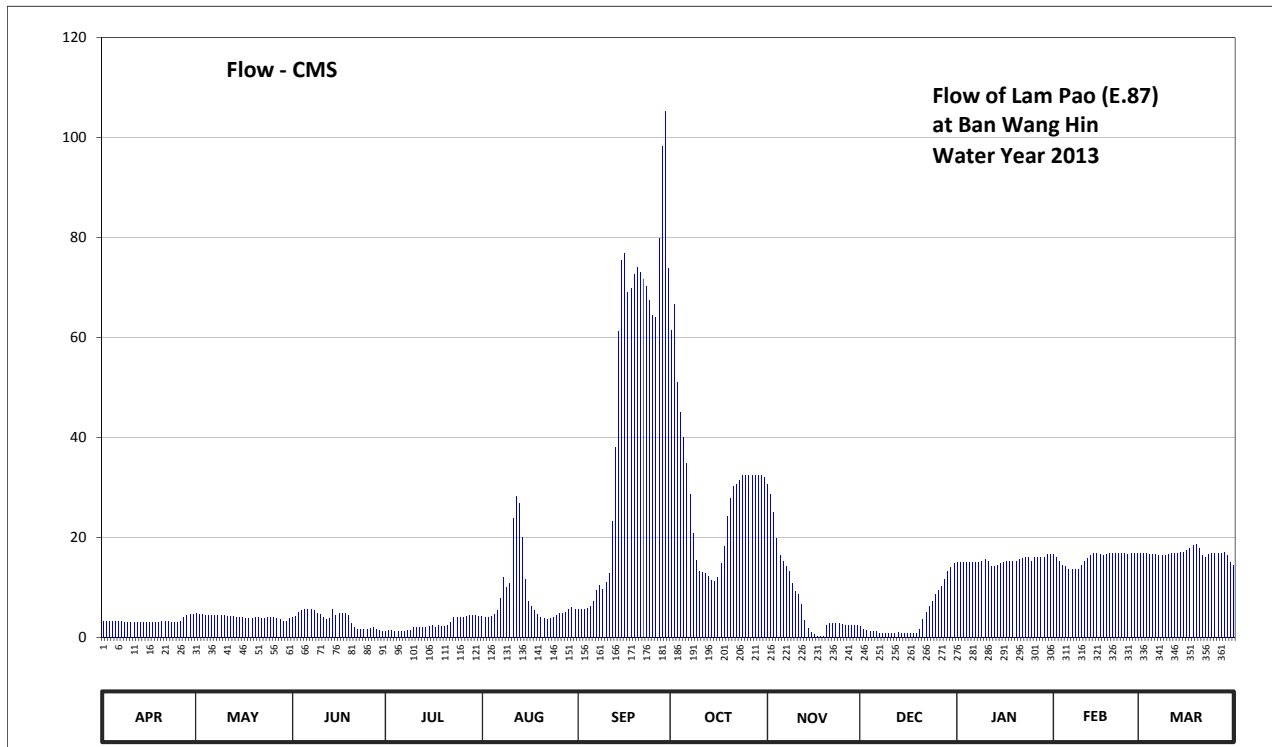
Lat 16 - 20 - 26 N    Long 103 - 34 - 36 E

**Location :** on left bank at Ban Wang Hin.

|                                         |                                                                                           |                |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Wang Hin       | <b>Amphoe</b> | Kamalasai | <b>Changwat</b>  | Kalasin            |
| <b>Drainage Area</b>                    | 7,068                                                                                     | sq.km.         |               |           |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +128.900                                                                                  | m. (MSL.)      |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |           |                  |                    |
| <b>Location BM</b>                      | On left bank downstream at the footpath of the bridge.                                    |                |               |           | <b>Elevation</b> | +140.068 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                              |                |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |           |                  |                    |
| <b>Period of Rating</b>                 | 2004 to date                                                                              |                |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                              |                |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |           |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 27 discharge measurements made in 2013. |                |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 129.83 | 129.98 | 129.90                                           | 129.63 | 129.93 | 130.07 | 133.38 | 132.89 | 129.73 | 130.60 | 130.68 | 130.70 |        |
| 2                                | 129.82 | 129.97 | 129.93                                           | 129.65 | 129.92 | 130.08 | 133.43 | 132.84 | 129.67 | 130.60 | 130.65 | 130.70 |        |
| 3                                | 129.82 | 129.96 | 130.01                                           | 129.64 | 129.92 | 130.08 | 133.25 | 132.74 | 129.65 | 130.60 | 130.61 | 130.70 |        |
| 4                                | 129.82 | 129.95 | 130.04                                           | 129.63 | 129.93 | 130.09 | 133.17 | 132.56 | 129.63 | 130.60 | 130.58 | 130.68 |        |
| 5                                | 129.82 | 129.95 | 130.06                                           | 129.63 | 129.97 | 130.13 | 133.08 | 132.41 | 129.63 | 130.60 | 130.56 | 130.68 |        |
| 6                                | 129.82 | 129.95 | 130.08                                           | 129.63 | 130.04 | 130.22 | 132.98 | 132.33 | 129.62 | 130.60 | 130.54 | 130.68 |        |
| 7                                | 129.82 | 129.95 | 130.08                                           | 129.62 | 130.24 | 130.32 | 132.84 | 132.27 | 129.60 | 130.60 | 130.54 | 130.67 |        |
| 8                                | 129.81 | 129.94 | 130.04                                           | 129.64 | 130.45 | 130.37 | 132.60 | 132.21 | 129.60 | 130.60 | 130.53 | 130.67 |        |
| 9                                | 129.81 | 129.94 | 129.99                                           | 129.64 | 130.35 | 130.34 | 132.34 | 132.05 | 129.60 | 130.62 | 130.54 | 130.67 |        |
| 10                               | 129.81 | 129.94 | 129.96                                           | 129.70 | 130.39 | 130.40 | 132.20 | 131.93 | 129.60 | 130.63 | 130.57 | 130.68 |        |
| 11                               | 129.81 | 129.93 | 129.92                                           | 129.70 | 131.03 | 130.49 | 132.19 | 131.86 | 129.60 | 130.62 | 130.62 | 130.70 |        |
| 12                               | 129.81 | 129.93 | 129.87                                           | 129.70 | 131.19 | 131.01 | 132.18 | 131.63 | 129.60 | 130.56 | 130.64 | 130.70 |        |
| 13                               | 129.81 | 129.93 | 129.89                                           | 129.71 | 131.14 | 131.54 | 132.14 | 131.16 | 129.61 | 130.56 | 130.67 | 130.70 |        |
| 14                               | 129.81 | 129.92 | 130.06                                           | 129.71 | 130.85 | 132.33 | 132.09 | 130.81 | 129.59 | 130.58 | 130.70 | 130.71 |        |
| 15                               | 129.81 | 129.91 | 129.94                                           | 129.73 | 130.43 | 132.79 | 132.08 | 130.52 | 129.59 | 130.59 | 130.70 | 130.71 |        |
| 16                               | 129.81 | 129.90 | 130.00                                           | 129.74 | 130.21 | 132.83 | 132.13 | 130.21 | 129.59 | 130.60 | 130.68 | 130.72 |        |
| 17                               | 129.81 | 129.89 | 129.99                                           | 129.70 | 130.13 | 132.58 | 132.30 | 129.87 | 129.59 | 130.62 | 130.67 | 130.75 |        |
| 18                               | 129.80 | 129.88 | 129.98                                           | 129.74 | 130.05 | 132.61 | 132.51 | 129.79 | 129.59 | 130.62 | 130.68 | 130.77 |        |
| 19                               | 129.81 | 129.89 | 129.94                                           | 129.73 | 129.97 | 132.70 | 132.71 | 129.75 | 129.59 | 130.61 | 130.69 | 130.79 |        |
| 20                               | 129.82 | 129.90 | 129.78                                           | 129.73 | 129.91 | 132.74 | 132.82 | 129.75 | 129.66 | 130.62 | 130.69 | 130.75 |        |
| 21                               | 129.83 | 129.90 | 129.70                                           | 129.76 | 129.88 | 132.71 | 132.88 | 129.78 | 129.86 | 130.63 | 130.69 | 130.67 |        |
| 22                               | 129.82 | 129.89 | 129.68                                           | 129.81 | 129.87 | 132.67 | 132.89 | 129.78 | 130.01 | 130.64 | 130.69 | 130.66 |        |
| 23                               | 129.81 | 129.89 | 129.68                                           | 129.90 | 129.88 | 132.62 | 132.91 | 129.79 | 130.13 | 130.65 | 130.70 | 130.68 |        |
| 24                               | 129.80 | 129.90 | 129.68                                           | 129.92 | 129.91 | 132.53 | 132.93 | 129.79 | 130.21 | 130.66 | 130.70 | 130.69 |        |
| 25                               | 129.80 | 129.90 | 129.68                                           | 129.90 | 129.95 | 132.43 | 132.93 | 129.77 | 130.28 | 130.62 | 130.68 | 130.70 |        |
| 26                               | 129.83 | 129.90 | 129.69                                           | 129.92 | 129.98 | 132.42 | 132.93 | 129.75 | 130.32 | 130.66 | 130.70 | 130.70 |        |
| 27                               | 129.90 | 129.88 | 129.70                                           | 129.93 | 129.99 | 132.93 | 132.93 | 129.75 | 130.36 | 130.66 | 130.70 | 130.70 |        |
| 28                               | 129.94 | 129.87 | 129.67                                           | 129.94 | 130.01 | 133.44 | 132.93 | 129.75 | 130.43 | 130.66 | 130.70 | 130.71 |        |
| 29                               | 129.96 | 129.83 | 129.64                                           | 129.95 | 130.07 | 133.63 | 132.93 | 129.75 | 130.51 | 130.66 |        | 130.67 |        |
| 30                               | 129.97 | 129.82 | 129.63                                           | 129.94 | 130.10 | 133.49 | 132.93 | 129.75 | 130.55 | 130.68 |        | 130.60 |        |
| 31                               |        | 129.89 |                                                  | 129.93 | 130.08 |        | 132.92 |        | 130.59 | 130.68 |        | 130.58 |        |
| Mean                             | 129.83 | 129.91 | 129.87                                           | 129.76 | 130.19 | 131.75 | 132.73 | 130.91 | 129.86 | 130.62 | 130.65 | 130.69 |        |
| Max                              | 129.97 | 129.98 | 130.08                                           | 129.95 | 131.19 | 133.63 | 133.43 | 132.89 | 130.59 | 130.68 | 130.70 | 130.79 | 133.63 |
| Min                              | 129.80 | 129.82 | 129.63                                           | 129.62 | 129.87 | 130.07 | 132.08 | 129.75 | 129.59 | 130.56 | 130.53 | 130.58 | 129.59 |
| Annual Max Momentary Gage Height |        | 133.68 | m. (MSL.) , at 06.00 Hours, on Sep 29, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 128.90 | m. (MSL.) , River Bed 129.14 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 136.46 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 136.12 | m. (MSL.) , Drainage Area 7068 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|--------|--------|--------|----------------|
| 1              | 3.30                                                             | 4.80                     | 4.00   | 1.30                 | 4.30   | 5.70    | 61.40                    | 30.60  | 2.30   | 15.00  | 16.60  | 17.00  |                |
| 2              | 3.20                                                             | 4.70                     | 4.30   | 1.50                 | 4.20   | 5.80    | 66.60                    | 28.60  | 1.70   | 15.00  | 16.00  | 17.00  |                |
| 3              | 3.20                                                             | 4.60                     | 5.10   | 1.40                 | 4.20   | 5.80    | 51.00                    | 25.20  | 1.50   | 15.00  | 15.20  | 17.00  |                |
| 4              | 3.20                                                             | 4.50                     | 5.40   | 1.30                 | 4.30   | 5.90    | 45.20                    | 19.80  | 1.30   | 15.00  | 14.60  | 16.60  |                |
| 5              | 3.20                                                             | 4.50                     | 5.60   | 1.30                 | 4.70   | 6.30    | 40.00                    | 16.56  | 1.30   | 15.00  | 14.20  | 16.60  |                |
| 6              | 3.20                                                             | 4.50                     | 5.80   | 1.30                 | 5.40   | 7.40    | 35.00                    | 15.28  | 1.20   | 15.00  | 13.80  | 16.60  |                |
| 7              | 3.20                                                             | 4.50                     | 5.80   | 1.20                 | 7.80   | 9.40    | 28.60                    | 14.32  | 1.00   | 15.00  | 13.80  | 16.40  |                |
| 8              | 3.10                                                             | 4.40                     | 5.40   | 1.40                 | 12.00  | 10.40   | 21.00                    | 13.36  | 1.00   | 15.00  | 13.60  | 16.40  |                |
| 9              | 3.10                                                             | 4.40                     | 4.90   | 1.40                 | 10.00  | 9.80    | 15.44                    | 10.80  | 1.00   | 15.40  | 13.80  | 16.40  |                |
| 10             | 3.10                                                             | 4.40                     | 4.60   | 2.00                 | 10.80  | 11.00   | 13.20                    | 9.37   | 1.00   | 15.60  | 14.40  | 16.60  |                |
| 11             | 3.10                                                             | 4.30                     | 4.20   | 2.00                 | 23.84  | 12.80   | 13.04                    | 8.74   | 1.00   | 15.40  | 15.40  | 17.00  |                |
| 12             | 3.10                                                             | 4.30                     | 3.70   | 2.00                 | 28.32  | 23.28   | 12.88                    | 6.67   | 1.00   | 14.20  | 15.80  | 17.00  |                |
| 13             | 3.10                                                             | 4.30                     | 3.90   | 2.10                 | 26.92  | 38.12   | 12.24                    | 3.46   | 1.10   | 14.20  | 16.40  | 17.00  |                |
| 14             | 3.10                                                             | 4.20                     | 5.60   | 2.10                 | 20.00  | 61.23   | 11.44                    | 1.93   | 0.90   | 14.60  | 17.00  | 17.20  |                |
| 15             | 3.10                                                             | 4.10                     | 4.40   | 2.30                 | 11.60  | 75.49   | 11.28                    | 1.06   | 0.90   | 14.80  | 17.00  | 17.20  |                |
| 16             | 3.10                                                             | 4.00                     | 5.00   | 2.40                 | 7.20   | 76.73   | 12.08                    | 0.71   | 0.90   | 15.00  | 16.60  | 17.40  |                |
| 17             | 3.10                                                             | 3.90                     | 4.90   | 2.00                 | 6.30   | 68.98   | 14.80                    | 0.37   | 0.90   | 15.40  | 16.40  | 18.00  |                |
| 18             | 3.00                                                             | 3.80                     | 4.80   | 2.40                 | 5.50   | 69.91   | 18.30                    | 0.29   | 0.90   | 15.40  | 16.60  | 18.40  |                |
| 19             | 3.10                                                             | 3.90                     | 4.40   | 2.30                 | 4.70   | 72.70   | 24.30                    | 0.25   | 0.90   | 15.20  | 16.80  | 18.80  |                |
| 20             | 3.20                                                             | 4.00                     | 2.80   | 2.30                 | 4.10   | 73.94   | 27.80                    | 2.50   | 1.60   | 15.40  | 16.80  | 18.00  |                |
| 21             | 3.30                                                             | 4.00                     | 2.00   | 2.60                 | 3.80   | 73.01   | 30.20                    | 2.80   | 3.60   | 15.60  | 16.80  | 16.40  |                |
| 22             | 3.20                                                             | 3.90                     | 1.80   | 3.10                 | 3.70   | 71.77   | 30.60                    | 2.80   | 5.10   | 15.80  | 16.80  | 16.20  |                |
| 23             | 3.10                                                             | 3.90                     | 1.80   | 4.00                 | 3.80   | 70.22   | 31.50                    | 2.90   | 6.30   | 16.00  | 17.00  | 16.60  |                |
| 24             | 3.00                                                             | 4.00                     | 1.80   | 4.20                 | 4.10   | 67.43   | 32.50                    | 2.90   | 7.20   | 16.20  | 17.00  | 16.80  |                |
| 25             | 3.00                                                             | 4.00                     | 1.80   | 4.00                 | 4.50   | 64.33   | 32.50                    | 2.70   | 8.60   | 15.40  | 16.60  | 17.00  |                |
| 26             | 3.30                                                             | 4.00                     | 1.90   | 4.20                 | 4.80   | 64.02   | 32.50                    | 2.50   | 9.40   | 16.20  | 17.00  | 17.00  |                |
| 27             | 4.00                                                             | 3.80                     | 2.00   | 4.30                 | 4.90   | 79.83   | 32.50                    | 2.50   | 10.20  | 16.20  | 17.00  | 17.00  |                |
| 28             | 4.40                                                             | 3.70                     | 1.70   | 4.40                 | 5.10   | 98.28   | 32.50                    | 2.50   | 11.60  | 16.20  | 17.00  | 17.20  |                |
| 29             | 4.60                                                             | 3.30                     | 1.40   | 4.50                 | 5.70   | 105.31  | 32.50                    | 2.50   | 13.20  | 16.20  |        | 16.40  |                |
| 30             | 4.70                                                             | 3.20                     | 1.30   | 4.40                 | 6.00   | 73.80   | 32.50                    | 2.50   | 14.00  | 16.60  |        | 15.00  |                |
| 31             |                                                                  | 3.90                     |        | 4.30                 | 5.80   |         | 32.00                    |        | 14.80  | 16.60  |        | 14.60  |                |
| Total          | 99.40                                                            | 127.80                   | 112.10 | 80.00                | 258.38 | 1418.68 | 887.40                   | 236.47 | 127.40 | 477.60 | 446.00 | 522.80 | 4794.03 CMSDAY |
| Mean           | 3.31                                                             | 4.12                     | 3.74   | 2.58                 | 8.33   | 47.29   | 28.63                    | 7.88   | 4.11   | 15.41  | 15.93  | 16.86  | 13.13 CMS      |
| Max            | 4.70                                                             | 4.80                     | 5.80   | 4.50                 | 28.32  | 105.31  | 66.60                    | 30.60  | 14.80  | 16.60  | 17.00  | 18.80  | 105.31 CMS     |
| Min            | 3.00                                                             | 3.20                     | 1.30   | 1.20                 | 3.70   | 5.70    | 11.28                    | 0.25   | 0.90   | 14.20  | 13.60  | 14.60  | 0.25 CMS       |
| Runoff         | 8.59                                                             | 11.04                    | 9.69   | 6.91                 | 22.32  | 122.57  | 76.67                    | 20.43  | 11.01  | 41.27  | 38.53  | 45.17  | 414.20 MCM     |
| Momentary Peak | 107.16 CMS, at 133.68 m. (MSL.), at 06.00 Hours, on Sep 29, 2013 |                          |        |                      |        |         |                          |        |        |        |        |        |                |
| Runoff Yield   | 1.86                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 15.161  | Liters/Second/Square KM. |        |        |        |        |        |                |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Kui Chuak , Maha Sarakham (E.91)**

Lat 16 - 21 - 58 N Long 102 - 56 - 59 E

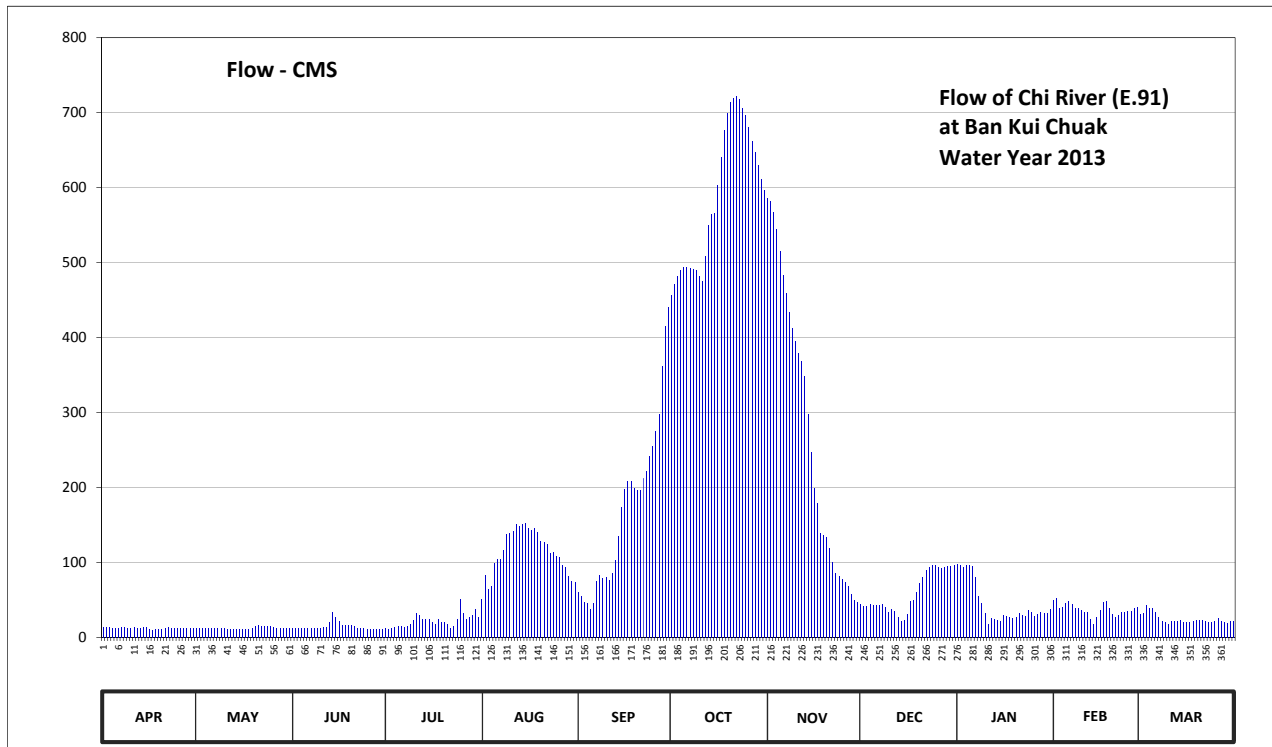
Location : on left bank at Ban Kui Chuak.

|                                         |                                                                                           |                  |               |                     |                  |                      |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|---------------------|------------------|----------------------|
|                                         | <b>Ban</b>                                                                                | <b>Kui Chuak</b> | <b>Amphoe</b> | <b>Kosum Phisai</b> | <b>Changwat</b>  | <b>Maha Sarakham</b> |
| <b>Drainage Area</b>                    | 29,265                                                                                    | sq.km.           |               |                     |                  |                      |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                  |               |                     |                  |                      |
| <b>Zero Gage at Bottom</b>              | +138.000                                                                                  | m. (MSL.)        |               |                     |                  |                      |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |                  |               |                     |                  |                      |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |                  |               |                     | <b>Elevation</b> | +151.082 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                  |               |                     |                  |                      |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                  |               |                     |                  |                      |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                              |                  |               |                     |                  |                      |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |                     |                  |                      |
| <b>Period of Rating</b>                 | 2005 to date                                                                              |                  |               |                     |                  |                      |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |                     |                  |                      |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                              |                  |               |                     |                  |                      |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                  |               |                     |                  |                      |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |                     |                  |                      |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 29 discharge measurements made in 2013. |                  |               |                     |                  |                      |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                             | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 139.56 | 139.54      | 139.54 | 139.52 | 140.66        | 140.88                          | 146.40            | 147.63 | 140.48 | 141.59 | 140.63 | 140.18 |        |
| 2                                | 139.56 | 139.54      | 139.53 | 139.50 | 141.33        | 140.75                          | 146.55            | 147.59 | 140.44 | 141.57 | 140.67 | 140.21 |        |
| 3                                | 139.56 | 139.54      | 139.54 | 139.53 | 140.98        | 140.54                          | 146.65            | 147.46 | 140.44 | 141.52 | 140.38 | 140.45 |        |
| 4                                | 139.55 | 139.54      | 139.54 | 139.57 | 141.05        | 140.51                          | 146.74            | 147.25 | 140.49 | 141.56 | 140.40 | 140.35 |        |
| 5                                | 139.54 | 139.54      | 139.53 | 139.65 | 141.62        | 140.34                          | 146.78            | 146.99 | 140.47 | 141.56 | 140.52 | 140.37 |        |
| 6                                | 139.55 | 139.54      | 139.53 | 139.63 | 141.72        | 140.51                          | 146.78            | 146.67 | 140.45 | 141.54 | 140.60 | 140.23 |        |
| 7                                | 139.56 | 139.54      | 139.54 | 139.58 | 141.71        | 141.17                          | 146.76            | 146.43 | 140.46 | 141.28 | 140.48 | 140.07 |        |
| 8                                | 139.56 | 139.54      | 139.55 | 139.65 | 141.94        | 141.33                          | 146.75            | 146.17 | 140.49 | 140.74 | 140.36 | 139.90 |        |
| 9                                | 139.54 | 139.53      | 139.53 | 139.75 | 142.28        | 141.24                          | 146.74            | 145.96 | 140.40 | 140.53 | 140.37 | 139.84 |        |
| 10                               | 139.55 | 139.52      | 139.54 | 139.98 | 142.31        | 141.27                          | 146.66            | 145.76 | 140.24 | 140.19 | 140.29 | 139.77 |        |
| 11                               | 139.56 | 139.50      | 139.56 | 140.19 | 142.36        | 141.20                          | 146.59            | 145.58 | 140.32 | 139.77 | 140.25 | 139.90 |        |
| 12                               | 139.54 | 139.50      | 139.59 | 140.15 | 142.50        | 141.38                          | 146.92            | 145.45 | 140.28 | 140.04 | 140.24 | 139.94 |        |
| 13                               | 139.54 | 139.50      | 139.85 | 140.02 | 142.46        | 141.69                          | 147.30            | 145.23 | 140.06 | 140.02 | 140.01 | 139.93 |        |
| 14                               | 139.57 | 139.50      | 140.23 | 140.02 | 142.50        | 142.25                          | 147.44            | 144.61 | 139.92 | 139.96 | 139.77 | 139.99 |        |
| 15                               | 139.56 | 139.49      | 140.09 | 140.01 | 142.53        | 142.88                          | 147.45            | 143.97 | 139.95 | 139.94 | 140.07 | 139.87 |        |
| 16                               | 139.47 | 139.49      | 139.94 | 139.85 | 142.42        | 143.24                          | 147.79            | 143.25 | 140.17 | 140.14 | 140.30 | 139.88 |        |
| 17                               | 139.42 | 139.49      | 139.67 | 139.77 | 142.37        | 143.39                          | 148.12            | 142.95 | 140.59 | 140.11 | 140.56 | 139.87 |        |
| 18                               | 139.44 | 139.48      | 139.68 | 140.00 | 142.43        | 143.39                          | 148.43            | 142.30 | 140.61 | 140.07 | 140.57 | 139.89 |        |
| 19                               | 139.45 | 139.53      | 139.68 | 139.86 | 142.33        | 143.25                          | 148.63            | 142.27 | 140.86 | 140.04 | 140.36 | 139.99 |        |
| 20                               | 139.48 | 139.62      | 139.68 | 139.86 | 142.14        | 143.21                          | 148.76            | 142.22 | 141.12 | 140.07 | 140.17 | 139.98 |        |
| 21                               | 139.52 | 139.68      | 139.64 | 139.74 | 142.11        | 143.22                          | 148.80            | 142.00 | 141.27 | 140.20 | 140.07 | 139.95 |        |
| 22                               | 139.56 | 139.65      | 139.55 | 139.55 | 142.07        | 143.45                          | 148.82            | 141.65 | 141.45 | 140.14 | 140.15 | 139.94 |        |
| 23                               | 139.53 | 139.63      | 139.51 | 139.62 | 141.85        | 143.59                          | 148.79            | 141.38 | 141.52 | 140.11 | 140.25 | 139.88 |        |
| 24                               | 139.52 | 139.64      | 139.51 | 140.00 | 141.88        | 143.88                          | 148.69            | 141.30 | 141.56 | 140.29 | 140.23 | 139.84 |        |
| 25                               | 139.54 | 139.63      | 139.46 | 140.65 | 141.79        | 144.07                          | 148.61            | 141.22 | 141.56 | 140.23 | 140.26 | 139.92 |        |
| 26                               | 139.54 | 139.59      | 139.47 | 140.20 | 141.76        | 144.33                          | 148.47            | 141.14 | 141.52 | 140.12 | 140.26 | 140.03 |        |
| 27                               | 139.54 | 139.53      | 139.47 | 140.02 | 141.58        | 144.62                          | 148.31            | 141.04 | 141.50 | 140.17 | 140.36 | 139.90 |        |
| 28                               | 139.54 | 139.52      | 139.47 | 140.06 | 141.52        | 145.38                          | 148.18            | 140.80 | 141.52 | 140.25 | 140.39 | 139.83 |        |
| 29                               | 139.54 | 139.54      | 139.46 | 140.13 | 141.30        | 145.99                          | 148.03            | 140.62 | 141.53 | 140.20 |        | 139.79 |        |
| 30                               | 139.54 | 139.54      | 139.47 | 140.34 | 141.17        | 146.24                          | 147.86            | 140.56 | 141.54 | 140.20 |        | 139.89 |        |
| 31                               |        | 139.54      |        | 140.09 | 141.14        |                                 | 147.73            |        | 141.57 | 140.32 |        | 139.90 |        |
| Mean                             | 139.53 | 139.55      | 139.61 | 139.89 | 141.86        | 142.64                          | 147.63            | 143.92 | 140.80 | 140.47 | 140.32 | 139.98 |        |
| Max                              | 139.57 | 139.68      | 140.23 | 140.65 | 142.53        | 146.24                          | 148.82            | 147.63 | 141.57 | 141.59 | 140.67 | 140.45 | 148.82 |
| Min                              | 139.42 | 139.48      | 139.46 | 139.50 | 140.66        | 140.34                          | 146.40            | 140.56 | 139.92 | 139.77 | 139.77 | 139.77 | 139.42 |
| Annual Max Momentary Gage Height | 148.82 | m. (MSL.) , |        |        |               | at 04.00 Hours, on Oct 22, 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 138.00 | m. (MSL.) , |        |        | River Bed     | 138.37                          | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 150.38 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 150.06 | m. (MSL.) , |        |        | Drainage Area | 29265                           | Square Kilometers |        |        |        |        |        |        |

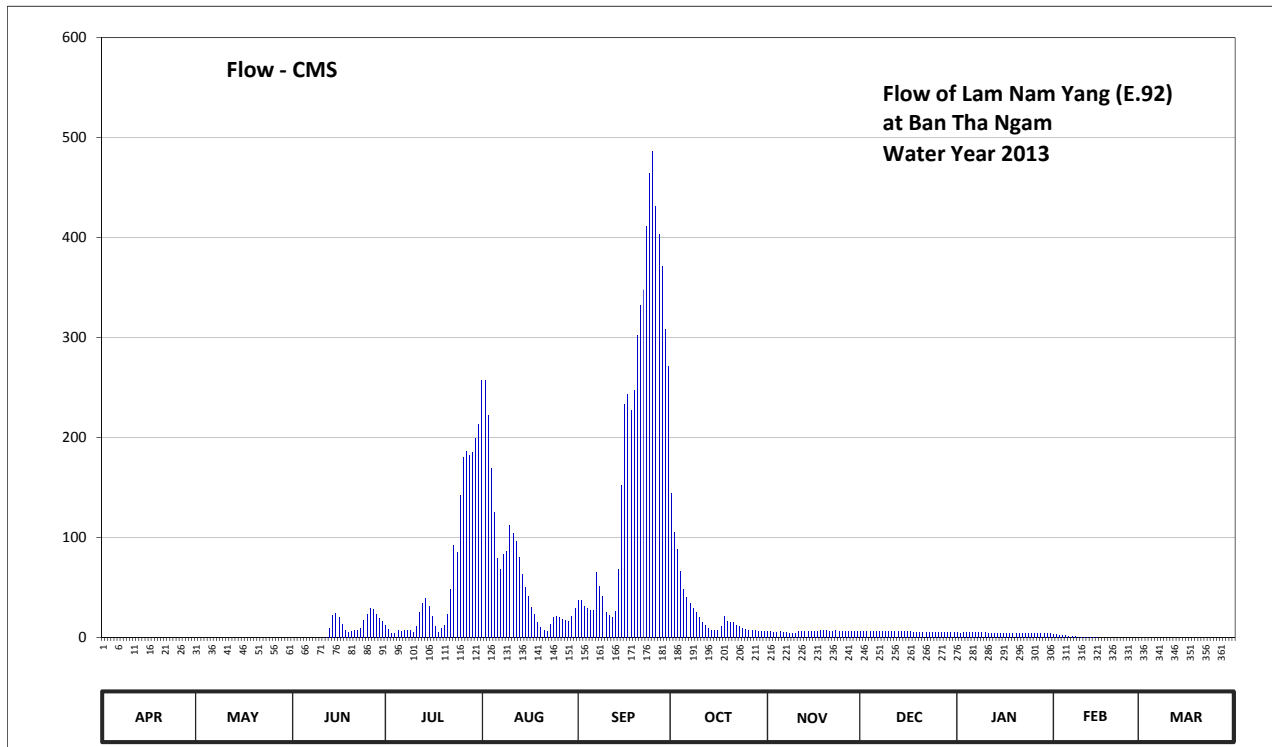




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar    | Annual   |        |
|----------------|--------|-----------------------------------------------------------|--------|----------------------|---------|---------|--------------------------|---------|---------|---------|---------|--------|----------|--------|
| 1              | 13.44  | 12.96                                                     | 12.96  | 12.48                | 51.72   | 60.96   | 456.00                   | 585.30  | 44.16   | 97.86   | 50.46   | 31.56  |          |        |
| 2              | 13.44  | 12.96                                                     | 12.72  | 12.00                | 83.82   | 55.50   | 471.00                   | 580.90  | 42.48   | 96.78   | 52.14   | 32.82  |          |        |
| 3              | 13.44  | 12.96                                                     | 12.96  | 12.72                | 65.16   | 46.68   | 481.00                   | 566.60  | 42.48   | 94.08   | 39.96   | 42.90  |          |        |
| 4              | 13.20  | 12.96                                                     | 12.96  | 13.68                | 68.70   | 45.42   | 490.00                   | 543.50  | 44.58   | 96.24   | 40.80   | 38.70  |          |        |
| 5              | 12.96  | 12.96                                                     | 12.72  | 15.60                | 99.48   | 38.28   | 494.00                   | 515.00  | 43.74   | 96.24   | 45.84   | 39.54  |          |        |
| 6              | 13.20  | 12.96                                                     | 12.72  | 15.12                | 104.88  | 45.42   | 494.00                   | 483.00  | 42.90   | 95.16   | 49.20   | 33.66  |          |        |
| 7              | 13.44  | 12.96                                                     | 12.96  | 13.92                | 104.34  | 75.18   | 492.00                   | 459.00  | 43.32   | 81.12   | 44.16   | 26.94  |          |        |
| 8              | 13.44  | 12.96                                                     | 13.20  | 15.60                | 116.76  | 83.82   | 491.00                   | 433.00  | 44.58   | 55.08   | 39.12   | 21.60  |          |        |
| 9              | 12.96  | 12.72                                                     | 12.72  | 18.00                | 137.36  | 78.96   | 490.00                   | 412.48  | 40.80   | 46.26   | 39.54   | 20.16  |          |        |
| 10             | 13.20  | 12.48                                                     | 12.96  | 23.52                | 139.22  | 80.58   | 482.00                   | 394.88  | 34.08   | 31.98   | 36.18   | 18.48  |          |        |
| 11             | 13.44  | 12.00                                                     | 13.44  | 31.98                | 142.32  | 76.80   | 475.00                   | 379.04  | 37.44   | 18.48   | 34.50   | 21.60  |          |        |
| 12             | 12.96  | 12.00                                                     | 14.16  | 30.30                | 151.00  | 86.52   | 508.00                   | 367.60  | 35.76   | 25.68   | 34.08   | 22.56  |          |        |
| 13             | 12.96  | 12.00                                                     | 20.40  | 24.84                | 148.52  | 103.26  | 549.00                   | 348.24  | 26.52   | 24.84   | 24.42   | 22.32  |          |        |
| 14             | 13.68  | 12.00                                                     | 33.66  | 24.84                | 151.00  | 135.50  | 564.40                   | 297.58  | 22.08   | 23.04   | 18.48   | 23.76  |          |        |
| 15             | 13.44  | 11.76                                                     | 27.78  | 24.42                | 152.86  | 174.56  | 565.50                   | 247.96  | 22.80   | 22.56   | 26.94   | 20.88  |          |        |
| 16             | 11.28  | 11.76                                                     | 22.56  | 20.40                | 146.04  | 198.32  | 602.90                   | 199.00  | 31.14   | 29.88   | 36.60   | 21.12  |          |        |
| 17             | 10.08  | 11.76                                                     | 16.08  | 18.48                | 142.94  | 208.52  | 639.92                   | 178.90  | 48.78   | 28.62   | 47.52   | 20.88  |          |        |
| 18             | 10.56  | 11.52                                                     | 16.32  | 24.00                | 146.66  | 208.52  | 675.88                   | 138.60  | 49.62   | 26.94   | 47.94   | 21.36  |          |        |
| 19             | 10.80  | 12.72                                                     | 16.32  | 20.64                | 140.46  | 199.00  | 699.08                   | 136.74  | 60.12   | 25.68   | 39.12   | 23.76  |          |        |
| 20             | 11.52  | 14.88                                                     | 16.32  | 20.64                | 128.68  | 196.28  | 714.16                   | 133.64  | 72.48   | 26.94   | 31.14   | 23.52  |          |        |
| 21             | 12.48  | 16.32                                                     | 15.36  | 17.76                | 126.82  | 196.96  | 718.80                   | 120.00  | 80.58   | 32.40   | 26.94   | 22.80  |          |        |
| 22             | 13.44  | 15.60                                                     | 13.20  | 13.20                | 124.34  | 212.60  | 721.12                   | 101.10  | 90.30   | 29.88   | 30.30   | 22.56  |          |        |
| 23             | 12.72  | 15.12                                                     | 12.24  | 14.88                | 111.90  | 222.12  | 717.64                   | 86.52   | 94.08   | 28.62   | 34.50   | 21.12  |          |        |
| 24             | 12.48  | 15.36                                                     | 12.24  | 24.00                | 113.52  | 241.84  | 706.04                   | 82.20   | 96.24   | 36.18   | 33.66   | 20.16  |          |        |
| 25             | 12.96  | 15.12                                                     | 11.04  | 51.30                | 108.66  | 255.46  | 696.76                   | 77.88   | 96.24   | 33.66   | 34.92   | 22.08  |          |        |
| 26             | 12.96  | 14.16                                                     | 11.28  | 32.40                | 107.04  | 275.74  | 680.52                   | 73.56   | 94.08   | 29.04   | 34.92   | 25.26  |          |        |
| 27             | 12.96  | 12.72                                                     | 11.28  | 24.84                | 97.32   | 298.36  | 661.96                   | 68.16   | 93.00   | 31.14   | 39.12   | 21.60  |          |        |
| 28             | 12.96  | 12.48                                                     | 11.28  | 26.52                | 94.08   | 361.44  | 646.88                   | 57.60   | 94.08   | 34.50   | 40.38   | 19.92  |          |        |
| 29             | 12.96  | 12.96                                                     | 11.04  | 29.46                | 82.20   | 415.12  | 629.48                   | 50.04   | 94.62   | 32.40   |         | 18.96  |          |        |
| 30             | 12.96  | 12.96                                                     | 11.28  | 38.28                | 75.18   | 440.00  | 610.60                   | 47.52   | 95.16   | 32.40   |         | 21.36  |          |        |
| 31             |        | 12.96                                                     |        | 27.78                | 73.56   |         | 596.30                   |         | 96.78   | 37.44   |         | 21.60  |          |        |
| Total          | 382.32 | 407.04                                                    | 446.16 | 693.60               | 3536.54 | 5117.72 | 18220.94                 | 8165.54 | 1855.02 | 1401.12 | 1052.88 | 765.54 | 42044.43 | CMSDAY |
| Mean           | 12.74  | 13.13                                                     | 14.87  | 22.37                | 114.08  | 170.59  | 587.77                   | 272.18  | 59.84   | 45.20   | 37.60   | 24.69  | 115.19   | CMS    |
| Max            | 13.68  | 16.32                                                     | 33.66  | 51.30                | 152.86  | 440.00  | 721.12                   | 585.30  | 96.78   | 97.86   | 52.14   | 42.90  | 721.12   | CMS    |
| Min            | 10.08  | 11.52                                                     | 11.04  | 12.00                | 51.72   | 38.28   | 456.00                   | 47.52   | 22.08   | 18.48   | 18.48   | 18.48  | 10.08    | CMS    |
| Runoff         | 33.03  | 35.17                                                     | 38.55  | 59.93                | 305.56  | 442.17  | 1574.29                  | 705.50  | 160.27  | 121.06  | 90.97   | 66.14  | 3632.64  | MCM    |
| Momentary Peak | 721.12 | CMS, at 148.82 m. (MSL.), at 04.00 Hours, on Oct 22, 2013 |        |                      |         |         |                          |         |         |         |         |        |          |        |
| Runoff Yield   | 3.94   | Liters/Second/Square KM.                                  |        | Momentary Peak Yield |         | 24.641  | Liters/Second/Square KM. |         |         |         |         |        |          |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar  | Annual          |
|----------------|--------|-----------------------------------------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|-------|------|-----------------|
| 1              | 0.00   | 0.00                                                      | 0.00   | 12.84                | 257.00  | 37.30   | 144.00                   | 6.36   | 6.60   | 5.48   | 3.72  | 0.00 |                 |
| 2              | 0.00   | 0.00                                                      | 0.00   | 8.76                 | 257.00  | 37.66   | 105.80                   | 6.28   | 6.60   | 5.00   | 3.28  | 0.00 |                 |
| 3              | 0.00   | 0.00                                                      | 0.00   | 4.92                 | 222.40  | 31.72   | 88.40                    | 5.64   | 6.60   | 5.24   | 2.91  | 0.00 |                 |
| 4              | 0.00   | 0.00                                                      | 0.00   | 4.28                 | 169.00  | 29.18   | 66.60                    | 5.24   | 6.60   | 5.64   | 2.40  | 0.00 |                 |
| 5              | 0.00   | 0.00                                                      | 0.00   | 7.72                 | 125.90  | 27.36   | 48.58                    | 6.20   | 6.60   | 5.64   | 2.07  | 0.00 |                 |
| 6              | 0.00   | 0.00                                                      | 0.00   | 6.44                 | 79.50   | 27.22   | 40.66                    | 5.64   | 6.68   | 5.56   | 1.74  | 0.00 |                 |
| 7              | 0.00   | 0.00                                                      | 0.00   | 7.64                 | 68.20   | 65.80   | 34.60                    | 5.32   | 6.68   | 5.48   | 1.65  | 0.00 |                 |
| 8              | 0.00   | 0.00                                                      | 0.00   | 7.24                 | 83.60   | 51.60   | 29.60                    | 5.00   | 6.68   | 5.40   | 1.56  | 0.00 |                 |
| 9              | 0.00   | 0.00                                                      | 0.00   | 7.40                 | 86.60   | 41.32   | 25.82                    | 5.00   | 6.60   | 5.16   | 0.87  | 0.00 |                 |
| 10             | 0.00   | 0.00                                                      | 0.00   | 5.64                 | 112.60  | 25.96   | 20.64                    | 5.00   | 6.60   | 5.08   | 0.63  | 0.00 |                 |
| 11             | 0.00   | 0.00                                                      | 0.00   | 11.88                | 104.00  | 22.92   | 15.10                    | 6.12   | 6.60   | 4.88   | 0.45  | 0.00 |                 |
| 12             | 0.00   | 0.00                                                      | 0.15   | 25.54                | 96.20   | 20.52   | 12.20                    | 6.60   | 6.60   | 4.84   | 0.42  | 0.00 |                 |
| 13             | 0.00   | 0.00                                                      | 9.08   | 34.78                | 80.00   | 26.52   | 9.40                     | 6.60   | 6.60   | 4.84   | 0.30  | 0.00 |                 |
| 14             | 0.00   | 0.00                                                      | 22.56  | 39.46                | 63.00   | 68.20   | 7.32                     | 6.60   | 6.52   | 4.84   | 0.30  | 0.00 |                 |
| 15             | 0.00   | 0.00                                                      | 24.98  | 31.18                | 50.78   | 152.10  | 7.56                     | 6.68   | 6.44   | 4.68   | 0.12  | 0.00 |                 |
| 16             | 0.00   | 0.00                                                      | 20.52  | 21.24                | 41.32   | 233.20  | 7.64                     | 6.84   | 6.28   | 4.20   | 0.00  | 0.00 |                 |
| 17             | 0.00   | 0.00                                                      | 13.90  | 11.32                | 30.72   | 242.80  | 11.48                    | 6.92   | 6.04   | 4.12   | 0.00  | 0.00 |                 |
| 18             | 0.00   | 0.00                                                      | 7.72   | 5.72                 | 23.04   | 227.20  | 21.36                    | 7.00   | 5.88   | 4.20   | 0.00  | 0.00 |                 |
| 19             | 0.00   | 0.00                                                      | 5.80   | 9.96                 | 15.50   | 247.60  | 16.40                    | 7.00   | 5.80   | 4.20   | 0.00  | 0.00 |                 |
| 20             | 0.00   | 0.00                                                      | 6.68   | 11.96                | 10.44   | 301.80  | 15.20                    | 7.00   | 5.80   | 4.24   | 0.00  | 0.00 |                 |
| 21             | 0.00   | 0.00                                                      | 7.16   | 23.28                | 7.24    | 331.80  | 15.00                    | 6.92   | 5.72   | 4.28   | 0.00  | 0.00 |                 |
| 22             | 0.00   | 0.00                                                      | 7.40   | 47.92                | 6.28    | 348.00  | 12.60                    | 6.84   | 5.64   | 4.28   | 0.00  | 0.00 |                 |
| 23             | 0.00   | 0.00                                                      | 9.24   | 92.60                | 13.70   | 411.00  | 11.00                    | 7.00   | 5.56   | 4.36   | 0.00  | 0.00 |                 |
| 24             | 0.00   | 0.00                                                      | 17.90  | 85.40                | 20.64   | 464.00  | 9.80                     | 6.84   | 5.48   | 4.20   | 0.00  | 0.00 |                 |
| 25             | 0.00   | 0.00                                                      | 23.52  | 142.40               | 21.36   | 486.00  | 8.60                     | 6.84   | 5.40   | 4.20   | 0.00  | 0.00 |                 |
| 26             | 0.00   | 0.00                                                      | 29.18  | 180.00               | 20.04   | 431.00  | 7.32                     | 6.84   | 5.40   | 4.20   | 0.00  | 0.00 |                 |
| 27             | 0.00   | 0.00                                                      | 28.34  | 187.00               | 18.84   | 403.00  | 7.00                     | 6.84   | 5.48   | 4.40   | 0.00  | 0.00 |                 |
| 28             | 0.00   | 0.00                                                      | 23.76  | 183.00               | 17.40   | 371.40  | 7.00                     | 6.60   | 5.56   | 4.84   | 0.00  | 0.00 |                 |
| 29             | 0.00   | 0.00                                                      | 19.80  | 186.00               | 16.40   | 308.60  | 6.92                     | 6.60   | 5.56   | 4.76   |       | 0.00 |                 |
| 30             | 0.00   | 0.00                                                      | 16.10  | 199.70               | 21.48   | 271.50  | 6.68                     | 6.68   | 5.56   | 4.36   |       | 0.00 |                 |
| 31             |        | 0.00                                                      |        | 214.00               | 29.18   |         | 6.44                     |        | 5.64   | 4.12   |       | 0.00 |                 |
| Total          | 0.00   | 0.00                                                      | 293.79 | 1817.22              | 2169.36 | 5744.28 | 826.72                   | 191.04 | 189.80 | 146.72 | 22.42 | 0.00 | 11401.35 CMSDAY |
| Mean           | 0.00   | 0.00                                                      | 9.79   | 58.62                | 69.98   | 191.48  | 26.67                    | 6.37   | 6.12   | 4.73   | 0.80  | 0.00 | 31.24 CMS       |
| Max            | 0.00   | 0.00                                                      | 29.18  | 214.00               | 257.00  | 486.00  | 144.00                   | 7.00   | 6.68   | 5.64   | 3.72  | 0.00 | 486.00 CMS      |
| Min            | 0.00   | 0.00                                                      | 0.00   | 4.28                 | 6.28    | 20.52   | 6.44                     | 5.00   | 5.40   | 4.12   | 0.00  | 0.00 | 0.00 CMS        |
| Runoff         | 0.00   | 0.00                                                      | 25.38  | 157.01               | 187.43  | 496.31  | 71.43                    | 16.51  | 16.40  | 12.68  | 1.94  | 0.00 | 985.08 MCM      |
| Momentary Peak | 495.60 | CMS, at 135.04 m. (MSL.), at 11.00 Hours, on Sep 25, 2013 |        |                      |         |         |                          |        |        |        |       |      |                 |
| Runoff Yield   | 9.30   | Liters/Second/Square KM.                                  |        | Momentary Peak Yield |         | 147.544 | Liters/Second/Square KM. |        |        |        |       |      |                 |

## WATER YEAR : 2013

## CHI RIVER BASIN

**Lam Nam Yang at Wang Yang Barrage , Roi Et (E.94**

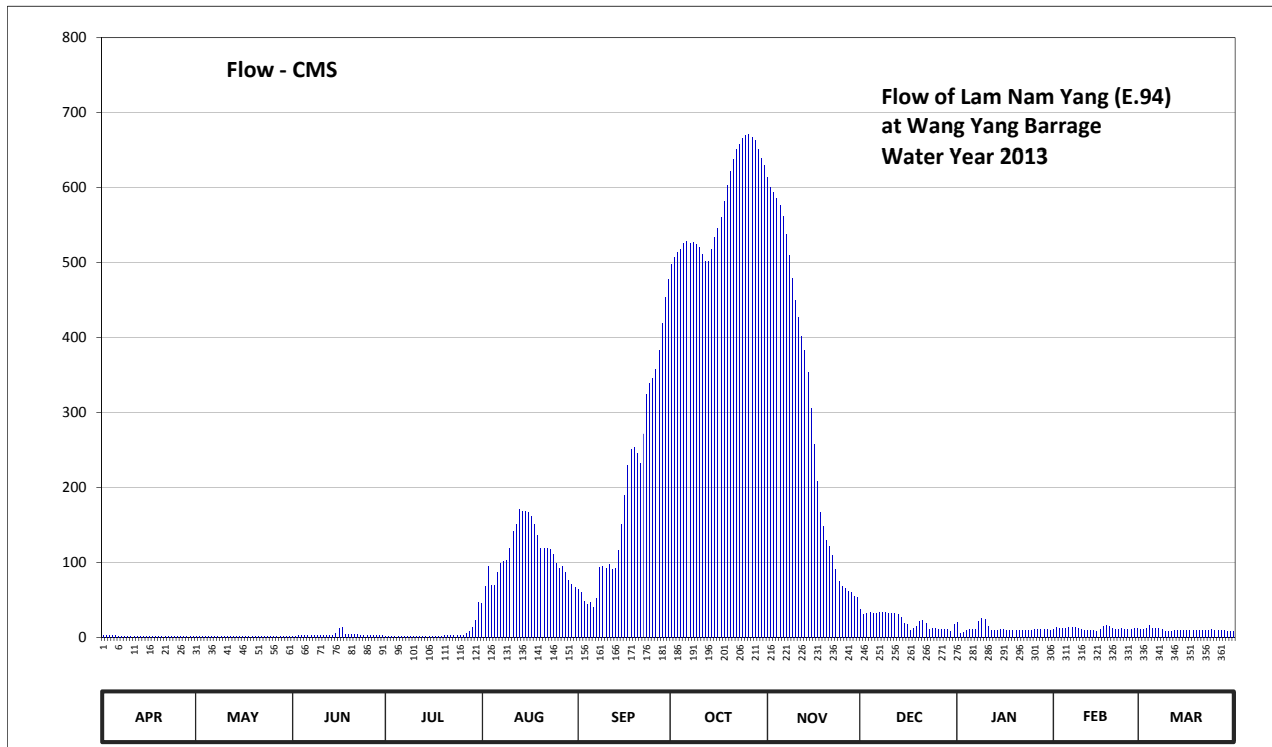
Lat 16 - 11 - 59 N      Long 103 - 28 - 26 E

**Location : on left bank at Wang Yang Barrage**

|                                         |                                                                                           |           |               |          |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | -         | <b>Amphoe</b> | Changhan | <b>Changwat</b>  | Roi Et            |
| <b>Drainage Area</b>                    | 31,226                                                                                    | sq.km.    |               |          |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |          |                  |                   |
| <b>Zero Gage at Bottom</b>              | +128.800                                                                                  | m. (MSL.) |               |          |                  |                   |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | H.D.      |               |          |                  |                   |
| <b>Location BM</b>                      | On left bank near the relate.                                                             |           |               |          | <b>Elevation</b> | +142.200 m. (MSL) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |          |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |          |                  |                   |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |           |               |          |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                   |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |           |               |          |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                   |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |           |               |          |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |          |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |          |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 14 discharge measurements made in 2013. |           |               |          |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                               | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 129.25 | 129.21 | 129.21                                            | 129.21 | 130.81 | 131.25 | 136.97 | 138.14 | 130.63 | 131.58 | 130.35 | 130.34 |        |
|                                  | 2  | 129.24 | 129.20 | 129.21                                            | 129.20 | 131.35 | 131.16 | 137.07 | 138.00 | 130.43 | 131.47 | 130.47 | 130.33 |        |
|                                  | 3  | 129.23 | 129.19 | 129.22                                            | 129.19 | 131.86 | 130.90 | 137.13 | 137.93 | 130.50 | 131.43 | 130.39 | 130.40 |        |
|                                  | 4  | 129.23 | 129.18 | 129.22                                            | 129.18 | 131.37 | 130.79 | 137.17 | 137.86 | 130.52 | 131.39 | 130.38 | 130.63 |        |
|                                  | 5  | 129.22 | 129.18 | 129.22                                            | 129.18 | 131.36 | 130.87 | 137.25 | 137.76 | 130.50 | 131.33 | 130.42 | 130.42 |        |
|                                  | 6  | 129.21 | 129.18 | 129.23                                            | 129.18 | 131.72 | 130.70 | 137.28 | 137.61 | 130.50 | 131.34 | 130.50 | 130.39 |        |
|                                  | 7  | 129.21 | 129.18 | 129.23                                            | 129.17 | 131.95 | 130.99 | 137.25 | 137.38 | 130.51 | 131.33 | 130.50 | 130.39 |        |
|                                  | 8  | 129.20 | 129.18 | 129.23                                            | 129.18 | 132.00 | 131.85 | 137.27 | 137.10 | 130.51 | 131.11 | 130.45 | 130.26 |        |
|                                  | 9  | 129.20 | 129.18 | 129.23                                            | 129.18 | 132.03 | 131.88 | 137.24 | 136.78 | 130.52 | 131.00 | 130.39 | 130.15 |        |
|                                  | 10 | 129.20 | 129.18 | 129.23                                            | 129.19 | 132.32 | 131.83 | 137.20 | 136.48 | 130.50 | 130.96 | 130.34 | 130.12 |        |
|                                  | 11 | 129.20 | 129.18 | 129.24                                            | 129.19 | 132.69 | 131.93 | 137.11 | 136.23 | 130.47 | 130.55 | 130.24 | 130.09 |        |
|                                  | 12 | 129.20 | 129.18 | 129.24                                            | 129.20 | 132.83 | 131.79 | 137.02 | 135.95 | 130.48 | 130.20 | 130.22 | 130.17 |        |
|                                  | 13 | 129.20 | 129.19 | 129.23                                            | 129.20 | 133.13 | 131.81 | 137.02 | 135.75 | 130.45 | 130.18 | 130.23 | 130.22 |        |
|                                  | 14 | 129.20 | 129.19 | 129.27                                            | 129.20 | 133.10 | 132.27 | 137.18 | 135.42 | 130.31 | 130.24 | 130.17 | 130.22 |        |
|                                  | 15 | 129.20 | 129.18 | 129.44                                            | 129.21 | 133.10 | 132.83 | 137.33 | 134.87 | 130.08 | 130.30 | 130.13 | 130.21 |        |
|                                  | 16 | 129.20 | 129.19 | 129.82                                            | 129.21 | 133.08 | 133.42 | 137.45 | 134.30 | 130.04 | 130.28 | 130.29 | 130.22 |        |
|                                  | 17 | 129.20 | 129.19 | 129.85                                            | 129.21 | 133.01 | 133.94 | 137.60 | 133.66 | 130.22 | 130.23 | 130.54 | 130.21 |        |
|                                  | 18 | 129.21 | 129.19 | 129.38                                            | 129.21 | 132.84 | 134.21 | 137.82 | 133.07 | 130.43 | 130.21 | 130.62 | 130.17 |        |
|                                  | 19 | 129.21 | 129.19 | 129.35                                            | 129.21 | 132.61 | 134.25 | 138.03 | 132.79 | 130.53 | 130.20 | 130.54 | 130.19 |        |
|                                  | 20 | 129.21 | 129.19 | 129.35                                            | 129.23 | 132.32 | 134.14 | 138.22 | 132.49 | 130.81 | 130.20 | 130.36 | 130.23 |        |
|                                  | 21 | 129.21 | 129.19 | 129.35                                            | 129.29 | 132.30 | 133.98 | 138.37 | 132.35 | 130.90 | 130.22 | 130.28 | 130.23 |        |
|                                  | 22 | 129.21 | 129.19 | 129.33                                            | 129.32 | 132.30 | 134.46 | 138.51 | 132.14 | 131.15 | 130.24 | 130.30 | 130.23 |        |
|                                  | 23 | 129.21 | 129.20 | 129.31                                            | 129.29 | 132.28 | 135.08 | 138.58 | 131.78 | 131.34 | 130.22 | 130.37 | 130.23 |        |
|                                  | 24 | 129.21 | 129.20 | 129.30                                            | 129.26 | 132.17 | 135.25 | 138.65 | 131.48 | 131.31 | 130.19 | 130.35 | 130.26 |        |
|                                  | 25 | 129.21 | 129.20 | 129.28                                            | 129.27 | 131.95 | 135.33 | 138.69 | 131.35 | 131.31 | 130.22 | 130.27 | 130.21 |        |
|                                  | 26 | 129.21 | 129.20 | 129.27                                            | 129.32 | 131.83 | 135.47 | 138.70 | 131.29 | 131.33 | 130.28 | 130.34 | 130.18 |        |
|                                  | 27 | 129.21 | 129.20 | 129.27                                            | 129.44 | 131.86 | 135.75 | 138.67 | 131.20 | 131.34 | 130.35 | 130.36 | 130.21 |        |
|                                  | 28 | 129.21 | 129.21 | 129.25                                            | 129.64 | 131.71 | 136.14 | 138.62 | 131.17 | 131.36 | 130.34 | 130.38 | 130.18 |        |
|                                  | 29 | 129.21 | 129.21 | 129.23                                            | 129.86 | 131.51 | 136.51 | 138.51 | 131.04 | 131.35 | 130.30 |        | 130.13 |        |
|                                  | 30 | 129.21 | 129.21 | 129.22                                            | 130.20 | 131.40 | 136.77 | 138.39 | 131.02 | 131.41 | 130.28 |        | 130.10 |        |
|                                  | 31 |        | 129.21 |                                                   | 130.87 | 131.30 |        | 138.29 |        | 131.57 | 130.24 |        | 130.10 |        |
| Mean                             |    | 129.21 | 129.19 | 129.31                                            | 129.34 | 132.13 | 133.25 | 137.76 | 134.48 | 130.75 | 130.59 | 130.36 | 130.24 |        |
| Max                              |    | 129.25 | 129.21 | 129.85                                            | 130.87 | 133.13 | 136.77 | 138.70 | 138.14 | 131.57 | 131.58 | 130.62 | 130.63 | 138.70 |
| Min                              |    | 129.20 | 129.18 | 129.21                                            | 129.17 | 130.81 | 130.70 | 136.97 | 131.02 | 130.04 | 130.18 | 130.13 | 130.09 | 129.12 |
| Annual Max Momentary Gage Height |    |        | 138.70 | m. (MSL.) , at 01.00 Hours, on Oct 26, 2013       |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 128.80 | m. (MSL.) , River Bed 128.93 m. (MSL.)            |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 141.99 | m. (MSL.) ,                                       |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 141.98 | m. (MSL.) , Drainage Area 31226 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul    | Aug                  | Sep     | Oct      | Nov                      | Dec    | Jan    | Feb    | Mar    | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|----------|--------------------------|--------|--------|--------|--------|-----------------|
| 1              | 3.00                                                             | 2.52                     | 2.52   | 2.52   | 45.40                | 64.50   | 497.12   | 614.00                   | 38.20  | 20.18  | 11.90  | 11.76  |                 |
| 2              | 2.88                                                             | 2.40                     | 2.52   | 2.40   | 69.10                | 60.36   | 507.00   | 600.00                   | 30.76  | 5.88   | 13.58  | 11.62  |                 |
| 3              | 2.76                                                             | 2.28                     | 2.64   | 2.28   | 94.72                | 49.00   | 513.00   | 593.00                   | 33.00  | 7.60   | 12.46  | 12.60  |                 |
| 4              | 2.76                                                             | 2.16                     | 2.64   | 2.16   | 70.02                | 44.60   | 517.00   | 586.00                   | 33.80  | 9.31   | 12.32  | 17.12  |                 |
| 5              | 2.64                                                             | 2.16                     | 2.64   | 2.16   | 69.56                | 47.80   | 525.00   | 576.00                   | 33.00  | 11.88  | 12.88  | 12.88  |                 |
| 6              | 2.52                                                             | 2.16                     | 2.76   | 2.16   | 87.44                | 41.00   | 528.00   | 561.00                   | 33.00  | 11.45  | 14.00  | 12.46  |                 |
| 7              | 2.52                                                             | 2.16                     | 2.76   | 2.04   | 99.40                | 52.60   | 525.00   | 538.00                   | 33.40  | 11.88  | 14.00  | 12.46  |                 |
| 8              | 2.40                                                             | 2.16                     | 2.76   | 2.16   | 102.00               | 94.20   | 527.00   | 510.00                   | 33.40  | 21.29  | 13.30  | 10.64  |                 |
| 9              | 2.40                                                             | 2.16                     | 2.76   | 2.16   | 103.68               | 95.76   | 524.00   | 478.88                   | 33.80  | 26.00  | 12.46  | 9.10   |                 |
| 10             | 2.40                                                             | 2.16                     | 2.76   | 2.28   | 119.92               | 93.16   | 520.00   | 450.16                   | 33.00  | 25.04  | 11.76  | 8.68   |                 |
| 11             | 2.40                                                             | 2.16                     | 2.88   | 2.28   | 142.16               | 98.36   | 511.00   | 427.16                   | 32.04  | 15.20  | 10.36  | 8.26   |                 |
| 12             | 2.40                                                             | 2.16                     | 2.88   | 2.40   | 151.12               | 91.08   | 502.00   | 401.40                   | 32.36  | 9.80   | 10.08  | 9.38   |                 |
| 13             | 2.40                                                             | 2.28                     | 2.76   | 2.40   | 170.84               | 92.12   | 502.00   | 383.00                   | 31.40  | 9.52   | 10.22  | 10.08  |                 |
| 14             | 2.40                                                             | 2.28                     | 3.24   | 2.40   | 168.80               | 117.12  | 518.00   | 353.12                   | 26.92  | 10.36  | 9.38   | 10.08  |                 |
| 15             | 2.40                                                             | 2.16                     | 5.28   | 2.52   | 168.80               | 151.12  | 533.00   | 306.08                   | 19.56  | 11.20  | 8.82   | 9.94   |                 |
| 16             | 2.40                                                             | 2.28                     | 13.04  | 2.52   | 167.44               | 190.56  | 545.00   | 258.60                   | 18.28  | 10.92  | 11.06  | 10.08  |                 |
| 17             | 2.40                                                             | 2.28                     | 13.70  | 2.52   | 162.68               | 229.44  | 560.00   | 208.16                   | 10.08  | 10.22  | 14.96  | 9.94   |                 |
| 18             | 2.52                                                             | 2.28                     | 4.56   | 2.52   | 151.76               | 251.22  | 582.00   | 166.76                   | 13.02  | 9.94   | 16.88  | 9.38   |                 |
| 19             | 2.52                                                             | 2.28                     | 4.20   | 2.52   | 137.04               | 254.50  | 603.00   | 148.56                   | 14.72  | 9.80   | 14.96  | 9.66   |                 |
| 20             | 2.52                                                             | 2.28                     | 4.20   | 2.76   | 119.92               | 245.48  | 622.00   | 129.44                   | 21.44  | 9.80   | 12.04  | 10.22  |                 |
| 21             | 2.52                                                             | 2.28                     | 4.20   | 3.48   | 118.80               | 232.48  | 637.00   | 121.60                   | 23.60  | 10.08  | 10.92  | 10.22  |                 |
| 22             | 2.52                                                             | 2.28                     | 3.96   | 3.84   | 118.80               | 271.72  | 651.04   | 109.84                   | 19.58  | 10.36  | 11.20  | 10.22  |                 |
| 23             | 2.52                                                             | 2.40                     | 3.72   | 3.48   | 117.68               | 323.88  | 658.32   | 90.56                    | 11.45  | 10.08  | 12.18  | 10.22  |                 |
| 24             | 2.52                                                             | 2.40                     | 3.60   | 3.12   | 111.52               | 338.50  | 665.60   | 75.08                    | 12.73  | 9.66   | 11.90  | 10.64  |                 |
| 25             | 2.52                                                             | 2.40                     | 3.36   | 3.24   | 99.40                | 345.38  | 669.76   | 69.10                    | 12.73  | 10.08  | 10.78  | 9.94   |                 |
| 26             | 2.52                                                             | 2.40                     | 3.24   | 3.84   | 93.16                | 357.42  | 670.80   | 66.34                    | 11.88  | 10.92  | 11.76  | 9.52   |                 |
| 27             | 2.52                                                             | 2.40                     | 3.24   | 5.28   | 94.72                | 383.00  | 667.68   | 62.20                    | 11.45  | 11.90  | 12.04  | 9.94   |                 |
| 28             | 2.52                                                             | 2.52                     | 3.00   | 9.08   | 86.92                | 418.88  | 662.48   | 60.82                    | 10.59  | 11.76  | 12.32  | 9.52   |                 |
| 29             | 2.52                                                             | 2.52                     | 2.76   | 13.92  | 76.52                | 452.96  | 651.04   | 54.84                    | 11.02  | 11.20  |        | 8.82   |                 |
| 30             | 2.52                                                             | 2.52                     | 2.64   | 23.40  | 71.40                | 477.92  | 639.00   | 53.92                    | 8.45   | 10.92  |        | 8.40   |                 |
| 31             |                                                                  | 2.52                     |        | 47.80  | 66.80                |         | 629.00   |                          | 18.24  | 10.36  |        | 8.40   |                 |
| Total          | 75.84                                                            | 71.40                    | 117.22 | 167.64 | 3457.52              | 5966.12 | 17862.84 | 9053.62                  | 706.90 | 374.59 | 340.52 | 322.18 | 38516.39 CMSDAY |
| Mean           | 2.53                                                             | 2.30                     | 3.91   | 5.41   | 111.53               | 198.87  | 576.22   | 301.79                   | 22.80  | 12.08  | 12.16  | 10.39  | 105.52 CMS      |
| Max            | 3.00                                                             | 2.52                     | 13.70  | 47.80  | 170.84               | 477.92  | 670.80   | 614.00                   | 38.20  | 26.00  | 16.88  | 17.12  | 670.80 CMS      |
| Min            | 2.40                                                             | 2.16                     | 2.52   | 2.04   | 45.40                | 41.00   | 497.12   | 53.92                    | 8.45   | 5.88   | 8.82   | 8.26   | 2.04 CMS        |
| Runoff         | 6.55                                                             | 6.17                     | 10.13  | 14.48  | 298.73               | 515.47  | 1543.35  | 782.23                   | 61.08  | 32.37  | 29.42  | 27.84  | 3327.82 MCM     |
| Momentary Peak | 670.80 CMS, at 138.70 m. (MSL.), at 01.00 Hours, on Oct 26, 2013 |                          |        |        |                      |         |          |                          |        |        |        |        |                 |
| Runoff Yield   | 3.38                                                             | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         | 21.482   | Liters/Second/Square KM. |        |        |        |        |                 |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Roi Et Barrage , Roi Et (E.95)**

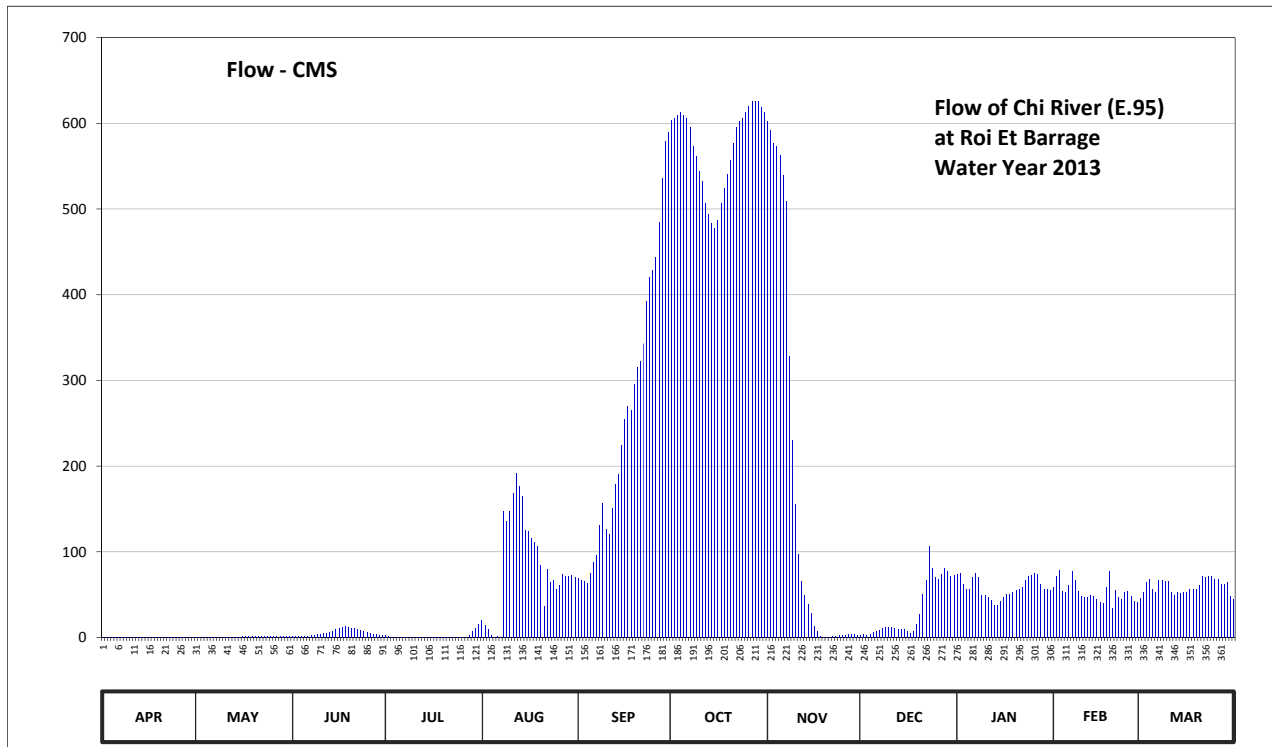
Lat 16 - 10 - 26 N Long 103 - 47 - 27 E

Location : on right bank at Wang Yang Barrage.

|                                         |                                                                                           |           |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | -         | <b>Amphoe</b> | Chiang Khwan | <b>Changwat</b>  | Roi Et             |
| <b>Drainage Area</b>                    | 40,780                                                                                    | sq.km.    |               |              |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +125.000                                                                                  | m. (MSL.) |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |           |               |              |                  |                    |
| <b>Location BM</b>                      | On right bank near the relate.                                                            |           |               |              | <b>Elevation</b> | +134.665 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |           |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |              |                  |                    |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |           |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |           |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                                       |           |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |              |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 12 discharge measurements made in 2013. |           |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep                             | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------------------------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 128.43 | 128.41 | 128.75      | 128.85 | 129.64 | 127.45                          | 131.60 | 131.59            | 128.87 | 130.32 | 130.21 | 130.07 |        |
| 2                                | 128.40 | 128.42 | 128.72      | 128.80 | 129.46 | 127.42                          | 131.61 | 131.53            | 128.96 | 130.33 | 130.30 | 130.16 |        |
| 3                                | 128.38 | 128.42 | 128.70      | 128.63 | 129.28 | 127.39                          | 131.63 | 131.45            | 128.87 | 130.24 | 130.35 | 130.25 |        |
| 4                                | 128.37 | 128.43 | 128.70      | 128.52 | 128.87 | 127.36                          | 131.65 | 131.43            | 128.96 | 130.20 | 130.17 | 130.28 |        |
| 5                                | 128.36 | 128.45 | 128.73      | 128.38 | 128.54 | 127.54                          | 131.63 | 131.37            | 129.11 | 130.20 | 130.16 | 130.19 |        |
| 6                                | 128.32 | 128.47 | 128.80      | 128.21 | 128.76 | 127.70                          | 131.61 | 131.23            | 129.16 | 130.29 | 130.23 | 130.16 |        |
| 7                                | 128.29 | 128.48 | 128.87      | 128.11 | 128.26 | 127.82                          | 131.55 | 131.17            | 129.25 | 130.33 | 130.34 | 130.27 |        |
| 8                                | 128.27 | 128.50 | 128.92      | 127.99 | 128.39 | 128.23                          | 131.43 | 131.00            | 129.33 | 130.29 | 130.27 | 130.27 |        |
| 9                                | 128.24 | 128.50 | 128.97      | 127.96 | 128.27 | 128.49                          | 131.36 | 130.82            | 129.39 | 130.11 | 130.17 | 130.26 |        |
| 10                               | 128.20 | 128.50 | 129.01      | 128.05 | 128.39 | 128.18                          | 131.26 | 130.63            | 129.40 | 130.11 | 130.10 | 130.26 |        |
| 11                               | 128.16 | 128.53 | 129.04      | 128.11 | 128.60 | 128.11                          | 131.19 | 130.44            | 129.42 | 130.09 | 130.09 | 130.16 |        |
| 12                               | 128.09 | 128.57 | 129.07      | 128.16 | 128.82 | 128.43                          | 131.04 | 130.26            | 129.38 | 130.04 | 130.09 | 130.11 |        |
| 13                               | 128.04 | 128.60 | 129.13      | 128.21 | 128.67 | 128.70                          | 130.96 | 130.11            | 129.30 | 129.96 | 130.11 | 130.15 |        |
| 14                               | 127.98 | 128.62 | 129.20      | 128.18 | 128.56 | 128.81                          | 130.90 | 129.99            | 129.30 | 129.97 | 130.10 | 130.14 |        |
| 15                               | 127.94 | 128.63 | 129.29      | 128.25 | 128.16 | 129.10                          | 130.87 | 129.81            | 129.29 | 130.03 | 130.06 | 130.15 |        |
| 16                               | 127.89 | 128.64 | 129.36      | 128.40 | 128.15 | 129.36                          | 130.92 | 129.43            | 129.20 | 130.09 | 130.01 | 130.16 |        |
| 17                               | 127.84 | 128.64 | 129.41      | 128.05 | 128.06 | 129.48                          | 131.04 | 129.18            | 129.09 | 130.12 | 130.00 | 130.20 |        |
| 18                               | 127.86 | 128.66 | 129.44      | 127.98 | 128.01 | 129.44                          | 131.14 | 128.81            | 129.17 | 130.13 | 130.21 | 130.20 |        |
| 19                               | 127.90 | 128.67 | 129.42      | 127.91 | 127.94 | 129.67                          | 131.24 | 128.62            | 129.50 | 130.16 | 130.34 | 130.20 |        |
| 20                               | 128.01 | 128.69 | 129.38      | 127.84 | 127.66 | 129.82                          | 131.33 | 128.38            | 129.78 | 130.18 | 129.91 | 130.23 |        |
| 21                               | 128.04 | 128.69 | 129.35      | 127.77 | 126.93 | 129.87                          | 131.45 | 128.50            | 130.12 | 130.19 | 130.18 | 130.30 |        |
| 22                               | 128.07 | 128.69 | 129.28      | 127.66 | 127.60 | 130.02                          | 131.55 | 128.68            | 130.27 | 130.21 | 130.09 | 130.29 |        |
| 23                               | 128.13 | 128.70 | 129.22      | 127.58 | 127.38 | 130.35                          | 131.59 | 128.80            | 130.47 | 130.27 | 130.06 | 130.30 |        |
| 24                               | 128.17 | 128.71 | 129.17      | 127.56 | 127.41 | 130.53                          | 131.61 | 128.85            | 130.37 | 130.30 | 130.15 | 130.30 |        |
| 25                               | 128.22 | 128.73 | 129.14      | 127.79 | 127.26 | 130.58                          | 131.65 | 128.88            | 130.29 | 130.31 | 130.17 | 130.28 |        |
| 26                               | 128.29 | 128.74 | 129.07      | 128.05 | 127.34 | 130.67                          | 131.69 | 128.94            | 130.28 | 130.33 | 130.10 | 130.28 |        |
| 27                               | 128.34 | 128.75 | 129.00      | 128.44 | 127.51 | 130.91                          | 131.72 | 128.98            | 130.32 | 130.32 | 130.03 | 130.24 |        |
| 28                               | 128.36 | 128.76 | 128.95      | 128.85 | 127.49 | 131.21                          | 131.72 | 128.95            | 130.37 | 130.24 | 130.02 | 130.24 |        |
| 29                               | 128.38 | 128.76 | 128.91      | 129.15 | 127.49 | 131.46                          | 131.72 | 128.95            | 130.34 | 130.20 |        | 130.25 |        |
| 30                               | 128.40 | 128.77 | 128.88      | 129.36 | 127.50 | 131.52                          | 131.68 | 128.87            | 130.30 | 130.19 |        | 130.10 |        |
| 31                               |        | 128.77 |             | 129.51 | 127.47 |                                 | 131.65 |                   | 130.31 | 130.18 |        | 130.06 |        |
| Mean                             | 128.18 | 128.61 | 129.06      | 128.27 | 128.12 | 129.19                          | 131.42 | 129.86            | 129.62 | 130.19 | 130.14 | 130.21 |        |
| Max                              | 128.43 | 128.77 | 129.44      | 129.51 | 129.64 | 131.52                          | 131.72 | 131.59            | 130.47 | 130.33 | 130.35 | 130.30 | 131.72 |
| Min                              | 127.84 | 128.41 | 128.70      | 127.56 | 126.93 | 127.36                          | 130.87 | 128.38            | 128.87 | 129.96 | 129.91 | 130.06 | 126.93 |
| Annual Max Momentary Gage Height |        | 131.72 | m. (MSL.) , |        |        | at 06.00 Hours, on Oct 27, 2013 |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 125.00 | m. (MSL.) , |        |        | River Bed                       | 123.37 | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 134.22 | m. (MSL.) , |        |        |                                 |        |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 133.57 | m. (MSL.) , |        |        | Drainage Area                   | 40780  | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul   | Aug                  | Sep     | Oct      | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|--------|-------|----------------------|---------|----------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 0.83                                                             | 0.81                     | 1.75   | 2.50  | 20.80                | 69.50   | 604.00   | 602.20  | 2.70                     | 74.40   | 58.45   | 45.95   |          |        |
| 2              | 0.80                                                             | 0.82                     | 1.60   | 2.00  | 14.10                | 67.40   | 605.80   | 591.40  | 3.60                     | 75.85   | 71.50   | 53.60   |          |        |
| 3              | 0.78                                                             | 0.82                     | 1.50   | 1.15  | 9.60                 | 65.30   | 609.40   | 577.00  | 2.70                     | 62.80   | 78.75   | 64.25   |          |        |
| 4              | 0.77                                                             | 0.83                     | 1.50   | 0.92  | 2.70                 | 63.20   | 613.00   | 573.40  | 3.60                     | 57.00   | 54.45   | 68.60   |          |        |
| 5              | 0.76                                                             | 0.85                     | 1.65   | 0.78  | 0.94                 | 75.80   | 609.40   | 562.90  | 6.20                     | 57.00   | 53.60   | 56.15   |          |        |
| 6              | 0.72                                                             | 0.87                     | 2.00   | 0.61  | 1.80                 | 87.50   | 605.80   | 539.10  | 7.20                     | 70.05   | 61.35   | 53.60   |          |        |
| 7              | 0.69                                                             | 0.88                     | 2.70   | 0.51  | 0.66                 | 96.60   | 595.00   | 508.80  | 9.00                     | 75.85   | 77.30   | 67.15   |          |        |
| 8              | 0.67                                                             | 0.90                     | 3.20   | 0.39  | 147.05               | 131.85  | 573.40   | 328.00  | 10.60                    | 70.05   | 67.15   | 67.15   |          |        |
| 9              | 0.64                                                             | 0.90                     | 3.70   | 0.36  | 135.65               | 157.45  | 561.20   | 230.80  | 11.80                    | 49.35   | 54.45   | 65.70   |          |        |
| 10             | 0.60                                                             | 0.90                     | 4.20   | 0.45  | 147.05               | 127.20  | 544.20   | 156.25  | 12.00                    | 49.35   | 48.50   | 65.70   |          |        |
| 11             | 0.56                                                             | 0.93                     | 4.80   | 0.51  | 169.00               | 120.90  | 532.30   | 97.80   | 12.70                    | 47.65   | 47.65   | 53.60   |          |        |
| 12             | 0.49                                                             | 0.97                     | 5.40   | 0.56  | 192.30               | 151.15  | 506.80   | 65.70   | 11.60                    | 43.40   | 47.65   | 49.35   |          |        |
| 13             | 0.44                                                             | 1.00                     | 6.60   | 0.61  | 176.35               | 179.50  | 493.20   | 49.35   | 10.00                    | 37.60   | 49.35   | 52.75   |          |        |
| 14             | 0.38                                                             | 1.10                     | 8.00   | 0.58  | 164.80               | 191.15  | 483.00   | 39.40   | 10.00                    | 38.20   | 48.50   | 51.90   |          |        |
| 15             | 0.34                                                             | 1.15                     | 9.80   | 0.65  | 125.40               | 224.50  | 477.90   | 28.60   | 9.80                     | 42.55   | 45.10   | 52.75   |          |        |
| 16             | 0.29                                                             | 1.20                     | 11.20  | 0.80  | 124.50               | 255.20  | 486.40   | 13.05   | 8.00                     | 47.65   | 40.85   | 53.60   |          |        |
| 17             | 0.24                                                             | 1.20                     | 12.35  | 0.45  | 116.40               | 270.40  | 506.80   | 7.60    | 5.80                     | 50.20   | 40.00   | 57.00   |          |        |
| 18             | 0.26                                                             | 1.30                     | 13.40  | 0.38  | 111.90               | 265.20  | 523.80   | 2.10    | 7.40                     | 51.05   | 58.45   | 57.00   |          |        |
| 19             | 0.30                                                             | 1.35                     | 12.70  | 0.31  | 106.20               | 295.10  | 540.80   | 1.10    | 15.50                    | 53.60   | 77.30   | 57.00   |          |        |
| 20             | 0.41                                                             | 1.45                     | 11.60  | 0.24  | 84.50                | 314.80  | 556.10   | 0.78    | 27.10                    | 55.30   | 34.60   | 61.35   |          |        |
| 21             | 0.44                                                             | 1.45                     | 11.00  | 0.18  | 37.15                | 321.80  | 577.00   | 0.90    | 50.20                    | 56.15   | 55.30   | 71.50   |          |        |
| 22             | 0.47                                                             | 1.45                     | 9.60   | 0.13  | 80.00                | 343.00  | 595.00   | 1.40    | 67.15                    | 58.45   | 47.65   | 70.05   |          |        |
| 23             | 0.53                                                             | 1.50                     | 8.40   | 0.09  | 64.60                | 392.50  | 602.20   | 2.00    | 106.65                   | 67.15   | 45.10   | 71.50   |          |        |
| 24             | 0.57                                                             | 1.55                     | 7.40   | 0.08  | 66.70                | 420.80  | 605.80   | 2.50    | 81.65                    | 71.50   | 52.75   | 71.50   |          |        |
| 25             | 0.62                                                             | 1.65                     | 6.80   | 0.19  | 56.20                | 428.80  | 613.00   | 2.80    | 70.05                    | 72.95   | 54.45   | 68.60   |          |        |
| 26             | 0.69                                                             | 1.70                     | 5.40   | 0.45  | 61.80                | 443.90  | 620.20   | 3.40    | 68.60                    | 75.85   | 48.50   | 68.60   |          |        |
| 27             | 0.74                                                             | 1.75                     | 4.00   | 0.84  | 73.70                | 484.70  | 625.60   | 3.80    | 74.40                    | 74.40   | 42.55   | 62.80   |          |        |
| 28             | 0.76                                                             | 1.80                     | 3.50   | 2.50  | 72.30                | 535.70  | 625.60   | 3.50    | 81.65                    | 62.80   | 41.70   | 62.80   |          |        |
| 29             | 0.78                                                             | 1.80                     | 3.10   | 7.00  | 72.30                | 578.80  | 625.60   | 3.50    | 77.30                    | 57.00   |         | 64.25   |          |        |
| 30             | 0.80                                                             | 1.85                     | 2.80   | 11.20 | 73.00                | 589.60  | 618.40   | 2.70    | 71.50                    | 56.15   |         | 48.50   |          |        |
| 31             |                                                                  | 1.85                     |        | 15.85 | 70.90                |         | 613.00   |         | 72.95                    | 55.30   |         | 45.10   |          |        |
| Total          | 17.37                                                            | 38.58                    | 181.65 | 53.27 | 2580.35              | 7749.30 | 17749.70 | 5001.83 | 1009.40                  | 1816.60 | 1502.95 | 1859.35 | 39560.35 | CMSDAY |
| Mean           | 0.58                                                             | 1.24                     | 6.05   | 1.72  | 83.24                | 258.31  | 572.57   | 166.73  | 32.56                    | 58.60   | 53.68   | 59.98   | 108.38   | CMS    |
| Max            | 0.83                                                             | 1.85                     | 13.40  | 15.85 | 192.30               | 589.60  | 625.60   | 602.20  | 106.65                   | 75.85   | 78.75   | 71.50   | 625.60   | CMS    |
| Min            | 0.24                                                             | 0.81                     | 1.50   | 0.08  | 0.66                 | 63.20   | 477.90   | 0.78    | 2.70                     | 37.60   | 34.60   | 45.10   | 0.08     | CMS    |
| Runoff         | 1.50                                                             | 3.33                     | 15.70  | 4.60  | 222.94               | 669.54  | 1533.57  | 432.16  | 87.21                    | 156.95  | 129.86  | 160.65  | 3418.01  | MCM    |
| Momentary Peak | 625.60 CMS, at 131.72 m. (MSL.), at 06.00 Hours, on Oct 27, 2013 |                          |        |       |                      |         |          |         |                          |         |         |         |          |        |
| Runoff Yield   | 2.66                                                             | Liters/Second/Square KM. |        |       | Momentary Peak Yield |         |          | 15.341  | Liters/Second/Square KM. |         |         |         |          |        |

## WATER YEAR : 2013

## CHI RIVER BASIN

## Chi River at Yasothon-Phanom Prai Barrage , Yasothon (E.97)

Lat 15 - 43 - 56 N      Long 104 - 07 - 56 E

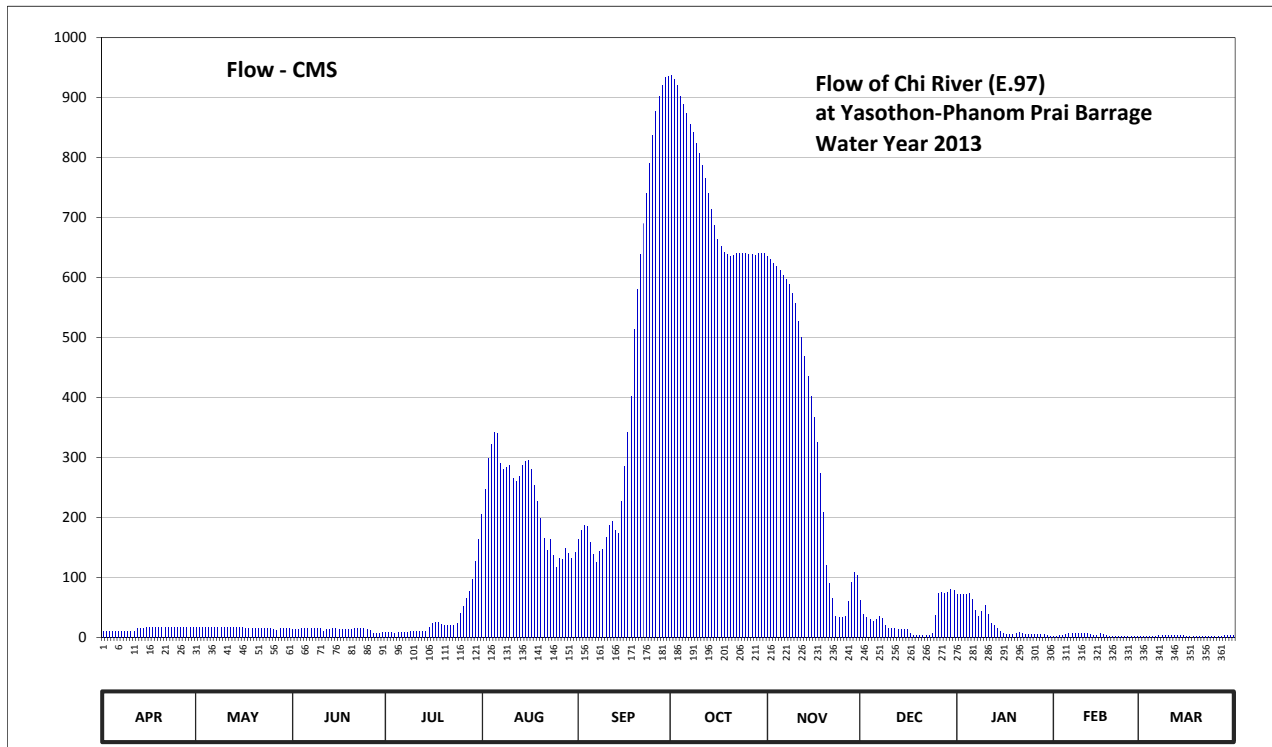
**Location : on right bank at Yasothon-Phanon Prai Barrage**

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | -         | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Yasothon          |
| <b>Drainage Area</b>                    | 46,766                                                                                    | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +118.000                                                                                  | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | H.D.      |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank at the automatic gage building.                                             |           |               |        | <b>Elevation</b> | +127.055 m. (MSL) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 13 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                               | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 118.15 | 118.35 | 118.26                                            | 118.12 | 120.87 | 120.43 | 126.16 | 124.25 | 119.16 | 119.31 | 117.85 | 117.83 |        |
|                                  | 2  | 118.15 | 118.35 | 118.26                                            | 118.11 | 121.30 | 120.59 | 126.12 | 124.21 | 118.78 | 119.29 | 117.85 | 117.84 |        |
|                                  | 3  | 118.15 | 118.35 | 118.26                                            | 118.11 | 121.74 | 120.69 | 126.05 | 124.17 | 118.71 | 119.29 | 117.92 | 117.84 |        |
|                                  | 4  | 118.15 | 118.35 | 118.30                                            | 118.10 | 121.94 | 120.66 | 125.94 | 124.14 | 118.64 | 119.30 | 117.97 | 117.84 |        |
|                                  | 5  | 118.15 | 118.35 | 118.30                                            | 118.11 | 122.10 | 120.37 | 125.85 | 124.09 | 118.55 | 119.32 | 118.00 | 117.84 |        |
|                                  | 6  | 118.15 | 118.35 | 118.30                                            | 118.13 | 122.09 | 120.16 | 125.76 | 124.04 | 118.65 | 119.17 | 118.06 | 117.85 |        |
|                                  | 7  | 118.15 | 118.35 | 118.30                                            | 118.13 | 121.68 | 120.00 | 125.65 | 123.99 | 118.74 | 118.89 | 118.05 | 117.89 |        |
|                                  | 8  | 118.15 | 118.35 | 118.30                                            | 118.14 | 121.59 | 120.21 | 125.56 | 123.94 | 118.66 | 118.74 | 118.06 | 117.89 |        |
|                                  | 9  | 118.15 | 118.35 | 118.29                                            | 118.17 | 121.62 | 120.24 | 125.45 | 123.84 | 118.41 | 118.88 | 118.06 | 117.89 |        |
|                                  | 10 | 118.15 | 118.35 | 118.29                                            | 118.17 | 121.65 | 120.48 | 125.34 | 123.72 | 118.29 | 119.03 | 118.05 | 117.89 |        |
|                                  | 11 | 118.18 | 118.35 | 118.18                                            | 118.17 | 121.46 | 120.68 | 125.22 | 123.52 | 118.28 | 118.79 | 118.05 | 117.89 |        |
|                                  | 12 | 118.30 | 118.35 | 118.24                                            | 118.15 | 121.41 | 120.76 | 125.08 | 123.33 | 118.28 | 118.50 | 118.05 | 117.89 |        |
|                                  | 13 | 118.30 | 118.35 | 118.25                                            | 118.16 | 121.50 | 120.60 | 124.92 | 123.10 | 118.27 | 118.42 | 118.00 | 117.89 |        |
|                                  | 14 | 118.30 | 118.35 | 118.28                                            | 118.18 | 121.65 | 120.55 | 124.76 | 122.85 | 118.27 | 118.29 | 117.97 | 117.89 |        |
|                                  | 15 | 118.35 | 118.35 | 118.28                                            | 118.32 | 121.70 | 121.10 | 124.59 | 122.59 | 118.25 | 118.17 | 117.99 | 117.89 |        |
|                                  | 16 | 118.35 | 118.35 | 118.25                                            | 118.50 | 121.72 | 121.63 | 124.44 | 122.31 | 118.23 | 118.09 | 118.05 | 117.88 |        |
|                                  | 17 | 118.35 | 118.30 | 118.27                                            | 118.53 | 121.59 | 122.11 | 124.36 | 121.97 | 118.07 | 118.01 | 118.04 | 117.88 |        |
|                                  | 18 | 118.35 | 118.30 | 118.23                                            | 118.52 | 121.36 | 122.59 | 124.29 | 121.53 | 117.96 | 118.00 | 117.95 | 117.88 |        |
|                                  | 19 | 118.35 | 118.30 | 118.25                                            | 118.45 | 121.10 | 123.43 | 124.27 | 120.91 | 117.95 | 118.01 | 117.87 | 117.88 |        |
|                                  | 20 | 118.35 | 118.30 | 118.25                                            | 118.41 | 120.81 | 123.88 | 124.25 | 119.95 | 117.95 | 118.05 | 117.84 | 117.88 |        |
|                                  | 21 | 118.35 | 118.28 | 118.28                                            | 118.40 | 120.46 | 124.27 | 124.26 | 119.56 | 117.95 | 118.12 | 117.84 | 117.88 |        |
|                                  | 22 | 118.35 | 118.28 | 118.28                                            | 118.40 | 120.23 | 124.61 | 124.28 | 119.20 | 117.96 | 118.10 | 117.84 | 117.88 |        |
|                                  | 23 | 118.35 | 118.28 | 118.28                                            | 118.40 | 120.43 | 124.93 | 124.28 | 118.73 | 117.96 | 118.04 | 117.84 | 117.87 |        |
|                                  | 24 | 118.35 | 118.28 | 118.28                                            | 118.50 | 120.13 | 125.24 | 124.28 | 118.70 | 118.10 | 118.02 | 117.83 | 117.87 |        |
|                                  | 25 | 118.35 | 118.28 | 118.27                                            | 118.80 | 119.92 | 125.53 | 124.28 | 118.70 | 118.77 | 118.02 | 117.83 | 117.87 |        |
|                                  | 26 | 118.35 | 118.26 | 118.22                                            | 119.01 | 120.09 | 125.78 | 124.27 | 118.72 | 119.32 | 118.02 | 117.83 | 117.87 |        |
|                                  | 27 | 118.35 | 118.22 | 118.08                                            | 119.21 | 120.07 | 125.94 | 124.27 | 119.13 | 119.34 | 118.02 | 117.83 | 117.88 |        |
|                                  | 28 | 118.35 | 118.30 | 118.09                                            | 119.38 | 120.27 | 126.05 | 124.26 | 119.60 | 119.32 | 118.02 | 117.83 | 117.91 |        |
|                                  | 29 | 118.35 | 118.30 | 118.10                                            | 119.66 | 120.17 | 126.14 | 124.28 | 119.81 | 119.34 | 118.03 |        | 117.91 |        |
|                                  | 30 | 118.35 | 118.29 | 118.11                                            | 120.03 | 120.09 | 126.15 | 124.28 | 119.75 | 119.43 | 117.96 |        | 117.92 |        |
|                                  | 31 |        | 118.29 |                                                   | 120.44 | 120.20 |        | 124.28 |        | 119.39 | 117.87 |        | 117.92 |        |
| Mean                             |    | 118.27 | 118.32 | 118.24                                            | 118.55 | 121.06 | 122.53 | 124.87 | 121.81 | 118.55 | 118.44 | 117.94 | 117.88 |        |
| Max                              |    | 118.35 | 118.35 | 118.30                                            | 120.44 | 122.10 | 126.15 | 126.16 | 124.25 | 119.43 | 119.32 | 118.06 | 117.92 | 126.16 |
| Min                              |    | 118.15 | 118.22 | 118.08                                            | 118.10 | 119.92 | 120.00 | 124.25 | 118.70 | 117.95 | 117.87 | 117.83 | 117.83 | 117.83 |
| Annual Max Momentary Gage Height |    |        | 126.16 | m. (MSL.) , at 01.00 Hours, on Oct 1, 2013        |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 118.00 | m. (MSL.) , River Bed 111.09 m. (MSL.)            |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 123.17 | m. (MSL.) ,                                       |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 124.78 | m. (MSL.) , Drainage Area 46766 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun    | Jul                  | Aug     | Sep      | Oct                      | Nov      | Dec    | Jan    | Feb    | Mar   | Annual          |
|----------------|--------|----------------------------------------------------------|--------|----------------------|---------|----------|--------------------------|----------|--------|--------|--------|-------|-----------------|
| 1              | 10.00  | 18.00                                                    | 14.40  | 8.80                 | 205.52  | 163.70   | 937.60                   | 635.50   | 62.88  | 73.08  | 2.75   | 2.45  |                 |
| 2              | 10.00  | 18.00                                                    | 14.40  | 8.40                 | 248.00  | 178.64   | 931.20                   | 629.50   | 38.80  | 71.72  | 2.75   | 2.60  |                 |
| 3              | 10.00  | 18.00                                                    | 14.40  | 8.40                 | 298.80  | 188.24   | 920.00                   | 623.50   | 34.60  | 71.72  | 3.80   | 2.60  |                 |
| 4              | 10.00  | 18.00                                                    | 16.00  | 8.00                 | 322.80  | 185.36   | 902.40                   | 619.00   | 31.00  | 72.40  | 4.55   | 2.60  |                 |
| 5              | 10.00  | 18.00                                                    | 16.00  | 8.40                 | 342.00  | 158.30   | 888.00                   | 611.50   | 26.50  | 73.76  | 5.00   | 2.60  |                 |
| 6              | 10.00  | 18.00                                                    | 16.00  | 9.20                 | 340.80  | 139.40   | 873.60                   | 604.00   | 31.50  | 63.56  | 6.80   | 2.75  |                 |
| 7              | 10.00  | 18.00                                                    | 16.00  | 9.20                 | 291.60  | 125.00   | 856.00                   | 596.52   | 36.40  | 45.40  | 6.50   | 3.35  |                 |
| 8              | 10.00  | 18.00                                                    | 16.00  | 9.60                 | 280.80  | 143.90   | 841.60                   | 589.12   | 32.00  | 36.40  | 6.80   | 3.35  |                 |
| 9              | 10.00  | 18.00                                                    | 15.60  | 10.80                | 284.40  | 146.60   | 824.00                   | 574.32   | 20.40  | 44.80  | 6.80   | 3.35  |                 |
| 10             | 10.00  | 18.00                                                    | 15.60  | 10.80                | 288.00  | 168.20   | 806.40                   | 556.56   | 15.60  | 54.04  | 6.50   | 3.35  |                 |
| 11             | 11.20  | 18.00                                                    | 11.20  | 10.80                | 265.60  | 187.28   | 787.20                   | 526.96   | 15.20  | 39.40  | 6.50   | 3.35  |                 |
| 12             | 16.00  | 18.00                                                    | 13.60  | 10.00                | 260.10  | 194.96   | 764.80                   | 500.54   | 15.20  | 24.00  | 6.50   | 3.35  |                 |
| 13             | 16.00  | 18.00                                                    | 14.00  | 10.40                | 270.00  | 179.60   | 739.36                   | 468.80   | 14.80  | 20.80  | 5.00   | 3.35  |                 |
| 14             | 16.00  | 18.00                                                    | 15.20  | 11.20                | 288.00  | 174.80   | 714.08                   | 435.50   | 14.80  | 15.60  | 4.55   | 3.35  |                 |
| 15             | 18.00  | 18.00                                                    | 15.20  | 16.80                | 294.00  | 228.00   | 687.22                   | 401.70   | 14.00  | 10.80  | 4.85   | 3.35  |                 |
| 16             | 18.00  | 18.00                                                    | 14.00  | 24.00                | 296.40  | 285.60   | 664.00                   | 367.20   | 13.20  | 7.70   | 6.50   | 3.20  |                 |
| 17             | 18.00  | 16.00                                                    | 14.80  | 25.50                | 280.80  | 343.20   | 652.00                   | 326.40   | 7.10   | 5.30   | 6.20   | 3.20  |                 |
| 18             | 18.00  | 16.00                                                    | 13.20  | 25.00                | 254.60  | 401.70   | 641.50                   | 273.60   | 4.40   | 5.00   | 4.25   | 3.20  |                 |
| 19             | 18.00  | 16.00                                                    | 14.00  | 22.00                | 228.00  | 514.34   | 638.50                   | 209.36   | 4.25   | 5.30   | 3.05   | 3.20  |                 |
| 20             | 18.00  | 16.00                                                    | 14.00  | 20.40                | 199.76  | 580.24   | 635.50                   | 120.50   | 4.25   | 6.50   | 2.60   | 3.20  |                 |
| 21             | 18.00  | 15.20                                                    | 15.20  | 20.00                | 166.40  | 638.50   | 637.00                   | 90.20    | 4.25   | 8.80   | 2.60   | 3.20  |                 |
| 22             | 18.00  | 15.20                                                    | 15.20  | 20.00                | 145.70  | 690.38   | 640.00                   | 65.60    | 4.40   | 8.00   | 2.60   | 3.20  |                 |
| 23             | 18.00  | 15.20                                                    | 15.20  | 20.00                | 163.70  | 740.94   | 640.00                   | 35.80    | 4.40   | 6.20   | 2.60   | 3.05  |                 |
| 24             | 18.00  | 15.20                                                    | 15.20  | 24.00                | 136.70  | 790.40   | 640.00                   | 34.00    | 8.00   | 5.60   | 2.45   | 3.05  |                 |
| 25             | 18.00  | 15.20                                                    | 14.80  | 40.00                | 117.80  | 836.80   | 640.00                   | 34.00    | 38.20  | 5.60   | 2.45   | 3.05  |                 |
| 26             | 18.00  | 14.40                                                    | 12.80  | 52.68                | 133.10  | 876.80   | 638.50                   | 35.20    | 73.76  | 5.60   | 2.45   | 3.05  |                 |
| 27             | 18.00  | 12.80                                                    | 7.40   | 66.28                | 131.30  | 902.40   | 638.50                   | 60.84    | 75.12  | 5.60   | 2.45   | 3.20  |                 |
| 28             | 18.00  | 16.00                                                    | 7.70   | 77.84                | 149.30  | 920.00   | 637.00                   | 93.00    | 73.76  | 5.60   | 2.45   | 3.65  |                 |
| 29             | 18.00  | 16.00                                                    | 8.00   | 97.20                | 140.30  | 934.40   | 640.00                   | 108.80   | 75.12  | 5.90   |        | 3.65  |                 |
| 30             | 18.00  | 15.60                                                    | 8.40   | 127.70               | 133.10  | 936.00   | 640.00                   | 104.00   | 81.24  | 4.40   |        | 3.80  |                 |
| 31             |        | 15.60                                                    |        | 164.60               | 143.00  |          | 640.00                   |          | 78.52  | 3.05   |        | 3.80  |                 |
| Total          | 447.20 | 518.40                                                   | 413.50 | 978.00               | 7100.38 | 12953.68 | 22735.96                 | 10331.52 | 953.65 | 811.63 | 122.30 | 98.45 | 57464.67 CMSDAY |
| Mean           | 14.91  | 16.72                                                    | 13.78  | 31.55                | 229.04  | 431.79   | 733.42                   | 344.38   | 30.76  | 26.18  | 4.37   | 3.18  | 157.44 CMS      |
| Max            | 18.00  | 18.00                                                    | 16.00  | 164.60               | 342.00  | 936.00   | 937.60                   | 635.50   | 81.24  | 73.76  | 6.80   | 3.80  | 937.60 CMS      |
| Min            | 10.00  | 12.80                                                    | 7.40   | 8.00                 | 117.80  | 125.00   | 635.50                   | 34.00    | 4.25   | 3.05   | 2.45   | 2.45  | 2.45 CMS        |
| Runoff         | 38.64  | 44.79                                                    | 35.73  | 84.50                | 613.47  | 1119.20  | 1964.39                  | 892.64   | 82.40  | 70.13  | 10.57  | 8.51  | 4964.95 MCM     |
| Momentary Peak | 937.60 | CMS, at 126.16 m. (MSL.), at 01.00 Hours, on Oct 1, 2013 |        |                      |         |          |                          |          |        |        |        |       |                 |
| Runoff Yield   | 3.37   | Liters/Second/Square KM.                                 |        | Momentary Peak Yield |         | 20.049   | Liters/Second/Square KM. |          |        |        |        |       |                 |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at That Noi Barrage , Ubon Ratchathani (E.98)**

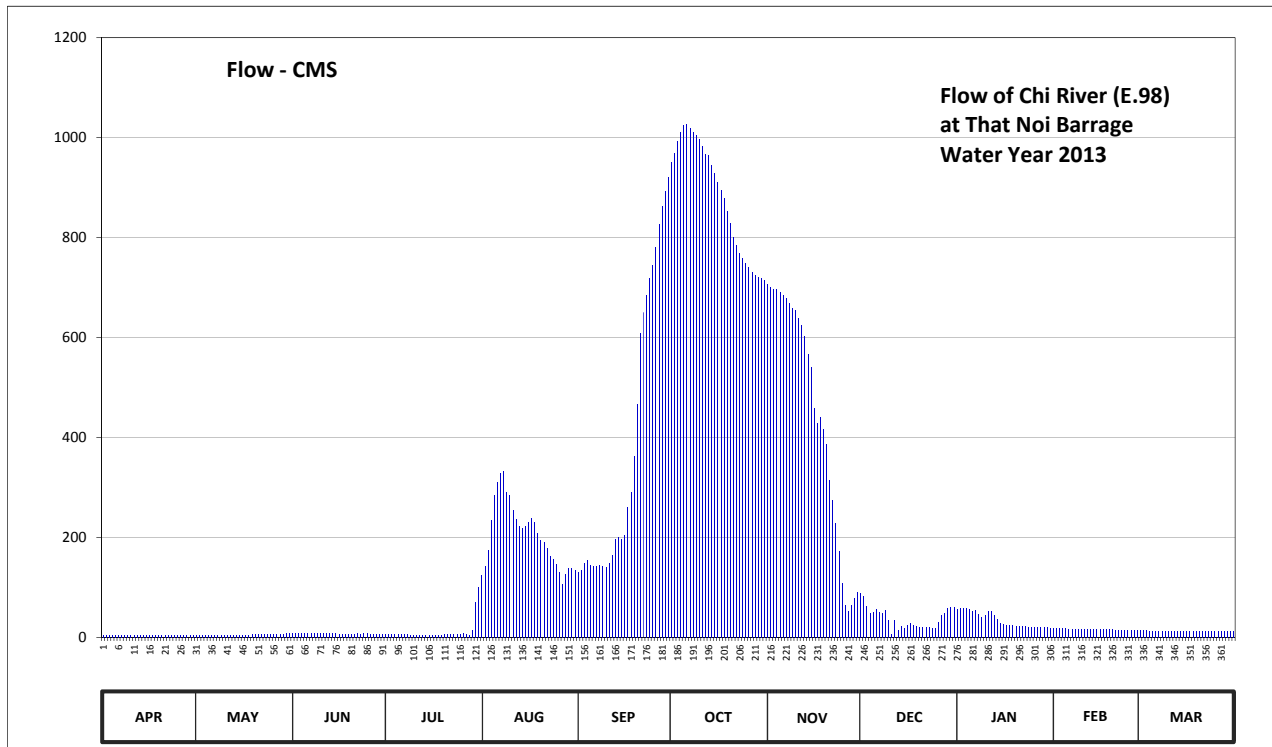
Lat 15 - 18 - 40 N Long 104 - 27 - 24 E

Location : on right bank at That Noi Barrage.

|                                         |                                                                                           |                           |                                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------------------|----------------------------------|
|                                         | <b>Ban</b> -                                                                              | <b>Amphoe</b> Khueang Nai | <b>Changwat</b> Ubon Ratchathani |
| <b>Drainage Area</b>                    | 48,254 sq.km.                                                                             |                           |                                  |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                           |                                  |
| <b>Zero Gage at Bottom</b>              | +109.200 m. (MSL.)                                                                        |                           |                                  |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |                           |                                  |
| <b>Location BM</b>                      | On right bank at the automatic gage building.                                             | <b>Elevation</b>          | +118.863 m. (MSL.)               |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                           |                                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                           |                                  |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |                           |                                  |
| <b>Rating Operation</b>                 |                                                                                           |                           |                                  |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |                           |                                  |
| <b>Rated by Flot</b>                    | -                                                                                         |                           |                                  |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |                           |                                  |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                           |                                  |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +116.930 m.(MSL.), records are channel flow only.       |                           |                                  |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 12 discharge measurements made in 2013. |                           |                                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

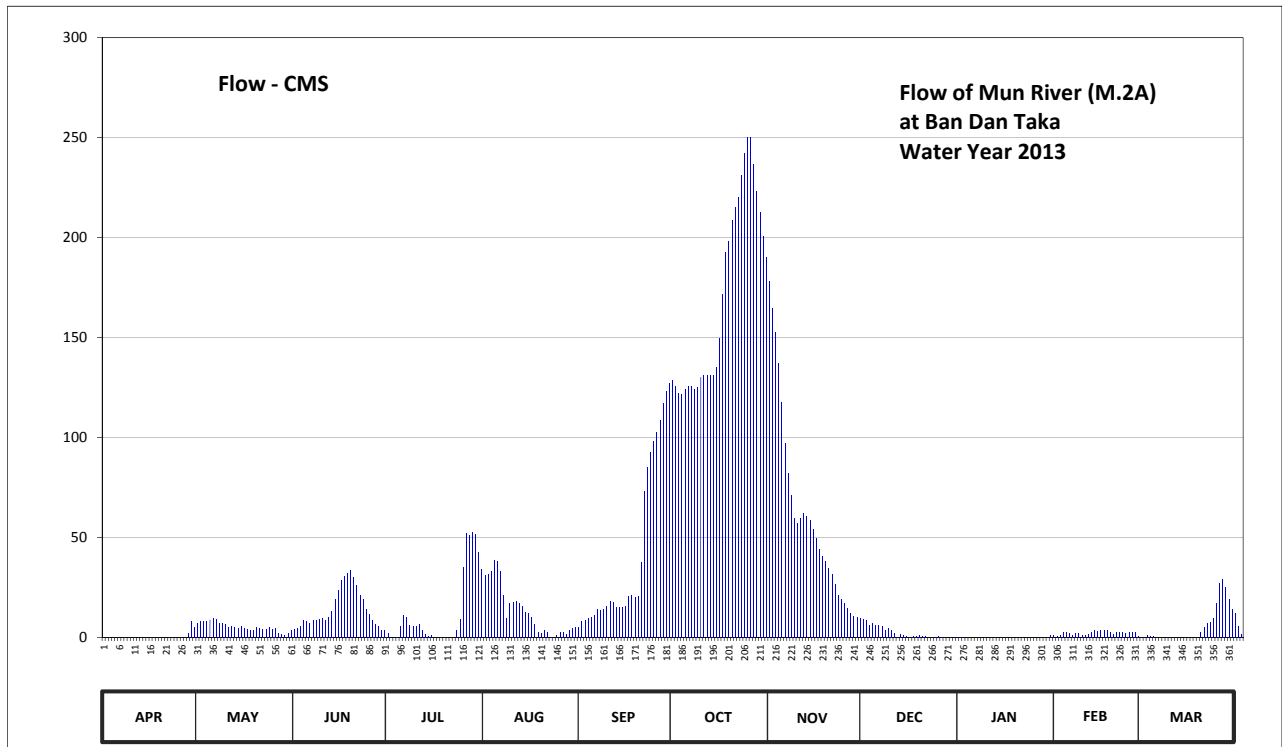
| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                            | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|--------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 110.06 | 110.01 | 110.20      | 110.14 | 112.17 | 112.25        | 117.59                         | 116.40            | 111.68 | 111.18 | 110.51 | 110.40 |        |
| 2                                | 110.06 | 110.01 | 110.22      | 110.13 | 112.40 | 112.29        | 117.67                         | 116.37            | 111.59 | 111.20 | 110.50 | 110.40 |        |
| 3                                | 110.05 | 110.01 | 110.21      | 110.13 | 112.75 | 112.48        | 117.78                         | 116.35            | 111.25 | 111.20 | 110.49 | 110.40 |        |
| 4                                | 110.05 | 110.00 | 110.21      | 110.12 | 113.34 | 112.54        | 117.87                         | 116.35            | 111.03 | 111.20 | 110.49 | 110.39 |        |
| 5                                | 110.05 | 110.00 | 110.21      | 110.11 | 113.78 | 112.41        | 117.93                         | 116.32            | 111.06 | 111.16 | 110.49 | 110.39 |        |
| 6                                | 110.05 | 110.00 | 110.22      | 110.11 | 113.98 | 112.39        | 117.94                         | 116.29            | 111.16 | 111.09 | 110.48 | 110.39 |        |
| 7                                | 110.05 | 110.00 | 110.22      | 110.11 | 114.12 | 112.39        | 117.90                         | 116.26            | 111.08 | 111.13 | 110.48 | 110.39 |        |
| 8                                | 110.05 | 110.00 | 110.20      | 110.11 | 114.15 | 112.43        | 117.87                         | 116.21            | 111.05 | 111.00 | 110.48 | 110.39 |        |
| 9                                | 110.05 | 110.00 | 110.20      | 110.09 | 113.83 | 112.40        | 117.84                         | 116.15            | 111.12 | 110.90 | 110.46 | 110.39 |        |
| 10                               | 110.05 | 110.00 | 110.20      | 110.09 | 113.77 | 112.38        | 117.80                         | 116.13            | 110.81 | 110.95 | 110.46 | 110.38 |        |
| 11                               | 110.04 | 110.00 | 110.19      | 110.09 | 113.52 | 112.48        | 117.74                         | 116.05            | 110.16 | 111.11 | 110.45 | 110.38 |        |
| 12                               | 110.04 | 110.00 | 110.19      | 110.08 | 113.36 | 112.65        | 117.66                         | 115.97            | 110.80 | 111.09 | 110.45 | 110.38 |        |
| 13                               | 110.04 | 110.03 | 110.19      | 110.07 | 113.22 | 112.98        | 117.65                         | 115.85            | 110.41 | 110.98 | 110.45 | 110.37 |        |
| 14                               | 110.04 | 110.05 | 110.19      | 110.07 | 113.20 | 113.02        | 117.56                         | 115.65            | 110.57 | 110.83 | 110.45 | 110.37 |        |
| 15                               | 110.04 | 110.07 | 110.19      | 110.07 | 113.23 | 112.98        | 117.48                         | 115.50            | 110.49 | 110.70 | 110.45 | 110.37 |        |
| 16                               | 110.03 | 110.07 | 110.18      | 110.07 | 113.30 | 113.05        | 117.40                         | 115.01            | 110.63 | 110.64 | 110.45 | 110.37 |        |
| 17                               | 110.03 | 110.07 | 110.18      | 110.08 | 113.38 | 113.58        | 117.32                         | 114.83            | 110.69 | 110.62 | 110.45 | 110.37 |        |
| 18                               | 110.03 | 110.08 | 110.18      | 110.08 | 113.30 | 113.83        | 117.24                         | 114.90            | 110.62 | 110.61 | 110.44 | 110.37 |        |
| 19                               | 110.03 | 110.10 | 110.17      | 110.08 | 113.10 | 114.38        | 117.12                         | 114.75            | 110.56 | 110.60 | 110.44 | 110.37 |        |
| 20                               | 110.03 | 110.10 | 110.17      | 110.10 | 112.96 | 115.05        | 117.01                         | 114.54            | 110.54 | 110.59 | 110.44 | 110.36 |        |
| 21                               | 110.03 | 110.10 | 110.18      | 110.12 | 112.92 | 115.88        | 116.87                         | 114.02            | 110.52 | 110.57 | 110.43 | 110.36 |        |
| 22                               | 110.03 | 110.11 | 110.19      | 110.15 | 112.81 | 116.11        | 116.79                         | 113.69            | 110.52 | 110.57 | 110.42 | 110.36 |        |
| 23                               | 110.03 | 110.11 | 110.18      | 110.15 | 112.64 | 116.29        | 116.71                         | 113.29            | 110.52 | 110.56 | 110.42 | 110.36 |        |
| 24                               | 110.02 | 110.12 | 110.19      | 110.16 | 112.57 | 116.46        | 116.66                         | 112.74            | 110.50 | 110.55 | 110.41 | 110.36 |        |
| 25                               | 110.02 | 110.15 | 110.19      | 110.17 | 112.44 | 116.59        | 116.61                         | 111.96            | 110.50 | 110.54 | 110.41 | 110.36 |        |
| 26                               | 110.02 | 110.16 | 110.18      | 110.21 | 112.25 | 116.77        | 116.57                         | 111.31            | 110.72 | 110.54 | 110.41 | 110.36 |        |
| 27                               | 110.02 | 110.18 | 110.17      | 110.18 | 111.95 | 117.00        | 116.52                         | 111.09            | 110.97 | 110.53 | 110.40 | 110.36 |        |
| 28                               | 110.02 | 110.18 | 110.15      | 110.06 | 112.20 | 117.17        | 116.49                         | 111.29            | 111.04 | 110.53 | 110.40 | 110.36 |        |
| 29                               | 110.02 | 110.18 | 110.15      | 110.43 | 112.36 | 117.31        | 116.47                         | 111.53            | 111.20 | 110.52 |        | 110.35 |        |
| 30                               | 110.01 | 110.19 | 110.15      | 111.40 | 112.36 | 117.44        | 116.46                         | 111.73            | 111.22 | 110.52 |        | 110.35 |        |
| 31                               |        | 110.20 |             | 111.86 | 112.30 |               | 116.44                         |                   | 111.22 | 110.51 |        | 110.35 |        |
| Mean                             | 110.04 | 110.07 | 110.19      | 110.22 | 113.02 | 114.17        | 117.26                         | 114.62            | 110.85 | 110.80 | 110.45 | 110.37 |        |
| Max                              | 110.06 | 110.20 | 110.22      | 111.86 | 114.15 | 117.44        | 117.94                         | 116.40            | 111.68 | 111.20 | 110.51 | 110.40 | 117.94 |
| Min                              | 110.01 | 110.00 | 110.15      | 110.06 | 111.95 | 112.25        | 116.44                         | 111.09            | 110.16 | 110.51 | 110.40 | 110.35 | 110.00 |
| Annual Max Momentary Gage Height |        | 117.96 | m. (MSL.) , |        |        |               | at 23.00 Hours, on Oct 5, 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 109.20 | m. (MSL.) , |        |        | River Bed     | 106.88                         | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 117.02 | m. (MSL.) , |        |        |               |                                |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 116.92 | m. (MSL.) , |        |        | Drainage Area | 48254                          | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                                                      | Jun    | Jul                  | Aug     | Sep      | Oct                      | Nov      | Dec     | Jan     | Feb    | Mar    | Annual          |
|----------------|---------|----------------------------------------------------------|--------|----------------------|---------|----------|--------------------------|----------|---------|---------|--------|--------|-----------------|
| 1              | 5.20    | 4.20                                                     | 8.00   | 6.80                 | 124.60  | 131.00   | 950.90                   | 706.00   | 88.20   | 57.80   | 19.50  | 14.00  |                 |
| 2              | 5.20    | 4.20                                                     | 8.60   | 6.60                 | 143.00  | 134.20   | 968.00                   | 700.20   | 82.40   | 59.00   | 19.00  | 14.00  |                 |
| 3              | 5.00    | 4.20                                                     | 8.30   | 6.60                 | 174.20  | 149.80   | 991.70                   | 696.20   | 62.00   | 59.00   | 18.50  | 14.00  |                 |
| 4              | 5.00    | 4.00                                                     | 8.30   | 6.40                 | 235.40  | 154.90   | 1011.40                  | 696.20   | 48.80   | 59.00   | 18.50  | 13.70  |                 |
| 5              | 5.00    | 4.00                                                     | 8.30   | 6.20                 | 285.60  | 143.90   | 1024.60                  | 690.40   | 50.60   | 56.60   | 18.50  | 13.70  |                 |
| 6              | 5.00    | 4.00                                                     | 8.60   | 6.20                 | 310.50  | 142.20   | 1026.80                  | 684.60   | 56.60   | 52.40   | 18.00  | 13.70  |                 |
| 7              | 5.00    | 4.00                                                     | 8.60   | 6.20                 | 328.60  | 142.20   | 1018.00                  | 678.70   | 51.80   | 54.80   | 18.00  | 13.70  |                 |
| 8              | 5.00    | 4.00                                                     | 8.00   | 6.20                 | 332.50  | 145.50   | 1011.40                  | 669.00   | 50.00   | 47.00   | 18.00  | 13.70  |                 |
| 9              | 5.00    | 4.00                                                     | 8.00   | 5.80                 | 291.70  | 143.00   | 1004.80                  | 657.80   | 54.20   | 41.00   | 17.00  | 13.70  |                 |
| 10             | 5.00    | 4.00                                                     | 8.00   | 5.80                 | 284.40  | 141.40   | 996.00                   | 654.00   | 35.60   | 44.00   | 17.00  | 13.40  |                 |
| 11             | 4.80    | 4.00                                                     | 7.80   | 5.80                 | 255.20  | 149.80   | 983.10                   | 639.30   | 7.20    | 53.60   | 16.50  | 13.40  |                 |
| 12             | 4.80    | 4.00                                                     | 7.80   | 5.60                 | 237.60  | 164.80   | 965.90                   | 624.60   | 35.00   | 52.40   | 16.50  | 13.40  |                 |
| 13             | 4.80    | 4.60                                                     | 7.80   | 5.40                 | 222.20  | 197.00   | 963.80                   | 603.00   | 14.50   | 45.80   | 16.50  | 13.10  |                 |
| 14             | 4.80    | 5.00                                                     | 7.80   | 5.40                 | 220.00  | 201.10   | 944.60                   | 567.00   | 22.50   | 36.80   | 16.50  | 13.10  |                 |
| 15             | 4.80    | 5.40                                                     | 7.80   | 5.40                 | 223.30  | 197.00   | 927.80                   | 540.50   | 18.50   | 29.50   | 16.50  | 13.10  |                 |
| 16             | 4.60    | 5.40                                                     | 7.60   | 5.40                 | 231.00  | 204.30   | 911.00                   | 458.70   | 25.60   | 26.20   | 16.50  | 13.10  |                 |
| 17             | 4.60    | 5.40                                                     | 7.60   | 5.60                 | 239.80  | 261.80   | 894.20                   | 429.80   | 29.00   | 25.10   | 16.50  | 13.10  |                 |
| 18             | 4.60    | 5.60                                                     | 7.60   | 5.60                 | 231.00  | 291.70   | 877.40                   | 441.00   | 25.10   | 24.60   | 16.00  | 13.10  |                 |
| 19             | 4.60    | 6.00                                                     | 7.40   | 5.60                 | 209.50  | 363.30   | 852.20                   | 417.50   | 22.00   | 24.00   | 16.00  | 13.10  |                 |
| 20             | 4.60    | 6.00                                                     | 7.40   | 6.00                 | 195.00  | 465.30   | 829.10                   | 386.30   | 21.00   | 23.50   | 16.00  | 12.80  |                 |
| 21             | 4.60    | 6.00                                                     | 7.60   | 6.40                 | 191.00  | 608.40   | 800.40                   | 315.60   | 20.00   | 22.50   | 15.50  | 12.80  |                 |
| 22             | 4.60    | 6.20                                                     | 7.80   | 7.00                 | 180.00  | 650.40   | 784.00                   | 274.80   | 20.00   | 22.50   | 15.00  | 12.80  |                 |
| 23             | 4.60    | 6.20                                                     | 7.60   | 7.00                 | 163.80  | 684.60   | 768.00                   | 229.90   | 20.00   | 22.00   | 15.00  | 12.80  |                 |
| 24             | 4.40    | 6.40                                                     | 7.80   | 7.20                 | 157.50  | 718.00   | 758.00                   | 173.30   | 19.00   | 21.50   | 14.50  | 12.80  |                 |
| 25             | 4.40    | 7.00                                                     | 7.80   | 7.40                 | 146.40  | 744.00   | 748.00                   | 108.00   | 19.00   | 21.00   | 14.50  | 12.80  |                 |
| 26             | 4.40    | 7.20                                                     | 7.60   | 8.30                 | 131.00  | 780.00   | 740.00                   | 65.60    | 30.60   | 21.00   | 14.50  | 12.80  |                 |
| 27             | 4.40    | 7.60                                                     | 7.40   | 7.60                 | 107.20  | 827.00   | 730.00                   | 52.40    | 45.20   | 20.50   | 14.00  | 12.80  |                 |
| 28             | 4.40    | 7.60                                                     | 7.00   | 5.20                 | 127.00  | 862.70   | 724.00                   | 64.40    | 49.40   | 20.50   | 14.00  | 12.80  |                 |
| 29             | 4.40    | 7.60                                                     | 7.00   | 15.50                | 139.80  | 892.10   | 720.00                   | 78.80    | 59.00   | 20.00   |        | 12.50  |                 |
| 30             | 4.20    | 7.80                                                     | 7.00   | 71.00                | 139.80  | 919.40   | 718.00                   | 91.50    | 60.20   | 20.00   |        | 12.50  |                 |
| 31             |         | 8.00                                                     |        | 100.50               | 135.00  |          | 714.00                   |          | 60.20   | 19.50   |        | 12.50  |                 |
| Total          | 141.80  | 169.60                                                   | 233.90 | 361.70               | 6393.60 | 11610.80 | 27357.10                 | 13395.10 | 1203.20 | 1103.10 | 462.50 | 408.80 | 62841.20 CMSDAY |
| Mean           | 4.70    | 5.50                                                     | 7.80   | 11.70                | 206.20  | 387.00   | 882.50                   | 446.50   | 38.80   | 35.60   | 16.50  | 13.20  | 172.20 CMS      |
| Max            | 5.20    | 8.00                                                     | 8.60   | 100.50               | 332.50  | 919.40   | 1026.80                  | 706.00   | 88.20   | 59.00   | 19.50  | 14.00  | 1026.80 CMS     |
| Min            | 4.20    | 4.00                                                     | 7.00   | 5.20                 | 107.20  | 131.00   | 714.00                   | 52.40    | 7.20    | 19.50   | 14.00  | 12.50  | 4.00 CMS        |
| Runoff         | 12.25   | 14.65                                                    | 20.21  | 31.25                | 552.41  | 1003.17  | 2363.65                  | 1157.34  | 103.96  | 95.31   | 39.96  | 35.32  | 5429.48 MCM     |
| Momentary Peak | 1031.20 | CMS, at 117.96 m. (MSL.), at 23.00 Hours, on Oct 5, 2013 |        |                      |         |          |                          |          |         |         |        |        |                 |
| Runoff Yield   | 3.57    | Liters/Second/Square KM.                                 |        | Momentary Peak Yield |         | 21.370   | Liters/Second/Square KM. |          |         |         |        |        |                 |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan  | Feb   | Mar    | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|------|-------|--------|-----------------|
| 1              | 0.00                                                              | 7.40                     | 4.40   | 2.00   | 31.00                | 8.00    | 125.80  | 164.80  | 8.60                     | 0.00 | 1.00  | 1.00   |                 |
| 2              | 0.00                                                              | 8.00                     | 4.70   | 0.00   | 31.80                | 8.60    | 122.20  | 152.60  | 6.50                     | 0.00 | 2.60  | 0.80   |                 |
| 3              | 0.00                                                              | 8.30                     | 5.90   | 0.00   | 33.40                | 9.80    | 121.60  | 137.20  | 7.10                     | 0.00 | 2.90  | 0.60   |                 |
| 4              | 0.00                                                              | 8.00                     | 8.60   | 0.20   | 38.60                | 10.10   | 124.00  | 117.40  | 6.50                     | 0.00 | 2.30  | 0.00   |                 |
| 5              | 0.00                                                              | 8.90                     | 8.30   | 5.60   | 38.20                | 11.40   | 125.80  | 97.30   | 6.20                     | 0.00 | 1.20  | 0.00   |                 |
| 6              | 0.00                                                              | 9.50                     | 7.10   | 11.00  | 33.00                | 14.20   | 125.80  | 82.00   | 5.60                     | 0.00 | 2.30  | 0.00   |                 |
| 7              | 0.00                                                              | 9.20                     | 8.90   | 10.40  | 21.40                | 13.80   | 124.00  | 71.20   | 3.50                     | 0.00 | 2.00  | 0.00   |                 |
| 8              | 0.00                                                              | 7.40                     | 8.90   | 6.20   | 9.80                 | 14.20   | 125.20  | 59.65   | 4.70                     | 0.00 | 1.40  | 0.00   |                 |
| 9              | 0.00                                                              | 7.40                     | 9.20   | 5.60   | 17.40                | 15.80   | 130.20  | 57.40   | 3.80                     | 0.00 | 1.00  | 0.00   |                 |
| 10             | 0.00                                                              | 6.80                     | 9.50   | 5.60   | 17.80                | 18.20   | 131.00  | 59.65   | 2.30                     | 0.00 | 1.60  | 0.00   |                 |
| 11             | 0.00                                                              | 5.30                     | 8.90   | 6.80   | 18.20                | 17.80   | 131.00  | 62.35   | 0.40                     | 0.00 | 2.90  | 0.00   |                 |
| 12             | 0.00                                                              | 5.60                     | 10.10  | 3.80   | 17.00                | 15.40   | 131.00  | 60.55   | 1.60                     | 0.00 | 3.50  | 0.00   |                 |
| 13             | 0.00                                                              | 5.00                     | 13.00  | 1.60   | 15.80                | 15.00   | 131.00  | 58.75   | 1.40                     | 0.00 | 3.20  | 0.00   |                 |
| 14             | 0.00                                                              | 4.70                     | 19.00  | 0.80   | 12.60                | 15.40   | 135.00  | 54.25   | 0.80                     | 0.00 | 3.80  | 0.00   |                 |
| 15             | 0.00                                                              | 5.60                     | 23.80  | 1.00   | 12.20                | 15.80   | 149.30  | 49.75   | 0.00                     | 0.00 | 3.50  | 0.00   |                 |
| 16             | 0.00                                                              | 4.70                     | 28.60  | 0.00   | 10.40                | 20.60   | 171.32  | 44.35   | 0.60                     | 0.00 | 3.50  | 0.00   |                 |
| 17             | 0.00                                                              | 4.40                     | 30.60  | 0.00   | 6.80                 | 21.00   | 192.53  | 40.60   | 0.80                     | 0.00 | 2.60  | 0.00   |                 |
| 18             | 0.00                                                              | 3.80                     | 32.20  | 0.00   | 2.90                 | 20.20   | 197.82  | 38.20   | 1.20                     | 0.00 | 1.80  | 2.60   |                 |
| 19             | 0.00                                                              | 3.80                     | 33.80  | 0.00   | 2.00                 | 20.60   | 208.42  | 34.60   | 0.80                     | 0.00 | 2.90  | 5.00   |                 |
| 20             | 0.00                                                              | 5.00                     | 30.20  | 0.00   | 3.50                 | 37.80   | 215.05  | 31.80   | 0.60                     | 0.00 | 2.90  | 7.40   |                 |
| 21             | 0.00                                                              | 4.70                     | 26.20  | 0.00   | 2.60                 | 73.45   | 220.35  | 26.60   | 0.00                     | 0.00 | 2.90  | 7.70   |                 |
| 22             | 0.00                                                              | 4.10                     | 21.00  | 0.00   | 0.00                 | 85.40   | 231.10  | 21.40   | 0.40                     | 0.00 | 2.30  | 9.50   |                 |
| 23             | 0.00                                                              | 4.10                     | 19.40  | 3.50   | 0.00                 | 92.80   | 241.90  | 19.40   | 0.20                     | 0.00 | 2.60  | 17.00  |                 |
| 24             | 0.00                                                              | 5.00                     | 14.20  | 9.20   | 1.40                 | 98.20   | 250.00  | 17.40   | 0.60                     | 0.00 | 2.90  | 27.00  |                 |
| 25             | 0.00                                                              | 4.40                     | 11.80  | 35.00  | 2.60                 | 103.00  | 250.00  | 14.60   | 0.20                     | 0.00 | 2.90  | 29.00  |                 |
| 26             | 0.00                                                              | 4.70                     | 8.90   | 52.00  | 2.60                 | 109.00  | 236.50  | 12.20   | 0.00                     | 0.00 | 0.60  | 25.00  |                 |
| 27             | 0.00                                                              | 2.30                     | 6.80   | 51.10  | 1.60                 | 116.80  | 223.00  | 10.70   | 0.00                     | 0.00 | 0.00  | 19.40  |                 |
| 28             | 2.00                                                              | 1.60                     | 5.60   | 52.90  | 3.80                 | 122.80  | 212.40  | 10.10   | 0.00                     | 0.20 | 0.00  | 14.20  |                 |
| 29             | 8.00                                                              | 1.40                     | 3.50   | 51.55  | 4.70                 | 127.00  | 200.47  | 9.80    | 0.40                     | 1.00 |       | 12.20  |                 |
| 30             | 5.00                                                              | 2.30                     | 3.80   | 43.00  | 5.30                 | 128.60  | 189.87  | 9.20    | 0.40                     | 1.40 |       | 5.60   |                 |
| 31             |                                                                   | 3.50                     |        | 34.20  | 5.30                 |         | 177.95  |         | 0.40                     | 0.80 |       | 1.60   |                 |
| Total          | 15.00                                                             | 166.90                   | 426.90 | 393.01 | 403.70               | 1380.75 | 5351.58 | 1625.80 | 65.60                    | 3.40 | 63.10 | 185.60 | 10081.38 CMSDAY |
| Mean           | 0.50                                                              | 5.38                     | 14.23  | 12.68  | 13.02                | 46.03   | 172.63  | 54.19   | 2.12                     | 0.11 | 2.25  | 5.99   | 27.62 CMS       |
| Max            | 8.00                                                              | 9.50                     | 33.80  | 52.90  | 38.60                | 128.60  | 250.00  | 164.80  | 8.60                     | 1.40 | 3.80  | 29.00  | 250.00 CMS      |
| Min            | 0.00                                                              | 1.40                     | 3.50   | 0.00   | 0.00                 | 8.00    | 121.60  | 9.20    | 0.00                     | 0.00 | 0.00  | 0.00   | 0.00 CMS        |
| Runoff         | 1.30                                                              | 14.42                    | 36.88  | 33.96  | 34.88                | 119.30  | 462.38  | 140.47  | 5.67                     | 0.29 | 5.45  | 16.04  | 871.03 MCM      |
| Momentary Peak | 252.70 CMS. at 167.81 m. (MSL.) at 06.00 Hours , on Oct 25 , 2013 |                          |        |        |                      |         |         |         |                          |      |       |        |                 |
| Runoff Yield   | 5.85                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 53.493  | Liters/Second/Square KM. |      |       |        |                 |

## WATER YEAR : 2013

## MUN RIVER BASIN

## Mun River at Ban Phong Sawai, Surin (M.4)

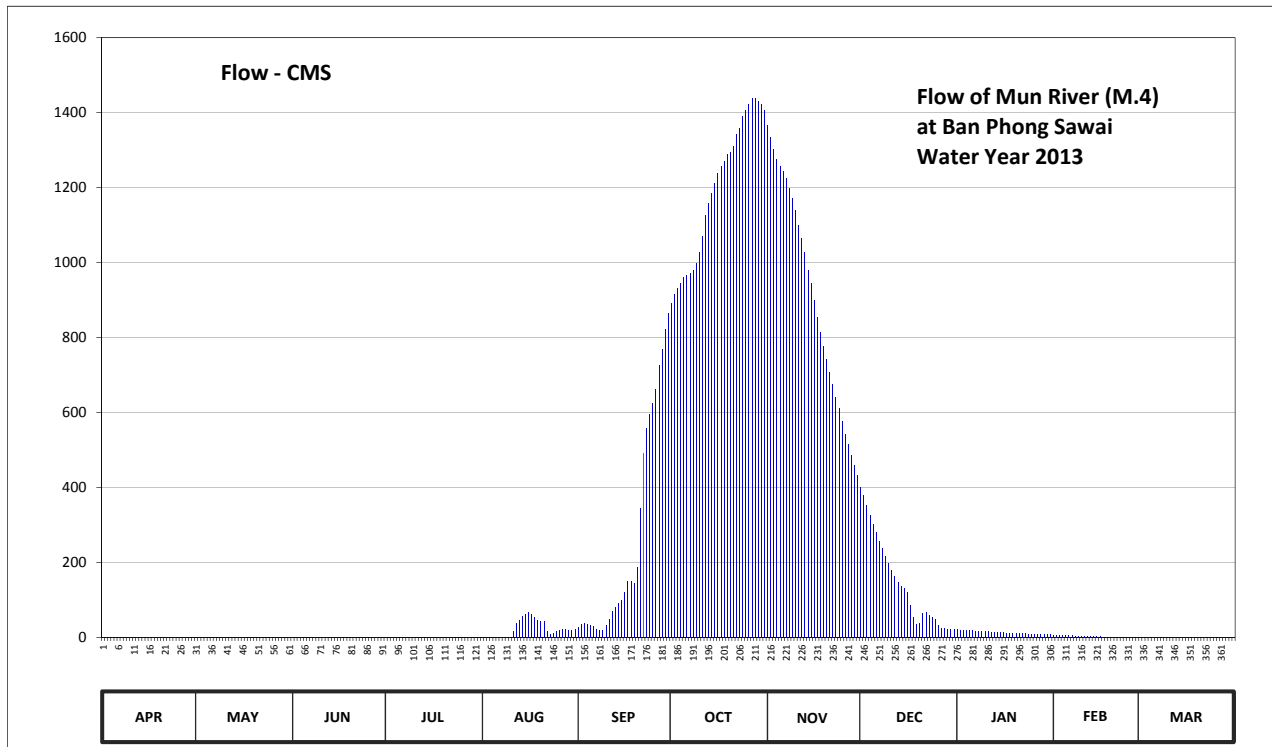
Lat 15 - 19 - 30 N    Long 103 - 40 - 59 E

**Location : on left bank at the bridge on highway**

|                                         |                                                                                                |             |               |         |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------------|-------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                     | Phong Sawai | <b>Amphoe</b> | Tha Tum | <b>Changwat</b>  | Surin              |
| <b>Drainage Area</b>                    | 34,654                                                                                         | sq.km.      |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                         |             |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +117.000                                                                                       | m. (MSL.)   |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                      |             |               |         |                  |                    |
| <b>Location BM</b>                      | Near the gage site.                                                                            |             |               |         | <b>Elevation</b> | +128.995 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                      |             |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                 |             |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1996-1997, 2005 to date                                                                        |             |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                |             |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1996-1997, 2005 to date                                                                        |             |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                              |             |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1996-1997, 2005 to date                                                                        |             |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                 |             |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                              |             |               |         |                  |                    |
| <b>General Description</b>              | Records very good. Stage-discharge relation defined by 33 discharge measurements made in 2013. |             |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                               | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 117.56 | 117.14 | 116.99                                            | 116.98 | 116.94 | 118.21 | 124.42 | 125.19 | 122.42 | 118.08 | 117.73 | 117.50 |        |
| 2                                | 117.55 | 117.14 | 116.97                                            | 116.97 | 116.95 | 118.32 | 124.47 | 125.15 | 122.28 | 118.07 | 117.72 | 117.50 |        |
| 3                                | 117.55 | 117.13 | 116.97                                            | 116.96 | 116.96 | 118.37 | 124.50 | 125.11 | 122.08 | 118.06 | 117.72 | 117.49 |        |
| 4                                | 117.54 | 117.13 | 116.97                                            | 116.97 | 116.96 | 118.35 | 124.53 | 125.07 | 121.89 | 118.05 | 117.72 | 117.47 |        |
| 5                                | 117.52 | 117.12 | 116.96                                            | 116.95 | 117.36 | 118.31 | 124.56 | 125.04 | 121.69 | 118.03 | 117.71 | 117.46 |        |
| 6                                | 117.52 | 117.10 | 116.98                                            | 116.82 | 117.60 | 118.24 | 124.57 | 125.02 | 121.51 | 118.02 | 117.69 | 117.47 |        |
| 7                                | 117.52 | 117.06 | 117.00                                            | 116.83 | 117.40 | 118.13 | 124.58 | 124.99 | 121.29 | 118.01 | 117.69 | 117.45 |        |
| 8                                | 117.50 | 117.05 | 117.00                                            | 116.84 | 117.30 | 118.05 | 124.60 | 124.95 | 121.09 | 118.00 | 117.68 | 117.45 |        |
| 9                                | 117.50 | 117.04 | 116.99                                            | 116.81 | 117.22 | 118.07 | 124.63 | 124.91 | 120.87 | 117.98 | 117.67 | 117.44 |        |
| 10                               | 117.48 | 117.03 | 116.98                                            | 116.82 | 117.23 | 118.28 | 124.68 | 124.86 | 120.67 | 117.98 | 117.67 | 117.42 |        |
| 11                               | 117.47 | 117.03 | 116.99                                            | 116.90 | 117.95 | 118.56 | 124.75 | 124.80 | 120.46 | 117.96 | 117.67 | 117.42 |        |
| 12                               | 117.45 | 117.03 | 116.98                                            | 116.90 | 118.38 | 118.89 | 124.84 | 124.74 | 120.26 | 117.92 | 117.66 | 117.42 |        |
| 13                               | 117.42 | 117.04 | 116.98                                            | 116.81 | 118.53 | 119.09 | 124.89 | 124.68 | 120.06 | 117.92 | 117.65 | 117.41 |        |
| 14                               | 117.38 | 117.04 | 116.99                                            | 116.83 | 118.69 | 119.23 | 124.93 | 124.60 | 119.90 | 117.92 | 117.64 | 117.41 |        |
| 15                               | 117.36 | 117.03 | 117.00                                            | 116.84 | 118.76 | 119.37 | 124.97 | 124.53 | 119.82 | 117.91 | 117.63 | 117.41 |        |
| 16                               | 117.34 | 117.03 | 117.00                                            | 116.85 | 118.85 | 119.67 | 125.01 | 124.44 | 119.68 | 117.91 | 117.63 | 117.39 |        |
| 17                               | 117.34 | 117.02 | 116.99                                            | 116.85 | 118.77 | 120.08 | 125.04 | 124.35 | 119.17 | 117.87 | 117.61 | 117.37 |        |
| 18                               | 117.34 | 117.02 | 116.98                                            | 116.86 | 118.65 | 120.10 | 125.06 | 124.26 | 118.63 | 117.87 | 117.58 | 117.37 |        |
| 19                               | 117.29 | 117.01 | 116.98                                            | 116.87 | 118.53 | 120.03 | 125.09 | 124.16 | 118.34 | 117.87 | 117.58 | 117.36 |        |
| 20                               | 117.24 | 117.00 | 116.97                                            | 116.87 | 118.47 | 120.56 | 125.10 | 124.06 | 118.36 | 117.87 | 117.58 | 117.37 |        |
| 21                               | 117.25 | 117.00 | 116.96                                            | 116.88 | 118.45 | 122.04 | 125.12 | 123.95 | 118.81 | 117.86 | 117.58 | 117.40 |        |
| 22                               | 117.29 | 117.00 | 116.96                                            | 116.89 | 117.98 | 122.98 | 125.16 | 123.84 | 118.86 | 117.84 | 117.57 | 117.40 |        |
| 23                               | 117.26 | 117.00 | 116.96                                            | 116.90 | 117.76 | 123.34 | 125.18 | 123.70 | 118.74 | 117.82 | 117.54 | 117.38 |        |
| 24                               | 117.25 | 117.00 | 116.97                                            | 116.89 | 117.83 | 123.51 | 125.22 | 123.58 | 118.66 | 117.80 | 117.52 | 117.38 |        |
| 25                               | 117.23 | 117.00 | 116.97                                            | 116.89 | 117.97 | 123.63 | 125.24 | 123.42 | 118.54 | 117.80 | 117.51 | 117.37 |        |
| 26                               | 117.20 | 117.00 | 117.00                                            | 116.89 | 118.04 | 123.79 | 125.26 | 123.26 | 118.30 | 117.80 | 117.50 | 117.37 |        |
| 27                               | 117.16 | 117.00 | 117.00                                            | 116.88 | 118.13 | 124.01 | 125.28 | 123.12 | 118.15 | 117.79 | 117.50 | 117.36 |        |
| 28                               | 117.15 | 117.00 | 117.00                                            | 116.88 | 118.13 | 124.14 | 125.28 | 122.94 | 118.14 | 117.76 | 117.50 | 117.36 |        |
| 29                               | 117.15 | 117.00 | 117.00                                            | 116.90 | 118.03 | 124.28 | 125.27 | 122.78 | 118.12 | 117.76 |        | 117.36 |        |
| 30                               | 117.14 | 116.99 | 117.00                                            | 116.94 | 118.03 | 124.37 | 125.26 | 122.63 | 118.11 | 117.75 |        | 117.35 |        |
| 31                               |        | 116.99 |                                                   | 116.93 | 118.08 |        | 125.24 |        | 118.10 | 117.75 |        | 117.33 |        |
| Mean                             | 117.36 | 117.04 | 116.98                                            | 116.88 | 117.93 | 120.47 | 124.93 | 124.27 | 119.77 | 117.90 | 117.62 | 117.41 |        |
| Max                              | 117.56 | 117.14 | 117.00                                            | 116.98 | 118.85 | 124.37 | 125.28 | 125.19 | 122.42 | 118.08 | 117.73 | 117.50 | 125.28 |
| Min                              | 117.14 | 116.99 | 116.96                                            | 116.81 | 116.94 | 118.05 | 124.42 | 122.63 | 118.10 | 117.75 | 117.50 | 117.33 | 116.81 |
| Annual Max Momentary Gage Height | 125.28 |        | m. (MSL.) , at 04.00 Hours , on Oct 27 , 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 117.00 |        | m. (MSL.) , River Bed 116.63 m. (MSL.)            |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 128.76 |        | m. (MSL.) ,                                       |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 129.25 |        | m. (MSL.) , Drainage Area 34654 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr     | May                                                        | Jun  | Jul  | Aug    | Sep                  | Oct      | Nov      | Dec     | Jan    | Feb                      | Mar   | Annual   |        |
|----------------|---------|------------------------------------------------------------|------|------|--------|----------------------|----------|----------|---------|--------|--------------------------|-------|----------|--------|
| 1              | 1.80    | 0.00                                                       | 0.00 | 0.00 | 0.00   | 28.60                | 890.00   | 1367.00  | 401.40  | 21.20  | 7.20                     | 1.50  |          |        |
| 2              | 1.80    | 0.00                                                       | 0.00 | 0.00 | 0.00   | 35.20                | 915.00   | 1335.00  | 381.10  | 20.80  | 6.80                     | 1.50  |          |        |
| 3              | 1.80    | 0.00                                                       | 0.00 | 0.00 | 0.00   | 38.20                | 930.00   | 1303.00  | 352.10  | 20.40  | 6.80                     | 1.40  |          |        |
| 4              | 1.70    | 0.00                                                       | 0.00 | 0.00 | 0.00   | 37.00                | 945.00   | 1275.50  | 327.30  | 20.00  | 6.80                     | 1.40  |          |        |
| 5              | 1.60    | 0.00                                                       | 0.00 | 0.00 | 0.80   | 34.60                | 960.00   | 1256.00  | 303.30  | 19.20  | 6.40                     | 1.30  |          |        |
| 6              | 1.60    | 0.00                                                       | 0.00 | 0.00 | 2.00   | 30.40                | 965.00   | 1243.00  | 281.70  | 18.80  | 5.60                     | 1.40  |          |        |
| 7              | 1.60    | 0.00                                                       | 0.00 | 0.00 | 1.00   | 23.80                | 970.00   | 1223.50  | 257.50  | 18.40  | 5.60                     | 1.20  |          |        |
| 8              | 1.50    | 0.00                                                       | 0.00 | 0.00 | 0.50   | 20.00                | 980.00   | 1197.50  | 237.50  | 18.00  | 5.20                     | 1.20  |          |        |
| 9              | 1.50    | 0.00                                                       | 0.00 | 0.00 | 0.10   | 20.80                | 998.00   | 1171.50  | 216.80  | 17.20  | 4.80                     | 1.20  |          |        |
| 10             | 1.40    | 0.00                                                       | 0.00 | 0.00 | 0.20   | 32.80                | 1028.00  | 1139.00  | 198.80  | 17.20  | 4.80                     | 1.10  |          |        |
| 11             | 1.40    | 0.00                                                       | 0.00 | 0.00 | 16.00  | 49.60                | 1070.00  | 1100.00  | 180.30  | 16.40  | 4.80                     | 1.10  |          |        |
| 12             | 1.20    | 0.00                                                       | 0.00 | 0.00 | 38.80  | 69.40                | 1126.00  | 1064.00  | 164.30  | 14.80  | 4.40                     | 1.10  |          |        |
| 13             | 1.10    | 0.00                                                       | 0.00 | 0.00 | 47.80  | 81.80                | 1158.50  | 1028.00  | 148.30  | 14.80  | 4.00                     | 1.10  |          |        |
| 14             | 0.90    | 0.00                                                       | 0.00 | 0.00 | 57.40  | 91.00                | 1184.50  | 980.00   | 136.50  | 14.80  | 3.60                     | 1.10  |          |        |
| 15             | 0.80    | 0.00                                                       | 0.00 | 0.00 | 61.60  | 100.10               | 1210.50  | 945.00   | 130.90  | 14.40  | 3.20                     | 1.10  |          |        |
| 16             | 0.70    | 0.00                                                       | 0.00 | 0.00 | 67.00  | 120.40               | 1236.50  | 900.00   | 121.10  | 14.40  | 3.20                     | 1.00  |          |        |
| 17             | 0.70    | 0.00                                                       | 0.00 | 0.00 | 62.20  | 149.90               | 1256.00  | 855.00   | 87.00   | 12.80  | 2.40                     | 0.90  |          |        |
| 18             | 0.70    | 0.00                                                       | 0.00 | 0.00 | 55.00  | 151.50               | 1269.00  | 814.00   | 53.80   | 12.80  | 1.90                     | 0.90  |          |        |
| 19             | 0.50    | 0.00                                                       | 0.00 | 0.00 | 47.80  | 145.90               | 1288.50  | 776.00   | 36.40   | 12.80  | 1.90                     | 0.80  |          |        |
| 20             | 0.20    | 0.00                                                       | 0.00 | 0.00 | 44.20  | 188.90               | 1295.00  | 742.40   | 37.60   | 12.80  | 1.90                     | 0.90  |          |        |
| 21             | 0.30    | 0.00                                                       | 0.00 | 0.00 | 43.00  | 346.30               | 1311.00  | 707.70   | 64.60   | 12.40  | 1.90                     | 1.00  |          |        |
| 22             | 0.50    | 0.00                                                       | 0.00 | 0.00 | 17.20  | 492.20               | 1343.00  | 675.80   | 67.60   | 11.60  | 1.90                     | 1.00  |          |        |
| 23             | 0.30    | 0.00                                                       | 0.00 | 0.00 | 8.40   | 560.10               | 1359.00  | 641.50   | 60.40   | 10.80  | 1.70                     | 0.90  |          |        |
| 24             | 0.30    | 0.00                                                       | 0.00 | 0.00 | 11.20  | 596.90               | 1391.00  | 613.30   | 55.60   | 10.00  | 1.60                     | 0.90  |          |        |
| 25             | 0.20    | 0.00                                                       | 0.00 | 0.00 | 16.80  | 625.00               | 1407.00  | 577.30   | 48.40   | 10.00  | 1.60                     | 0.90  |          |        |
| 26             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 19.60  | 662.60               | 1423.00  | 542.90   | 34.00   | 10.00  | 1.50                     | 0.90  |          |        |
| 27             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 23.80  | 726.70               | 1439.00  | 515.60   | 25.00   | 9.60   | 1.50                     | 0.80  |          |        |
| 28             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 23.80  | 769.00               | 1439.00  | 485.60   | 24.40   | 8.40   | 1.50                     | 0.80  |          |        |
| 29             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 19.20  | 822.00               | 1431.00  | 459.20   | 23.20   | 8.40   |                          | 0.80  |          |        |
| 30             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 19.20  | 865.00               | 1423.00  | 434.40   | 22.60   | 8.00   |                          | 0.80  |          |        |
| 31             |         | 0.00                                                       |      | 0.00 | 21.20  |                      | 1407.00  |          | 22.00   | 8.00   |                          | 0.70  |          |        |
| Total          | 26.10   | 0.00                                                       | 0.00 | 0.00 | 725.80 | 7915.70              | 37048.50 | 27368.70 | 4501.50 | 439.20 | 104.50                   | 32.70 | 78162.70 | CMSDAY |
| Mean           | 0.90    | 0.00                                                       | 0.00 | 0.00 | 23.40  | 263.90               | 1195.10  | 912.30   | 145.20  | 14.20  | 3.70                     | 1.10  | 60.21    | CMS    |
| Max            | 1.80    | 0.00                                                       | 0.00 | 0.00 | 67.00  | 865.00               | 1439.00  | 1367.00  | 401.40  | 21.20  | 7.20                     | 1.50  | 261.00   | CMS    |
| Min            | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00   | 20.00                | 890.00   | 434.40   | 22.00   | 8.00   | 1.50                     | 0.70  | 0.00     | CMS    |
| Runoff         | 2.26    | 0.00                                                       | 0.00 | 0.00 | 62.71  | 683.92               | 3200.99  | 2364.66  | 388.93  | 37.95  | 9.03                     | 2.83  | 6753.26  | MCM    |
| Momentary Peak | 1439.00 | CMS. at 125.28 m. (MSL.) at 04.00 Hours , on Oct 27 , 2013 |      |      |        |                      |          |          |         |        |                          |       |          |        |
| Runoff Yield   | 6.18    | Liters/Second/Square KM.                                   |      |      |        | Momentary Peak Yield |          |          |         | 41.525 | Liters/Second/Square KM. |       |          |        |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Mueang Kong, Si Sa Ket (M.5)**

Lat 15 - 20 - 16 N Long 104 - 09 - 21 E

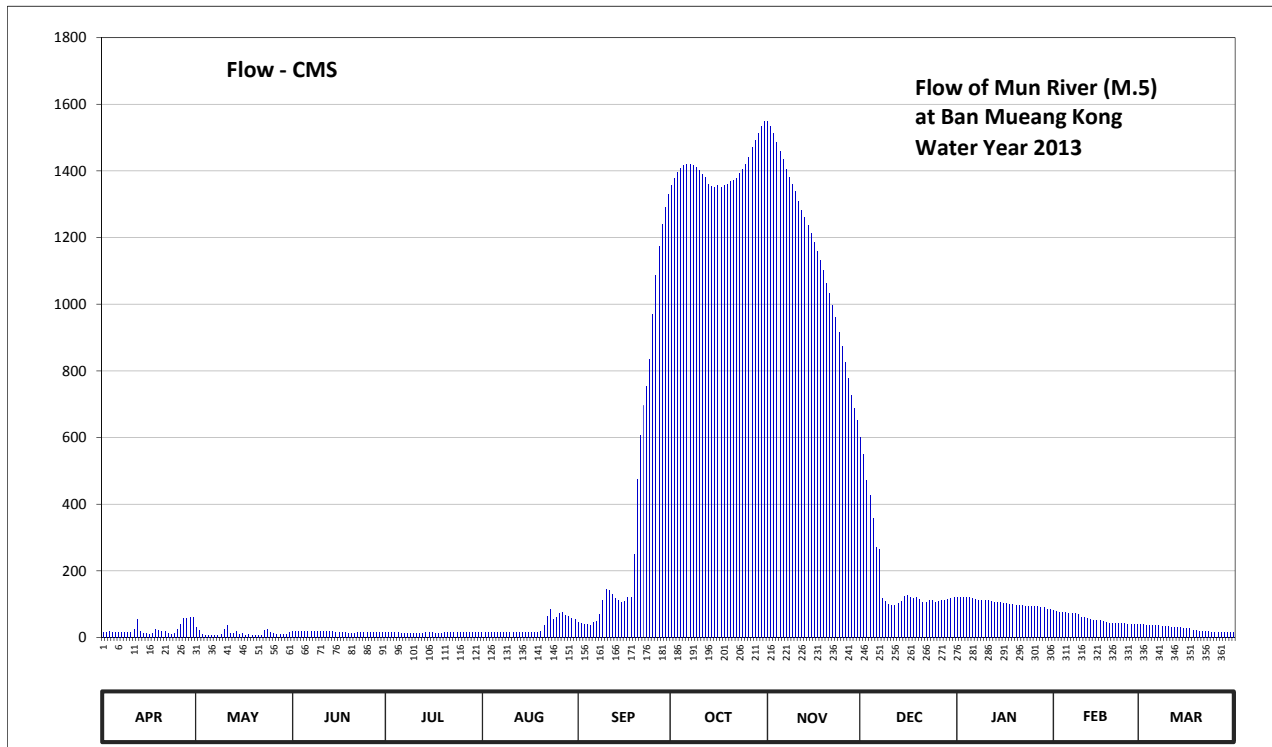
**Location : on left bank infront of Amphoe Rasi Salai Office.**

|                                         |                                                                                                                                                                       |                    |               |                   |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|-------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                            | <b>Mueang Kong</b> | <b>Amphoe</b> | <b>Rasi Salai</b> | <b>Changwat</b>  | <b>Si Sa Ket</b>   |
| <b>Drainage Area</b>                    | 45,295                                                                                                                                                                | sq.km.             |               |                   |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                                                                                                           |                    |               |                   |                  |                    |
| <b>Zero Gage at Bottom</b>              | +110.000                                                                                                                                                              | m. (MSL.)          |               |                   |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                             |                    |               |                   |                  |                    |
| <b>Location BM</b>                      | On left bank downstream side at the footpath of the bridge.                                                                                                           |                    |               |                   | <b>Elevation</b> | +124.814 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                                                                                                  |                    |               |                   |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                                                                                                         |                    |               |                   |                  |                    |
| <b>Period of Available Gage Records</b> | 1995 to date                                                                                                                                                          |                    |               |                   |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                       |                    |               |                   |                  |                    |
| <b>Period of Rating</b>                 | 1972 to date                                                                                                                                                          |                    |               |                   |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                     |                    |               |                   |                  |                    |
| <b>Rated by Current Meter</b>           | 1972 to date                                                                                                                                                          |                    |               |                   |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                                                                                                                   |                    |               |                   |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                                     |                    |               |                   |                  |                    |
| <b>General Description</b>              | Records good. Flow effected by Rasi Salai barrage about 10 kilometers above gage site.<br>Stage-discharge relation defined by 48 discharge measurements made in 2013. |                    |               |                   |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 110.41 | 110.91 | 110.48      | 110.35 | 110.36 | 111.25        | 120.00                            | 120.40            | 116.56 | 112.45 | 111.88 | 111.10 |        |
| 2                                | 110.42 | 110.60 | 110.49      | 110.34 | 110.36 | 111.15        | 120.06                            | 120.38            | 116.26 | 112.46 | 111.82 | 111.09 |        |
| 3                                | 110.43 | 110.15 | 110.49      | 110.34 | 110.35 | 111.12        | 120.11                            | 120.35            | 115.75 | 112.46 | 111.79 | 111.08 |        |
| 4                                | 110.42 | 110.11 | 110.49      | 110.34 | 110.35 | 111.09        | 120.14                            | 120.31            | 115.44 | 112.46 | 111.77 | 111.07 |        |
| 5                                | 110.41 | 110.10 | 110.46      | 110.34 | 110.35 | 111.04        | 120.16                            | 120.26            | 114.95 | 112.45 | 111.76 | 111.05 |        |
| 6                                | 110.41 | 110.09 | 110.48      | 110.33 | 110.34 | 111.20        | 120.17                            | 120.21            | 114.19 | 112.42 | 111.73 | 111.03 |        |
| 7                                | 110.40 | 110.09 | 110.50      | 110.33 | 110.34 | 111.30        | 120.17                            | 120.13            | 114.15 | 112.36 | 111.71 | 111.02 |        |
| 8                                | 110.40 | 110.11 | 110.50      | 110.33 | 110.37 | 111.65        | 120.16                            | 120.07            | 112.42 | 112.34 | 111.70 | 111.01 |        |
| 9                                | 110.40 | 110.16 | 110.49      | 110.33 | 110.36 | 112.32        | 120.15                            | 120.01            | 112.26 | 112.32 | 111.65 | 111.00 |        |
| 10                               | 110.38 | 110.66 | 110.48      | 110.33 | 110.35 | 112.78        | 120.12                            | 119.94            | 112.17 | 112.33 | 111.54 | 110.98 |        |
| 11                               | 110.64 | 111.02 | 110.48      | 110.32 | 110.35 | 112.75        | 120.09                            | 119.84            | 112.09 | 112.32 | 111.53 | 110.90 |        |
| 12                               | 111.42 | 110.31 | 110.49      | 110.32 | 110.35 | 112.56        | 120.07                            | 119.76            | 112.09 | 112.28 | 111.47 | 110.84 |        |
| 13                               | 110.45 | 110.28 | 110.48      | 110.32 | 110.35 | 112.42        | 120.01                            | 119.69            | 112.18 | 112.22 | 111.42 | 110.84 |        |
| 14                               | 110.32 | 110.52 | 110.47      | 110.34 | 110.35 | 112.31        | 119.99                            | 119.61            | 112.28 | 112.22 | 111.37 | 110.83 |        |
| 15                               | 110.23 | 110.22 | 110.36      | 110.34 | 110.35 | 112.22        | 119.98                            | 119.52            | 112.50 | 112.22 | 111.35 | 110.81 |        |
| 16                               | 110.18 | 110.28 | 110.35      | 110.34 | 110.34 | 112.27        | 120.00                            | 119.41            | 112.52 | 112.21 | 111.33 | 110.78 |        |
| 17                               | 110.32 | 110.12 | 110.34      | 110.33 | 110.34 | 112.44        | 119.98                            | 119.29            | 112.43 | 112.19 | 111.30 | 110.74 |        |
| 18                               | 110.68 | 110.13 | 110.34      | 110.33 | 110.34 | 112.45        | 120.00                            | 119.18            | 112.42 | 112.14 | 111.24 | 110.54 |        |
| 19                               | 110.61 | 110.08 | 110.33      | 110.33 | 110.36 | 114.01        | 120.01                            | 119.04            | 112.43 | 112.14 | 111.19 | 110.53 |        |
| 20                               | 110.47 | 110.07 | 110.33      | 110.34 | 110.47 | 115.77        | 120.03                            | 118.88            | 112.37 | 112.12 | 111.17 | 110.52 |        |
| 21                               | 110.44 | 110.06 | 110.32      | 110.34 | 111.02 | 116.61        | 120.04                            | 118.74            | 112.25 | 112.11 | 111.17 | 110.51 |        |
| 22                               | 110.31 | 110.09 | 110.42      | 110.34 | 111.57 | 117.11        | 120.06                            | 118.59            | 112.25 | 112.10 | 111.16 | 110.50 |        |
| 23                               | 110.21 | 110.59 | 110.38      | 110.35 | 111.90 | 117.40        | 120.10                            | 118.42            | 112.33 | 112.08 | 111.15 | 110.43 |        |
| 24                               | 110.29 | 110.65 | 110.36      | 110.37 | 111.43 | 117.79        | 120.13                            | 118.20            | 112.32 | 112.07 | 111.14 | 110.41 |        |
| 25                               | 110.68 | 110.41 | 110.36      | 110.37 | 111.54 | 118.46        | 120.17                            | 117.99            | 112.23 | 112.07 | 111.13 | 110.36 |        |
| 26                               | 111.12 | 110.30 | 110.37      | 110.36 | 111.70 | 118.98        | 120.22                            | 117.76            | 112.26 | 112.06 | 111.12 | 110.40 |        |
| 27                               | 111.46 | 110.18 | 110.37      | 110.36 | 111.76 | 119.36        | 120.28                            | 117.52            | 112.34 | 112.05 | 111.12 | 110.40 |        |
| 28                               | 111.45 | 110.15 | 110.37      | 110.35 | 111.64 | 119.62        | 120.32                            | 117.25            | 112.34 | 112.04 | 111.11 | 110.40 |        |
| 29                               | 111.50 | 110.14 | 110.35      | 110.35 | 111.56 | 119.79        | 120.35                            | 117.06            | 112.37 | 112.00 |        | 110.39 |        |
| 30                               | 111.52 | 110.18 | 110.35      | 110.37 | 111.45 | 119.91        | 120.38                            | 116.87            | 112.42 | 111.95 |        | 110.38 |        |
| 31                               |        | 110.34 |             | 110.36 | 111.38 |               | 120.40                            |                   | 112.44 | 111.93 |        | 110.36 |        |
| Mean                             | 110.61 | 110.29 | 110.42      | 110.34 | 110.78 | 114.30        | 120.12                            | 119.16            | 113.00 | 112.21 | 111.42 | 110.72 |        |
| Max                              | 111.52 | 111.02 | 110.50      | 110.37 | 111.90 | 119.91        | 120.40                            | 120.40            | 116.56 | 112.46 | 111.88 | 111.10 | 120.40 |
| Min                              | 110.18 | 110.06 | 110.32      | 110.32 | 110.34 | 111.04        | 119.98                            | 116.87            | 112.09 | 111.93 | 111.11 | 110.36 | 110.06 |
| Annual Max Momentary Gage Height |        | 120.40 | m. (MSL.) , |        |        |               | at 06.00 Hours , on Oct 31 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 110.00 | m. (MSL.) , |        |        | River Bed     | 108.87                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 124.54 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 122.62 | m. (MSL.) , |        |        | Drainage Area | 45295                             | Square Kilometers |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                                | May                      | Jun    | Jul    | Aug     | Sep                  | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar    | Annual    |        |
|----------------|--------------------------------------------------------------------|--------------------------|--------|--------|---------|----------------------|----------|----------|--------------------------|---------|---------|--------|-----------|--------|
| 1              | 17.30                                                              | 32.30                    | 19.40  | 15.50  | 15.80   | 47.50                | 1357.00  | 1548.00  | 600.20                   | 121.50  | 82.80   | 40.00  |           |        |
| 2              | 17.60                                                              | 23.00                    | 19.70  | 15.20  | 15.80   | 42.50                | 1378.60  | 1534.40  | 551.60                   | 122.20  | 79.20   | 39.50  |           |        |
| 3              | 17.90                                                              | 9.50                     | 19.70  | 15.20  | 15.50   | 41.00                | 1396.70  | 1514.00  | 472.50                   | 122.20  | 77.40   | 39.00  |           |        |
| 4              | 17.60                                                              | 8.30                     | 19.70  | 15.20  | 15.50   | 39.50                | 1407.80  | 1486.80  | 426.60                   | 122.20  | 76.20   | 38.50  |           |        |
| 5              | 17.30                                                              | 8.00                     | 18.80  | 15.20  | 15.50   | 37.00                | 1415.20  | 1460.00  | 359.00                   | 121.50  | 75.60   | 37.50  |           |        |
| 6              | 17.30                                                              | 7.70                     | 19.40  | 14.90  | 15.20   | 45.00                | 1418.90  | 1435.00  | 270.90                   | 119.40  | 73.80   | 36.50  |           |        |
| 7              | 17.00                                                              | 7.70                     | 20.00  | 14.90  | 15.20   | 50.00                | 1418.90  | 1404.10  | 266.50                   | 115.20  | 72.60   | 36.00  |           |        |
| 8              | 17.00                                                              | 8.30                     | 20.00  | 14.90  | 16.10   | 69.00                | 1415.20  | 1382.20  | 119.40                   | 113.80  | 72.00   | 35.50  |           |        |
| 9              | 17.00                                                              | 9.80                     | 19.70  | 14.90  | 15.80   | 112.40               | 1411.50  | 1360.60  | 108.20                   | 112.40  | 69.00   | 35.00  |           |        |
| 10             | 16.40                                                              | 24.80                    | 19.40  | 14.90  | 15.50   | 144.60               | 1400.40  | 1338.40  | 101.90                   | 113.10  | 62.40   | 34.40  |           |        |
| 11             | 24.20                                                              | 36.00                    | 19.40  | 14.60  | 15.50   | 142.50               | 1389.40  | 1307.40  | 96.30                    | 112.40  | 61.80   | 32.00  |           |        |
| 12             | 56.00                                                              | 14.30                    | 19.70  | 14.60  | 15.50   | 129.20               | 1382.20  | 1282.60  | 96.30                    | 109.60  | 58.50   | 30.20  |           |        |
| 13             | 18.50                                                              | 13.40                    | 19.40  | 14.60  | 15.50   | 119.40               | 1360.60  | 1260.90  | 102.60                   | 105.40  | 56.00   | 30.20  |           |        |
| 14             | 14.60                                                              | 20.60                    | 19.10  | 15.20  | 15.50   | 111.70               | 1353.90  | 1236.10  | 109.60                   | 105.40  | 53.50   | 29.90  |           |        |
| 15             | 11.90                                                              | 11.60                    | 15.80  | 15.20  | 15.50   | 105.40               | 1350.80  | 1211.40  | 125.00                   | 105.40  | 52.50   | 29.30  |           |        |
| 16             | 10.40                                                              | 13.40                    | 15.50  | 15.20  | 15.20   | 108.90               | 1357.00  | 1185.30  | 126.40                   | 104.70  | 51.50   | 28.40  |           |        |
| 17             | 14.60                                                              | 8.60                     | 15.20  | 14.90  | 15.20   | 120.80               | 1350.80  | 1157.70  | 120.10                   | 103.30  | 50.00   | 27.20  |           |        |
| 18             | 25.40                                                              | 8.90                     | 15.20  | 14.90  | 15.20   | 121.50               | 1357.00  | 1132.40  | 119.40                   | 99.80   | 47.00   | 21.20  |           |        |
| 19             | 23.30                                                              | 7.40                     | 14.90  | 14.90  | 15.80   | 251.10               | 1360.60  | 1100.20  | 120.10                   | 99.80   | 44.50   | 20.90  |           |        |
| 20             | 19.10                                                              | 7.10                     | 14.90  | 15.20  | 19.10   | 475.50               | 1367.80  | 1063.40  | 115.90                   | 98.40   | 43.50   | 20.60  |           |        |
| 21             | 18.20                                                              | 6.80                     | 14.60  | 15.20  | 36.00   | 608.70               | 1371.40  | 1031.20  | 107.50                   | 97.70   | 43.50   | 20.30  |           |        |
| 22             | 14.30                                                              | 7.70                     | 17.60  | 15.20  | 64.20   | 697.00               | 1378.60  | 996.80   | 107.50                   | 97.00   | 43.00   | 20.00  |           |        |
| 23             | 11.30                                                              | 22.70                    | 16.40  | 15.50  | 84.00   | 755.00               | 1393.00  | 959.40   | 113.10                   | 95.60   | 42.50   | 17.90  |           |        |
| 24             | 13.70                                                              | 24.50                    | 15.80  | 16.10  | 56.50   | 833.00               | 1404.10  | 915.00   | 112.40                   | 94.90   | 42.00   | 17.30  |           |        |
| 25             | 25.40                                                              | 17.30                    | 15.80  | 16.10  | 62.40   | 968.20               | 1418.90  | 873.00   | 106.10                   | 94.90   | 41.50   | 15.80  |           |        |
| 26             | 41.00                                                              | 14.00                    | 16.10  | 15.80  | 72.00   | 1086.40              | 1440.00  | 827.00   | 108.20                   | 94.20   | 41.00   | 17.00  |           |        |
| 27             | 58.00                                                              | 10.40                    | 16.10  | 15.80  | 75.60   | 1173.80              | 1470.00  | 779.00   | 113.80                   | 93.50   | 41.00   | 17.00  |           |        |
| 28             | 57.50                                                              | 9.50                     | 16.10  | 15.50  | 68.40   | 1239.20              | 1493.60  | 725.00   | 113.80                   | 92.80   | 40.50   | 17.00  |           |        |
| 29             | 60.00                                                              | 9.20                     | 15.50  | 15.50  | 63.60   | 1291.90              | 1514.00  | 687.00   | 115.90                   | 90.00   |         | 16.70  |           |        |
| 30             | 61.20                                                              | 10.40                    | 15.50  | 16.10  | 57.50   | 1329.10              | 1534.40  | 652.90   | 119.40                   | 87.00   |         | 16.40  |           |        |
| 31             |                                                                    | 15.20                    |        | 15.80  | 54.00   |                      | 1548.00  |          | 120.80                   | 85.80   |         | 15.80  |           |        |
| Total          | 751.00                                                             | 428.40                   | 524.40 | 472.70 | 1008.10 | 12296.80             | 43616.30 | 34847.20 | 5647.00                  | 3251.10 | 1594.80 | 833.00 | 105270.80 | CMSDAY |
| Mean           | 25.00                                                              | 13.80                    | 17.50  | 15.20  | 32.50   | 409.90               | 1407.00  | 1161.60  | 182.20                   | 104.90  | 57.00   | 26.90  | 55.73     | CMS    |
| Max            | 61.20                                                              | 36.00                    | 20.00  | 16.10  | 84.00   | 1329.10              | 1548.00  | 1548.00  | 600.20                   | 122.20  | 82.80   | 40.00  | 409.20    | CMS    |
| Min            | 10.40                                                              | 6.80                     | 14.60  | 14.60  | 15.20   | 37.00                | 1350.80  | 652.90   | 96.30                    | 85.80   | 40.50   | 15.80  | 1.48      | CMS    |
| Runoff         | 64.89                                                              | 37.01                    | 45.31  | 40.84  | 87.10   | 1062.44              | 3768.45  | 3010.80  | 487.90                   | 280.90  | 137.79  | 71.97  | 9095.40   | MCM    |
| Momentary Peak | 1548.00 CMS. at 120.40 m. (MSL.) at 06.00 Hours , on Oct 31 , 2013 |                          |        |        |         |                      |          |          |                          |         |         |        |           |        |
| Runoff Yield   | 6.37                                                               | Liters/Second/Square KM. |        |        |         | Momentary Peak Yield |          | 34.176   | Liters/Second/Square KM. |         |         |        |           |        |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Satuk, Buri Ram (M.6A)**

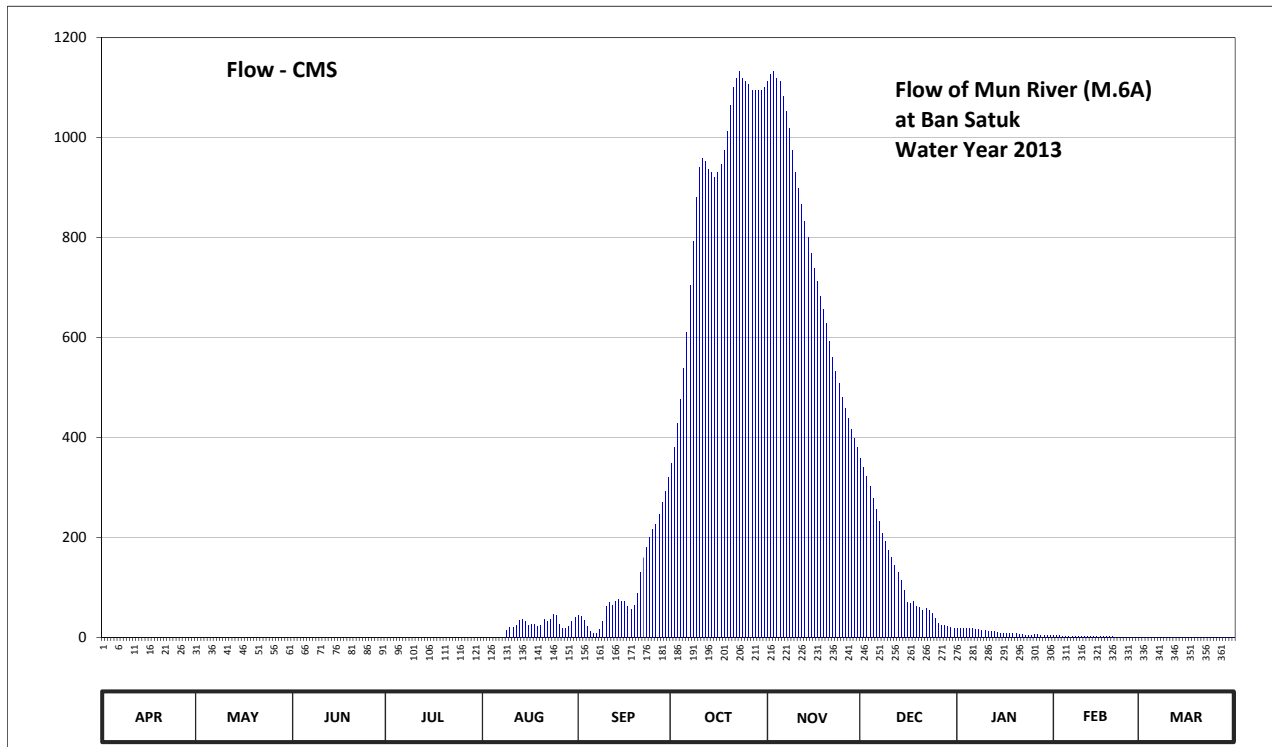
Lat 15 - 17 - 53 N Long 103 - 17 - 46 E

Location : on right bank at Satuk.

|                                         |                                                                                                                                                                 |              |               |              |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                      | <b>Satuk</b> | <b>Amphoe</b> | <b>Satuk</b> | <b>Changwat</b>  | <b>Buri Ram</b>    |
| <b>Drainage Area</b>                    | 28,458                                                                                                                                                          | sq.km.       |               |              |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                                                                          |              |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +123.000                                                                                                                                                        | m. (MSL.)    |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                       |              |               |              |                  |                    |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                                                                                                    |              |               |              | <b>Elevation</b> | +132.190 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                       |              |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                  |              |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 1964 to date                                                                                                                                                    |              |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                 |              |               |              |                  |                    |
| <b>Period of Rating</b>                 | 1976 to date                                                                                                                                                    |              |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                               |              |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 1976 to date                                                                                                                                                    |              |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                                                                                         |              |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                               |              |               |              |                  |                    |
| <b>General Description</b>              | Records very good. Ban Hua Saphan weir situated about 30 Kilometers above gage site and Non Kho weir situated about 10 kilometers downstream from the gage sit. |              |               |              |                  |                    |
|                                         | Stage-discharge relation defined by 42 discharge measurements made in 2013.                                                                                     |              |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep                               | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 123.55 | 123.57 | 123.57      | 123.36 | 123.38 | 124.98                            | 128.46 | 130.92            | 128.53 | 124.42 | 124.02 | 123.88 |        |
| 2                                | 123.55 | 123.56 | 123.55      | 123.34 | 123.38 | 124.95                            | 128.67 | 130.94            | 128.41 | 124.41 | 124.02 | 123.88 |        |
| 3                                | 123.55 | 123.57 | 123.54      | 123.33 | 123.38 | 124.81                            | 128.94 | 130.95            | 128.28 | 124.41 | 124.01 | 123.87 |        |
| 4                                | 123.55 | 123.60 | 123.52      | 123.31 | 123.42 | 124.51                            | 129.18 | 130.93            | 128.15 | 124.41 | 123.98 | 123.85 |        |
| 5                                | 123.55 | 123.60 | 123.52      | 123.30 | 123.47 | 124.27                            | 129.43 | 130.92            | 127.98 | 124.44 | 123.97 | 123.84 |        |
| 6                                | 123.54 | 123.60 | 123.54      | 123.29 | 123.47 | 124.19                            | 129.72 | 130.87            | 127.81 | 124.43 | 123.95 | 123.83 |        |
| 7                                | 123.54 | 123.59 | 123.54      | 123.28 | 123.47 | 124.18                            | 130.03 | 130.82            | 127.62 | 124.39 | 123.95 | 123.82 |        |
| 8                                | 123.54 | 123.59 | 123.52      | 123.26 | 123.83 | 124.36                            | 130.28 | 130.76            | 127.43 | 124.36 | 123.95 | 123.82 |        |
| 9                                | 123.53 | 123.59 | 123.51      | 123.26 | 124.30 | 124.75                            | 130.49 | 130.68            | 127.25 | 124.33 | 123.95 | 123.81 |        |
| 10                               | 123.53 | 123.60 | 123.50      | 123.25 | 124.49 | 125.36                            | 130.62 | 130.60            | 127.06 | 124.32 | 123.95 | 123.80 |        |
| 11                               | 123.52 | 123.60 | 123.49      | 123.24 | 124.48 | 125.50                            | 130.65 | 130.53            | 126.87 | 124.29 | 123.94 | 123.80 |        |
| 12                               | 123.52 | 123.60 | 123.48      | 123.24 | 124.59 | 125.40                            | 130.64 | 130.46            | 126.66 | 124.27 | 123.93 | 123.79 |        |
| 13                               | 123.52 | 123.62 | 123.47      | 123.22 | 124.80 | 125.53                            | 130.61 | 130.38            | 126.45 | 124.28 | 123.93 | 123.78 |        |
| 14                               | 123.52 | 123.62 | 123.46      | 123.21 | 124.85 | 125.61                            | 130.60 | 130.30            | 126.22 | 124.24 | 123.93 | 123.77 |        |
| 15                               | 123.51 | 123.61 | 123.45      | 123.20 | 124.77 | 125.55                            | 130.58 | 130.22            | 125.90 | 124.20 | 123.93 | 123.77 |        |
| 16                               | 123.51 | 123.60 | 123.43      | 123.18 | 124.58 | 125.53                            | 130.60 | 130.14            | 125.50 | 124.15 | 123.93 | 123.76 |        |
| 17                               | 123.51 | 123.60 | 123.41      | 123.17 | 124.61 | 125.36                            | 130.63 | 130.06            | 125.47 | 124.15 | 123.92 | 123.75 |        |
| 18                               | 123.52 | 123.60 | 123.41      | 123.17 | 124.64 | 125.24                            | 130.68 | 129.96            | 125.53 | 124.16 | 123.92 | 123.75 |        |
| 19                               | 123.53 | 123.60 | 123.42      | 123.18 | 124.50 | 125.38                            | 130.75 | 129.87            | 125.35 | 124.16 | 123.91 | 123.73 |        |
| 20                               | 123.52 | 123.60 | 123.41      | 123.17 | 124.59 | 125.83                            | 130.84 | 129.78            | 125.31 | 124.13 | 123.90 | 123.72 |        |
| 21                               | 123.51 | 123.60 | 123.41      | 123.17 | 124.83 | 126.46                            | 130.90 | 129.65            | 125.20 | 124.10 | 123.89 | 123.73 |        |
| 22                               | 123.51 | 123.69 | 123.41      | 123.19 | 124.75 | 126.87                            | 130.93 | 129.52            | 125.29 | 124.08 | 123.89 | 123.73 |        |
| 23                               | 123.51 | 123.68 | 123.40      | 123.20 | 124.82 | 127.12                            | 130.95 | 129.41            | 125.19 | 124.05 | 123.88 | 123.77 |        |
| 24                               | 123.51 | 123.67 | 123.40      | 123.27 | 125.03 | 127.34                            | 130.93 | 129.31            | 125.08 | 124.03 | 123.88 | 123.78 |        |
| 25                               | 123.51 | 123.65 | 123.40      | 123.28 | 124.98 | 127.50                            | 130.92 | 129.20            | 124.88 | 124.02 | 123.88 | 123.79 |        |
| 26                               | 123.54 | 123.65 | 123.44      | 123.27 | 124.63 | 127.58                            | 130.91 | 129.10            | 124.68 | 124.09 | 123.88 | 123.79 |        |
| 27                               | 123.58 | 123.65 | 123.43      | 123.27 | 124.42 | 127.73                            | 130.89 | 128.99            | 124.58 | 124.08 | 123.88 | 123.78 |        |
| 28                               | 123.57 | 123.64 | 123.41      | 123.27 | 124.43 | 127.92                            | 130.89 | 128.88            | 124.57 | 124.06 | 123.88 | 123.78 |        |
| 29                               | 123.57 | 123.61 | 123.39      | 123.33 | 124.52 | 128.09                            | 130.89 | 128.77            | 124.53 | 124.05 |        | 123.78 |        |
| 30                               | 123.57 | 123.59 | 123.38      | 123.42 | 124.76 | 128.27                            | 130.89 | 128.66            | 124.47 | 124.05 |        | 123.78 |        |
| 31                               |        | 123.59 |             | 123.42 | 124.93 |                                   | 130.90 |                   | 124.43 | 124.03 |        | 123.78 |        |
| Mean                             | 123.53 | 123.61 | 123.46      | 123.26 | 124.36 | 125.87                            | 130.40 | 130.05            | 126.15 | 124.21 | 123.93 | 123.79 |        |
| Max                              | 123.58 | 123.69 | 123.57      | 123.42 | 125.03 | 128.27                            | 130.95 | 130.95            | 128.53 | 124.44 | 124.02 | 123.88 | 130.95 |
| Min                              | 123.51 | 123.56 | 123.38      | 123.17 | 123.38 | 124.18                            | 128.46 | 128.66            | 124.43 | 124.02 | 123.88 | 123.72 | 123.17 |
| Annual Max Momentary Gage Height |        | 130.96 | m. (MSL.) , |        |        | at 12.00 Hours , on Oct 23 , 2013 |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 123.00 | m. (MSL.) , |        |        | River Bed                         | 122.05 | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 131.92 | m. (MSL.) , |        |        |                                   |        |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 132.17 | m. (MSL.) , |        |        | Drainage Area                     | 28458  | Square Kilometers |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr     | May                                                        | Jun  | Jul  | Aug                  | Sep     | Oct      | Nov      | Dec                      | Jan    | Feb   | Mar   | Annual   |        |
|----------------|---------|------------------------------------------------------------|------|------|----------------------|---------|----------|----------|--------------------------|--------|-------|-------|----------|--------|
| 1              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 44.00   | 349.00   | 1113.00  | 359.50                   | 18.80  | 4.60  | 1.80  |          |        |
| 2              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 42.50   | 381.90   | 1126.00  | 341.50                   | 18.40  | 4.60  | 1.80  |          |        |
| 3              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 35.50   | 428.60   | 1132.50  | 322.00                   | 18.40  | 4.30  | 1.70  |          |        |
| 4              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 22.40   | 476.00   | 1119.50  | 302.50                   | 18.40  | 3.60  | 1.50  |          |        |
| 5              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 12.80   | 537.50   | 1113.00  | 279.40                   | 19.60  | 3.40  | 1.40  |          |        |
| 6              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 9.70    | 611.00   | 1082.00  | 257.30                   | 19.20  | 3.00  | 1.30  |          |        |
| 7              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 9.40    | 704.00   | 1052.00  | 232.60                   | 17.60  | 3.00  | 1.20  |          |        |
| 8              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 1.30                 | 16.40   | 792.00   | 1018.00  | 210.00                   | 16.40  | 3.00  | 1.20  |          |        |
| 9              | 0.00    | 0.00                                                       | 0.00 | 0.00 | 14.00                | 32.50   | 880.50   | 974.00   | 192.50                   | 15.20  | 3.00  | 1.10  |          |        |
| 10             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 21.60                | 63.00   | 941.00   | 930.00   | 175.40                   | 14.80  | 3.00  | 1.00  |          |        |
| 11             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 21.20                | 70.00   | 957.50   | 898.50   | 159.90                   | 13.60  | 2.80  | 1.00  |          |        |
| 12             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 25.60                | 65.00   | 952.00   | 867.00   | 145.20                   | 12.80  | 2.60  | 0.90  |          |        |
| 13             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 35.00                | 71.80   | 935.50   | 832.00   | 130.50                   | 13.20  | 2.60  | 0.80  |          |        |
| 14             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 37.50                | 76.60   | 930.00   | 800.00   | 114.40                   | 11.60  | 2.60  | 0.70  |          |        |
| 15             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 33.50                | 73.00   | 921.00   | 768.00   | 94.00                    | 10.00  | 2.60  | 0.70  |          |        |
| 16             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 25.20                | 71.80   | 930.00   | 739.00   | 70.00                    | 8.50   | 2.60  | 0.60  |          |        |
| 17             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 26.40                | 63.00   | 946.50   | 713.00   | 68.50                    | 8.50   | 2.40  | 0.50  |          |        |
| 18             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 27.60                | 57.00   | 974.00   | 683.00   | 71.80                    | 8.80   | 2.40  | 0.50  |          |        |
| 19             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 22.00                | 64.00   | 1012.50  | 656.00   | 62.50                    | 8.80   | 2.20  | 0.30  |          |        |
| 20             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 25.60                | 89.80   | 1064.00  | 629.00   | 60.50                    | 7.90   | 2.00  | 0.20  |          |        |
| 21             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 36.50                | 131.20  | 1100.00  | 592.50   | 55.00                    | 7.00   | 1.90  | 0.30  |          |        |
| 22             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 32.50                | 159.90  | 1119.50  | 560.00   | 59.50                    | 6.40   | 1.90  | 0.30  |          |        |
| 23             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 36.00                | 180.80  | 1132.50  | 532.50   | 54.50                    | 5.50   | 1.80  | 0.70  |          |        |
| 24             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 46.50                | 201.00  | 1119.50  | 507.50   | 49.00                    | 4.90   | 1.80  | 0.80  |          |        |
| 25             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 44.00                | 217.00  | 1113.00  | 480.00   | 39.00                    | 4.60   | 1.80  | 0.90  |          |        |
| 26             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 27.20                | 227.40  | 1106.50  | 460.00   | 29.20                    | 6.70   | 1.80  | 0.90  |          |        |
| 27             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 18.80                | 246.90  | 1094.00  | 438.10   | 25.20                    | 6.40   | 1.80  | 0.80  |          |        |
| 28             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 19.20                | 271.60  | 1094.00  | 417.60   | 24.80                    | 5.80   | 1.80  | 0.80  |          |        |
| 29             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 22.80                | 293.70  | 1094.00  | 398.90   | 23.20                    | 5.50   |       | 0.80  |          |        |
| 30             | 0.00    | 0.00                                                       | 0.00 | 0.00 | 33.00                | 320.50  | 1094.00  | 380.20   | 20.80                    | 5.50   |       | 0.80  |          |        |
| 31             |         | 0.00                                                       |      | 0.00 | 41.50                |         | 1100.00  |          | 19.20                    | 4.90   |       | 0.80  |          |        |
| Total          | 0.00    | 0.00                                                       | 0.00 | 0.00 | 674.50               | 3240.20 | 27891.50 | 23012.80 | 4049.40                  | 343.70 | 74.90 | 28.10 | 59315.10 | CMSDAY |
| Mean           | 0.00    | 0.00                                                       | 0.00 | 0.00 | 21.80                | 108.00  | 899.70   | 767.10   | 130.60                   | 11.10  | 2.70  | 0.90  | 162.50   | CMS    |
| Max            | 0.00    | 0.00                                                       | 0.00 | 0.00 | 46.50                | 320.50  | 1132.50  | 1132.50  | 359.50                   | 19.60  | 4.60  | 1.80  | 1132.50  | CMS    |
| Min            | 0.00    | 0.00                                                       | 0.00 | 0.00 | 0.00                 | 9.40    | 349.00   | 380.20   | 19.20                    | 4.60   | 1.80  | 0.20  | 0.00     | CMS    |
| Runoff         | 0.00    | 0.00                                                       | 0.00 | 0.00 | 58.28                | 279.95  | 2409.83  | 1988.31  | 349.87                   | 29.70  | 6.47  | 2.43  | 5124.82  | MCM    |
| Momentary Peak | 1139.01 | CMS. at 130.96 m. (MSL.) at 12.00 Hours , on Oct 23 , 2013 |      |      |                      |         |          |          |                          |        |       |       |          |        |
| Runoff Yield   | 5.71    | Liters/Second/Square KM.                                   |      |      | Momentary Peak Yield |         |          | 40.024   | Liters/Second/Square KM. |        |       |       |          |        |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Chumchondeengam, Ubon Ratchathani (M.7)**

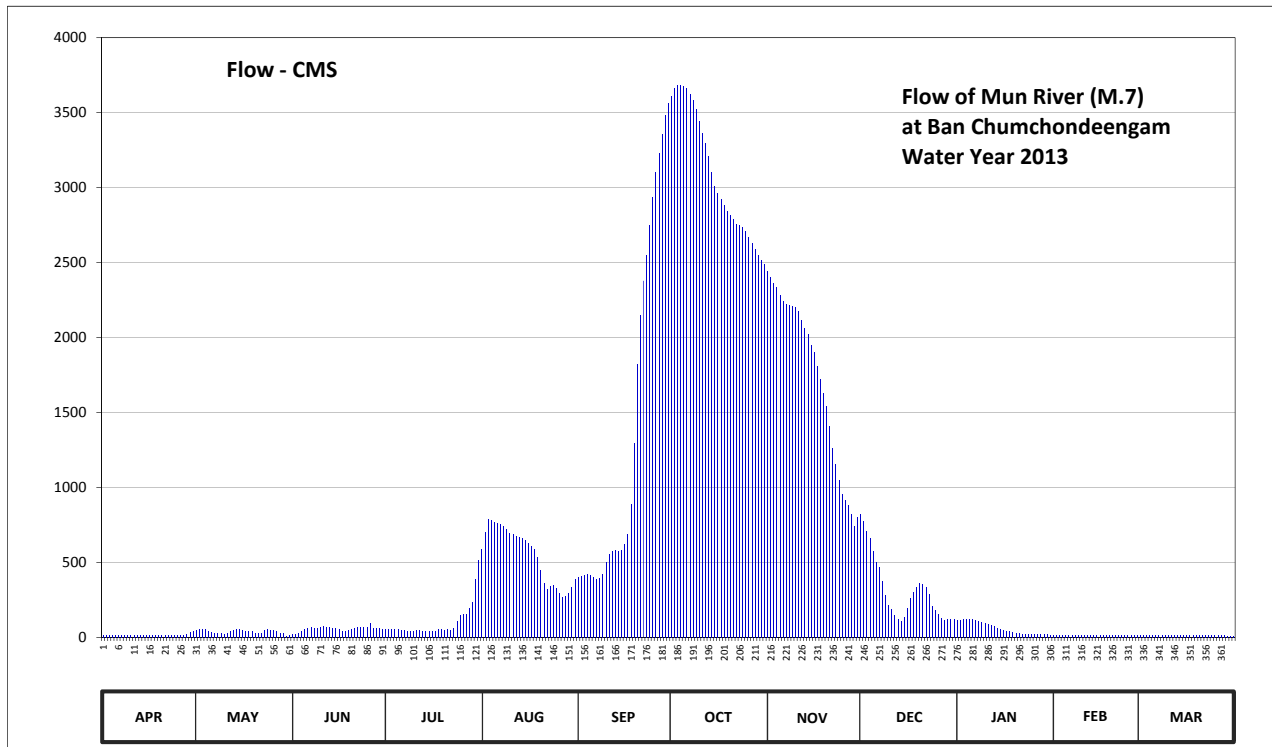
Lat 15 - 13 - 15 N Long 104 - 51 - 41 E

Location : on left bank at Seri Prachathipatai Bridge.

|                                         |                                                                                                                                                                               |                 |               |               |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                                    | Chumchondeengam | <b>Amphoe</b> | Warin Chamrap | <b>Changwat</b>  | Ubon Ratchathani   |
| <b>Drainage Area</b>                    | 107,345                                                                                                                                                                       | sq.km.          |               |               |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                                                                                        |                 |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +105.000                                                                                                                                                                      | m. (MSL.)       |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                                     |                 |               |               |                  |                    |
| <b>Location BM</b>                      | On left bank at the abutment of 200 years Krung Ratanakosin                                                                                                                   |                 |               |               | <b>Elevation</b> | +121.152 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                                     |                 |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                                |                 |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 1944 to date                                                                                                                                                                  |                 |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                               |                 |               |               |                  |                    |
| <b>Period of Rating</b>                 | 1956 - 1958, 1964 - 1981, 1983 to date                                                                                                                                        |                 |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                             |                 |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 1956 - 1958, 1964 - 1981, 1983 to date                                                                                                                                        |                 |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                                                                                                                           |                 |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                                             |                 |               |               |                  |                    |
| <b>General Description</b>              | Records very good. Pak Mun barrage situated about 90 kilometers downstream from the gage site.<br>Stage-discharge relation defined by 64 discharge measurements made in 2013. |                 |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                              | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 106.37 | 106.70 | 107.31      | 107.87 | 109.04                           | 107.94 | 114.10            | 112.24 | 109.13 | 106.99 | 106.48 | 106.42 |        |
| 2                                | 106.38 | 106.72 | 107.45      | 107.87 | 109.07                           | 107.97 | 114.17            | 112.17 | 109.02 | 106.99 | 106.47 | 106.41 |        |
| 3                                | 106.38 | 106.73 | 107.58      | 107.89 | 109.05                           | 107.99 | 114.20            | 112.10 | 108.85 | 107.01 | 106.46 | 106.41 |        |
| 4                                | 106.39 | 106.73 | 107.73      | 107.90 | 109.03                           | 108.00 | 114.20            | 112.06 | 108.73 | 107.00 | 106.45 | 106.40 |        |
| 5                                | 106.39 | 106.68 | 107.84      | 107.86 | 109.00                           | 107.98 | 114.19            | 111.97 | 108.47 | 107.00 | 106.46 | 106.40 |        |
| 6                                | 106.39 | 106.63 | 107.96      | 107.82 | 108.99                           | 107.95 | 114.17            | 111.90 | 108.27 | 107.00 | 106.48 | 106.40 |        |
| 7                                | 106.38 | 106.60 | 107.99      | 107.78 | 108.97                           | 107.90 | 114.12            | 111.87 | 108.16 | 106.99 | 106.47 | 106.39 |        |
| 8                                | 106.38 | 106.59 | 107.96      | 107.75 | 108.93                           | 107.93 | 114.06            | 111.86 | 107.86 | 106.97 | 106.47 | 106.38 |        |
| 9                                | 106.38 | 106.56 | 107.96      | 107.75 | 108.88                           | 108.02 | 113.97            | 111.85 | 107.54 | 106.94 | 106.46 | 106.38 |        |
| 10                               | 106.37 | 106.54 | 107.99      | 107.76 | 108.82                           | 108.26 | 113.86            | 111.83 | 107.33 | 106.90 | 106.46 | 106.38 |        |
| 11                               | 106.37 | 106.59 | 108.04      | 107.77 | 108.79                           | 108.42 | 113.75            | 111.79 | 107.23 | 106.88 | 106.45 | 106.37 |        |
| 12                               | 106.37 | 106.65 | 108.00      | 107.80 | 108.77                           | 108.48 | 113.65            | 111.69 | 107.09 | 106.85 | 106.45 | 106.37 |        |
| 13                               | 106.37 | 106.71 | 107.97      | 107.75 | 108.75                           | 108.49 | 113.51            | 111.60 | 107.01 | 106.82 | 106.46 | 106.36 |        |
| 14                               | 106.37 | 106.74 | 107.95      | 107.71 | 108.72                           | 108.48 | 113.34            | 111.53 | 106.97 | 106.78 | 106.46 | 106.36 |        |
| 15                               | 106.38 | 106.75 | 107.92      | 107.71 | 108.69                           | 108.50 | 113.18            | 111.41 | 107.06 | 106.75 | 106.45 | 106.36 |        |
| 16                               | 106.39 | 106.71 | 107.87      | 107.71 | 108.63                           | 108.61 | 113.10            | 111.34 | 107.26 | 106.71 | 106.46 | 106.35 |        |
| 17                               | 106.41 | 106.68 | 107.74      | 107.74 | 108.57                           | 108.80 | 113.03            | 111.18 | 107.47 | 106.66 | 106.47 | 106.35 |        |
| 18                               | 106.43 | 106.65 | 107.76      | 107.86 | 108.51                           | 109.30 | 112.97            | 111.03 | 107.61 | 106.65 | 106.47 | 106.35 |        |
| 19                               | 106.45 | 106.65 | 107.79      | 107.85 | 108.37                           | 110.20 | 112.90            | 110.85 | 107.72 | 106.63 | 106.46 | 106.34 |        |
| 20                               | 106.47 | 106.60 | 107.87      | 107.81 | 108.10                           | 111.20 | 112.86            | 110.69 | 107.81 | 106.60 | 106.46 | 106.34 |        |
| 21                               | 106.47 | 106.56 | 107.95      | 107.83 | 107.81                           | 111.75 | 112.81            | 110.42 | 107.79 | 106.57 | 106.45 | 106.35 |        |
| 22                               | 106.48 | 106.61 | 108.01      | 107.82 | 107.68                           | 112.13 | 112.76            | 110.13 | 107.73 | 106.55 | 106.44 | 106.35 |        |
| 23                               | 106.48 | 106.70 | 107.99      | 107.91 | 107.74                           | 112.41 | 112.74            | 109.91 | 107.57 | 106.54 | 106.44 | 106.34 |        |
| 24                               | 106.47 | 106.74 | 107.97      | 108.18 | 107.77                           | 112.75 | 112.72            | 109.67 | 107.30 | 106.54 | 106.44 | 106.34 |        |
| 25                               | 106.47 | 106.71 | 107.97      | 108.41 | 107.70                           | 113.06 | 112.68            | 109.46 | 107.20 | 106.54 | 106.43 | 106.34 |        |
| 26                               | 106.46 | 106.69 | 108.14      | 108.43 | 107.58                           | 113.34 | 112.61            | 109.36 | 107.12 | 106.53 | 106.42 | 106.33 |        |
| 27                               | 106.48 | 106.65 | 107.94      | 108.43 | 107.51                           | 113.54 | 112.55            | 109.28 | 107.03 | 106.52 | 106.42 | 106.33 |        |
| 28                               | 106.55 | 106.60 | 107.91      | 108.59 | 107.53                           | 113.74 | 112.48            | 109.14 | 106.98 | 106.51 | 106.41 | 106.33 |        |
| 29                               | 106.62 | 106.59 | 107.96      | 108.69 | 107.60                           | 113.92 | 112.41            | 108.94 | 107.01 | 106.50 |        | 106.32 |        |
| 30                               | 106.67 | 106.79 | 107.87      | 108.94 | 107.73                           | 114.03 | 112.36            | 109.09 | 107.02 | 106.49 |        | 106.32 |        |
| 31                               |        | 107.08 |             | 109.02 | 107.89                           |        | 112.31            |        | 107.00 | 106.48 |        | 106.31 |        |
| Mean                             | 106.43 | 106.68 | 107.88      | 108.01 | 108.39                           | 110.04 | 113.28            | 110.95 | 107.62 | 106.74 | 106.45 | 106.36 |        |
| Max                              | 106.67 | 107.08 | 108.14      | 109.02 | 109.07                           | 114.03 | 114.20            | 112.24 | 109.13 | 107.01 | 106.48 | 106.42 | 114.20 |
| Min                              | 106.37 | 106.54 | 107.31      | 107.71 | 107.51                           | 107.90 | 112.31            | 108.94 | 106.97 | 106.48 | 106.41 | 106.31 | 106.31 |
| Annual Max Momentary Gage Height | 114.20 |        | m. (MSL.) , |        | at 06.00 Hours , on Oct 3 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 105.00 |        | m. (MSL.) , |        | River Bed                        | 100.62 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 120.93 |        | m. (MSL.) , |        |                                  |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 117.59 |        | m. (MSL.) , |        | Drainage Area                    | 107345 | Square Kilometers |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                             | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan     | Feb    | Mar    | Annual    |        |
|----------------|-------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|----------|--------------------------|---------|--------|--------|-----------|--------|
| 1              | 14.80                                           | 50.00                    | 19.60   | 57.00   | 592.00               | 402.00   | 3610.00  | 2444.00  | 822.00                   | 117.50  | 19.20  | 16.80  |           |        |
| 2              | 15.20                                           | 54.00                    | 23.00   | 57.00   | 706.00               | 411.00   | 3659.00  | 2402.00  | 778.00                   | 117.50  | 18.80  | 16.40  |           |        |
| 3              | 15.20                                           | 56.00                    | 29.00   | 59.00   | 790.00               | 417.00   | 3680.00  | 2360.00  | 710.00                   | 123.00  | 18.40  | 16.40  |           |        |
| 4              | 15.60                                           | 56.00                    | 43.00   | 60.00   | 782.00               | 420.00   | 3680.00  | 2336.00  | 665.50                   | 120.00  | 18.00  | 16.00  |           |        |
| 5              | 15.60                                           | 46.00                    | 54.00   | 56.00   | 770.00               | 414.00   | 3673.00  | 2282.00  | 574.50                   | 120.00  | 18.40  | 16.00  |           |        |
| 6              | 15.60                                           | 36.00                    | 66.00   | 52.00   | 766.00               | 405.00   | 3659.00  | 2240.00  | 504.50                   | 120.00  | 19.20  | 16.00  |           |        |
| 7              | 15.20                                           | 30.00                    | 69.00   | 48.00   | 758.00               | 390.00   | 3624.00  | 2222.00  | 468.00                   | 117.50  | 18.80  | 15.60  |           |        |
| 8              | 15.20                                           | 29.00                    | 66.00   | 45.00   | 742.00               | 399.00   | 3582.00  | 2216.00  | 378.00                   | 112.50  | 18.80  | 15.20  |           |        |
| 9              | 15.20                                           | 26.00                    | 66.00   | 45.00   | 722.00               | 426.00   | 3519.00  | 2210.00  | 282.00                   | 105.00  | 18.40  | 15.20  |           |        |
| 10             | 14.80                                           | 24.00                    | 69.00   | 46.00   | 698.00               | 501.00   | 3442.00  | 2198.00  | 219.00                   | 95.00   | 18.40  | 15.20  |           |        |
| 11             | 14.80                                           | 29.00                    | 78.00   | 47.00   | 686.50               | 557.00   | 3365.00  | 2174.00  | 189.00                   | 90.00   | 18.00  | 14.80  |           |        |
| 12             | 14.80                                           | 40.00                    | 70.00   | 50.00   | 679.50               | 578.00   | 3297.50  | 2114.00  | 147.00                   | 82.50   | 18.00  | 14.80  |           |        |
| 13             | 14.80                                           | 52.00                    | 67.00   | 45.00   | 672.50               | 581.50   | 3206.50  | 2060.00  | 123.00                   | 75.00   | 18.40  | 14.40  |           |        |
| 14             | 14.80                                           | 58.00                    | 65.00   | 41.00   | 662.00               | 578.00   | 3104.00  | 2018.00  | 112.50                   | 66.00   | 18.40  | 14.40  |           |        |
| 15             | 15.20                                           | 60.00                    | 62.00   | 41.00   | 651.50               | 585.00   | 3008.00  | 1946.00  | 138.00                   | 60.00   | 18.00  | 14.40  |           |        |
| 16             | 15.60                                           | 52.00                    | 57.00   | 41.00   | 630.50               | 623.50   | 2960.00  | 1904.00  | 198.00                   | 52.00   | 18.40  | 14.00  |           |        |
| 17             | 16.40                                           | 46.00                    | 44.00   | 44.00   | 609.50               | 690.00   | 2918.00  | 1808.00  | 261.00                   | 42.00   | 18.80  | 14.00  |           |        |
| 18             | 17.20                                           | 40.00                    | 46.00   | 56.00   | 588.50               | 890.00   | 2882.00  | 1718.00  | 303.00                   | 40.00   | 18.80  | 14.00  |           |        |
| 19             | 18.00                                           | 40.00                    | 49.00   | 55.00   | 539.50               | 1300.00  | 2840.00  | 1625.00  | 336.00                   | 36.00   | 18.40  | 13.60  |           |        |
| 20             | 18.80                                           | 30.00                    | 57.00   | 51.00   | 450.00               | 1820.00  | 2816.00  | 1545.00  | 363.00                   | 30.00   | 18.40  | 13.60  |           |        |
| 21             | 18.80                                           | 26.00                    | 65.00   | 53.00   | 363.00               | 2150.00  | 2786.00  | 1410.00  | 357.00                   | 27.00   | 18.00  | 14.00  |           |        |
| 22             | 19.20                                           | 32.00                    | 72.00   | 52.00   | 324.00               | 2378.00  | 2756.00  | 1265.00  | 339.00                   | 25.00   | 17.60  | 14.00  |           |        |
| 23             | 19.20                                           | 50.00                    | 69.00   | 61.00   | 342.00               | 2546.00  | 2744.00  | 1155.00  | 291.00                   | 24.00   | 17.60  | 13.60  |           |        |
| 24             | 18.80                                           | 58.00                    | 67.00   | 106.00  | 351.00               | 2750.00  | 2732.00  | 1046.50  | 210.00                   | 24.00   | 17.60  | 13.60  |           |        |
| 25             | 18.80                                           | 52.00                    | 67.00   | 152.00  | 330.00               | 2936.00  | 2708.00  | 954.00   | 180.00                   | 24.00   | 17.20  | 13.60  |           |        |
| 26             | 18.40                                           | 48.00                    | 98.00   | 156.00  | 294.00               | 3104.00  | 2666.00  | 914.00   | 156.00                   | 23.00   | 16.80  | 13.20  |           |        |
| 27             | 19.20                                           | 40.00                    | 64.00   | 156.00  | 273.00               | 3226.00  | 2630.00  | 882.00   | 129.00                   | 22.00   | 16.80  | 13.20  |           |        |
| 28             | 25.00                                           | 30.00                    | 61.00   | 197.00  | 279.00               | 3358.00  | 2588.00  | 826.00   | 115.00                   | 21.00   | 16.40  | 13.20  |           |        |
| 29             | 34.00                                           | 29.00                    | 66.00   | 236.00  | 300.00               | 3484.00  | 2546.00  | 746.00   | 123.00                   | 20.00   |        | 12.80  |           |        |
| 30             | 44.00                                           | 11.90                    | 57.00   | 392.00  | 339.00               | 3561.00  | 2516.00  | 806.00   | 126.00                   | 19.60   |        | 12.80  |           |        |
| 31             |                                                 | 16.20                    |         | 516.00  | 387.00               |          | 2486.00  |          | 120.00                   | 19.20   |        | 12.40  |           |        |
| Total          | 548.20                                          | 1247.10                  | 1785.60 | 3073.00 | 17078.00             | 41881.00 | 95683.00 | 51826.50 | 9718.00                  | 1970.30 | 508.00 | 447.20 | 225765.90 | CMSDAY |
| Mean           | 18.30                                           | 40.20                    | 59.50   | 99.10   | 550.90               | 1396.00  | 3086.50  | 1727.60  | 313.50                   | 63.60   | 18.10  | 14.40  | 618.50    | CMS    |
| Max            | 44.00                                           | 60.00                    | 98.00   | 516.00  | 790.00               | 3561.00  | 3680.00  | 2444.00  | 822.00                   | 123.00  | 19.20  | 16.80  | 3680.00   | CMS    |
| Min            | 14.80                                           | 11.90                    | 19.60   | 41.00   | 273.00               | 390.00   | 2486.00  | 746.00   | 112.50                   | 19.20   | 16.40  | 12.40  | 11.90     | CMS    |
| Runoff         | 47.36                                           | 107.75                   | 154.28  | 265.51  | 1475.54              | 3618.52  | 8267.01  | 4477.81  | 839.64                   | 170.23  | 43.89  | 38.64  | 19506.18  | MCM    |
| Momentary Peak | 3680.00 (MSL.) at 06.00 Hours , on Oct 3 , 2013 |                          |         |         |                      |          |          |          |                          |         |        |        |           |        |
| Runoff Yield   | 5.76                                            | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | 34.282   | Liters/Second/Square KM. |         |        |        |           |        |

**WATER YEAR : 2013****MUN RIVER BASIN****Huai Samran at Ban Nongyaplong, Si Sa ket (M.9)**

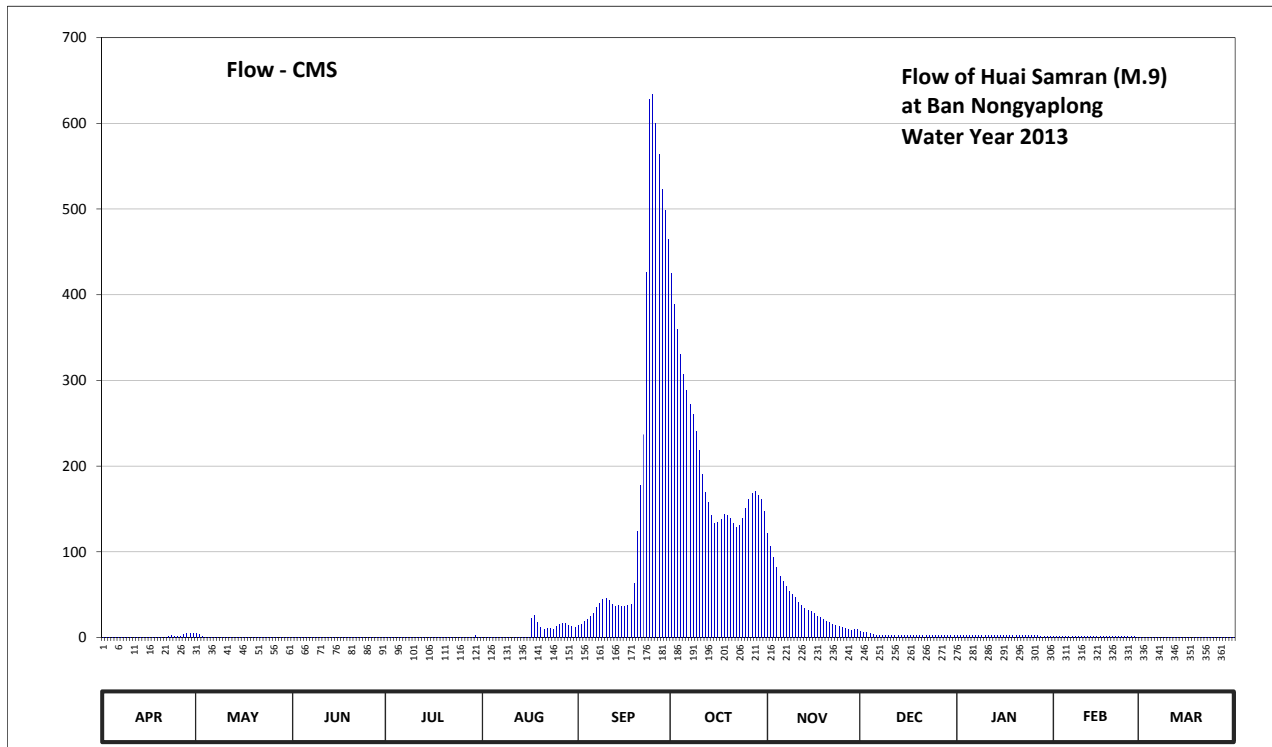
Lat 15 - 06 - 58 N Long 104 - 19 - 21 E

**Location : on right bank at the bridge on Highway.**

|                                         |                                                                             |             |               |        |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-------------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Nongyaplong | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Si Sa Ket          |
| <b>Drainage Area</b>                    | 2,988                                                                       | sq.km.      |               |        |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |             |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +109.000                                                                    | m. (MSL.)   |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |             |               |        |                  |                    |
| <b>Location BM</b>                      | On right bank at the top staff gage.                                        |             |               |        | <b>Elevation</b> | +124.692 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |             |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |             |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1954 to date                                                                |             |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |             |               |        |                  |                    |
| <b>Period of Rating</b>                 | 1954, 1972 - 1981, 1987 to date                                             |             |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |             |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1954, 1972 - 1981, 1987 to date                                             |             |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |             |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |             |               |        |                  |                    |
| <b>General Description</b>              | Records very good. The Water Supply weir situated above gage site.          |             |               |        |                  |                    |
|                                         | Stage-discharge relation defined by 59 discharge measurements made in 2013. |             |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 110.08 | 110.87 | 109.56      | 109.55 | 109.69 | 111.83        | 121.18                            | 118.61            | 114.22 | 112.61 | 112.03 | 110.97 |        |
| 2                                | 110.08 | 110.71 | 109.54      | 109.55 | 109.93 | 111.96        | 120.94                            | 118.44            | 113.92 | 112.60 | 111.98 | 110.91 |        |
| 3                                | 110.08 | 110.28 | 109.57      | 109.55 | 109.99 | 112.17        | 120.70                            | 118.29            | 113.63 | 112.56 | 111.95 | 110.86 |        |
| 4                                | 110.07 | 109.93 | 109.61      | 109.55 | 109.86 | 112.33        | 120.46                            | 118.11            | 113.39 | 112.53 | 111.92 | 110.81 |        |
| 5                                | 110.07 | 109.82 | 109.58      | 109.55 | 109.67 | 112.51        | 120.25                            | 117.97            | 113.11 | 112.53 | 111.90 | 110.76 |        |
| 6                                | 110.07 | 109.77 | 109.63      | 109.55 | 109.65 | 112.76        | 120.04                            | 117.86            | 112.65 | 112.51 | 111.89 | 110.73 |        |
| 7                                | 110.06 | 109.74 | 109.58      | 109.55 | 109.77 | 113.20        | 119.83                            | 117.73            | 112.71 | 112.47 | 111.85 | 110.70 |        |
| 8                                | 110.05 | 109.73 | 109.55      | 109.55 | 109.74 | 113.48        | 119.68                            | 117.62            | 112.59 | 112.45 | 111.81 | 110.67 |        |
| 9                                | 110.01 | 109.73 | 109.55      | 109.55 | 109.73 | 113.70        | 119.54                            | 117.54            | 112.44 | 112.44 | 111.76 | 110.63 |        |
| 10                               | 109.96 | 109.71 | 109.55      | 109.57 | 109.74 | 113.76        | 119.40                            | 117.43            | 112.32 | 112.42 | 111.71 | 110.60 |        |
| 11                               | 109.95 | 109.70 | 109.56      | 109.58 | 109.83 | 113.67        | 119.22                            | 117.28            | 112.25 | 112.41 | 111.67 | 110.57 |        |
| 12                               | 109.94 | 109.91 | 109.58      | 109.58 | 109.82 | 113.43        | 119.06                            | 117.15            | 112.24 | 112.41 | 111.64 | 110.52 |        |
| 13                               | 109.93 | 109.83 | 109.55      | 109.58 | 109.80 | 113.23        | 118.95                            | 117.03            | 112.23 | 112.40 | 111.61 | 110.46 |        |
| 14                               | 109.93 | 109.74 | 109.55      | 109.57 | 109.79 | 113.30        | 118.82                            | 116.91            | 112.37 | 112.38 | 111.56 | 110.38 |        |
| 15                               | 109.93 | 109.67 | 109.53      | 109.56 | 109.82 | 113.28        | 118.73                            | 116.81            | 112.52 | 112.37 | 111.51 | 110.34 |        |
| 16                               | 109.93 | 109.66 | 109.53      | 109.56 | 110.02 | 113.26        | 118.74                            | 116.64            | 112.52 | 112.35 | 111.47 | 110.29 |        |
| 17                               | 109.93 | 109.69 | 109.53      | 109.55 | 112.40 | 113.35        | 118.77                            | 116.46            | 112.41 | 112.34 | 111.43 | 110.27 |        |
| 18                               | 109.92 | 109.66 | 109.52      | 109.55 | 112.59 | 113.40        | 118.83                            | 116.29            | 112.47 | 112.32 | 111.38 | 110.24 |        |
| 19                               | 109.95 | 109.72 | 109.52      | 109.57 | 112.08 | 114.67        | 118.82                            | 116.10            | 112.45 | 112.28 | 111.34 | 110.19 |        |
| 20                               | 109.95 | 109.66 | 109.53      | 109.70 | 111.68 | 116.94        | 118.79                            | 115.90            | 112.31 | 112.26 | 111.32 | 110.16 |        |
| 21                               | 110.03 | 109.62 | 109.62      | 109.58 | 111.45 | 118.23        | 118.73                            | 115.69            | 112.25 | 112.25 | 111.29 | 110.14 |        |
| 22                               | 110.27 | 109.61 | 109.74      | 109.59 | 111.55 | 119.33        | 118.69                            | 115.48            | 112.24 | 112.24 | 111.25 | 110.13 |        |
| 23                               | 110.45 | 109.77 | 109.80      | 109.65 | 111.60 | 121.19        | 118.71                            | 115.25            | 112.34 | 112.23 | 111.22 | 110.12 |        |
| 24                               | 110.24 | 109.74 | 109.59      | 109.60 | 111.52 | 122.07        | 118.79                            | 115.10            | 112.33 | 112.22 | 111.19 | 110.09 |        |
| 25                               | 110.16 | 109.64 | 109.58      | 109.60 | 111.71 | 122.09        | 118.89                            | 114.90            | 112.31 | 112.22 | 111.14 | 110.05 |        |
| 26                               | 110.27 | 109.59 | 109.78      | 109.58 | 111.90 | 121.96        | 118.99                            | 114.70            | 112.41 | 112.22 | 111.09 | 110.02 |        |
| 27                               | 110.68 | 109.56 | 109.60      | 109.62 | 112.04 | 121.82        | 119.05                            | 114.49            | 112.45 | 112.21 | 111.04 | 109.98 |        |
| 28                               | 110.81 | 109.54 | 109.56      | 109.77 | 112.04 | 121.65        | 119.07                            | 114.24            | 112.49 | 112.16 | 111.02 | 109.94 |        |
| 29                               | 110.95 | 109.54 | 109.55      | 109.82 | 111.83 | 121.55        | 119.03                            | 114.59            | 112.54 | 112.12 |        | 109.90 |        |
| 30                               | 110.93 | 109.60 | 109.55      | 110.53 | 111.77 | 121.39        | 118.99                            | 114.58            | 112.57 | 112.10 |        | 109.85 |        |
| 31                               |        | 109.58 |             | 109.92 | 111.69 |               | 118.86                            |                   | 112.59 | 112.07 |        | 109.83 |        |
| Mean                             | 110.16 | 109.78 | 109.58      | 109.63 | 110.80 | 115.92        | 119.31                            | 116.51            | 112.62 | 112.34 | 111.53 | 110.36 |        |
| Max                              | 110.95 | 110.87 | 109.80      | 110.53 | 112.59 | 122.09        | 121.18                            | 118.61            | 114.22 | 112.61 | 112.03 | 110.97 | 122.09 |
| Min                              | 109.92 | 109.54 | 109.52      | 109.55 | 109.65 | 111.83        | 118.69                            | 114.24            | 112.23 | 112.07 | 111.02 | 109.83 | 109.52 |
| Annual Max Momentary Gage Height | 122.16 |        | m. (MSL.) , |        |        |               | at 15.00 Hours , on Sep 24 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 109.00 |        | m. (MSL.) , |        |        | River Bed     | 109.10                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 124.22 |        | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             | 123.88 |        | m. (MSL.) , |        |        | Drainage Area | 2988                              | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov     | Dec    | Jan   | Feb   | Mar   | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|---------|--------|-------|-------|-------|-----------------|
| 1              | 1.00                                                              | 4.95                     | 0.47  | 0.47                 | 0.51   | 14.39   | 424.80                   | 121.45  | 8.05   | 3.17  | 2.01  | 1.15  |                 |
| 2              | 1.00                                                              | 4.15                     | 0.46  | 0.47                 | 0.58   | 16.08   | 389.20                   | 106.20  | 6.71   | 3.15  | 1.92  | 1.12  |                 |
| 3              | 1.00                                                              | 2.00                     | 0.47  | 0.47                 | 0.60   | 19.32   | 359.00                   | 94.30   | 5.84   | 3.07  | 1.87  | 1.10  |                 |
| 4              | 0.95                                                              | 0.58                     | 0.48  | 0.47                 | 0.56   | 21.88   | 330.40                   | 81.70   | 5.12   | 3.01  | 1.83  | 1.08  |                 |
| 5              | 0.95                                                              | 0.55                     | 0.47  | 0.47                 | 0.50   | 24.76   | 307.25                   | 72.20   | 4.28   | 3.01  | 1.80  | 1.06  |                 |
| 6              | 0.95                                                              | 0.53                     | 0.49  | 0.47                 | 0.50   | 28.76   | 288.20                   | 66.00   | 3.25   | 2.97  | 1.78  | 1.05  |                 |
| 7              | 0.90                                                              | 0.52                     | 0.47  | 0.47                 | 0.53   | 35.80   | 271.93                   | 59.50   | 3.37   | 2.89  | 1.72  | 1.04  |                 |
| 8              | 0.85                                                              | 0.52                     | 0.47  | 0.47                 | 0.52   | 40.36   | 261.05                   | 54.00   | 3.13   | 2.85  | 1.66  | 1.03  |                 |
| 9              | 0.65                                                              | 0.52                     | 0.47  | 0.47                 | 0.52   | 44.50   | 241.00                   | 50.60   | 2.83   | 2.83  | 1.61  | 1.01  |                 |
| 10             | 0.59                                                              | 0.51                     | 0.47  | 0.47                 | 0.52   | 45.64   | 218.25                   | 46.55   | 2.59   | 2.79  | 1.56  | 1.00  |                 |
| 11             | 0.58                                                              | 0.51                     | 0.47  | 0.47                 | 0.55   | 43.93   | 190.80                   | 41.30   | 2.45   | 2.77  | 1.52  | 0.99  |                 |
| 12             | 0.58                                                              | 0.57                     | 0.47  | 0.47                 | 0.55   | 39.51   | 169.60                   | 37.25   | 2.43   | 2.77  | 1.49  | 0.97  |                 |
| 13             | 0.58                                                              | 0.55                     | 0.47  | 0.47                 | 0.54   | 36.28   | 157.50                   | 34.56   | 2.41   | 2.75  | 1.46  | 0.95  |                 |
| 14             | 0.58                                                              | 0.52                     | 0.47  | 0.47                 | 0.54   | 37.40   | 143.20                   | 32.15   | 2.69   | 2.71  | 1.41  | 0.92  |                 |
| 15             | 0.58                                                              | 0.50                     | 0.46  | 0.47                 | 0.55   | 37.08   | 133.30                   | 30.60   | 2.99   | 2.69  | 1.36  | 0.90  |                 |
| 16             | 0.58                                                              | 0.50                     | 0.46  | 0.47                 | 0.70   | 36.76   | 134.40                   | 28.05   | 2.99   | 2.65  | 1.34  | 0.88  |                 |
| 17             | 0.58                                                              | 0.51                     | 0.46  | 0.47                 | 23.00  | 38.20   | 137.70                   | 25.35   | 2.77   | 2.63  | 1.32  | 0.88  |                 |
| 18             | 0.58                                                              | 0.50                     | 0.46  | 0.47                 | 26.04  | 39.00   | 144.30                   | 23.35   | 2.89   | 2.59  | 1.30  | 0.86  |                 |
| 19             | 0.58                                                              | 0.52                     | 0.46  | 0.47                 | 17.88  | 63.60   | 143.20                   | 21.45   | 2.85   | 2.51  | 1.29  | 0.84  |                 |
| 20             | 0.58                                                              | 0.50                     | 0.46  | 0.51                 | 12.44  | 124.18  | 139.90                   | 19.65   | 2.57   | 2.47  | 1.28  | 0.83  |                 |
| 21             | 0.75                                                              | 0.49                     | 0.49  | 0.47                 | 9.65   | 177.68  | 133.30                   | 17.97   | 2.45   | 2.45  | 1.27  | 0.83  |                 |
| 22             | 1.95                                                              | 0.48                     | 0.52  | 0.48                 | 10.75  | 236.95  | 129.05                   | 16.29   | 2.43   | 2.43  | 1.25  | 0.82  |                 |
| 23             | 2.85                                                              | 0.53                     | 0.54  | 0.50                 | 11.40  | 426.40  | 131.10                   | 14.45   | 2.63   | 2.41  | 1.24  | 0.82  |                 |
| 24             | 1.80                                                              | 0.52                     | 0.48  | 0.48                 | 10.36  | 628.20  | 139.90                   | 13.25   | 2.61   | 2.39  | 1.23  | 0.81  |                 |
| 25             | 1.40                                                              | 0.49                     | 0.47  | 0.48                 | 12.83  | 633.40  | 150.90                   | 11.85   | 2.57   | 2.39  | 1.21  | 0.79  |                 |
| 26             | 1.95                                                              | 0.48                     | 0.53  | 0.47                 | 15.30  | 599.60  | 161.90                   | 10.65   | 2.77   | 2.39  | 1.19  | 0.78  |                 |
| 27             | 4.00                                                              | 0.47                     | 0.48  | 0.49                 | 17.24  | 563.20  | 168.50                   | 9.40    | 2.85   | 2.37  | 1.17  | 0.76  |                 |
| 28             | 4.65                                                              | 0.46                     | 0.47  | 0.53                 | 17.24  | 522.25  | 170.70                   | 8.15    | 2.93   | 2.27  | 1.16  | 0.75  |                 |
| 29             | 5.35                                                              | 0.46                     | 0.47  | 0.55                 | 14.39  | 498.75  | 166.30                   | 9.99    | 3.03   | 2.19  |       | 0.73  |                 |
| 30             | 5.25                                                              | 0.48                     | 0.47  | 3.25                 | 13.61  | 464.00  | 161.90                   | 9.93    | 3.09   | 2.15  |       | 0.71  |                 |
| 31             |                                                                   | 0.47                     |       | 0.58                 | 12.57  |         | 147.60                   |         | 3.13   | 2.09  |       | 0.71  |                 |
| Total          | 44.59                                                             | 25.34                    | 14.28 | 17.72                | 233.47 | 5537.86 | 6246.13                  | 1168.14 | 102.70 | 81.81 | 41.25 | 28.17 | 13541.46 CMSDAY |
| Mean           | 1.49                                                              | 0.82                     | 0.48  | 0.57                 | 7.53   | 184.60  | 201.49                   | 38.94   | 3.31   | 2.64  | 1.47  | 0.91  | 37.10 CMS       |
| Max            | 5.35                                                              | 4.95                     | 0.54  | 3.25                 | 26.04  | 633.40  | 424.80                   | 121.45  | 8.05   | 3.17  | 2.01  | 1.15  | 633.40 CMS      |
| Min            | 0.58                                                              | 0.46                     | 0.46  | 0.47                 | 0.50   | 14.39   | 129.05                   | 8.15    | 2.41   | 2.09  | 1.16  | 0.71  | 0.46 CMS        |
| Runoff         | 3.85                                                              | 2.19                     | 1.23  | 1.53                 | 20.17  | 478.47  | 539.67                   | 100.93  | 8.87   | 7.07  | 3.56  | 2.43  | 1169.98 MCM     |
| Momentary Peak | 652.80 CMS. at 122.16 m. (MSL.) at 15.00 Hours , on Sep 24 , 2013 |                          |       |                      |        |         |                          |         |        |       |       |       |                 |
| Runoff Yield   | 12.42                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 218.474 | Liters/Second/Square KM. |         |        |       |       |       |                 |

**WATER YEAR : 2013**

## MUN RIVER BASIN

## Mun River at Ban Pho Tak, Ubon Ratchathani (M.11B)

Lat 15 - 15 - 11 N    Long 105 - 13 - 53 E

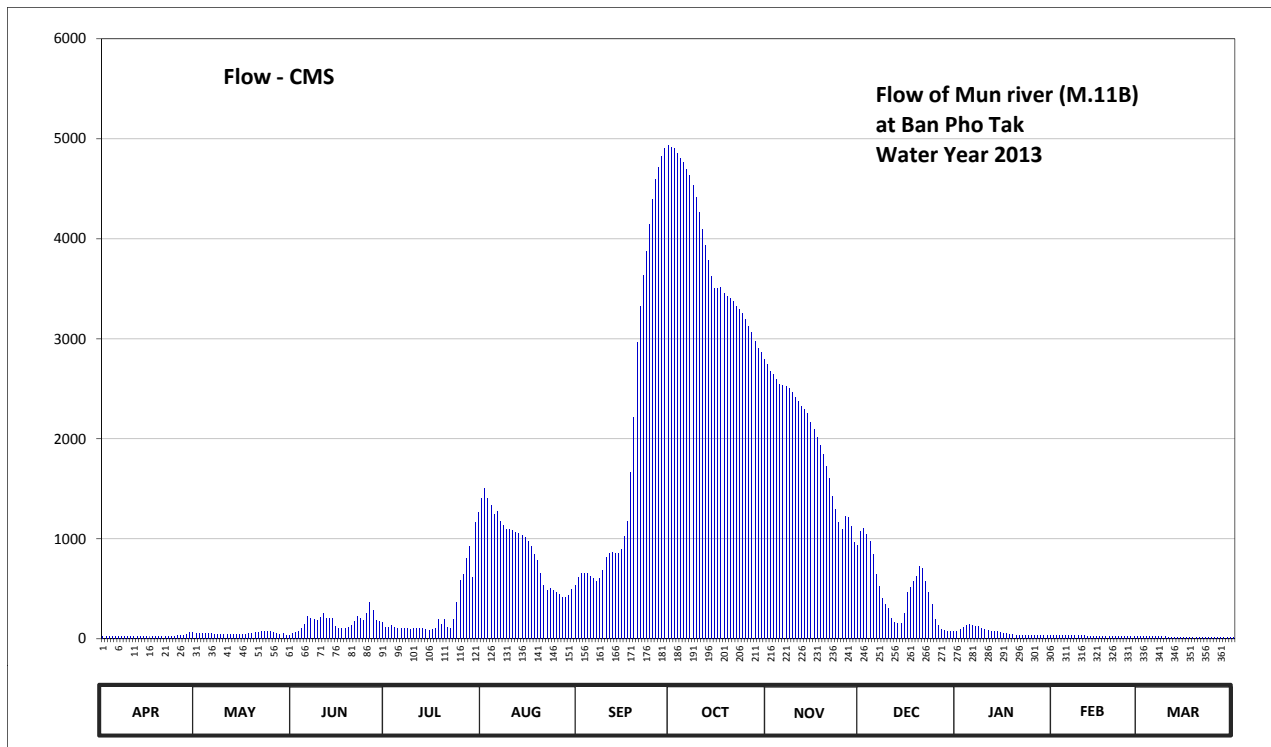
**Location : on right bank at the bridge on road.**

|                                         |                                                                                                |           |               |                  |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------------|-----------|---------------|------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                     | Pho Tak   | <b>Amphoe</b> | Phibul Mangsahan | <b>Changwat</b>  | Ubon Ratchathani   |
| <b>Drainage Area</b>                    | 115,687                                                                                        | sq.km.    |               |                  |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                        |           |               |                  |                  |                    |
| <b>Zero Gage at Bottom</b>              | +104.00                                                                                        | m. (MSL.) |               |                  |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                      |           |               |                  |                  |                    |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                                   |           |               |                  | <b>Elevation</b> | +113.192 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                      |           |               |                  |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                 |           |               |                  |                  |                    |
| <b>Period of Available Gage Records</b> | 2009 to date                                                                                   |           |               |                  |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                |           |               |                  |                  |                    |
| <b>Period of Rating</b>                 | 2009 to date                                                                                   |           |               |                  |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                              |           |               |                  |                  |                    |
| <b>Rated by Current Meter</b>           | 2009 to date                                                                                   |           |               |                  |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                        |           |               |                  |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                              |           |               |                  |                  |                    |
| <b>General Description</b>              | Records very good. Stage-discharge relation defined by 55 discharge measurements made in 2013. |           |               |                  |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                          | Jul    | Aug           | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|----------------------------------------------|--------|---------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 106.21 | 106.49 | 107.11                                       | 107.67 | 108.56        | 107.45 | 111.60            | 109.73 | 108.02 | 106.57 | 106.30 | 106.23 |        |
|                                  | 2  | 106.21 | 106.48 | 107.29                                       | 107.69 | 108.51        | 107.50 | 111.59            | 109.67 | 108.06 | 106.63 | 106.31 | 106.22 |        |
|                                  | 3  | 106.21 | 106.48 | 107.44                                       | 107.72 | 108.40        | 107.49 | 111.55            | 109.64 | 107.98 | 106.69 | 106.32 | 106.22 |        |
|                                  | 4  | 106.22 | 106.47 | 107.60                                       | 107.69 | 108.33        | 107.49 | 111.50            | 109.59 | 107.89 | 106.74 | 106.32 | 106.21 |        |
|                                  | 5  | 106.22 | 106.46 | 107.73                                       | 107.60 | 108.23        | 107.46 | 111.47            | 109.54 | 107.73 | 106.75 | 106.33 | 106.21 |        |
|                                  | 6  | 106.22 | 106.46 | 107.83                                       | 107.62 | 108.26        | 107.43 | 111.41            | 109.53 | 107.48 | 106.74 | 106.33 | 106.21 |        |
|                                  | 7  | 106.23 | 106.45 | 107.81                                       | 107.63 | 108.15        | 107.39 | 111.36            | 109.52 | 107.32 | 106.72 | 106.32 | 106.20 |        |
|                                  | 8  | 106.23 | 106.45 | 107.79                                       | 107.61 | 108.09        | 107.43 | 111.28            | 109.50 | 107.15 | 106.70 | 106.31 | 106.20 |        |
|                                  | 9  | 106.23 | 106.44 | 107.78                                       | 107.59 | 108.05        | 107.53 | 111.18            | 109.46 | 107.07 | 106.67 | 106.31 | 106.20 |        |
|                                  | 10 | 106.24 | 106.44 | 107.82                                       | 107.60 | 108.04        | 107.70 | 111.05            | 109.41 | 107.01 | 106.64 | 106.30 | 106.19 |        |
|                                  | 11 | 106.24 | 106.43 | 107.87                                       | 107.61 | 108.03        | 107.75 | 110.91            | 109.37 | 106.87 | 106.61 | 106.30 | 106.19 |        |
|                                  | 12 | 106.24 | 106.43 | 107.81                                       | 107.64 | 108.01        | 107.76 | 110.78            | 109.32 | 106.80 | 106.59 | 106.29 | 106.18 |        |
|                                  | 13 | 106.24 | 106.43 | 107.80                                       | 107.60 | 107.99        | 107.75 | 110.65            | 109.29 | 106.79 | 106.57 | 106.29 | 106.18 |        |
|                                  | 14 | 106.24 | 106.44 | 107.81                                       | 107.58 | 107.97        | 107.75 | 110.52            | 109.25 | 106.78 | 106.55 | 106.28 | 106.17 |        |
|                                  | 15 | 106.25 | 106.44 | 107.71                                       | 107.53 | 107.94        | 107.79 | 110.42            | 109.16 | 106.93 | 106.52 | 106.28 | 106.17 |        |
|                                  | 16 | 106.25 | 106.45 | 107.60                                       | 107.57 | 107.89        | 107.96 | 110.42            | 109.10 | 107.24 | 106.49 | 106.27 | 106.17 |        |
|                                  | 17 | 106.25 | 106.45 | 107.63                                       | 107.61 | 107.83        | 108.14 | 110.43            | 109.02 | 107.31 | 106.46 | 106.27 | 106.16 |        |
|                                  | 18 | 106.25 | 106.47 | 107.63                                       | 107.79 | 107.73        | 108.67 | 110.38            | 108.93 | 107.40 | 106.44 | 106.27 | 106.16 |        |
|                                  | 19 | 106.26 | 106.49 | 107.66                                       | 107.73 | 107.66        | 109.22 | 110.35            | 108.84 | 107.46 | 106.41 | 106.26 | 106.16 |        |
|                                  | 20 | 106.26 | 106.51 | 107.72                                       | 107.79 | 107.50        | 109.93 | 110.33            | 108.72 | 107.58 | 106.39 | 106.26 | 106.15 |        |
|                                  | 21 | 106.27 | 106.53 | 107.77                                       | 107.67 | 107.34        | 110.26 | 110.30            | 108.60 | 107.56 | 106.37 | 106.25 | 106.15 |        |
|                                  | 22 | 106.27 | 106.55 | 107.83                                       | 107.64 | 107.27        | 110.53 | 110.26            | 108.43 | 107.40 | 106.36 | 106.25 | 106.15 |        |
|                                  | 23 | 106.28 | 106.56 | 107.81                                       | 107.79 | 107.29        | 110.73 | 110.23            | 108.28 | 107.23 | 106.35 | 106.25 | 106.14 |        |
|                                  | 24 | 106.28 | 106.57 | 107.78                                       | 108.00 | 107.27        | 110.95 | 110.19            | 108.13 | 107.07 | 106.35 | 106.25 | 106.14 |        |
|                                  | 25 | 106.30 | 106.57 | 107.87                                       | 108.21 | 107.23        | 111.16 | 110.14            | 108.05 | 106.85 | 106.34 | 106.24 | 106.15 |        |
|                                  | 26 | 106.33 | 106.54 | 108.00                                       | 108.25 | 107.20        | 111.33 | 110.08            | 108.21 | 106.73 | 106.33 | 106.24 | 106.14 |        |
|                                  | 27 | 106.38 | 106.49 | 107.91                                       | 108.35 | 107.17        | 111.43 | 110.02            | 108.19 | 106.64 | 106.33 | 106.23 | 106.14 |        |
|                                  | 28 | 106.44 | 106.45 | 107.78                                       | 108.41 | 107.16        | 111.52 | 109.94            | 108.08 | 106.60 | 106.32 | 106.23 | 106.13 |        |
|                                  | 29 | 106.50 | 106.47 | 107.77                                       | 108.23 | 107.19        | 111.59 | 109.88            | 107.88 | 106.58 | 106.32 |        | 106.13 |        |
|                                  | 30 | 106.50 | 106.63 | 107.75                                       | 108.51 | 107.28        | 111.61 | 109.84            | 107.84 | 106.57 | 106.31 |        | 106.13 |        |
|                                  | 31 |        | 106.73 |                                              | 108.53 | 107.34        |        | 109.78            |        | 106.55 | 106.30 |        | 106.12 |        |
| Mean                             |    | 106.28 | 106.49 | 107.72                                       | 107.82 | 107.77        | 108.96 | 110.64            | 108.94 | 107.18 | 106.50 | 106.28 | 106.17 |        |
| Max                              |    | 106.50 | 106.73 | 108.00                                       | 108.53 | 108.56        | 111.61 | 111.60            | 109.73 | 108.06 | 106.75 | 106.33 | 106.23 | 111.61 |
| Min                              |    | 106.21 | 106.43 | 107.11                                       | 107.53 | 107.16        | 107.39 | 109.78            | 107.84 | 106.55 | 106.30 | 106.23 | 106.12 | 106.12 |
| Annual Max Momentary Gage Height |    |        | 111.61 | m. (MSL.) , at 21.00 Hours , on Sep 29, 2013 |        |               |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 104.00 | m. (MSL.) ,                                  |        | River Bed     | 103.06 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 112.93 | m. (MSL.) ,                                  |        |               |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 113.51 | m. (MSL.) ,                                  |        | Drainage Area | 115687 | Square Kilometers |        |        |        |        |        |        |

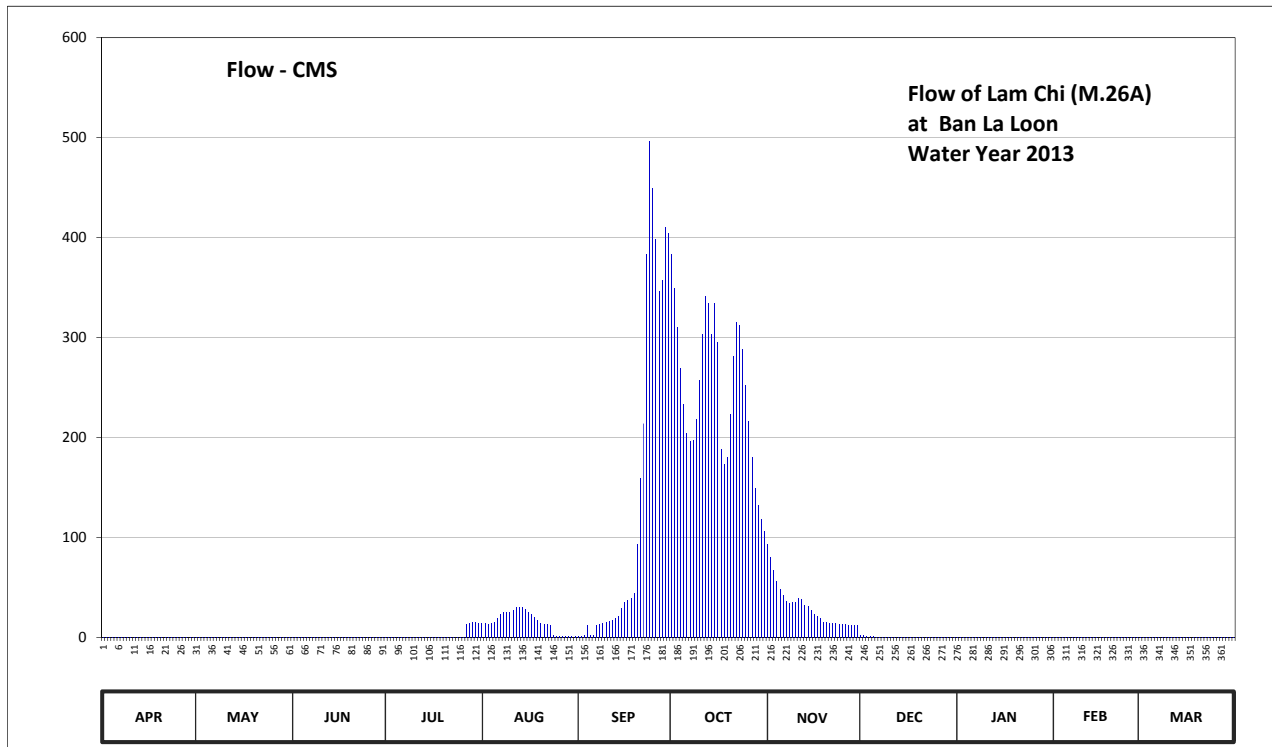




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                                | May                      | Jun     | Jul     | Aug                  | Sep      | Oct       | Nov      | Dec                      | Jan     | Feb    | Mar    | Annual           |
|----------------|--------------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|-----------|----------|--------------------------|---------|--------|--------|------------------|
| 1              | 21.00                                                              | 58.00                    | 55.50   | 114.00  | 1408.00              | 620.00   | 4920.00   | 2743.00  | 1076.00                  | 74.00   | 30.00  | 23.00  |                  |
| 2              | 21.00                                                              | 56.00                    | 64.50   | 118.00  | 1510.00              | 660.00   | 4908.00   | 2677.00  | 1108.00                  | 92.00   | 31.00  | 22.00  |                  |
| 3              | 21.00                                                              | 56.00                    | 74.00   | 136.00  | 1400.00              | 652.00   | 4860.00   | 2644.00  | 1044.00                  | 116.00  | 32.00  | 22.00  |                  |
| 4              | 22.00                                                              | 54.00                    | 100.00  | 118.00  | 1337.00              | 652.00   | 4800.00   | 2590.00  | 972.00                   | 136.00  | 32.00  | 21.00  |                  |
| 5              | 22.00                                                              | 52.00                    | 144.00  | 100.00  | 1247.00              | 628.00   | 4764.00   | 2540.00  | 844.00                   | 140.00  | 33.00  | 21.00  |                  |
| 6              | 22.00                                                              | 52.00                    | 224.00  | 104.00  | 1274.00              | 604.00   | 4692.00   | 2530.00  | 644.00                   | 136.00  | 33.00  | 21.00  |                  |
| 7              | 23.00                                                              | 50.00                    | 208.00  | 106.00  | 1180.00              | 573.00   | 4632.00   | 2520.00  | 524.00                   | 128.00  | 32.00  | 20.00  |                  |
| 8              | 23.00                                                              | 50.00                    | 192.00  | 102.00  | 1132.00              | 604.00   | 4536.00   | 2500.00  | 405.00                   | 120.00  | 31.00  | 20.00  |                  |
| 9              | 23.00                                                              | 48.00                    | 184.00  | 98.00   | 1100.00              | 684.00   | 4416.00   | 2460.00  | 349.00                   | 108.00  | 31.00  | 20.00  |                  |
| 10             | 24.00                                                              | 48.00                    | 216.00  | 100.00  | 1092.00              | 820.00   | 4260.00   | 2410.00  | 307.00                   | 96.00   | 30.00  | 19.00  |                  |
| 11             | 24.00                                                              | 46.00                    | 256.00  | 102.00  | 1084.00              | 860.00   | 4092.00   | 2370.00  | 209.00                   | 84.00   | 30.00  | 19.00  |                  |
| 12             | 24.00                                                              | 46.00                    | 208.00  | 108.00  | 1068.00              | 868.00   | 3936.00   | 2320.00  | 160.00                   | 78.00   | 29.00  | 18.00  |                  |
| 13             | 24.00                                                              | 46.00                    | 200.00  | 100.00  | 1052.00              | 860.00   | 3780.00   | 2290.00  | 156.00                   | 74.00   | 29.00  | 18.00  |                  |
| 14             | 24.00                                                              | 48.00                    | 208.00  | 96.00   | 1036.00              | 860.00   | 3624.00   | 2250.00  | 152.00                   | 70.00   | 28.00  | 17.00  |                  |
| 15             | 25.00                                                              | 48.00                    | 128.00  | 86.00   | 1012.00              | 892.00   | 3504.00   | 2160.00  | 251.00                   | 64.00   | 28.00  | 17.00  |                  |
| 16             | 25.00                                                              | 50.00                    | 100.00  | 94.00   | 972.00               | 1028.00  | 3504.00   | 2100.00  | 468.00                   | 58.00   | 27.00  | 17.00  |                  |
| 17             | 25.00                                                              | 50.00                    | 106.00  | 102.00  | 924.00               | 1172.00  | 3516.00   | 2020.00  | 517.00                   | 52.00   | 27.00  | 16.00  |                  |
| 18             | 25.00                                                              | 54.00                    | 106.00  | 192.00  | 844.00               | 1670.00  | 3458.00   | 1930.00  | 580.00                   | 48.00   | 27.00  | 16.00  |                  |
| 19             | 26.00                                                              | 58.00                    | 112.00  | 144.00  | 788.00               | 2220.00  | 3425.00   | 1840.00  | 628.00                   | 42.00   | 26.00  | 16.00  |                  |
| 20             | 26.00                                                              | 62.00                    | 136.00  | 192.00  | 660.00               | 2963.00  | 3403.00   | 1720.00  | 724.00                   | 39.00   | 26.00  | 15.00  |                  |
| 21             | 27.00                                                              | 66.00                    | 176.00  | 114.00  | 538.00               | 3326.00  | 3370.00   | 1600.00  | 708.00                   | 37.00   | 25.00  | 15.00  |                  |
| 22             | 27.00                                                              | 70.00                    | 224.00  | 108.00  | 489.00               | 3636.00  | 3326.00   | 1430.00  | 580.00                   | 36.00   | 25.00  | 15.00  |                  |
| 23             | 28.00                                                              | 72.00                    | 208.00  | 192.00  | 503.00               | 3876.00  | 3293.00   | 1292.00  | 461.00                   | 35.00   | 25.00  | 14.00  |                  |
| 24             | 28.00                                                              | 74.00                    | 184.00  | 360.00  | 489.00               | 4140.00  | 3249.00   | 1164.00  | 349.00                   | 35.00   | 25.00  | 14.00  |                  |
| 25             | 30.00                                                              | 74.00                    | 256.00  | 585.00  | 461.00               | 4392.00  | 3194.00   | 1100.00  | 195.00                   | 34.00   | 24.00  | 15.00  |                  |
| 26             | 33.00                                                              | 68.00                    | 360.00  | 645.00  | 440.00               | 4596.00  | 3128.00   | 1229.00  | 132.00                   | 33.00   | 24.00  | 14.00  |                  |
| 27             | 38.00                                                              | 58.00                    | 288.00  | 810.00  | 419.00               | 4716.00  | 3062.00   | 1212.00  | 96.00                    | 33.00   | 23.00  | 14.00  |                  |
| 28             | 48.00                                                              | 50.00                    | 184.00  | 922.00  | 412.00               | 4824.00  | 2974.00   | 1124.00  | 80.00                    | 32.00   | 23.00  | 13.00  |                  |
| 29             | 60.00                                                              | 54.00                    | 176.00  | 615.00  | 433.00               | 4908.00  | 2908.00   | 964.00   | 76.00                    | 32.00   |        | 13.00  |                  |
| 30             | 60.00                                                              | 31.50                    | 160.00  | 1168.00 | 496.00               | 4932.00  | 2864.00   | 932.00   | 74.00                    | 31.00   |        | 13.00  |                  |
| 31             |                                                                    | 36.50                    |         | 1264.00 | 538.00               |          | 2798.00   |          | 70.00                    | 30.00   |        | 12.00  |                  |
| Total          | 849.00                                                             | 1686.00                  | 5238.00 | 9095.00 | 27338.00             | 63236.00 | 117196.00 | 58661.00 | 13939.00                 | 2123.00 | 786.00 | 530.00 | 300677.00 CMSDAY |
| Mean           | 28.30                                                              | 54.40                    | 174.60  | 293.40  | 881.90               | 2107.90  | 3780.50   | 1955.40  | 449.60                   | 68.50   | 28.10  | 17.10  | 823.80 CMS       |
| Max            | 60.00                                                              | 74.00                    | 360.00  | 1264.00 | 1510.00              | 4932.00  | 4920.00   | 2743.00  | 1108.00                  | 140.00  | 33.00  | 23.00  | 4932.00 CMS      |
| Min            | 21.00                                                              | 31.50                    | 55.50   | 86.00   | 412.00               | 573.00   | 2798.00   | 932.00   | 70.00                    | 30.00   | 23.00  | 12.00  | 12.00 CMS        |
| Runoff         | 73.35                                                              | 145.67                   | 452.56  | 785.81  | 2362.00              | 5463.59  | 10125.73  | 5068.31  | 1204.33                  | 183.43  | 67.91  | 45.79  | 25978.49 MCM     |
| Momentary Peak | 4932.00 CMS. at 111.61 m. (MSL.) at 21.00 Hours , on Sep 29 , 2013 |                          |         |         |                      |          |           |          |                          |         |        |        |                  |
| Runoff Yield   | 7.12                                                               | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |           | 42.632   | Liters/Second/Square KM. |         |        |        |                  |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|---------|--------------------------|-------|-------|-------|-------|-----------------|
| 1              | 0.47                                                              | 0.52                     | 0.42  | 0.45                 | 14.17  | 1.30    | 383.00  | 93.80                    | 2.50  | 0.68  | 0.49  | 0.40  |                 |
| 2              | 0.50                                                              | 0.55                     | 0.43  | 0.44                 | 14.00  | 1.50    | 348.80  | 80.65                    | 2.05  | 0.64  | 0.49  | 0.40  |                 |
| 3              | 0.50                                                              | 0.55                     | 0.46  | 0.43                 | 13.91  | 2.00    | 310.00  | 67.02                    | 1.35  | 0.58  | 0.48  | 0.40  |                 |
| 4              | 0.50                                                              | 0.54                     | 0.41  | 0.43                 | 14.13  | 12.40   | 269.20  | 56.85                    | 1.20  | 0.57  | 0.48  | 0.40  |                 |
| 5              | 0.50                                                              | 0.54                     | 0.41  | 0.42                 | 14.95  | 2.35    | 233.20  | 48.90                    | 1.08  | 0.56  | 0.48  | 0.40  |                 |
| 6              | 0.48                                                              | 0.53                     | 0.40  | 0.42                 | 19.84  | 2.35    | 204.40  | 42.45                    | 0.98  | 0.55  | 0.48  | 0.40  |                 |
| 7              | 0.48                                                              | 0.49                     | 0.40  | 0.43                 | 23.61  | 12.49   | 196.00  | 36.90                    | 0.96  | 0.55  | 0.48  | 0.40  |                 |
| 8              | 0.45                                                              | 0.46                     | 0.40  | 0.46                 | 25.43  | 13.18   | 198.00  | 34.50                    | 0.88  | 0.55  | 0.48  | 0.40  |                 |
| 9              | 0.45                                                              | 0.45                     | 0.39  | 0.47                 | 25.82  | 14.11   | 218.80  | 34.95                    | 0.80  | 0.54  | 0.48  | 0.40  |                 |
| 10             | 0.44                                                              | 0.44                     | 0.39  | 0.47                 | 25.82  | 15.10   | 257.20  | 35.85                    | 0.80  | 0.51  | 0.48  | 0.40  |                 |
| 11             | 0.40                                                              | 0.45                     | 0.39  | 0.47                 | 26.99  | 16.96   | 302.80  | 39.00                    | 0.80  | 0.51  | 0.48  | 0.40  |                 |
| 12             | 0.40                                                              | 0.50                     | 0.49  | 0.43                 | 30.00  | 17.92   | 341.20  | 38.85                    | 0.78  | 0.52  | 0.48  | 0.40  |                 |
| 13             | 0.40                                                              | 0.59                     | 0.50  | 0.43                 | 30.30  | 19.00   | 334.00  | 32.85                    | 0.74  | 0.52  | 0.44  | 0.38  |                 |
| 14             | 0.38                                                              | 0.54                     | 0.49  | 0.43                 | 30.15  | 21.79   | 302.80  | 31.50                    | 0.71  | 0.51  | 0.40  | 0.36  |                 |
| 15             | 0.38                                                              | 0.50                     | 0.46  | 0.43                 | 28.35  | 29.85   | 334.00  | 27.25                    | 0.69  | 0.49  | 0.40  | 0.36  |                 |
| 16             | 0.38                                                              | 0.48                     | 0.45  | 0.43                 | 25.82  | 35.40   | 295.60  | 23.74                    | 0.70  | 0.50  | 0.40  | 0.36  |                 |
| 17             | 0.36                                                              | 0.47                     | 0.44  | 0.42                 | 23.22  | 37.35   | 188.00  | 21.40                    | 0.75  | 0.50  | 0.40  | 0.36  |                 |
| 18             | 0.36                                                              | 0.47                     | 0.42  | 0.42                 | 20.80  | 39.30   | 174.00  | 19.00                    | 0.73  | 0.50  | 0.40  | 0.36  |                 |
| 19             | 0.36                                                              | 0.47                     | 0.41  | 0.42                 | 17.32  | 44.85   | 180.00  | 15.64                    | 0.73  | 0.50  | 0.40  | 0.36  |                 |
| 20             | 0.36                                                              | 0.47                     | 0.41  | 0.42                 | 14.86  | 94.00   | 223.60  | 15.03                    | 0.69  | 0.50  | 0.40  | 0.36  |                 |
| 21             | 0.36                                                              | 0.50                     | 0.40  | 0.42                 | 13.95  | 159.20  | 281.20  | 14.73                    | 0.70  | 0.50  | 0.40  | 0.36  |                 |
| 22             | 0.34                                                              | 0.51                     | 0.40  | 0.46                 | 13.20  | 214.00  | 314.80  | 14.39                    | 0.71  | 0.49  | 0.40  | 0.36  |                 |
| 23             | 0.34                                                              | 0.49                     | 0.40  | 0.46                 | 12.70  | 383.00  | 312.40  | 14.00                    | 0.74  | 0.49  | 0.40  | 0.34  |                 |
| 24             | 0.34                                                              | 0.48                     | 0.40  | 0.47                 | 2.10   | 496.00  | 288.40  | 13.67                    | 0.77  | 0.49  | 0.40  | 0.31  |                 |
| 25             | 0.37                                                              | 0.49                     | 0.41  | 0.46                 | 1.70   | 449.00  | 252.40  | 13.35                    | 0.77  | 0.49  | 0.40  | 0.31  |                 |
| 26             | 0.40                                                              | 0.54                     | 0.46  | 0.56                 | 1.15   | 398.00  | 216.40  | 13.09                    | 0.75  | 0.49  | 0.40  | 0.31  |                 |
| 27             | 0.48                                                              | 0.52                     | 0.47  | 13.50                | 1.09   | 346.00  | 180.00  | 12.96                    | 0.75  | 0.49  | 0.40  | 0.31  |                 |
| 28             | 0.50                                                              | 0.51                     | 0.49  | 14.80                | 1.30   | 357.20  | 149.40  | 12.88                    | 0.74  | 0.50  | 0.40  | 0.31  |                 |
| 29             | 0.52                                                              | 0.48                     | 0.47  | 15.18                | 1.06   | 410.00  | 132.00  | 12.64                    | 0.74  | 0.50  |       | 0.31  |                 |
| 30             | 0.53                                                              | 0.50                     | 0.46  | 15.03                | 1.07   | 404.00  | 118.50  | 12.45                    | 0.73  | 0.50  |       | 0.31  |                 |
| 31             |                                                                   | 0.48                     |       | 14.56                | 1.30   |         | 106.50  |                          | 0.72  | 0.50  |       | 0.31  |                 |
| Total          | 12.73                                                             | 15.51                    | 12.93 | 84.62                | 490.11 | 4049.60 | 7646.60 | 930.29                   | 28.04 | 16.22 | 12.22 | 11.24 | 13310.11 CMSDAY |
| Mean           | 0.42                                                              | 0.50                     | 0.43  | 2.73                 | 15.81  | 134.99  | 246.66  | 31.01                    | 0.90  | 0.52  | 0.44  | 0.36  | 36.47 CMS       |
| Max            | 0.53                                                              | 0.59                     | 0.50  | 15.18                | 30.30  | 496.00  | 383.00  | 93.80                    | 2.50  | 0.68  | 0.49  | 0.40  | 496.00 CMS      |
| Min            | 0.34                                                              | 0.44                     | 0.39  | 0.42                 | 1.06   | 1.30    | 106.50  | 12.45                    | 0.69  | 0.49  | 0.40  | 0.31  | 0.31 CMS        |
| Runoff         | 1.10                                                              | 1.34                     | 1.12  | 7.31                 | 42.35  | 349.89  | 660.67  | 80.38                    | 2.42  | 1.40  | 1.06  | 0.97  | 1149.99 MCM     |
| Momentary Peak | 528.00 CMS. at 138.90 m. (MSL.) at 12.00 Hours , on Oct 15 , 2013 |                          |       |                      |        |         |         |                          |       |       |       |       |                 |
| Runoff Yield   | 12.04                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 174.373 |         | Liters/Second/Square KM. |       |       |       |       |                 |

## WATER YEAR : 2013

## MUN RIVER BASIN

**Lam Takhong at Ban Khlong Phai, Nakhon Ratchasima (M.38C)**

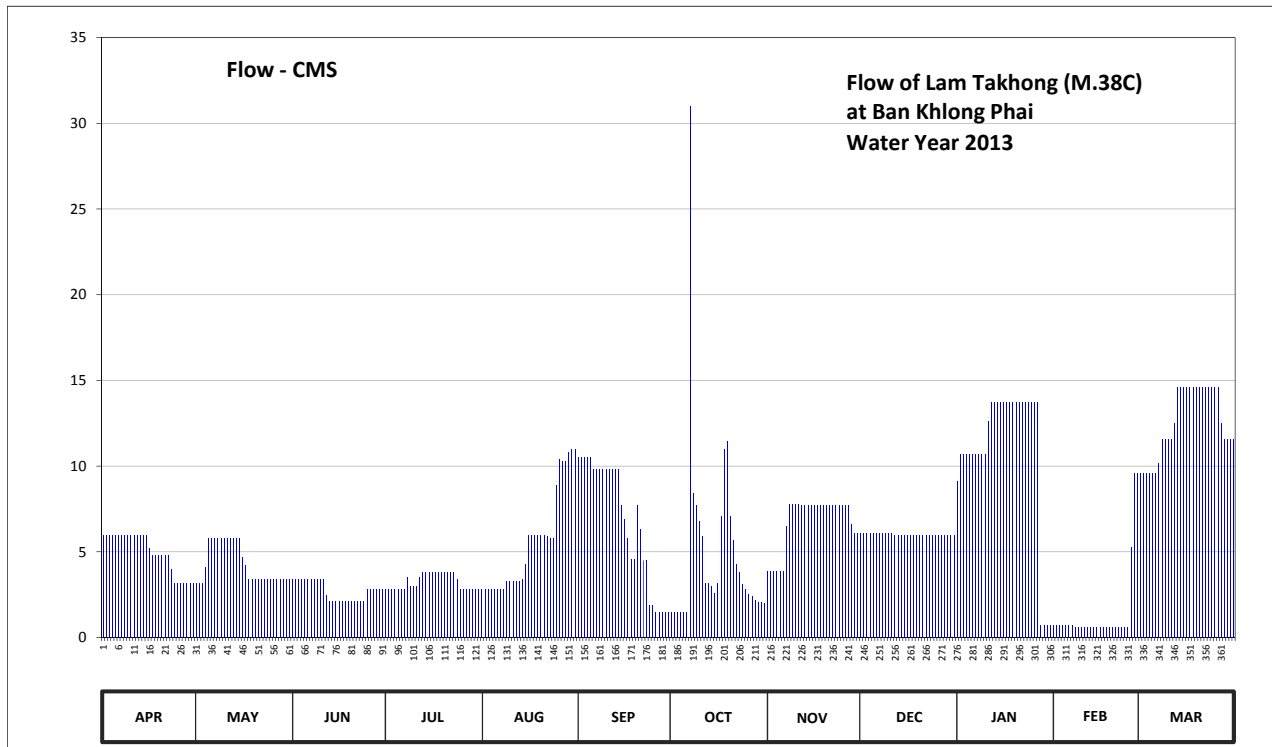
Lat 14 - 52 - 06 N    Long 101 - 33 - 53 E

**Location : on left bank at the bridge on highway**

|                                         |                                                                                                                                                                             |             |               |         |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                                  | Khlong Phai | <b>Amphoe</b> | Si Khio | <b>Changwat</b>  | Nakhon Ratchasima  |
| <b>Drainage Area</b>                    | 1,292                                                                                                                                                                       | sq.km.      |               |         |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                                                                                                  |             |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +242.000                                                                                                                                                                    | m. (MSL.)   |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                                   |             |               |         |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage observer's house.                                                                                                                               |             |               |         | <b>Elevation</b> | +251.841 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                                                                                                      |             |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                                                                                                               |             |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 - 1995, 2006 to date                                                                                                                                                   |             |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                             |             |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1983 - 1995, 2006 to date                                                                                                                                                   |             |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                           |             |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1983 - 1995, 2006 to date                                                                                                                                                   |             |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                                                                                                     |             |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                                           |             |               |         |                  |                    |
| <b>General Description</b>              | Records fair.Flow effected by Lam Takhong Dam about 500 meters upstreams from the gage site.<br>Stage-discharge relation defined by 17 discharge measurements made in 2013. |             |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

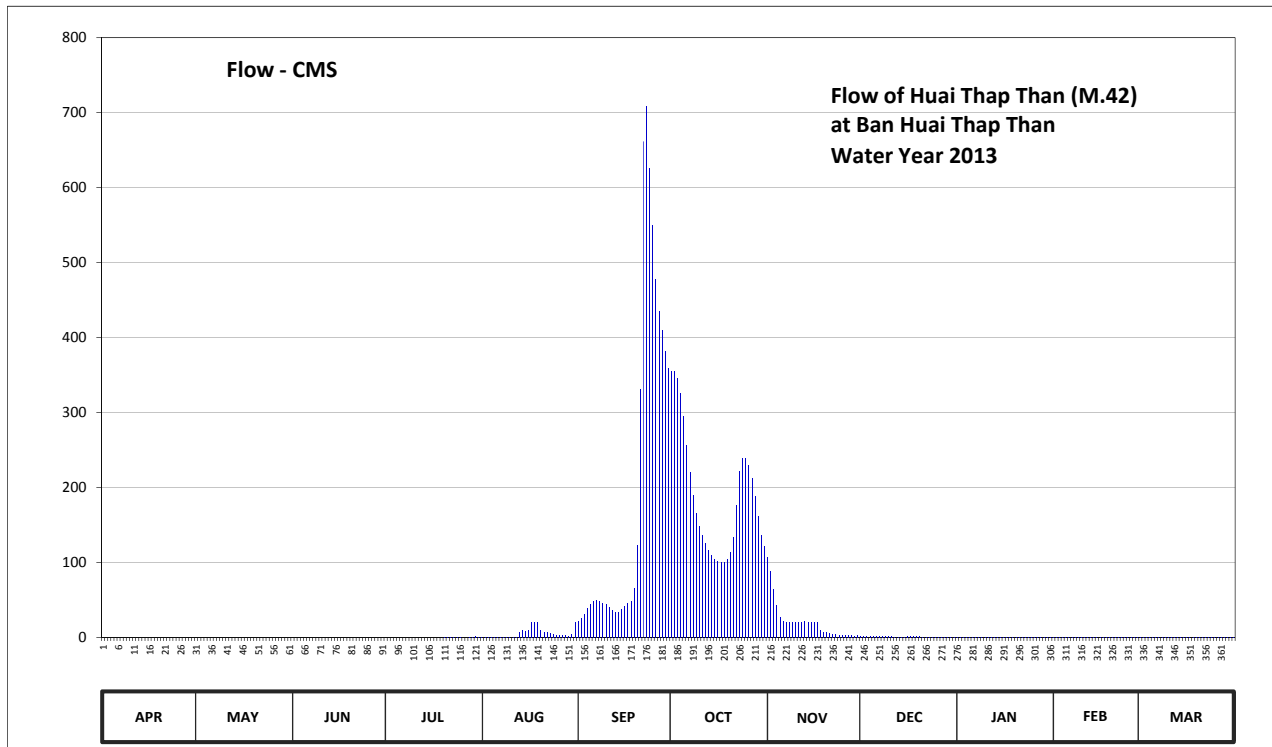
| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 245.50 | 245.22 | 245.24                                           | 245.17 | 245.17 | 245.95 | 244.90 | 245.29 | 245.51 | 245.81 | 244.62 | 245.86 |        |
| 2                                | 245.50 | 245.22 | 245.24                                           | 245.17 | 245.17 | 245.95 | 244.90 | 245.29 | 245.51 | 245.97 | 244.62 | 245.86 |        |
| 3                                | 245.50 | 245.22 | 245.24                                           | 245.17 | 245.17 | 245.95 | 244.90 | 245.29 | 245.51 | 245.97 | 244.62 | 245.86 |        |
| 4                                | 245.50 | 245.31 | 245.24                                           | 245.17 | 245.17 | 245.95 | 244.90 | 245.29 | 245.51 | 245.97 | 244.62 | 245.86 |        |
| 5                                | 245.50 | 245.48 | 245.24                                           | 245.17 | 245.17 | 245.95 | 244.90 | 245.29 | 245.51 | 245.97 | 244.62 | 245.86 |        |
| 6                                | 245.50 | 245.48 | 245.24                                           | 245.17 | 245.17 | 245.88 | 244.90 | 245.29 | 245.51 | 245.97 | 244.62 | 245.86 |        |
| 7                                | 245.50 | 245.48 | 245.24                                           | 245.17 | 245.17 | 245.88 | 247.04 | 245.55 | 245.51 | 245.97 | 244.62 | 245.92 |        |
| 8                                | 245.50 | 245.48 | 245.24                                           | 245.25 | 245.17 | 245.88 | 245.74 | 245.68 | 245.51 | 245.97 | 244.56 | 246.04 |        |
| 9                                | 245.50 | 245.48 | 245.24                                           | 245.20 | 245.23 | 245.88 | 245.67 | 245.68 | 245.51 | 245.97 | 244.56 | 246.04 |        |
| 10                               | 245.50 | 245.48 | 245.24                                           | 245.20 | 245.23 | 245.88 | 245.58 | 245.68 | 245.51 | 245.97 | 244.56 | 246.04 |        |
| 11                               | 245.50 | 245.48 | 245.24                                           | 245.20 | 245.23 | 245.88 | 245.49 | 245.68 | 245.51 | 246.11 | 244.56 | 246.04 |        |
| 12                               | 245.50 | 245.48 | 245.10                                           | 245.25 | 245.23 | 245.88 | 245.22 | 245.67 | 245.50 | 246.18 | 244.56 | 246.10 |        |
| 13                               | 245.50 | 245.48 | 245.03                                           | 245.28 | 245.23 | 245.88 | 245.22 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 14                               | 245.50 | 245.48 | 245.03                                           | 245.28 | 245.24 | 245.88 | 245.20 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 15                               | 245.50 | 245.48 | 245.03                                           | 245.28 | 245.33 | 245.67 | 245.12 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 16                               | 245.42 | 245.37 | 245.03                                           | 245.28 | 245.50 | 245.59 | 245.22 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 17                               | 245.38 | 245.32 | 245.03                                           | 245.28 | 245.50 | 245.48 | 245.61 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 18                               | 245.38 | 245.24 | 245.03                                           | 245.28 | 245.50 | 245.36 | 246.00 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 19                               | 245.38 | 245.24 | 245.03                                           | 245.28 | 245.50 | 245.36 | 246.03 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 20                               | 245.38 | 245.24 | 245.03                                           | 245.28 | 245.50 | 245.67 | 245.61 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 21                               | 245.38 | 245.24 | 245.03                                           | 245.28 | 245.50 | 245.53 | 245.47 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 22                               | 245.38 | 245.24 | 245.03                                           | 245.28 | 245.49 | 245.35 | 245.33 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 23                               | 245.30 | 245.24 | 245.03                                           | 245.28 | 245.48 | 245.35 | 245.28 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 24                               | 245.22 | 245.24 | 245.03                                           | 245.24 | 245.48 | 244.98 | 245.21 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 25                               | 245.22 | 245.24 | 245.17                                           | 245.17 | 245.79 | 244.98 | 245.17 | 245.67 | 245.50 | 246.18 | 244.56 | 246.23 |        |
| 26                               | 245.22 | 245.24 | 245.17                                           | 245.17 | 245.94 | 244.90 | 245.11 | 245.67 | 245.50 | 246.18 | 245.43 | 246.23 |        |
| 27                               | 245.22 | 245.24 | 245.17                                           | 245.17 | 245.93 | 244.90 | 245.08 | 245.67 | 245.50 | 246.18 | 245.86 | 246.10 |        |
| 28                               | 245.22 | 245.24 | 245.17                                           | 245.17 | 245.93 | 244.90 | 245.04 | 245.56 | 245.50 | 244.62 | 245.86 | 246.04 |        |
| 29                               | 245.22 | 245.24 | 245.17                                           | 245.17 | 245.98 | 244.90 | 245.01 | 245.51 | 245.50 | 244.62 |        | 246.04 |        |
| 30                               | 245.22 | 245.24 | 245.17                                           | 245.17 | 246.00 | 244.90 | 245.01 | 245.51 | 245.50 | 244.62 |        | 246.04 |        |
| 31                               |        | 245.24 |                                                  | 245.17 | 246.00 |        | 245.00 |        | 245.50 | 244.62 |        | 246.04 |        |
| Mean                             | 245.40 | 245.33 | 245.14                                           | 245.22 | 245.45 | 245.55 | 245.32 | 245.58 | 245.50 | 245.90 | 244.70 | 246.09 |        |
| Max                              | 245.50 | 245.48 | 245.24                                           | 245.28 | 246.00 | 245.95 | 247.04 | 245.68 | 245.51 | 246.18 | 245.86 | 246.23 | 247.04 |
| Min                              | 245.22 | 245.22 | 245.03                                           | 245.17 | 245.17 | 244.90 | 244.90 | 245.29 | 245.50 | 244.62 | 244.56 | 245.86 | 244.56 |
| Annual Max Momentary Gage Height |        | 247.46 | m. (MSL.) , at 06.00 Hours , on Oct 7, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 242.00 | m. (MSL.) , River Bed 243.66 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 251.46 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 251.22 | m. (MSL.) , Drainage Area 1292 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar    | Annual         |
|----------------|--------|----------------------------------------------------------|-------|----------------------|--------|--------|--------------------------|--------|--------|--------|-------|--------|----------------|
| 1              | 6.00   | 3.20                                                     | 3.40  | 2.85                 | 2.85   | 10.50  | 1.50                     | 3.90   | 6.10   | 9.10   | 0.74  | 9.60   |                |
| 2              | 6.00   | 3.20                                                     | 3.40  | 2.85                 | 2.85   | 10.50  | 1.50                     | 3.90   | 6.10   | 10.70  | 0.74  | 9.60   |                |
| 3              | 6.00   | 3.20                                                     | 3.40  | 2.85                 | 2.85   | 10.50  | 1.50                     | 3.90   | 6.10   | 10.70  | 0.74  | 9.60   |                |
| 4              | 6.00   | 4.10                                                     | 3.40  | 2.85                 | 2.85   | 10.50  | 1.50                     | 3.90   | 6.10   | 10.70  | 0.74  | 9.60   |                |
| 5              | 6.00   | 5.80                                                     | 3.40  | 2.85                 | 2.85   | 10.50  | 1.50                     | 3.90   | 6.10   | 10.70  | 0.74  | 9.60   |                |
| 6              | 6.00   | 5.80                                                     | 3.40  | 2.85                 | 2.85   | 9.80   | 1.50                     | 3.90   | 6.10   | 10.70  | 0.74  | 9.60   |                |
| 7              | 6.00   | 5.80                                                     | 3.40  | 2.85                 | 2.85   | 9.80   | 31.00                    | 6.50   | 6.10   | 10.70  | 0.74  | 10.20  |                |
| 8              | 6.00   | 5.80                                                     | 3.40  | 3.50                 | 2.85   | 9.80   | 8.40                     | 7.80   | 6.10   | 10.70  | 0.62  | 11.60  |                |
| 9              | 6.00   | 5.80                                                     | 3.40  | 3.00                 | 3.30   | 9.80   | 7.70                     | 7.80   | 6.10   | 10.70  | 0.62  | 11.60  |                |
| 10             | 6.00   | 5.80                                                     | 3.40  | 3.00                 | 3.30   | 9.80   | 6.80                     | 7.80   | 6.10   | 10.70  | 0.62  | 11.60  |                |
| 11             | 6.00   | 5.80                                                     | 3.40  | 3.00                 | 3.30   | 9.80   | 5.90                     | 7.80   | 6.10   | 12.65  | 0.62  | 11.60  |                |
| 12             | 6.00   | 5.80                                                     | 2.50  | 3.50                 | 3.30   | 9.80   | 3.20                     | 7.70   | 6.00   | 13.70  | 0.62  | 12.50  |                |
| 13             | 6.00   | 5.80                                                     | 2.15  | 3.80                 | 3.30   | 9.80   | 3.20                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 14             | 6.00   | 5.80                                                     | 2.15  | 3.80                 | 3.40   | 9.80   | 3.00                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 15             | 6.00   | 5.80                                                     | 2.15  | 3.80                 | 4.30   | 7.70   | 2.60                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 16             | 5.20   | 4.70                                                     | 2.15  | 3.80                 | 6.00   | 6.90   | 3.20                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 17             | 4.80   | 4.20                                                     | 2.15  | 3.80                 | 6.00   | 5.80   | 7.10                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 18             | 4.80   | 3.40                                                     | 2.15  | 3.80                 | 6.00   | 4.60   | 11.00                    | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 19             | 4.80   | 3.40                                                     | 2.15  | 3.80                 | 6.00   | 4.60   | 11.45                    | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 20             | 4.80   | 3.40                                                     | 2.15  | 3.80                 | 6.00   | 7.70   | 7.10                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 21             | 4.80   | 3.40                                                     | 2.15  | 3.80                 | 6.00   | 6.30   | 5.70                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 22             | 4.80   | 3.40                                                     | 2.15  | 3.80                 | 5.90   | 4.50   | 4.30                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 23             | 4.00   | 3.40                                                     | 2.15  | 3.80                 | 5.80   | 4.50   | 3.80                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 24             | 3.20   | 3.40                                                     | 2.15  | 3.40                 | 5.80   | 1.90   | 3.10                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 25             | 3.20   | 3.40                                                     | 2.85  | 2.85                 | 8.90   | 1.90   | 2.85                     | 7.70   | 6.00   | 13.70  | 0.62  | 14.60  |                |
| 26             | 3.20   | 3.40                                                     | 2.85  | 2.85                 | 10.40  | 1.50   | 2.55                     | 7.70   | 6.00   | 13.70  | 5.30  | 14.60  |                |
| 27             | 3.20   | 3.40                                                     | 2.85  | 2.85                 | 10.30  | 1.50   | 2.40                     | 7.70   | 6.00   | 13.70  | 9.60  | 12.50  |                |
| 28             | 3.20   | 3.40                                                     | 2.85  | 2.85                 | 10.30  | 1.50   | 2.20                     | 6.60   | 6.00   | 0.74   | 9.60  | 11.60  |                |
| 29             | 3.20   | 3.40                                                     | 2.85  | 2.85                 | 10.80  | 1.50   | 2.05                     | 6.10   | 6.00   | 0.74   |       | 11.60  |                |
| 30             | 3.20   | 3.40                                                     | 2.85  | 2.85                 | 11.00  | 1.50   | 2.05                     | 6.10   | 6.00   | 0.74   |       | 11.60  |                |
| 31             |        | 3.40                                                     |       | 2.85                 | 11.00  |        | 2.00                     |        | 6.00   | 0.74   |       | 11.60  |                |
| Total          | 150.40 | 134.00                                                   | 82.80 | 101.10               | 173.20 | 204.60 | 153.65                   | 203.10 | 187.10 | 340.21 | 40.84 | 390.00 | 2161.00 CMSDAY |
| Mean           | 5.01   | 4.32                                                     | 2.76  | 3.26                 | 5.59   | 6.82   | 4.96                     | 6.77   | 6.04   | 10.97  | 1.46  | 12.58  | 5.92 CMS       |
| Max            | 6.00   | 5.80                                                     | 3.40  | 3.80                 | 11.00  | 10.50  | 31.00                    | 7.80   | 6.10   | 13.70  | 9.60  | 14.60  | 31.00 CMS      |
| Min            | 3.20   | 3.20                                                     | 2.15  | 2.85                 | 2.85   | 1.50   | 1.50                     | 3.90   | 6.00   | 0.74   | 0.62  | 9.60   | 0.62 CMS       |
| Runoff         | 13.00  | 11.58                                                    | 7.15  | 8.74                 | 14.96  | 17.68  | 13.28                    | 17.55  | 16.17  | 29.39  | 3.53  | 33.70  | 186.71 MCM     |
| Momentary Peak | 41.50  | CMS. at 247.46 m. (MSL.) at 06.00 Hours , on Oct 7, 2013 |       |                      |        |        |                          |        |        |        |       |        |                |
| Runoff Yield   | 4.58   | Liters/Second/Square KM.                                 |       | Momentary Peak Yield |        | 32.121 | Liters/Second/Square KM. |        |        |        |       |        |                |



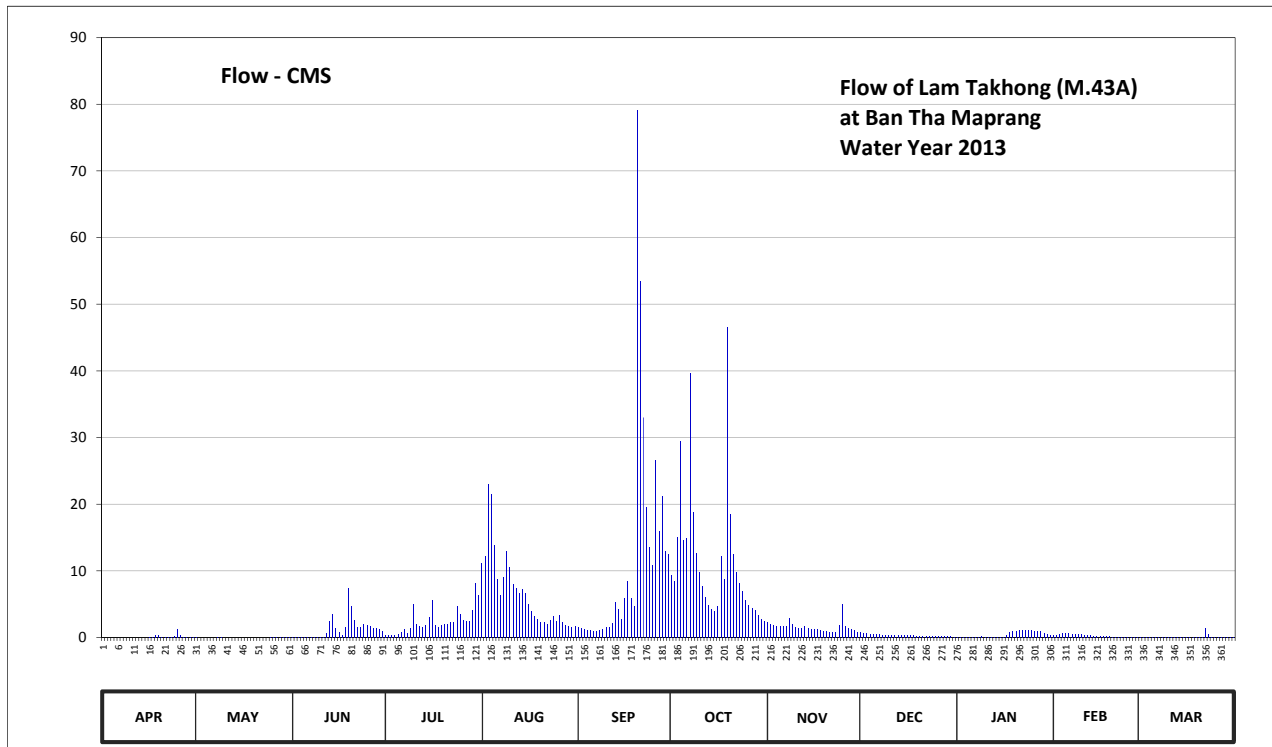


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun  | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|-----------------|
| 1              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.00   | 21.53   | 355.00                   | 107.50 | 2.50  | 0.90  | 0.90  | 0.80  |                 |
| 2              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.00   | 25.27   | 355.00                   | 89.00  | 2.00  | 0.90  | 0.90  | 0.80  |                 |
| 3              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.80   | 31.22   | 345.00                   | 64.42  | 1.90  | 0.90  | 0.90  | 0.80  |                 |
| 4              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.80   | 38.90   | 325.00                   | 43.07  | 1.80  | 0.90  | 0.90  | 0.80  |                 |
| 5              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.00   | 44.97   | 295.30                   | 27.82  | 1.60  | 0.90  | 0.90  | 0.70  |                 |
| 6              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.00   | 48.01   | 256.40                   | 21.62  | 1.60  | 0.90  | 0.90  | 0.70  |                 |
| 7              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.10   | 49.91   | 220.40                   | 20.85  | 1.50  | 0.90  | 0.80  | 0.60  |                 |
| 8              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.00   | 49.15   | 190.50                   | 20.60  | 1.50  | 0.90  | 0.80  | 0.60  |                 |
| 9              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.80   | 46.30   | 165.60                   | 20.25  | 1.50  | 0.90  | 0.80  | 0.60  |                 |
| 10             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.80   | 44.21   | 149.00                   | 20.34  | 1.40  | 0.90  | 0.80  | 0.60  |                 |
| 11             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.80   | 40.88   | 136.25                   | 20.60  | 1.40  | 0.90  | 0.80  | 0.60  |                 |
| 12             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.00   | 37.10   | 125.75                   | 20.94  | 1.30  | 0.90  | 0.80  | 0.60  |                 |
| 13             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 7.80   | 34.11   | 116.75                   | 21.19  | 1.20  | 0.90  | 0.80  | 0.60  |                 |
| 14             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 9.45   | 34.62   | 109.60                   | 21.02  | 1.20  | 0.90  | 0.80  | 0.60  |                 |
| 15             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 8.90   | 37.64   | 104.00                   | 20.68  | 1.20  | 0.90  | 0.80  | 0.60  |                 |
| 16             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 10.00  | 42.32   | 102.25                   | 20.34  | 1.50  | 0.90  | 0.80  | 0.60  |                 |
| 17             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 20.17  | 45.35   | 101.20                   | 20.17  | 1.50  | 0.90  | 0.80  | 0.50  |                 |
| 18             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 20.25  | 49.15   | 101.20                   | 9.45   | 1.40  | 0.90  | 0.80  | 0.50  |                 |
| 19             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 20.17  | 65.80   | 104.70                   | 7.80   | 1.40  | 1.00  | 0.80  | 0.50  |                 |
| 20             | 0.00                                                              | 0.00                     | 0.00 | 0.10                 | 9.45   | 122.60  | 113.45                   | 6.70   | 1.40  | 1.10  | 0.80  | 0.90  |                 |
| 21             | 0.00                                                              | 0.00                     | 0.00 | 0.10                 | 7.80   | 331.00  | 134.00                   | 5.60   | 1.30  | 1.20  | 0.80  | 0.80  |                 |
| 22             | 0.00                                                              | 0.00                     | 0.00 | 0.10                 | 7.25   | 661.60  | 176.50                   | 4.50   | 1.20  | 1.30  | 0.80  | 0.70  |                 |
| 23             | 0.00                                                              | 0.00                     | 0.00 | 0.10                 | 5.60   | 708.40  | 222.00                   | 4.00   | 1.20  | 1.30  | 0.80  | 0.70  |                 |
| 24             | 0.00                                                              | 0.00                     | 0.00 | 0.10                 | 4.00   | 625.20  | 239.90                   | 3.50   | 1.20  | 1.30  | 0.80  | 0.70  |                 |
| 25             | 0.00                                                              | 0.00                     | 0.00 | 0.10                 | 3.25   | 549.80  | 239.90                   | 3.25   | 1.10  | 1.30  | 0.80  | 0.70  |                 |
| 26             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 2.75   | 477.60  | 230.00                   | 3.00   | 1.10  | 1.30  | 0.80  | 0.70  |                 |
| 27             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 3.25   | 434.50  | 212.40                   | 3.00   | 1.10  | 1.30  | 0.80  | 0.70  |                 |
| 28             | 0.00                                                              | 0.00                     | 0.00 | 0.50                 | 3.00   | 409.30  | 189.00                   | 2.75   | 1.00  | 1.30  | 0.80  | 0.70  |                 |
| 29             | 0.00                                                              | 0.00                     | 0.00 | 0.60                 | 1.90   | 382.00  | 162.30                   | 2.50   | 1.00  | 1.20  |       | 0.70  |                 |
| 30             | 0.00                                                              | 0.00                     | 0.00 | 1.40                 | 4.50   | 359.00  | 137.00                   | 3.25   | 1.00  | 0.90  |       | 0.70  |                 |
| 31             |                                                                   | 0.00                     |      | 1.10                 | 20.51  |         | 121.70                   |        | 0.90  | 0.90  |       | 0.70  |                 |
| Total          | 0.00                                                              | 0.00                     | 0.00 | 4.20                 | 181.10 | 5847.44 | 5837.05                  | 639.71 | 42.90 | 31.60 | 23.00 | 20.80 | 12627.80 CMSDAY |
| Mean           | 0.00                                                              | 0.00                     | 0.00 | 0.14                 | 5.84   | 194.91  | 188.29                   | 21.32  | 1.38  | 1.02  | 0.82  | 0.67  | 34.60 CMS       |
| Max            | 0.00                                                              | 0.00                     | 0.00 | 1.40                 | 20.51  | 708.40  | 355.00                   | 107.50 | 2.50  | 1.30  | 0.90  | 0.90  | 708.40 CMS      |
| Min            | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.80   | 21.53   | 101.20                   | 2.50   | 0.90  | 0.90  | 0.80  | 0.50  | 0.00 CMS        |
| Runoff         | 0.00                                                              | 0.00                     | 0.00 | 0.36                 | 15.65  | 505.22  | 504.32                   | 55.27  | 3.71  | 2.73  | 1.99  | 1.80  | 1091.04 MCM     |
| Momentary Peak | 724.00 CMS. at 130.30 m. (MSL.) at 18.00 Hours , on Sep 22 , 2013 |                          |      |                      |        |         |                          |        |       |       |       |       |                 |
| Runoff Yield   | 12.22                                                             | Liters/Second/Square KM. |      | Momentary Peak Yield |        | 255.65  | Liters/Second/Square KM. |        |       |       |       |       |                 |



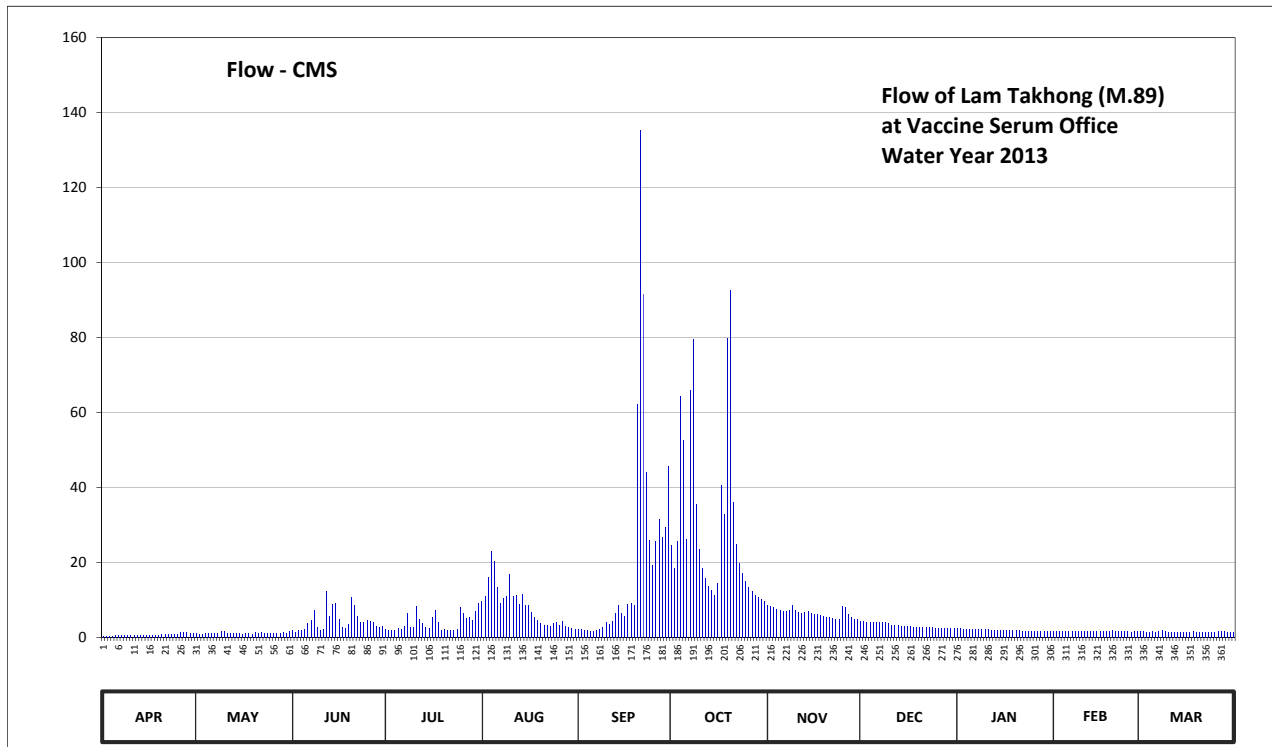




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov   | Dec   | Jan   | Feb  | Mar  | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|--------------------------|-------|-------|-------|------|------|----------------|
| 1              | 0.00                                                              | 0.01                     | 0.03  | 0.40                 | 11.16  | 1.52   | 9.31                     | 2.28  | 0.80  | 0.13  | 0.37 | 0.02 |                |
| 2              | 0.00                                                              | 0.00                     | 0.04  | 0.40                 | 12.22  | 1.36   | 8.51                     | 2.00  | 0.72  | 0.13  | 0.37 | 0.01 |                |
| 3              | 0.00                                                              | 0.00                     | 0.09  | 0.30                 | 22.98  | 1.20   | 15.13                    | 1.84  | 0.64  | 0.13  | 0.48 | 0.01 |                |
| 4              | 0.00                                                              | 0.00                     | 0.04  | 0.40                 | 21.56  | 1.12   | 29.49                    | 1.76  | 0.56  | 0.09  | 0.64 | 0.01 |                |
| 5              | 0.00                                                              | 0.00                     | 0.02  | 0.48                 | 13.81  | 1.04   | 14.61                    | 1.76  | 0.56  | 0.09  | 0.72 | 0.01 |                |
| 6              | 0.00                                                              | 0.00                     | 0.02  | 0.88                 | 8.78   | 0.96   | 14.87                    | 1.68  | 0.48  | 0.09  | 0.64 | 0.01 |                |
| 7              | 0.00                                                              | 0.00                     | 0.03  | 1.20                 | 6.39   | 0.96   | 39.58                    | 1.68  | 0.48  | 0.09  | 0.56 | 0.01 |                |
| 8              | 0.00                                                              | 0.01                     | 0.02  | 0.72                 | 9.04   | 1.12   | 18.84                    | 2.98  | 0.40  | 0.09  | 0.56 | 0.01 |                |
| 9              | 0.00                                                              | 0.01                     | 0.02  | 1.36                 | 13.01  | 1.20   | 12.75                    | 2.00  | 0.37  | 0.16  | 0.48 | 0.01 |                |
| 10             | 0.00                                                              | 0.00                     | 0.02  | 5.07                 | 10.63  | 1.60   | 9.83                     | 1.60  | 0.37  | 0.09  | 0.48 | 0.01 |                |
| 11             | 0.00                                                              | 0.00                     | 0.01  | 2.00                 | 7.98   | 1.60   | 7.72                     | 1.44  | 0.33  | 0.09  | 0.40 | 0.01 |                |
| 12             | 0.00                                                              | 0.00                     | 0.72  | 1.76                 | 7.45   | 2.14   | 6.13                     | 1.44  | 0.33  | 0.09  | 0.37 | 0.01 |                |
| 13             | 0.00                                                              | 0.00                     | 2.42  | 1.60                 | 6.66   | 5.33   | 4.80                     | 1.68  | 0.33  | 0.05  | 0.30 | 0.01 |                |
| 14             | 0.00                                                              | 0.00                     | 3.54  | 1.92                 | 7.19   | 4.24   | 4.24                     | 1.44  | 0.33  | 0.06  | 0.16 | 0.01 |                |
| 15             | 0.00                                                              | 0.00                     | 1.44  | 3.12                 | 6.66   | 2.70   | 3.96                     | 1.20  | 0.30  | 0.09  | 0.20 | 0.01 |                |
| 16             | 0.01                                                              | 0.00                     | 0.80  | 5.59                 | 5.07   | 5.86   | 4.66                     | 1.28  | 0.30  | 0.09  | 0.26 | 0.01 |                |
| 17             | 0.01                                                              | 0.00                     | 0.40  | 1.92                 | 3.96   | 8.51   | 12.22                    | 1.20  | 0.30  | 0.37  | 0.26 | 0.01 |                |
| 18             | 0.30                                                              | 0.00                     | 1.52  | 1.60                 | 3.26   | 5.86   | 8.78                     | 1.04  | 0.30  | 0.88  | 0.23 | 0.01 |                |
| 19             | 0.33                                                              | 0.00                     | 7.45  | 1.84                 | 2.70   | 4.66   | 46.47                    | 0.96  | 0.26  | 0.96  | 0.23 | 0.01 |                |
| 20             | 0.06                                                              | 0.00                     | 4.66  | 2.00                 | 2.28   | 79.06  | 18.50                    | 0.96  | 0.26  | 0.96  | 0.06 | 0.01 |                |
| 21             | 0.03                                                              | 0.00                     | 2.56  | 2.00                 | 2.28   | 53.35  | 12.48                    | 0.88  | 0.23  | 1.04  | 0.02 | 0.02 |                |
| 22             | 0.02                                                              | 0.00                     | 1.52  | 2.28                 | 2.00   | 33.00  | 9.83                     | 0.88  | 0.23  | 1.04  | 0.02 | 1.44 |                |
| 23             | 0.02                                                              | 0.00                     | 1.60  | 2.28                 | 2.56   | 19.52  | 8.24                     | 0.80  | 0.23  | 1.12  | 0.02 | 0.48 |                |
| 24             | 0.16                                                              | 0.00                     | 2.00  | 4.66                 | 3.26   | 13.54  | 6.92                     | 1.92  | 0.20  | 1.12  | 0.01 | 0.13 |                |
| 25             | 1.20                                                              | 0.04                     | 1.84  | 3.54                 | 2.42   | 10.89  | 5.59                     | 5.07  | 0.20  | 1.04  | 0.02 | 0.06 |                |
| 26             | 0.37                                                              | 0.06                     | 1.68  | 2.56                 | 3.40   | 26.58  | 4.80                     | 1.76  | 0.20  | 0.96  | 0.02 | 0.03 |                |
| 27             | 0.09                                                              | 0.03                     | 1.44  | 2.42                 | 2.28   | 16.02  | 4.38                     | 1.44  | 0.20  | 0.96  | 0.02 | 0.05 |                |
| 28             | 0.04                                                              | 0.02                     | 1.44  | 2.42                 | 1.92   | 21.22  | 4.10                     | 1.20  | 0.16  | 0.96  | 0.02 | 0.02 |                |
| 29             | 0.03                                                              | 0.01                     | 1.20  | 4.10                 | 1.76   | 13.01  | 3.40                     | 1.04  | 0.16  | 0.72  |      | 0.02 |                |
| 30             | 0.02                                                              | 0.01                     | 0.96  | 8.24                 | 1.60   | 12.48  | 2.70                     | 0.88  | 0.16  | 0.48  |      | 0.03 |                |
| 31             |                                                                   | 0.01                     |       | 6.39                 | 1.68   |        | 2.42                     |       | 0.13  | 0.40  |      | 0.02 |                |
| Total          | 2.69                                                              | 0.21                     | 39.53 | 75.45                | 207.95 | 351.65 | 355.26                   | 48.09 | 10.52 | 14.57 | 7.92 | 2.51 | 1116.35 CMSDAY |
| Mean           | 0.09                                                              | 0.01                     | 1.32  | 2.43                 | 6.71   | 11.72  | 11.46                    | 1.60  | 0.34  | 0.47  | 0.28 | 0.08 | 3.06 CMS       |
| Max            | 1.20                                                              | 0.06                     | 7.45  | 8.24                 | 22.98  | 79.06  | 46.47                    | 5.07  | 0.80  | 1.12  | 0.72 | 1.44 | 79.06 CMS      |
| Min            | 0.00                                                              | 0.00                     | 0.01  | 0.30                 | 1.60   | 0.96   | 2.42                     | 0.80  | 0.13  | 0.05  | 0.01 | 0.01 | 0.00 CMS       |
| Runoff         | 0.23                                                              | 0.02                     | 3.42  | 6.52                 | 17.97  | 30.38  | 30.69                    | 4.16  | 0.91  | 1.26  | 0.68 | 0.22 | 96.45 MCM      |
| Momentary Peak | 138.95 CMS. at 375.31 m. (MSL.) at 11.00 Hours , on Sep 20 , 2013 |                          |       |                      |        |        |                          |       |       |       |      |      |                |
| Runoff Yield   | 19.99                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 908.17 | Liters/Second/Square KM. |       |       |       |      |      |                |

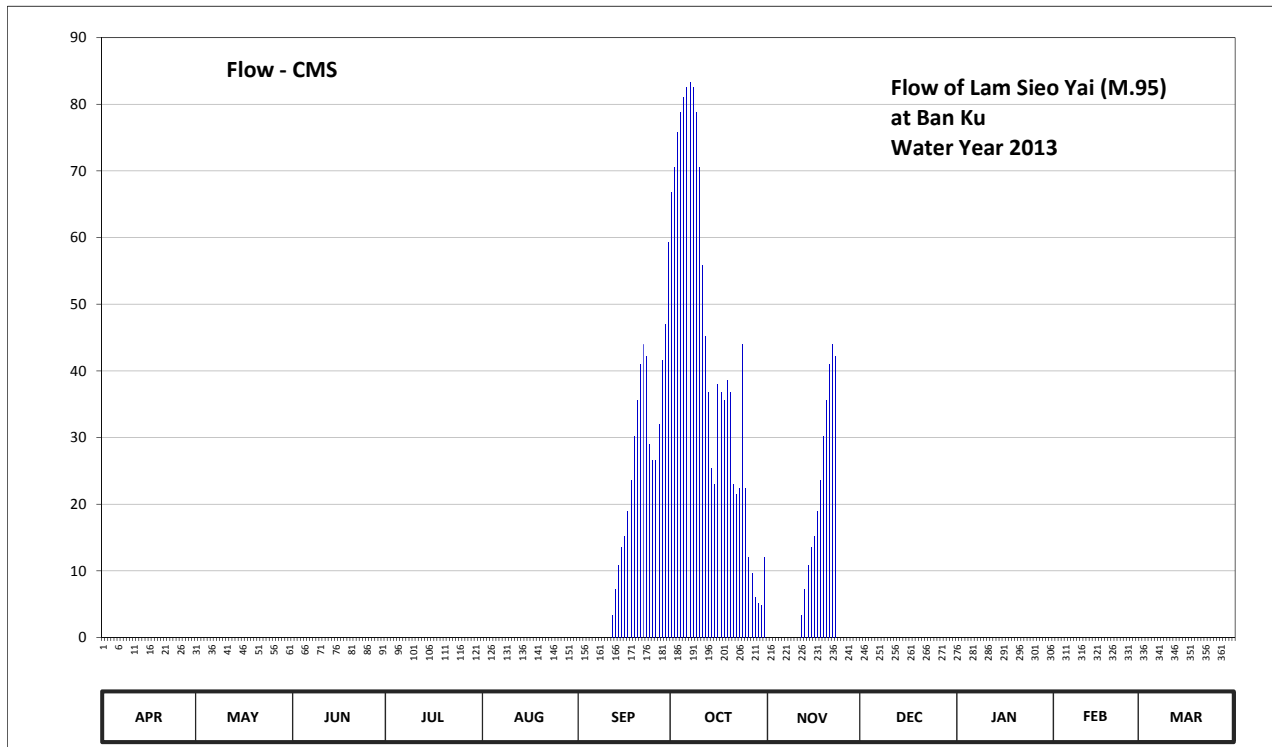




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 0.28                                                             | 1.15                     | 1.85   | 2.20                 | 9.60   | 2.30    | 24.60                    | 8.80   | 4.40   | 2.50  | 1.70  | 1.60  |                |
| 2              | 0.27                                                             | 0.98                     | 1.55   | 1.95                 | 11.10  | 2.30    | 18.66                    | 8.40   | 4.40   | 2.50  | 1.65  | 1.60  |                |
| 3              | 0.28                                                             | 0.98                     | 1.85   | 1.90                 | 16.20  | 2.10    | 25.59                    | 8.00   | 4.20   | 2.40  | 1.65  | 1.55  |                |
| 4              | 0.42                                                             | 1.10                     | 1.85   | 1.90                 | 22.95  | 1.90    | 64.20                    | 7.60   | 4.20   | 2.40  | 1.65  | 1.55  |                |
| 5              | 0.58                                                             | 1.20                     | 2.40   | 2.60                 | 20.31  | 1.80    | 52.65                    | 7.20   | 4.20   | 2.30  | 1.65  | 1.60  |                |
| 6              | 0.60                                                             | 1.20                     | 3.80   | 2.20                 | 13.50  | 1.75    | 26.25                    | 7.00   | 4.20   | 2.30  | 1.65  | 1.55  |                |
| 7              | 0.62                                                             | 1.10                     | 4.60   | 3.00                 | 9.30   | 1.90    | 65.85                    | 7.00   | 4.00   | 2.30  | 1.65  | 1.65  |                |
| 8              | 0.60                                                             | 1.10                     | 7.20   | 6.40                 | 10.50  | 2.30    | 79.38                    | 7.40   | 4.00   | 2.30  | 1.65  | 1.85  |                |
| 9              | 0.60                                                             | 1.75                     | 2.80   | 2.90                 | 11.10  | 2.70    | 35.49                    | 8.60   | 4.00   | 2.20  | 1.70  | 1.65  |                |
| 10             | 0.62                                                             | 1.60                     | 2.10   | 2.90                 | 16.80  | 4.20    | 23.61                    | 7.40   | 3.80   | 2.20  | 1.60  | 1.35  |                |
| 11             | 0.62                                                             | 1.20                     | 2.20   | 8.40                 | 11.10  | 3.60    | 18.66                    | 6.80   | 3.40   | 2.20  | 1.60  | 1.55  |                |
| 12             | 0.68                                                             | 1.25                     | 12.30  | 4.80                 | 11.40  | 4.40    | 15.90                    | 6.60   | 3.20   | 2.00  | 1.60  | 1.40  |                |
| 13             | 0.68                                                             | 1.20                     | 5.80   | 3.80                 | 9.00   | 6.40    | 13.80                    | 6.80   | 3.20   | 1.95  | 1.70  | 1.35  |                |
| 14             | 0.67                                                             | 1.05                     | 9.00   | 2.80                 | 11.70  | 8.80    | 12.60                    | 7.00   | 3.00   | 1.95  | 1.65  | 1.35  |                |
| 15             | 0.68                                                             | 1.10                     | 9.30   | 2.60                 | 8.80   | 6.60    | 11.40                    | 6.40   | 3.00   | 1.90  | 1.65  | 1.35  |                |
| 16             | 0.67                                                             | 1.00                     | 5.00   | 5.60                 | 8.60   | 5.80    | 14.40                    | 6.20   | 3.00   | 1.90  | 1.65  | 1.35  |                |
| 17             | 0.73                                                             | 1.05                     | 2.70   | 7.20                 | 6.80   | 9.00    | 40.77                    | 6.20   | 3.00   | 1.90  | 1.65  | 1.45  |                |
| 18             | 0.75                                                             | 1.15                     | 2.50   | 4.00                 | 5.60   | 9.30    | 32.85                    | 6.00   | 2.90   | 1.85  | 1.65  | 1.80  |                |
| 19             | 0.75                                                             | 0.95                     | 3.60   | 2.10                 | 4.60   | 8.60    | 79.71                    | 5.80   | 2.90   | 1.90  | 1.65  | 1.55  |                |
| 20             | 0.78                                                             | 1.50                     | 10.80  | 2.40                 | 3.80   | 62.22   | 92.58                    | 5.60   | 2.80   | 1.85  | 1.85  | 1.50  |                |
| 21             | 0.78                                                             | 1.30                     | 8.60   | 2.10                 | 3.20   | 135.21  | 36.15                    | 5.40   | 2.70   | 1.90  | 1.75  | 1.40  |                |
| 22             | 0.78                                                             | 1.35                     | 5.80   | 2.10                 | 3.20   | 91.59   | 24.93                    | 5.20   | 2.70   | 1.80  | 1.65  | 1.45  |                |
| 23             | 0.78                                                             | 1.25                     | 4.00   | 1.95                 | 3.00   | 44.07   | 19.98                    | 5.00   | 2.70   | 1.80  | 1.65  | 1.55  |                |
| 24             | 0.78                                                             | 1.20                     | 4.00   | 2.40                 | 3.80   | 25.92   | 17.10                    | 5.00   | 2.70   | 1.80  | 1.65  | 1.55  |                |
| 25             | 0.95                                                             | 1.10                     | 4.60   | 8.20                 | 4.20   | 19.32   | 15.00                    | 8.40   | 2.60   | 1.80  | 1.60  | 1.55  |                |
| 26             | 1.40                                                             | 1.15                     | 4.40   | 6.60                 | 3.40   | 25.59   | 13.50                    | 8.00   | 2.60   | 1.80  | 1.55  | 1.70  |                |
| 27             | 1.40                                                             | 1.10                     | 4.00   | 5.20                 | 4.40   | 31.53   | 12.30                    | 6.20   | 2.60   | 1.75  | 1.60  | 1.70  |                |
| 28             | 1.40                                                             | 1.20                     | 3.00   | 5.60                 | 3.00   | 26.91   | 11.40                    | 5.60   | 2.50   | 1.80  | 1.60  | 1.65  |                |
| 29             | 1.20                                                             | 1.55                     | 2.80   | 4.60                 | 2.70   | 29.55   | 10.80                    | 5.00   | 2.50   | 1.75  |       | 1.55  |                |
| 30             | 1.05                                                             | 1.15                     | 3.00   | 7.00                 | 2.50   | 45.72   | 10.20                    | 4.80   | 2.50   | 1.70  |       | 1.50  |                |
| 31             |                                                                  | 1.60                     |        | 9.30                 | 2.40   |         | 9.60                     |        | 2.50   | 1.70  |       | 1.40  |                |
| Total          | 22.40                                                            | 37.56                    | 137.40 | 126.70               | 258.56 | 623.38  | 929.91                   | 199.40 | 100.40 | 62.40 | 46.25 | 47.60 | 2591.96 CMSDAY |
| Mean           | 0.75                                                             | 1.21                     | 4.58   | 4.09                 | 8.34   | 20.78   | 30.00                    | 6.65   | 3.24   | 2.01  | 1.65  | 1.54  | 7.10 CMS       |
| Max            | 1.40                                                             | 1.75                     | 12.30  | 9.30                 | 22.95  | 135.21  | 92.58                    | 8.80   | 4.40   | 2.50  | 1.85  | 1.85  | 135.21 CMS     |
| Min            | 0.27                                                             | 0.95                     | 1.55   | 1.90                 | 2.40   | 1.75    | 9.60                     | 4.80   | 2.50   | 1.70  | 1.55  | 1.35  | 0.27 CMS       |
| Runoff         | 1.94                                                             | 3.25                     | 11.87  | 10.95                | 22.34  | 53.86   | 80.34                    | 17.23  | 8.68   | 5.39  | 4.00  | 4.11  | 223.95 MCM     |
| Momentary Peak | 141.50 CMS. at 297.30 m. (MSL.) at 22.00 Hours , on Sep 21, 2013 |                          |        |                      |        |         |                          |        |        |       |       |       |                |
| Runoff Yield   | 9.96                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 198.457 | Liters/Second/Square KM. |        |        |       |       |       |                |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                              | Sep               | Oct    | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|----------------------------------|-------------------|--------|-----------|--------|--------|--------|--------|--------|
| 1                                | 118.37 | 118.26 | 118.27      | 118.31 | 118.86                           | 119.31            | 121.29 | 119.31    | 120.46 | 120.45 | 119.91 | 119.61 |        |
| 2                                | 118.35 | 118.25 | 118.26      | 118.30 | 118.86                           | 119.39            | 121.34 | 119.39    | 120.49 | 120.46 | 119.91 | 119.58 |        |
| 3                                | 118.34 | 118.26 | 118.26      | 118.30 | 118.85                           | 119.50            | 121.41 | 119.50    | 120.50 | 120.46 | 119.94 | 119.58 |        |
| 4                                | 118.33 | 118.26 | 118.26      | 118.29 | 118.86                           | 119.56            | 121.45 | 119.56    | 120.49 | 120.47 | 119.95 | 119.57 |        |
| 5                                | 118.32 | 118.26 | 118.25      | 118.28 | 118.87                           | 119.69            | 121.48 | 119.69    | 120.48 | 120.46 | 119.95 | 119.56 |        |
| 6                                | 118.30 | 118.26 | 118.27      | 118.25 | 118.86                           | 119.75            | 121.50 | 119.75    | 120.49 | 120.46 | 119.94 | 119.55 |        |
| 7                                | 118.29 | 118.27 | 118.27      | 118.20 | 118.86                           | 119.74            | 121.51 | 119.74    | 120.50 | 120.46 | 119.93 | 119.54 |        |
| 8                                | 118.28 | 118.27 | 118.27      | 118.22 | 118.86                           | 119.83            | 121.50 | 119.83    | 120.50 | 120.47 | 119.92 | 119.51 |        |
| 9                                | 118.27 | 118.27 | 118.28      | 118.32 | 118.87                           | 119.95            | 121.45 | 119.95    | 120.49 | 120.47 | 119.89 | 119.50 |        |
| 10                               | 118.26 | 118.28 | 118.26      | 118.33 | 118.88                           | 119.98            | 121.34 | 119.98    | 120.48 | 120.47 | 119.88 | 119.47 |        |
| 11                               | 118.24 | 118.29 | 118.29      | 118.35 | 118.89                           | 119.99            | 121.14 | 119.99    | 120.47 | 120.47 | 119.85 | 119.44 |        |
| 12                               | 118.23 | 118.29 | 118.32      | 118.35 | 118.96                           | 120.11            | 120.97 | 120.11    | 120.48 | 120.46 | 119.84 | 119.44 |        |
| 13                               | 118.22 | 118.29 | 118.32      | 118.34 | 119.10                           | 120.23            | 120.83 | 120.23    | 120.49 | 120.46 | 119.84 | 119.43 |        |
| 14                               | 118.21 | 118.29 | 118.31      | 118.36 | 119.09                           | 120.32            | 120.64 | 120.32    | 120.48 | 120.46 | 119.82 | 119.42 |        |
| 15                               | 118.20 | 118.29 | 118.31      | 118.36 | 119.00                           | 120.39            | 120.60 | 120.39    | 120.47 | 120.46 | 119.82 | 119.40 |        |
| 16                               | 118.19 | 118.29 | 118.30      | 118.32 | 118.96                           | 120.43            | 120.85 | 120.43    | 120.46 | 120.46 | 119.80 | 119.37 |        |
| 17                               | 118.18 | 118.29 | 118.27      | 118.33 | 118.93                           | 120.52            | 120.83 | 120.52    | 120.46 | 120.43 | 119.78 | 119.37 |        |
| 18                               | 118.17 | 118.29 | 118.26      | 118.37 | 118.91                           | 120.61            | 120.81 | 120.61    | 120.47 | 120.40 | 119.77 | 119.36 |        |
| 19                               | 118.15 | 118.29 | 118.20      | 118.37 | 118.90                           | 120.72            | 120.86 | 120.72    | 120.47 | 120.36 | 119.76 | 119.36 |        |
| 20                               | 118.15 | 118.28 | 118.19      | 118.38 | 118.90                           | 120.81            | 120.83 | 120.81    | 120.47 | 120.28 | 119.75 | 119.33 |        |
| 21                               | 118.15 | 118.28 | 118.18      | 118.40 | 118.89                           | 120.90            | 120.60 | 120.90    | 120.48 | 120.22 | 119.74 | 119.32 |        |
| 22                               | 118.16 | 118.28 | 118.23      | 118.43 | 118.88                           | 120.95            | 120.57 | 120.95    | 120.47 | 120.16 | 119.73 | 119.31 |        |
| 23                               | 118.16 | 118.28 | 118.24      | 118.43 | 118.88                           | 120.92            | 120.59 | 120.92    | 120.46 | 120.13 | 119.72 | 119.29 |        |
| 24                               | 118.18 | 118.28 | 118.25      | 118.49 | 118.89                           | 120.70            | 120.95 | 120.70    | 120.46 | 120.12 | 119.68 | 119.27 |        |
| 25                               | 118.20 | 118.27 | 118.27      | 118.58 | 118.88                           | 120.66            | 120.59 | 120.66    | 120.46 | 120.12 | 119.67 | 119.27 |        |
| 26                               | 118.21 | 118.27 | 118.32      | 118.61 | 118.87                           | 120.66            | 120.35 | 120.66    | 120.46 | 120.11 | 119.65 | 119.28 |        |
| 27                               | 118.26 | 118.27 | 118.32      | 118.62 | 118.97                           | 120.75            | 120.29 | 120.75    | 120.46 | 120.11 | 119.64 | 119.28 |        |
| 28                               | 118.27 | 118.27 | 118.32      | 118.64 | 119.01                           | 120.91            | 120.20 | 120.91    | 120.45 | 120.10 | 119.62 | 119.28 |        |
| 29                               | 118.27 | 118.27 | 118.31      | 118.64 | 119.18                           | 121.00            | 120.17 | 121.00    | 120.45 | 120.09 |        | 119.24 |        |
| 30                               | 118.27 | 118.27 | 118.31      | 118.76 | 119.26                           | 121.19            | 120.16 | 121.19    | 120.44 | 120.08 |        | 119.20 |        |
| 31                               |        | 118.27 |             | 118.86 | 119.30                           |                   | 120.35 |           | 120.45 | 120.07 |        | 119.20 |        |
| Mean                             | 118.24 | 118.28 | 118.27      | 118.41 | 118.94                           | 120.32            | 120.89 | 120.32    | 120.47 | 120.33 | 119.81 | 119.40 |        |
| Max                              | 118.37 | 118.29 | 118.32      | 118.86 | 119.30                           | 121.19            | 121.51 | 121.19    | 120.50 | 120.47 | 119.95 | 119.61 | 121.51 |
| Min                              | 118.15 | 118.25 | 118.18      | 118.20 | 118.85                           | 119.31            | 120.16 | 119.31    | 120.44 | 120.07 | 119.62 | 119.20 | 118.15 |
| Annual Max Momentary Gage Height | 121.51 |        | m. (MSL.) , |        | at 06.00 Hours , on Oct 7 , 2013 |                   |        |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 118.10 |        | m. (MSL.) , |        | River Bed                        | 117.09            |        | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 124.27 |        | m. (MSL.) , |        |                                  |                   |        |           |        |        |        |        |        |
| Right Bank Elevation             | 123.92 |        | m. (MSL.) , |        | Drainage Area                    | Square Kilometers |        |           |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                      | May                      | Jun  | Jul  | Aug                  | Sep    | Oct     | Nov    | Dec                      | Jan  | Feb  | Mar  | Annual  |
|----------------|----------------------------------------------------------|--------------------------|------|------|----------------------|--------|---------|--------|--------------------------|------|------|------|---------|
| 1              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 66.75   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 2              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 70.50   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 3              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 75.75   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 4              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 78.75   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 5              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 81.00   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 6              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 82.50   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 7              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 83.25   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 8              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 82.50   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 9              | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 78.75   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 10             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 70.50   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 11             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 55.80   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 12             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 3.30   | 45.20   | 3.30   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 13             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 7.20   | 36.80   | 7.20   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 14             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 10.80  | 25.40   | 10.80  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 15             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 13.60  | 23.00   | 13.60  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 16             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 15.20  | 38.00   | 15.20  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 17             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 19.00  | 36.80   | 19.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 18             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 23.60  | 35.60   | 23.60  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 19             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 30.20  | 38.60   | 30.20  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 20             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 35.60  | 36.80   | 35.60  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 21             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 41.00  | 23.00   | 41.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 22             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 44.00  | 21.50   | 44.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 23             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 42.20  | 22.50   | 42.20  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 24             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 29.00  | 44.00   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 25             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 26.60  | 22.50   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 26             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 26.60  | 12.00   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 27             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 32.00  | 9.60    | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 28             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 41.60  | 6.00    | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 29             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 47.00  | 5.10    | 0.00   | 0.00                     | 0.00 |      | 0.00 |         |
| 30             | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 59.30  | 4.80    | 0.00   | 0.00                     | 0.00 |      | 0.00 |         |
| 31             |                                                          | 0.00                     |      | 0.00 | 0.00                 |        | 12.00   |        | 0.00                     | 0.00 |      | 0.00 |         |
| Total          | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 547.80 | 1325.25 | 285.70 | 0.00                     | 0.00 | 0.00 | 0.00 | 2158.75 |
| Mean           | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 18.26  | 42.75   | 9.52   | 0.00                     | 0.00 | 0.00 | 0.00 | 5.91    |
| Max            | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 59.30  | 83.25   | 44.00  | 0.00                     | 0.00 | 0.00 | 0.00 | 83.25   |
| Min            | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.00   | 4.80    | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00    |
| Runoff         | 0.00                                                     | 0.00                     | 0.00 | 0.00 | 0.00                 | 47.33  | 114.50  | 24.68  | 0.00                     | 0.00 | 0.00 | 0.00 | 186.52  |
| Momentary Peak | CMS. at 121.51 m. (MSL.) at 06.00 Hours , on Oct 7, 2013 |                          |      |      |                      |        |         |        |                          |      |      |      |         |
| Runoff Yield   | *****                                                    | Liters/Second/Square KM. |      |      | Momentary Peak Yield |        |         | *****  | Liters/Second/Square KM. |      |      |      |         |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Wang Prat, Buri Ram (M.104)**

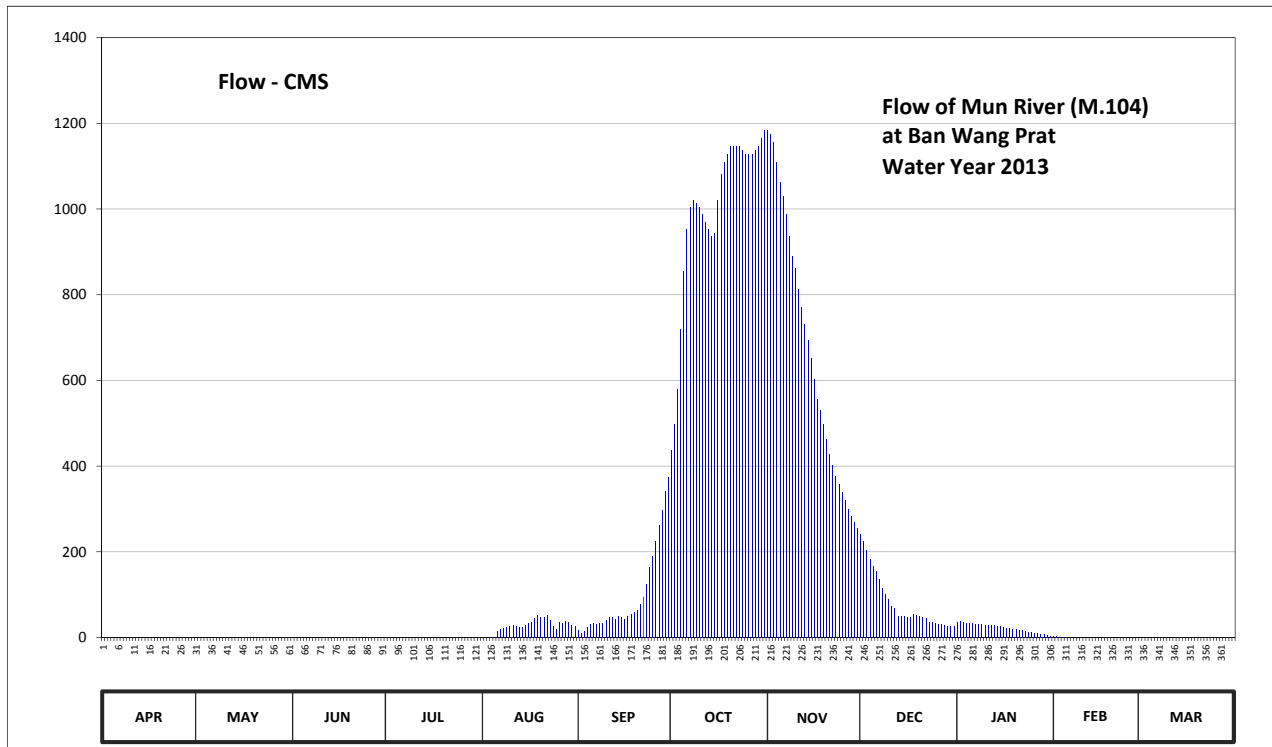
Lat 15 - 26 - 02 N Long 103 - 00 - 59 E

Location : on left bank at the bridge.

|                                         |                                                                                           |                  |               |                   |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|-------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Wang Prat</b> | <b>Amphoe</b> | <b>Khu Mueang</b> | <b>Changwat</b>  | <b>Buri Ram</b>    |
| <b>Drainage Area</b>                    | 24,841                                                                                    | sq.km.           |               |                   |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                  |               |                   |                  |                    |
| <b>Zero Gage at Bottom</b>              | +129.760                                                                                  | m. (MSL.)        |               |                   |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                  |               |                   |                  |                    |
| <b>Location BM</b>                      | On left bank at the footpath of the bridge.                                               |                  |               |                   | <b>Elevation</b> | +140.339 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00, and 18.00 hours.                                   |                  |               |                   |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                  |               |                   |                  |                    |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                              |                  |               |                   |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |                   |                  |                    |
| <b>Period of Rating</b>                 | 2005 to date                                                                              |                  |               |                   |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |                   |                  |                    |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                              |                  |               |                   |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                  |               |                   |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                                          |                  |               |                   |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 33 discharge measurements made in 2013. |                  |               |                   |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug           | Sep                               | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 130.35 | 130.23      | 130.15 | 130.10 | 130.28        | 131.74                            | 135.38            | 136.51 | 134.57 | 132.14 | 131.46 | 130.75 |        |
| 2                                | 130.34 | 130.22      | 130.14 | 130.10 | 130.28        | 131.59                            | 135.52            | 136.50 | 134.45 | 132.15 | 131.45 | 130.73 |        |
| 3                                | 130.33 | 130.21      | 130.14 | 130.09 | 130.28        | 131.68                            | 135.69            | 136.48 | 134.27 | 132.12 | 131.43 | 130.72 |        |
| 4                                | 130.33 | 130.21      | 130.14 | 130.09 | 130.62        | 131.90                            | 135.92            | 136.43 | 134.06 | 132.07 | 131.41 | 130.71 |        |
| 5                                | 130.32 | 130.20      | 130.14 | 130.08 | 131.41        | 132.02                            | 136.12            | 136.38 | 133.91 | 132.09 | 131.40 | 130.70 |        |
| 6                                | 130.32 | 130.20      | 130.15 | 130.07 | 131.68        | 132.08                            | 136.25            | 136.34 | 133.78 | 132.09 | 131.38 | 130.69 |        |
| 7                                | 130.31 | 130.19      | 130.14 | 130.05 | 131.78        | 132.03                            | 136.31            | 136.29 | 133.60 | 132.05 | 131.36 | 130.68 |        |
| 8                                | 130.31 | 130.19      | 130.15 | 130.05 | 131.86        | 132.08                            | 136.33            | 136.23 | 133.39 | 132.03 | 131.35 | 130.68 |        |
| 9                                | 130.30 | 130.20      | 130.14 | 130.05 | 131.88        | 132.07                            | 136.32            | 136.17 | 133.18 | 132.01 | 131.34 | 130.67 |        |
| 10                               | 130.30 | 130.20      | 130.14 | 130.05 | 131.94        | 132.21                            | 136.31            | 136.13 | 133.02 | 132.00 | 131.33 | 130.66 |        |
| 11                               | 130.30 | 130.20      | 130.13 | 130.04 | 131.96        | 132.34                            | 136.29            | 136.06 | 132.80 | 131.98 | 131.32 | 130.66 |        |
| 12                               | 130.29 | 130.20      | 130.13 | 130.04 | 131.92        | 132.36                            | 136.27            | 136.00 | 132.73 | 131.97 | 131.31 | 130.66 |        |
| 13                               | 130.29 | 130.19      | 130.13 | 130.04 | 131.87        | 132.25                            | 136.25            | 135.94 | 132.41 | 131.96 | 131.31 | 130.64 |        |
| 14                               | 130.29 | 130.19      | 130.13 | 130.04 | 131.87        | 132.39                            | 136.23            | 135.88 | 132.40 | 131.92 | 131.27 | 130.64 |        |
| 15                               | 130.28 | 130.19      | 130.13 | 130.03 | 131.98        | 132.33                            | 136.24            | 135.81 | 132.39 | 131.91 | 131.24 | 130.64 |        |
| 16                               | 130.28 | 130.19      | 130.13 | 130.03 | 132.09        | 132.25                            | 136.33            | 135.73 | 132.38 | 131.88 | 131.21 | 130.62 |        |
| 17                               | 130.28 | 130.19      | 130.13 | 130.03 | 132.10        | 132.39                            | 136.40            | 135.64 | 132.38 | 131.86 | 131.15 | 130.61 |        |
| 18                               | 130.27 | 130.19      | 130.13 | 130.03 | 132.31        | 132.50                            | 136.43            | 135.59 | 132.48 | 131.84 | 131.13 | 130.61 |        |
| 19                               | 130.27 | 130.19      | 130.13 | 130.03 | 132.44        | 132.58                            | 136.45            | 135.52 | 132.44 | 131.82 | 131.04 | 130.60 |        |
| 20                               | 130.26 | 130.18      | 130.12 | 130.02 | 132.35        | 132.66                            | 136.47            | 135.44 | 132.42 | 131.79 | 131.00 | 130.59 |        |
| 21                               | 130.26 | 130.18      | 130.12 | 130.02 | 132.37        | 132.85                            | 136.47            | 135.36 | 132.36 | 131.76 | 130.99 | 130.59 |        |
| 22                               | 130.26 | 130.17      | 130.12 | 130.02 | 132.43        | 133.11                            | 136.47            | 135.29 | 132.29 | 131.74 | 130.98 | 130.58 |        |
| 23                               | 130.25 | 130.20      | 130.12 | 130.03 | 132.21        | 133.48                            | 136.47            | 135.21 | 132.14 | 131.68 | 130.95 | 130.57 |        |
| 24                               | 130.25 | 130.18      | 130.12 | 130.11 | 131.94        | 133.88                            | 136.46            | 135.14 | 132.10 | 131.66 | 130.91 | 130.57 |        |
| 25                               | 130.25 | 130.18      | 130.12 | 130.14 | 131.81        | 134.14                            | 136.45            | 135.08 | 132.08 | 131.64 | 130.88 | 130.56 |        |
| 26                               | 130.24 | 130.18      | 130.11 | 130.14 | 132.10        | 134.44                            | 136.45            | 135.00 | 132.05 | 131.62 | 130.86 | 130.56 |        |
| 27                               | 130.24 | 130.17      | 130.11 | 130.14 | 132.09        | 134.71                            | 136.45            | 134.92 | 132.02 | 131.60 | 130.86 | 130.55 |        |
| 28                               | 130.24 | 130.17      | 130.11 | 130.14 | 132.17        | 134.91                            | 136.46            | 134.84 | 131.99 | 131.56 | 130.86 | 130.55 |        |
| 29                               | 130.24 | 130.16      | 130.11 | 130.22 | 132.12        | 135.09                            | 136.47            | 134.76 | 131.95 | 131.54 |        | 130.55 |        |
| 30                               | 130.24 | 130.16      | 130.11 | 130.24 | 132.00        | 135.20                            | 136.49            | 134.67 | 131.93 | 131.51 |        | 130.55 |        |
| 31                               |        | 130.16      |        | 130.28 | 131.91        |                                   | 136.51            |        | 131.91 | 131.48 |        | 130.55 |        |
| Mean                             | 130.28 | 130.19      | 130.13 | 130.08 | 131.81        | 132.84                            | 136.28            | 135.71 | 132.77 | 131.85 | 131.19 | 130.63 |        |
| Max                              | 130.35 | 130.23      | 130.15 | 130.28 | 132.44        | 135.20                            | 136.51            | 136.51 | 134.57 | 132.15 | 131.46 | 130.75 | 136.51 |
| Min                              | 130.24 | 130.16      | 130.11 | 130.02 | 130.28        | 131.59                            | 135.38            | 134.67 | 131.91 | 131.48 | 130.86 | 130.55 | 130.02 |
| Annual Max Momentary Gage Height | 136.51 | m. (MSL.) , |        |        |               | at 06.00 Hours , on Oct 31 , 2013 |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 129.76 | m. (MSL.) , |        |        | River Bed     | 126.75                            | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 140.43 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 140.46 | m. (MSL.) , |        |        | Drainage Area | 24841                             | Square Kilometers |        |        |        |        |        |        |

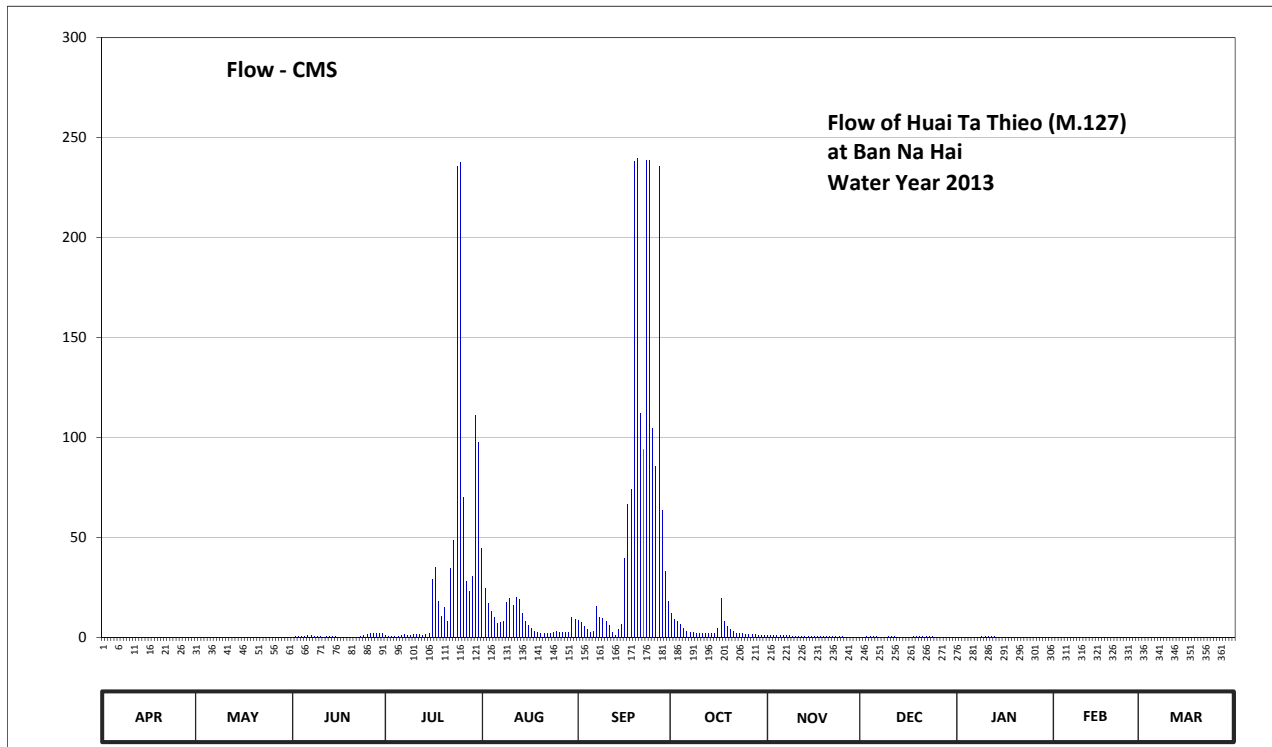


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun  | Jul  | Aug                  | Sep     | Oct      | Nov      | Dec                      | Jan    | Feb  | Mar  | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|------|------|----------------------|---------|----------|----------|--------------------------|--------|------|------|----------|--------|
| 1              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 0.00                 | 17.00   | 437.00   | 1184.50  | 241.10                   | 37.00  | 3.00 | 0.00 |          |        |
| 2              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 0.00                 | 9.50    | 499.00   | 1175.00  | 225.50                   | 37.50  | 2.50 | 0.00 |          |        |
| 3              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 0.00                 | 14.00   | 580.00   | 1156.00  | 203.00                   | 36.00  | 1.50 | 0.00 |          |        |
| 4              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 0.00                 | 25.00   | 718.00   | 1108.50  | 182.00                   | 33.50  | 0.50 | 0.00 |          |        |
| 5              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 0.50                 | 31.00   | 854.00   | 1063.00  | 167.00                   | 34.50  | 0.00 | 0.00 |          |        |
| 6              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 14.00                | 34.00   | 952.50   | 1029.00  | 154.00                   | 34.50  | 0.00 | 0.00 |          |        |
| 7              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 19.00                | 31.50   | 1003.50  | 986.50   | 136.00                   | 32.50  | 0.00 | 0.00 |          |        |
| 8              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 23.00                | 34.00   | 1020.50  | 935.50   | 115.30                   | 31.50  | 0.00 | 0.00 |          |        |
| 9              | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 24.00                | 33.50   | 1012.00  | 889.00   | 100.60                   | 30.50  | 0.00 | 0.00 |          |        |
| 10             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 27.00                | 40.50   | 1003.50  | 861.00   | 89.40                    | 30.00  | 0.00 | 0.00 |          |        |
| 11             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 28.00                | 47.00   | 986.50   | 812.00   | 74.00                    | 29.00  | 0.00 | 0.00 |          |        |
| 12             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 26.00                | 48.00   | 969.50   | 770.00   | 69.10                    | 28.50  | 0.00 | 0.00 |          |        |
| 13             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 23.50                | 42.50   | 952.50   | 731.00   | 50.50                    | 28.00  | 0.00 | 0.00 |          |        |
| 14             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 23.50                | 49.50   | 935.50   | 693.00   | 50.00                    | 26.00  | 0.00 | 0.00 |          |        |
| 15             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 29.00                | 46.50   | 944.00   | 651.00   | 49.50                    | 25.50  | 0.00 | 0.00 |          |        |
| 16             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 34.50                | 42.50   | 1020.50  | 603.00   | 49.00                    | 24.00  | 0.00 | 0.00 |          |        |
| 17             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 35.00                | 49.50   | 1080.00  | 555.00   | 49.00                    | 23.00  | 0.00 | 0.00 |          |        |
| 18             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 45.50                | 55.00   | 1108.50  | 530.50   | 54.00                    | 22.00  | 0.00 | 0.00 |          |        |
| 19             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 52.00                | 59.00   | 1127.50  | 499.00   | 52.00                    | 21.00  | 0.00 | 0.00 |          |        |
| 20             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 47.50                | 64.20   | 1146.50  | 463.00   | 51.00                    | 19.50  | 0.00 | 0.00 |          |        |
| 21             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 48.50                | 77.50   | 1146.50  | 429.00   | 48.00                    | 18.00  | 0.00 | 0.00 |          |        |
| 22             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 51.50                | 95.70   | 1146.50  | 402.00   | 44.50                    | 17.00  | 0.00 | 0.00 |          |        |
| 23             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 40.50                | 124.00  | 1146.50  | 378.00   | 37.00                    | 14.00  | 0.00 | 0.00 |          |        |
| 24             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 27.00                | 164.00  | 1137.00  | 357.00   | 35.00                    | 13.00  | 0.00 | 0.00 |          |        |
| 25             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 20.50                | 190.00  | 1127.50  | 340.00   | 34.00                    | 12.00  | 0.00 | 0.00 |          |        |
| 26             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 35.00                | 224.20  | 1127.50  | 320.00   | 32.50                    | 11.00  | 0.00 | 0.00 |          |        |
| 27             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 34.50                | 261.50  | 1127.50  | 300.00   | 31.00                    | 10.00  | 0.00 | 0.00 |          |        |
| 28             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 38.50                | 297.50  | 1137.00  | 283.00   | 29.50                    | 8.00   | 0.00 | 0.00 |          |        |
| 29             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 36.00                | 342.50  | 1146.50  | 269.00   | 27.50                    | 7.00   |      | 0.00 |          |        |
| 30             | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 30.00                | 375.00  | 1165.50  | 255.50   | 26.50                    | 5.50   |      | 0.00 |          |        |
| 31             |                                                                   | 0.00                     |      | 0.00 | 25.50                |         | 1184.50  |          | 25.50                    | 4.00   |      | 0.00 |          |        |
| Total          | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 839.50               | 2925.60 | 30943.50 | 20029.00 | 2533.00                  | 703.50 | 7.50 | 0.00 | 57981.60 | CMSDAY |
| Mean           | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 27.10                | 97.50   | 998.20   | 667.60   | 81.70                    | 22.70  | 0.30 | 0.00 | 158.90   | CMS    |
| Max            | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 52.00                | 375.00  | 1184.50  | 1184.50  | 241.10                   | 37.50  | 3.00 | 0.00 | 1184.50  | CMS    |
| Min            | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 0.00                 | 9.50    | 437.00   | 255.50   | 25.50                    | 4.00   | 0.00 | 0.00 | 0.00     | CMS    |
| Runoff         | 0.00                                                              | 0.00                     | 0.00 | 0.00 | 72.53                | 252.77  | 2673.52  | 1730.51  | 218.85                   | 60.78  | 0.65 | 0.00 | 5009.61  | MCM    |
| Momentary Peak | 1184.50 CMS. at 136.51 m. (MSL.) at 06.00 Hours , on Oct 31, 2013 |                          |      |      |                      |         |          |          |                          |        |      |      |          |        |
| Runoff Yield   | 6.39                                                              | Liters/Second/Square KM. |      |      | Momentary Peak Yield |         |          | 47.683   | Liters/Second/Square KM. |        |      |      |          |        |



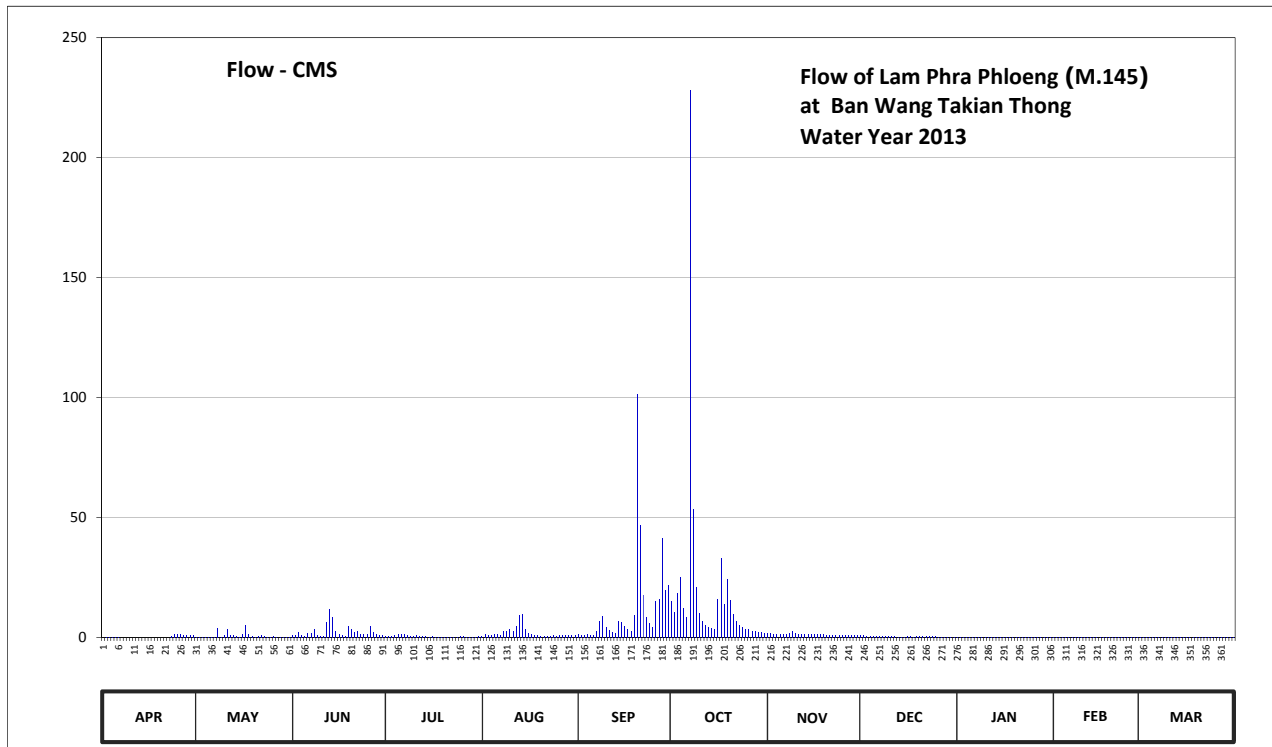




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                                | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb  | Mar  | Annual         |
|----------------|--------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|-------|-------|-------|------|------|----------------|
| 1              | 0.00                                                               | 0.00                     | 0.10  | 1.30                 | 44.70  | 8.80    | 12.25                    | 1.20  | 0.40  | 0.40  | 0.20 | 0.00 |                |
| 2              | 0.00                                                               | 0.00                     | 0.55  | 0.90                 | 24.60  | 7.60    | 9.40                     | 1.20  | 0.45  | 0.40  | 0.20 | 0.00 |                |
| 3              | 0.00                                                               | 0.00                     | 0.75  | 0.90                 | 17.25  | 5.80    | 8.00                     | 1.10  | 0.50  | 0.40  | 0.20 | 0.00 |                |
| 4              | 0.00                                                               | 0.00                     | 0.70  | 0.85                 | 13.00  | 4.40    | 6.80                     | 1.00  | 0.50  | 0.45  | 0.15 | 0.00 |                |
| 5              | 0.00                                                               | 0.00                     | 0.95  | 0.75                 | 10.20  | 2.90    | 4.80                     | 1.00  | 0.50  | 0.40  | 0.15 | 0.00 |                |
| 6              | 0.00                                                               | 0.00                     | 1.20  | 1.20                 | 7.40   | 3.00    | 3.20                     | 1.00  | 0.50  | 0.40  | 0.15 | 0.00 |                |
| 7              | 0.00                                                               | 0.00                     | 1.10  | 1.50                 | 7.80   | 15.75   | 2.80                     | 1.00  | 0.45  | 0.45  | 0.10 | 0.00 |                |
| 8              | 0.00                                                               | 0.00                     | 0.80  | 1.20                 | 8.00   | 10.40   | 2.70                     | 1.00  | 0.45  | 0.45  | 0.10 | 0.00 |                |
| 9              | 0.00                                                               | 0.00                     | 0.70  | 1.30                 | 17.50  | 9.80    | 2.50                     | 0.95  | 0.45  | 0.50  | 0.10 | 0.00 |                |
| 10             | 0.00                                                               | 0.00                     | 0.55  | 1.60                 | 19.75  | 8.40    | 2.30                     | 0.95  | 0.50  | 0.50  | 0.05 | 0.00 |                |
| 11             | 0.00                                                               | 0.00                     | 0.35  | 1.70                 | 16.50  | 6.40    | 2.20                     | 0.95  | 0.50  | 0.50  | 0.05 | 0.00 |                |
| 12             | 0.00                                                               | 0.00                     | 0.55  | 1.50                 | 20.50  | 2.80    | 2.00                     | 0.95  | 0.50  | 0.50  | 0.05 | 0.00 |                |
| 13             | 0.00                                                               | 0.00                     | 0.55  | 1.30                 | 19.25  | 1.10    | 2.30                     | 0.95  | 0.45  | 0.50  | 0.00 | 0.00 |                |
| 14             | 0.00                                                               | 0.00                     | 0.55  | 1.50                 | 12.25  | 4.40    | 2.10                     | 0.90  | 0.45  | 0.45  | 0.00 | 0.00 |                |
| 15             | 0.00                                                               | 0.00                     | 0.50  | 2.20                 | 8.40   | 6.60    | 2.00                     | 0.90  | 0.45  | 0.45  | 0.00 | 0.00 |                |
| 16             | 0.00                                                               | 0.00                     | 0.40  | 29.10                | 6.40   | 39.60   | 4.80                     | 0.85  | 0.40  | 0.45  | 0.00 | 0.00 |                |
| 17             | 0.00                                                               | 0.00                     | 0.30  | 35.10                | 4.80   | 66.65   | 19.75                    | 0.80  | 0.40  | 0.40  | 0.00 | 0.00 |                |
| 18             | 0.00                                                               | 0.00                     | 0.25  | 18.00                | 3.20   | 74.00   | 8.20                     | 0.75  | 0.50  | 0.40  | 0.00 | 0.00 |                |
| 19             | 0.00                                                               | 0.00                     | 0.20  | 10.60                | 2.80   | 237.90  | 5.60                     | 0.70  | 0.65  | 0.40  | 0.00 | 0.00 |                |
| 20             | 0.00                                                               | 0.00                     | 0.25  | 15.25                | 2.50   | 239.67  | 4.40                     | 0.70  | 0.60  | 0.35  | 0.00 | 0.00 |                |
| 21             | 0.00                                                               | 0.00                     | 0.30  | 8.40                 | 2.30   | 112.20  | 3.00                     | 0.65  | 0.55  | 0.35  | 0.00 | 0.00 |                |
| 22             | 0.00                                                               | 0.00                     | 0.35  | 34.80                | 2.20   | 94.20   | 2.50                     | 0.60  | 0.55  | 0.35  | 0.00 | 0.00 |                |
| 23             | 0.00                                                               | 0.00                     | 0.50  | 48.60                | 2.50   | 238.35  | 2.30                     | 0.60  | 0.50  | 0.35  | 0.00 | 0.00 |                |
| 24             | 0.00                                                               | 0.00                     | 1.00  | 235.77               | 2.80   | 238.54  | 2.10                     | 0.55  | 0.50  | 0.35  | 0.00 | 0.00 |                |
| 25             | 0.00                                                               | 0.00                     | 1.80  | 237.79               | 3.00   | 104.60  | 1.90                     | 0.50  | 0.45  | 0.30  | 0.00 | 0.00 |                |
| 26             | 0.00                                                               | 0.00                     | 2.50  | 70.15                | 2.80   | 85.80   | 1.60                     | 0.45  | 0.45  | 0.30  | 0.00 | 0.00 |                |
| 27             | 0.00                                                               | 0.00                     | 2.30  | 28.50                | 2.80   | 235.65  | 1.60                     | 0.45  | 0.40  | 0.30  | 0.00 | 0.00 |                |
| 28             | 0.00                                                               | 0.00                     | 2.50  | 23.40                | 2.80   | 63.50   | 1.50                     | 0.40  | 0.40  | 0.25  | 0.00 | 0.00 |                |
| 29             | 0.00                                                               | 0.00                     | 2.30  | 30.90                | 2.80   | 33.30   | 1.40                     | 0.40  | 0.35  | 0.25  |      | 0.00 |                |
| 30             | 0.00                                                               | 0.00                     | 2.00  | 111.40               | 10.20  | 18.00   | 1.30                     | 0.35  | 0.35  | 0.20  |      | 0.00 |                |
| 31             |                                                                    | 0.00                     |       | 97.80                | 9.40   |         | 1.30                     |       | 0.35  | 0.20  |      | 0.00 |                |
| Total          | 0.00                                                               | 0.00                     | 26.85 | 1055.26              | 310.40 | 1980.11 | 128.60                   | 23.80 | 14.45 | 11.95 | 1.50 | 0.00 | 3552.92 CMSDAY |
| Mean           | 0.00                                                               | 0.00                     | 0.90  | 34.04                | 10.01  | 66.00   | 4.15                     | 0.79  | 0.47  | 0.39  | 0.05 | 0.00 | 9.73 CMS       |
| Max            | 0.00                                                               | 0.00                     | 2.50  | 237.79               | 44.70  | 239.67  | 19.75                    | 1.20  | 0.65  | 0.50  | 0.20 | 0.00 | 239.67 CMS     |
| Min            | 0.00                                                               | 0.00                     | 0.10  | 0.75                 | 2.20   | 1.10    | 1.30                     | 0.35  | 0.35  | 0.20  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                               | 0.00                     | 2.32  | 91.17                | 26.82  | 171.08  | 11.11                    | 2.06  | 1.25  | 1.03  | 0.13 | 0.00 | 306.97 MCM     |
| Momentary Peak | 240.35 CMS, at 122.86 m. (MSL.) , at 06.00 Hours , on Sep 20, 2013 |                          |       |                      |        |         |                          |       |       |       |      |      |                |
| Runoff Yield   | 22.96                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 566.863 | Liters/Second/Square KM. |       |       |       |      |      |                |

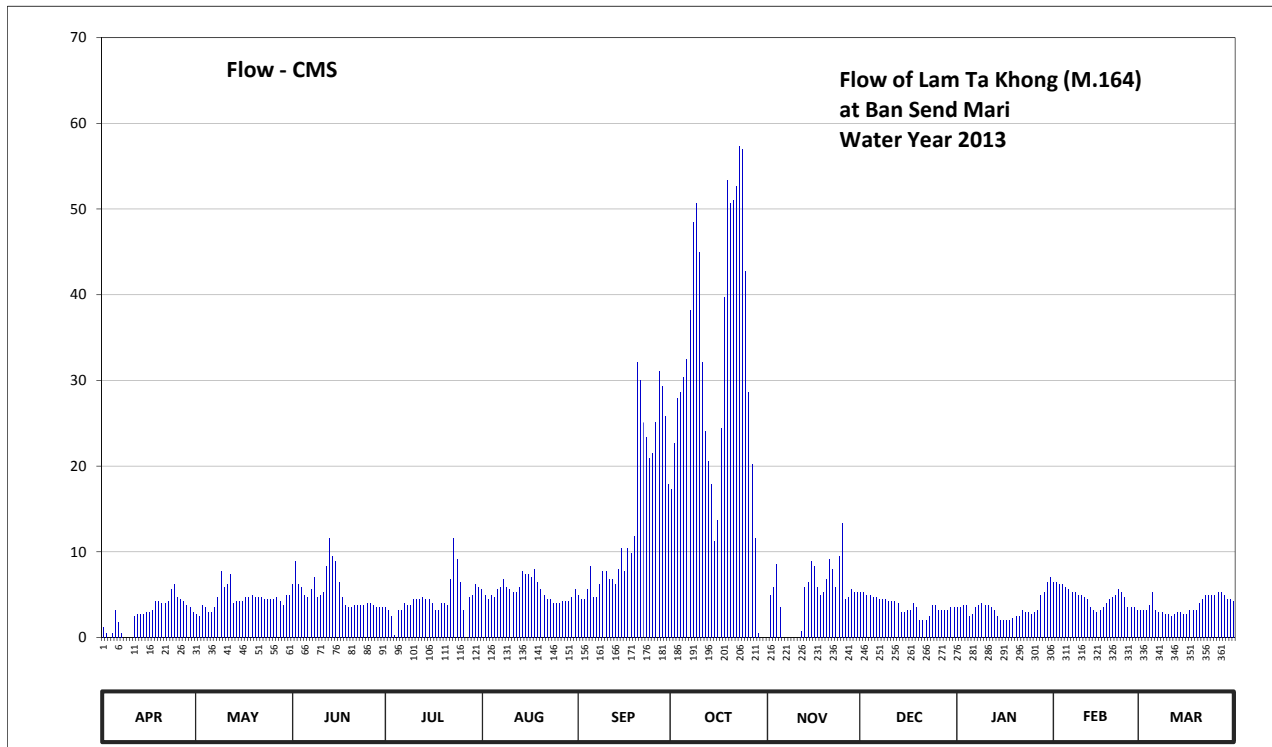




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                                | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan  | Feb  | Mar  | Annual         |
|----------------|--------------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|------|------|------|----------------|
| 1              | 0.00                                                               | 0.24                     | 1.15  | 0.55                 | 0.60  | 1.37    | 15.00                    | 1.79  | 0.85  | 0.30 | 0.18 | 0.18 |                |
| 2              | 0.20                                                               | 0.10                     | 0.95  | 0.50                 | 1.25  | 1.20    | 10.80                    | 1.72  | 0.85  | 0.30 | 0.18 | 0.18 |                |
| 3              | 0.10                                                               | 0.08                     | 2.20  | 0.50                 | 0.90  | 1.05    | 18.75                    | 1.58  | 0.75  | 0.30 | 0.18 | 0.16 |                |
| 4              | 0.08                                                               | 0.18                     | 1.10  | 1.20                 | 1.10  | 1.51    | 25.00                    | 1.51  | 0.70  | 0.30 | 0.18 | 0.14 |                |
| 5              | 0.05                                                               | 0.20                     | 0.70  | 1.44                 | 1.37  | 1.15    | 12.40                    | 1.37  | 0.70  | 0.30 | 0.18 | 0.14 |                |
| 6              | 0.02                                                               | 0.20                     | 1.79  | 1.37                 | 1.37  | 1.20    | 8.40                     | 1.25  | 0.65  | 0.28 | 0.18 | 0.14 |                |
| 7              | 0.01                                                               | 0.20                     | 1.65  | 1.25                 | 1.00  | 2.50    | 228.00                   | 1.25  | 0.65  | 0.28 | 0.18 | 0.12 |                |
| 8              | 0.00                                                               | 3.80                     | 3.50  | 1.15                 | 2.70  | 6.80    | 53.70                    | 1.65  | 0.60  | 0.26 | 0.18 | 0.12 |                |
| 9              | 0.00                                                               | 0.35                     | 1.00  | 0.80                 | 2.70  | 8.80    | 21.00                    | 2.60  | 0.60  | 0.26 | 0.18 | 0.12 |                |
| 10             | 0.00                                                               | 0.85                     | 0.65  | 0.80                 | 3.40  | 4.40    | 10.40                    | 1.86  | 0.55  | 0.30 | 0.18 | 0.09 |                |
| 11             | 0.00                                                               | 3.60                     | 0.50  | 1.00                 | 2.80  | 2.90    | 6.80                     | 1.58  | 0.45  | 0.26 | 0.18 | 0.09 |                |
| 12             | 0.00                                                               | 1.10                     | 6.50  | 0.75                 | 4.60  | 2.30    | 5.30                     | 1.37  | 0.45  | 0.26 | 0.18 | 0.14 |                |
| 13             | 0.00                                                               | 1.10                     | 11.80 | 0.65                 | 9.40  | 2.00    | 4.30                     | 1.25  | 0.40  | 0.22 | 0.18 | 0.09 |                |
| 14             | 0.00                                                               | 0.55                     | 8.40  | 0.55                 | 9.80  | 6.65    | 3.80                     | 1.30  | 0.40  | 0.20 | 0.18 | 0.08 |                |
| 15             | 0.00                                                               | 0.35                     | 2.80  | 0.40                 | 3.70  | 6.35    | 3.40                     | 1.30  | 0.40  | 0.20 | 0.18 | 0.08 |                |
| 16             | 0.00                                                               | 1.25                     | 1.25  | 0.50                 | 1.86  | 4.60    | 16.00                    | 1.25  | 0.45  | 0.18 | 0.18 | 0.07 |                |
| 17             | 0.00                                                               | 5.30                     | 0.85  | 0.35                 | 1.30  | 3.60    | 33.00                    | 1.37  | 0.55  | 0.18 | 0.18 | 0.06 |                |
| 18             | 0.00                                                               | 1.37                     | 0.70  | 0.30                 | 1.05  | 2.70    | 14.00                    | 1.30  | 0.35  | 0.18 | 0.18 | 0.14 |                |
| 19             | 0.00                                                               | 0.60                     | 4.80  | 0.26                 | 0.85  | 9.20    | 24.50                    | 1.25  | 0.55  | 0.18 | 0.18 | 0.16 |                |
| 20             | 0.00                                                               | 0.40                     | 3.40  | 0.22                 | 0.75  | 101.40  | 15.75                    | 1.10  | 0.50  | 0.16 | 0.18 | 0.09 |                |
| 21             | 0.00                                                               | 0.60                     | 2.20  | 0.20                 | 0.60  | 46.65   | 9.60                     | 1.10  | 0.45  | 0.18 | 0.18 | 0.09 |                |
| 22             | 0.00                                                               | 0.95                     | 2.70  | 0.18                 | 0.55  | 17.75   | 6.65                     | 1.00  | 0.45  | 0.18 | 0.18 | 0.09 |                |
| 23             | 0.80                                                               | 0.60                     | 1.30  | 0.24                 | 0.55  | 8.60    | 5.30                     | 1.00  | 0.45  | 0.18 | 0.18 | 0.09 |                |
| 24             | 1.51                                                               | 0.14                     | 1.51  | 0.30                 | 0.90  | 5.90    | 4.40                     | 0.95  | 0.45  | 0.18 | 0.18 | 0.09 |                |
| 25             | 1.44                                                               | 0.30                     | 1.44  | 0.55                 | 0.75  | 4.40    | 3.70                     | 1.10  | 0.45  | 0.18 | 0.18 | 0.09 |                |
| 26             | 1.44                                                               | 0.75                     | 4.80  | 0.50                 | 1.00  | 15.00   | 3.30                     | 1.20  | 0.40  | 0.18 | 0.18 | 0.09 |                |
| 27             | 1.15                                                               | 0.30                     | 2.20  | 0.40                 | 1.00  | 16.00   | 2.80                     | 1.05  | 0.30  | 0.18 | 0.18 | 0.20 |                |
| 28             | 1.00                                                               | 0.20                     | 1.25  | 0.30                 | 1.05  | 41.40   | 2.50                     | 1.00  | 0.30  | 0.18 | 0.18 | 0.09 |                |
| 29             | 0.95                                                               | 0.14                     | 1.00  | 0.28                 | 0.85  | 19.75   | 2.30                     | 0.95  | 0.30  | 0.18 |      | 0.09 |                |
| 30             | 0.90                                                               | 0.16                     | 0.95  | 0.30                 | 0.85  | 21.75   | 2.10                     | 0.90  | 0.30  | 0.18 |      | 0.08 |                |
| 31             |                                                                    | 0.26                     |       | 0.60                 | 1.20  |         | 1.86                     |       | 0.30  | 0.18 |      | 0.07 |                |
| <hr/>          |                                                                    |                          |       |                      |       |         |                          |       |       |      |      |      |                |
| Total          | 9.65                                                               | 26.22                    | 75.04 | 18.39                | 61.80 | 368.88  | 574.81                   | 39.90 | 15.55 | 6.88 | 5.04 | 3.46 | 1205.62 CMSDAY |
| Mean           | 0.32                                                               | 0.85                     | 2.50  | 0.59                 | 1.99  | 12.30   | 18.54                    | 1.33  | 0.50  | 0.22 | 0.18 | 0.11 | 3.30 CMS       |
| Max            | 1.51                                                               | 5.30                     | 11.80 | 1.44                 | 9.80  | 101.40  | 228.00                   | 2.60  | 0.85  | 0.30 | 0.18 | 0.20 | 228.00 CMS     |
| Min            | 0.00                                                               | 0.08                     | 0.50  | 0.18                 | 0.55  | 1.05    | 1.86                     | 0.90  | 0.30  | 0.16 | 0.18 | 0.06 | 0.00 CMS       |
| Runoff         | 0.83                                                               | 2.27                     | 6.48  | 1.59                 | 5.34  | 31.87   | 49.66                    | 3.45  | 1.34  | 0.59 | 0.44 | 0.30 | 104.17 MCM     |
| Momentary Peak | 264.35 CMS, at 391.57 m. (MSL.) , at 12.00 Hours , on Oct 7 , 2013 |                          |       |                      |       |         |                          |       |       |      |      |      |                |
| Runoff Yield   | 9.86                                                               | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 789.104 | Liters/Second/Square KM. |       |       |      |      |      |                |

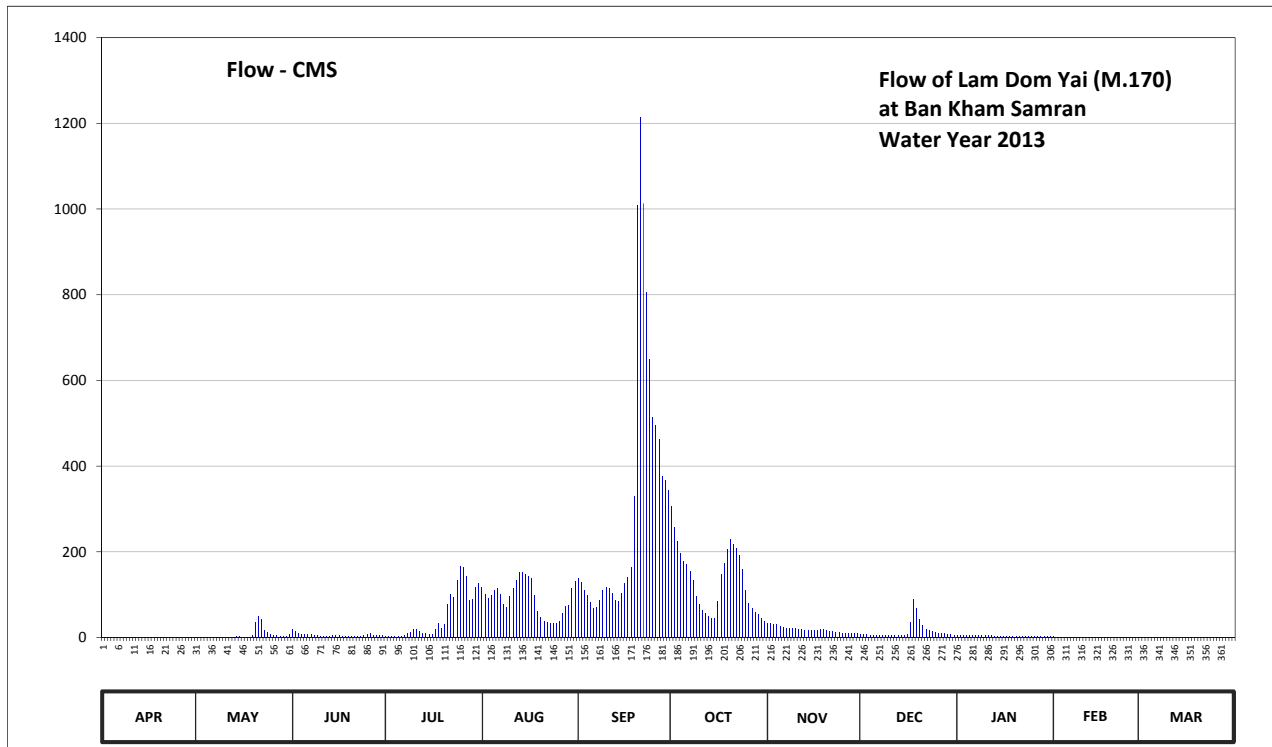
| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 176.45 | 176.51 | 176.64                                           | 176.54 | 176.62 | 176.60 | 177.01 | 176.14 | 176.61 | 176.54 | 176.65 | 176.53 |        |
| 2                                | 176.42 | 176.50 | 176.73                                           | 176.53 | 176.60 | 176.58 | 177.19 | 176.60 | 176.61 | 176.54 | 176.65 | 176.53 |        |
| 3                                | 176.39 | 176.55 | 176.64                                           | 176.50 | 176.58 | 176.58 | 177.34 | 176.63 | 176.60 | 176.55 | 176.64 | 176.53 |        |
| 4                                | 176.42 | 176.54 | 176.63                                           | 176.41 | 176.60 | 176.62 | 177.36 | 176.72 | 176.60 | 176.55 | 176.64 | 176.55 |        |
| 5                                | 176.53 | 176.52 | 176.60                                           | 176.53 | 176.59 | 176.71 | 177.41 | 176.54 | 176.59 | 176.50 | 176.63 | 176.61 |        |
| 6                                | 176.47 | 176.52 | 176.59                                           | 176.53 | 176.62 | 176.59 | 177.47 | 176.10 | 176.59 | 176.51 | 176.62 | 176.53 |        |
| 7                                | 176.42 | 176.54 | 176.62                                           | 176.56 | 176.63 | 176.59 | 177.63 | 175.33 | 176.58 | 176.54 | 176.61 | 176.52 |        |
| 8                                | 176.35 | 176.59 | 176.67                                           | 176.55 | 176.66 | 176.64 | 177.90 | 175.66 | 176.58 | 176.55 | 176.61 | 176.52 |        |
| 9                                | 176.30 | 176.69 | 176.59                                           | 176.55 | 176.63 | 176.69 | 177.96 | 176.01 | 176.58 | 176.56 | 176.60 | 176.51 |        |
| 10                               | 176.38 | 176.63 | 176.60                                           | 176.58 | 176.62 | 176.69 |        | 176.07 | 176.57 | 176.55 | 176.60 | 176.51 |        |
| 11                               | 176.50 | 176.64 | 176.61                                           | 176.58 | 176.61 | 176.66 | 177.46 | 176.15 | 176.57 | 176.55 | 176.59 | 176.50 |        |
| 12                               | 176.51 | 176.68 | 176.71                                           | 176.58 | 176.61 | 176.66 | 177.23 | 176.43 | 176.57 | 176.54 | 176.58 | 176.51 |        |
| 13                               | 176.51 | 176.56 | 176.82                                           | 176.59 | 176.63 | 176.64 | 177.12 | 176.63 | 176.56 | 176.53 | 176.54 | 176.52 |        |
| 14                               | 176.51 | 176.57 | 176.75                                           | 176.58 | 176.69 | 176.70 | 177.03 | 176.65 | 176.52 | 176.50 | 176.53 | 176.52 |        |
| 15                               | 176.52 | 176.57 | 176.73                                           | 176.58 | 176.68 | 176.78 | 176.81 | 176.73 | 176.52 | 176.48 | 176.52 | 176.51 |        |
| 16                               | 176.52 | 176.57 | 176.65                                           | 176.56 | 176.68 | 176.69 | 176.89 | 176.71 | 176.53 | 176.48 | 176.53 | 176.51 |        |
| 17                               | 176.53 | 176.59 | 176.59                                           | 176.53 | 176.67 | 176.78 | 177.24 | 176.63 | 176.53 | 176.48 | 176.54 | 176.53 |        |
| 18                               | 176.57 | 176.59 | 176.55                                           | 176.53 | 176.70 | 176.76 | 177.67 | 176.60 | 176.56 | 176.48 | 176.56 | 176.53 |        |
| 19                               | 176.57 | 176.60 | 176.54                                           | 176.56 | 176.65 | 176.83 | 178.03 | 176.61 | 176.54 | 176.49 | 176.58 | 176.53 |        |
| 20                               | 176.56 | 176.59 | 176.54                                           | 176.56 | 176.62 | 177.46 | 177.96 | 176.66 | 176.48 | 176.50 | 176.59 | 176.56 |        |
| 21                               | 176.56 | 176.59 | 176.55                                           | 176.55 | 176.60 | 177.40 | 177.97 | 176.74 | 176.48 | 176.50 | 176.60 | 176.58 |        |
| 22                               | 176.57 | 176.59 | 176.55                                           | 176.66 | 176.58 | 177.26 | 178.01 | 176.70 | 176.48 | 176.53 | 176.62 | 176.60 |        |
| 23                               | 176.62 | 176.58 | 176.55                                           | 176.82 | 176.58 | 177.21 | 178.13 | 176.63 | 176.50 | 176.52 | 176.61 | 176.60 |        |
| 24                               | 176.64 | 176.58 | 176.55                                           | 176.74 | 176.56 | 177.13 | 178.12 | 176.75 | 176.55 | 176.52 | 176.59 | 176.60 |        |
| 25                               | 176.59 | 176.58 | 176.56                                           | 176.65 | 176.56 | 177.15 | 177.75 | 176.88 | 176.55 | 176.51 | 176.54 | 176.60 |        |
| 26                               | 176.58 | 176.58 | 176.56                                           | 176.53 | 176.56 | 177.26 | 177.36 | 176.58 | 176.53 | 176.52 | 176.54 | 176.61 |        |
| 27                               | 176.57 | 176.59 | 176.55                                           | 176.31 | 176.57 | 177.43 | 177.11 | 176.59 | 176.53 | 176.53 | 176.54 | 176.61 |        |
| 28                               | 176.55 | 176.57 | 176.54                                           | 176.59 | 176.57 | 177.38 | 176.82 | 176.62 | 176.53 | 176.60 | 176.53 | 176.60 |        |
| 29                               | 176.54 | 176.55 | 176.54                                           | 176.60 | 176.57 | 177.28 | 176.42 | 176.61 | 176.53 | 176.61 |        | 176.58 |        |
| 30                               | 176.52 | 176.60 | 176.54                                           | 176.64 | 176.59 | 177.03 | 176.17 | 176.61 | 176.54 | 176.65 |        | 176.58 |        |
| 31                               |        | 176.60 |                                                  | 176.63 | 176.62 |        | 176.13 |        | 176.54 | 176.67 |        | 176.57 |        |
| Mean                             | 176.51 | 176.58 | 176.61                                           | 176.57 | 176.61 | 176.89 | 177.37 | 176.48 | 176.55 | 176.53 | 176.59 | 176.55 |        |
| Max                              | 176.64 | 176.69 | 176.82                                           | 176.82 | 176.70 | 177.46 | 178.13 | 176.88 | 176.61 | 176.67 | 176.65 | 176.61 | 178.13 |
| Min                              | 176.30 | 176.50 | 176.54                                           | 176.31 | 176.56 | 176.58 | 176.13 | 175.33 | 176.48 | 176.48 | 176.52 | 176.50 | 175.33 |
| Annual Max Momentary Gage Height | 178.17 |        | m. (MSL.) , at 06.00 Hours, on Oct 24, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 174.11 |        | m. (MSL.) , River Bed 174.05 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 179.62 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 179.88 |        | m. (MSL.) , Drainage Area 3012 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                       | Jun    | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|-------|-----------------------------------------------------------|--------|----------------------|--------|--------|--------------------------|--------|--------|--------|--------|--------|----------------|
| 1              | 1.25  | 2.75                                                      | 6.20   | 3.50                 | 5.60   | 5.00   | 17.30                    | 0.00   | 5.30   | 3.50   | 6.50   | 3.25   |                |
| 2              | 0.50  | 2.50                                                      | 8.90   | 3.25                 | 5.00   | 4.50   | 22.70                    | 5.00   | 5.30   | 3.50   | 6.50   | 3.25   |                |
| 3              | 0.00  | 3.75                                                      | 6.20   | 2.50                 | 4.50   | 4.50   | 27.90                    | 5.90   | 5.00   | 3.75   | 6.20   | 3.25   |                |
| 4              | 0.50  | 3.50                                                      | 5.90   | 0.25                 | 5.00   | 5.60   | 28.60                    | 8.60   | 5.00   | 3.75   | 6.20   | 3.75   |                |
| 5              | 3.25  | 3.00                                                      | 5.00   | 3.25                 | 4.75   | 8.30   | 30.35                    | 3.50   | 4.75   | 2.50   | 5.90   | 5.30   |                |
| 6              | 1.75  | 3.00                                                      | 4.75   | 3.25                 | 5.60   | 4.75   | 32.45                    | 0.00   | 4.75   | 2.75   | 5.60   | 3.25   |                |
| 7              | 0.50  | 3.50                                                      | 5.60   | 4.00                 | 5.90   | 4.75   | 38.14                    | 0.00   | 4.50   | 3.50   | 5.30   | 3.00   |                |
| 8              | 0.00  | 4.75                                                      | 7.10   | 3.75                 | 6.80   | 6.20   | 48.40                    | 0.00   | 4.50   | 3.75   | 5.30   | 3.00   |                |
| 9              | 0.00  | 7.70                                                      | 4.75   | 3.75                 | 5.90   | 7.70   | 50.68                    | 0.00   | 4.50   | 4.00   | 5.00   | 2.75   |                |
| 10             | 0.00  | 5.90                                                      | 5.00   | 4.50                 | 5.60   | 7.70   | 44.98                    | 0.00   | 4.25   | 3.75   | 5.00   | 2.75   |                |
| 11             | 2.50  | 6.20                                                      | 5.30   | 4.50                 | 5.30   | 6.80   | 32.10                    | 0.00   | 4.25   | 3.75   | 4.75   | 2.50   |                |
| 12             | 2.75  | 7.40                                                      | 8.30   | 4.50                 | 5.30   | 6.80   | 24.05                    | 0.75   | 4.25   | 3.50   | 4.50   | 2.75   |                |
| 13             | 2.75  | 4.00                                                      | 11.60  | 4.75                 | 5.90   | 6.20   | 20.60                    | 5.90   | 4.00   | 3.25   | 3.50   | 3.00   |                |
| 14             | 2.75  | 4.25                                                      | 9.50   | 4.50                 | 7.70   | 8.00   | 17.90                    | 6.50   | 3.00   | 2.50   | 3.25   | 3.00   |                |
| 15             | 3.00  | 4.25                                                      | 8.90   | 4.50                 | 7.40   | 10.40  | 11.30                    | 8.90   | 3.00   | 2.00   | 3.00   | 2.75   |                |
| 16             | 3.00  | 4.25                                                      | 6.50   | 4.00                 | 7.40   | 7.70   | 13.70                    | 8.30   | 3.25   | 2.00   | 3.25   | 2.75   |                |
| 17             | 3.25  | 4.75                                                      | 4.75   | 3.25                 | 7.10   | 10.40  | 24.40                    | 5.90   | 3.25   | 2.00   | 3.50   | 3.25   |                |
| 18             | 4.25  | 4.75                                                      | 3.75   | 3.25                 | 8.00   | 9.80   | 39.66                    | 5.00   | 4.00   | 2.00   | 4.00   | 3.25   |                |
| 19             | 4.25  | 5.00                                                      | 3.50   | 4.00                 | 6.50   | 11.90  | 53.38                    | 5.30   | 3.50   | 2.25   | 4.50   | 3.25   |                |
| 20             | 4.00  | 4.75                                                      | 3.50   | 4.00                 | 5.60   | 32.10  | 50.68                    | 6.80   | 2.00   | 2.50   | 4.75   | 4.00   |                |
| 21             | 4.00  | 4.75                                                      | 3.75   | 3.75                 | 5.00   | 30.00  | 51.06                    | 9.20   | 2.00   | 2.50   | 5.00   | 4.50   |                |
| 22             | 4.25  | 4.75                                                      | 3.75   | 6.80                 | 4.50   | 25.10  | 52.59                    | 8.00   | 2.00   | 3.25   | 5.60   | 5.00   |                |
| 23             | 5.60  | 4.50                                                      | 3.75   | 11.60                | 4.50   | 23.35  | 57.34                    | 5.90   | 2.50   | 3.00   | 5.30   | 5.00   |                |
| 24             | 6.20  | 4.50                                                      | 3.75   | 9.20                 | 4.00   | 20.90  | 56.94                    | 9.50   | 3.75   | 3.00   | 4.75   | 5.00   |                |
| 25             | 4.75  | 4.50                                                      | 4.00   | 6.50                 | 4.00   | 21.50  | 42.70                    | 13.40  | 3.75   | 2.75   | 3.50   | 5.00   |                |
| 26             | 4.50  | 4.50                                                      | 4.00   | 3.25                 | 4.00   | 25.10  | 28.60                    | 4.50   | 3.25   | 3.00   | 3.50   | 5.30   |                |
| 27             | 4.25  | 4.75                                                      | 3.75   | 0.00                 | 4.25   | 31.05  | 20.30                    | 4.75   | 3.25   | 3.25   | 3.50   | 5.30   |                |
| 28             | 3.75  | 4.25                                                      | 3.50   | 4.75                 | 4.25   | 29.30  | 11.60                    | 5.60   | 3.25   | 5.00   | 3.25   | 5.00   |                |
| 29             | 3.50  | 3.75                                                      | 3.50   | 5.00                 | 4.25   | 25.80  | 0.50                     | 5.30   | 3.25   | 5.30   |        | 4.50   |                |
| 30             | 3.00  | 5.00                                                      | 3.50   | 6.20                 | 4.75   | 17.90  | 0.00                     | 5.30   | 3.50   | 6.50   |        | 4.50   |                |
| 31             |       | 5.00                                                      |        | 5.90                 | 5.60   |        | 0.00                     |        | 3.50   | 7.10   |        | 4.25   |                |
| Total          | 84.05 | 140.20                                                    | 162.25 | 136.20               | 169.95 | 419.10 | 950.90                   | 147.80 | 116.35 | 105.15 | 130.90 | 117.40 | 2680.25 CMSDAY |
| Mean           | 2.80  | 4.52                                                      | 5.41   | 4.39                 | 5.48   | 13.97  | 30.67                    | 4.93   | 3.75   | 3.39   | 4.68   | 3.79   | 7.34 CMS       |
| Max            | 6.20  | 7.70                                                      | 11.60  | 11.60                | 8.00   | 32.10  | 57.34                    | 13.40  | 5.30   | 7.10   | 6.50   | 5.30   | 57.34 CMS      |
| Min            | 0.00  | 2.50                                                      | 3.50   | 0.00                 | 4.00   | 4.50   | 0.00                     | 0.00   | 2.00   | 2.00   | 3.00   | 2.50   | 0.00 CMS       |
| Runoff         | 7.26  | 12.11                                                     | 14.02  | 11.77                | 14.68  | 36.21  | 82.16                    | 12.77  | 10.05  | 9.09   | 11.31  | 10.14  | 231.57 MCM     |
| Momentary Peak | 58.92 | CMS, at 178.17 m. (MSL.), at 06.00 Hours, on Oct 24, 2013 |        |                      |        |        |                          |        |        |        |        |        |                |
| Runoff Yield   | 2.44  | Liters/Second/Square KM.                                  |        | Momentary Peak Yield |        | 19.562 | Liters/Second/Square KM. |        |        |        |        |        |                |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                             | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|---------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 123.62 | 123.54 | 125.12      | 124.23 | 128.21                          | 128.70 | 131.24            | 125.73 | 124.59 | 124.43 | 124.04 | 123.86 |        |
| 2                                | 123.63 | 123.57 | 124.94      | 124.18 | 127.79                          | 128.49 | 131.02            | 125.70 | 124.54 | 124.40 | 124.03 | 123.85 |        |
| 3                                | 123.63 | 123.59 | 124.66      | 124.15 | 127.54                          | 128.03 | 130.71            | 125.68 | 124.50 | 124.39 | 124.03 | 123.83 |        |
| 4                                | 123.65 | 123.62 | 124.57      | 124.13 | 127.74                          | 127.74 | 130.20            | 125.64 | 124.46 | 124.38 | 124.02 | 123.82 |        |
| 5                                | 123.68 | 123.65 | 124.50      | 124.10 | 128.01                          | 127.29 | 129.70            | 125.52 | 124.45 | 124.37 | 124.02 | 123.82 |        |
| 6                                | 123.69 | 123.73 | 124.54      | 124.23 | 128.11                          | 126.93 | 129.54            | 125.40 | 124.43 | 124.36 | 124.01 | 123.81 |        |
| 7                                | 123.69 | 123.81 | 124.52      | 124.39 | 127.81                          | 126.95 | 129.10            | 125.31 | 124.40 | 124.35 | 124.00 | 123.80 |        |
| 8                                | 123.68 | 123.74 | 124.39      | 124.64 | 127.20                          | 127.46 | 128.58            | 125.25 | 124.39 | 124.34 | 123.99 | 123.81 |        |
| 9                                | 123.69 | 123.72 | 124.28      | 124.81 | 127.00                          | 128.00 | 127.69            | 125.24 | 124.37 | 124.32 | 123.99 | 123.81 |        |
| 10                               | 123.68 | 123.65 | 124.21      | 125.15 | 127.68                          | 128.17 | 127.18            | 125.23 | 124.34 | 124.29 | 123.98 | 123.81 |        |
| 11                               | 123.72 | 123.64 | 124.18      | 125.17 | 128.14                          | 128.14 | 126.76            | 125.16 | 124.34 | 124.28 | 123.97 | 123.80 |        |
| 12                               | 123.75 | 123.69 | 124.17      | 124.95 | 128.60                          | 127.87 | 126.49            | 125.07 | 124.32 | 124.27 | 123.96 | 123.80 |        |
| 13                               | 123.75 | 123.89 | 124.25      | 124.72 | 129.05                          | 127.45 | 126.29            | 124.99 | 124.32 | 124.23 | 123.95 | 123.79 |        |
| 14                               | 123.74 | 124.23 | 124.42      | 124.66 | 129.07                          | 127.36 | 126.11            | 124.98 | 124.30 | 124.20 | 123.94 | 123.79 |        |
| 15                               | 123.74 | 124.16 | 124.41      | 124.54 | 128.97                          | 127.85 | 126.13            | 124.98 | 124.30 | 124.18 | 123.93 | 123.78 |        |
| 16                               | 123.74 | 124.02 | 124.30      | 124.56 | 128.86                          | 128.43 | 127.37            | 124.97 | 124.54 | 124.18 | 123.92 | 123.78 |        |
| 17                               | 123.82 | 123.92 | 124.22      | 125.12 | 128.70                          | 128.78 | 128.94            | 124.96 | 125.81 | 124.17 | 123.92 | 123.77 |        |
| 18                               | 123.86 | 123.86 | 124.18      | 125.69 | 127.73                          | 129.36 | 129.59            | 125.12 | 127.51 | 124.16 | 123.91 | 123.76 |        |
| 19                               | 123.77 | 124.34 | 124.14      | 125.27 | 126.68                          | 131.31 | 130.42            | 125.07 | 126.87 | 124.16 | 123.90 | 123.76 |        |
| 20                               | 123.69 | 125.82 | 124.11      | 125.62 | 126.20                          | 132.67 | 130.78            | 125.04 | 126.01 | 124.15 | 123.90 | 123.75 |        |
| 21                               | 123.60 | 126.26 | 124.09      | 127.19 | 125.89                          | 133.00 | 130.62            | 124.94 | 125.54 | 124.15 | 123.90 | 123.74 |        |
| 22                               | 123.58 | 126.04 | 124.09      | 127.77 | 125.77                          | 132.68 | 130.44            | 124.88 | 125.19 | 124.14 | 123.89 | 123.87 |        |
| 23                               | 123.57 | 125.04 | 124.10      | 127.61 | 125.70                          | 132.32 | 130.05            | 124.83 | 125.02 | 124.13 | 123.89 | 123.92 |        |
| 24                               | 123.56 | 124.79 | 124.27      | 128.61 | 125.72                          | 132.01 | 129.23            | 124.78 | 124.94 | 124.12 | 123.89 | 123.89 |        |
| 25                               | 123.54 | 124.59 | 124.49      | 129.41 | 125.74                          | 131.74 | 128.04            | 124.70 | 124.77 | 124.12 | 123.88 | 123.87 |        |
| 26                               | 123.54 | 124.42 | 124.65      | 129.34 | 125.92                          | 131.70 | 127.24            | 124.67 | 124.69 | 124.11 | 123.88 | 123.84 |        |
| 27                               | 123.53 | 124.29 | 124.44      | 128.82 | 126.49                          | 131.63 | 126.87            | 124.69 | 124.67 | 124.10 | 123.87 | 123.82 |        |
| 28                               | 123.53 | 124.12 | 124.31      | 127.44 | 127.04                          | 131.43 | 126.61            | 124.68 | 124.64 | 124.09 | 123.87 | 123.80 |        |
| 29                               | 123.52 | 124.09 | 124.31      | 127.49 | 127.12                          | 131.41 | 126.39            | 124.64 | 124.60 | 124.08 |        | 123.70 |        |
| 30                               | 123.52 | 124.08 | 124.35      | 128.21 | 128.13                          | 131.35 | 126.13            | 124.63 | 124.53 | 124.07 |        | 123.61 |        |
| 31                               |        | 124.54 |             | 128.41 | 128.54                          |        | 125.92            |        | 124.48 | 124.06 |        | 123.60 |        |
| Mean                             | 123.66 | 124.21 | 124.37      | 125.96 | 127.46                          | 129.54 | 128.43            | 125.08 | 124.83 | 124.22 | 123.95 | 123.80 |        |
| Max                              | 123.86 | 126.26 | 125.12      | 129.41 | 129.07                          | 133.00 | 131.24            | 125.73 | 127.51 | 124.43 | 124.04 | 123.92 | 133.00 |
| Min                              | 123.52 | 123.54 | 124.09      | 124.10 | 125.70                          | 126.93 | 125.92            | 124.63 | 124.30 | 124.06 | 123.87 | 123.60 | 123.52 |
| Annual Max Momentary Gage Height | 133.02 |        | m. (MSL.) , |        | at 06.00 Hours, on Sep 21, 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 123.34 |        | m. (MSL.) , |        | River Bed                       | 122.92 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 133.06 |        | m. (MSL.) , |        |                                 |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 133.11 |        | m. (MSL.) , |        | Drainage Area                   | 1745   | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|-------|-------|----------|--------|
| 1              | 0.26                                                              | 0.08                     | 19.40  | 4.30                 | 118.40  | 138.00  | 305.80                   | 33.90  | 8.80   | 6.30   | 2.40  | 1.30  |          |        |
| 2              | 0.29                                                              | 0.14                     | 15.80  | 3.80                 | 101.60  | 129.60  | 257.00                   | 33.00  | 7.80   | 6.00   | 2.30  | 1.25  |          |        |
| 3              | 0.29                                                              | 0.18                     | 10.20  | 3.50                 | 91.60   | 111.20  | 223.90                   | 32.40  | 7.00   | 5.90   | 2.30  | 1.15  |          |        |
| 4              | 0.35                                                              | 0.26                     | 8.40   | 3.30                 | 99.60   | 99.60   | 198.00                   | 31.20  | 6.60   | 5.80   | 2.20  | 1.10  |          |        |
| 5              | 0.44                                                              | 0.35                     | 7.00   | 3.00                 | 110.40  | 81.60   | 178.00                   | 27.60  | 6.50   | 5.70   | 2.20  | 1.10  |          |        |
| 6              | 0.47                                                              | 0.65                     | 7.80   | 4.30                 | 114.40  | 69.90   | 171.60                   | 25.00  | 6.30   | 5.60   | 2.10  | 1.05  |          |        |
| 7              | 0.47                                                              | 1.05                     | 7.40   | 5.90                 | 102.40  | 70.50   | 154.00                   | 23.20  | 6.00   | 5.50   | 2.00  | 1.00  |          |        |
| 8              | 0.44                                                              | 0.70                     | 5.90   | 9.80                 | 78.00   | 88.40   | 133.20                   | 22.00  | 5.90   | 5.40   | 1.95  | 1.05  |          |        |
| 9              | 0.47                                                              | 0.60                     | 4.80   | 13.20                | 72.00   | 110.00  | 97.60                    | 21.80  | 5.70   | 5.20   | 1.95  | 1.05  |          |        |
| 10             | 0.44                                                              | 0.35                     | 4.10   | 20.00                | 97.20   | 116.80  | 77.40                    | 21.60  | 5.40   | 4.90   | 1.90  | 1.05  |          |        |
| 11             | 0.60                                                              | 0.32                     | 3.80   | 20.40                | 115.60  | 115.60  | 64.80                    | 20.20  | 5.40   | 4.80   | 1.85  | 1.00  |          |        |
| 12             | 0.75                                                              | 0.47                     | 3.70   | 16.00                | 134.00  | 104.80  | 56.70                    | 18.40  | 5.20   | 4.70   | 1.80  | 1.00  |          |        |
| 13             | 0.75                                                              | 1.45                     | 4.50   | 11.40                | 152.00  | 88.00   | 50.70                    | 16.80  | 5.20   | 4.30   | 1.75  | 0.95  |          |        |
| 14             | 0.70                                                              | 4.30                     | 6.20   | 10.20                | 152.80  | 84.40   | 45.30                    | 16.60  | 5.00   | 4.00   | 1.70  | 0.95  |          |        |
| 15             | 0.70                                                              | 3.60                     | 6.10   | 7.80                 | 148.80  | 104.00  | 45.90                    | 16.60  | 5.00   | 3.80   | 1.65  | 0.90  |          |        |
| 16             | 0.70                                                              | 2.20                     | 5.00   | 8.20                 | 144.40  | 127.20  | 84.80                    | 16.40  | 7.80   | 3.80   | 1.60  | 0.90  |          |        |
| 17             | 1.10                                                              | 1.60                     | 4.20   | 19.40                | 138.00  | 141.20  | 147.60                   | 16.20  | 36.30  | 3.70   | 1.60  | 0.85  |          |        |
| 18             | 1.30                                                              | 1.30                     | 3.80   | 32.70                | 99.20   | 164.40  | 173.60                   | 19.40  | 90.40  | 3.60   | 1.55  | 0.80  |          |        |
| 19             | 0.85                                                              | 5.40                     | 3.40   | 22.40                | 62.40   | 328.80  | 207.00                   | 18.40  | 68.10  | 3.60   | 1.50  | 0.80  |          |        |
| 20             | 0.47                                                              | 36.60                    | 3.10   | 30.60                | 48.00   | 1007.10 | 230.20                   | 17.80  | 42.30  | 3.50   | 1.50  | 0.75  |          |        |
| 21             | 0.20                                                              | 49.80                    | 2.90   | 77.70                | 38.70   | 1215.00 | 217.40                   | 15.80  | 28.20  | 3.50   | 1.50  | 0.70  |          |        |
| 22             | 0.16                                                              | 43.20                    | 2.90   | 100.80               | 35.10   | 1013.40 | 208.00                   | 14.60  | 20.80  | 3.40   | 1.45  | 1.35  |          |        |
| 23             | 0.14                                                              | 17.80                    | 3.00   | 94.40                | 33.00   | 805.40  | 192.00                   | 13.60  | 17.40  | 3.30   | 1.45  | 1.60  |          |        |
| 24             | 0.12                                                              | 12.80                    | 4.70   | 134.40               | 33.60   | 650.00  | 159.20                   | 12.60  | 15.80  | 3.20   | 1.45  | 1.45  |          |        |
| 25             | 0.08                                                              | 8.80                     | 6.90   | 166.40               | 34.20   | 515.00  | 111.60                   | 11.00  | 12.40  | 3.20   | 1.40  | 1.35  |          |        |
| 26             | 0.08                                                              | 6.20                     | 10.00  | 163.60               | 39.60   | 495.00  | 79.60                    | 10.40  | 10.80  | 3.10   | 1.40  | 1.20  |          |        |
| 27             | 0.06                                                              | 4.90                     | 6.40   | 142.80               | 56.70   | 463.50  | 68.10                    | 10.80  | 10.40  | 3.00   | 1.35  | 1.10  |          |        |
| 28             | 0.06                                                              | 3.20                     | 5.10   | 87.60                | 73.20   | 375.60  | 60.30                    | 10.60  | 9.80   | 2.90   | 1.35  | 1.00  |          |        |
| 29             | 0.04                                                              | 2.90                     | 5.10   | 89.60                | 75.60   | 367.20  | 53.70                    | 9.80   | 9.00   | 2.80   |       | 0.50  |          |        |
| 30             | 0.04                                                              | 2.80                     | 5.50   | 118.40               | 115.20  | 344.00  | 45.90                    | 9.60   | 7.60   | 2.70   |       | 0.23  |          |        |
| 31             |                                                                   | 7.80                     |        | 126.40               | 131.60  |         | 39.60                    |        | 6.80   | 2.60   |       | 0.20  |          |        |
| Total          | 12.82                                                             | 221.80                   | 187.10 | 1552.30              | 2847.30 | 9525.20 | 4138.50                  | 567.30 | 485.70 | 129.80 | 49.15 | 30.68 | 19747.65 | CMSDAY |
| Mean           | 0.43                                                              | 7.15                     | 6.24   | 50.07                | 91.85   | 317.51  | 133.50                   | 18.91  | 15.67  | 4.19   | 1.76  | 0.99  | 54.10    | CMS    |
| Max            | 1.30                                                              | 49.80                    | 19.40  | 166.40               | 152.80  | 1215.00 | 305.80                   | 33.90  | 90.40  | 6.30   | 2.40  | 1.60  | 1215.00  | CMS    |
| Min            | 0.04                                                              | 0.08                     | 2.90   | 3.00                 | 33.00   | 69.90   | 39.60                    | 9.60   | 5.00   | 2.60   | 1.35  | 0.20  | 0.04     | CMS    |
| Runoff         | 1.11                                                              | 19.16                    | 16.17  | 134.12               | 246.01  | 822.98  | 357.57                   | 49.02  | 41.96  | 11.22  | 4.25  | 2.65  | 1706.20  | MCM    |
| Momentary Peak | 1227.60 CMS, at 133.02 m. (MSL.), at 06.00 Hours, on Sep 21, 2013 |                          |        |                      |         |         |                          |        |        |        |       |       |          |        |
| Runoff Yield   | 31.00                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 703.496 | Liters/Second/Square KM. |        |        |        |       |       |          |        |

**WATER YEAR : 2013**

## MUN RIVER BASIN

**Lam Phra Phloeng at Ban Non Sao - E, Nakhon Ratchasima (M.171**

Lat 14 - 29 - 58 N      Long 101 - 46 - 22 E

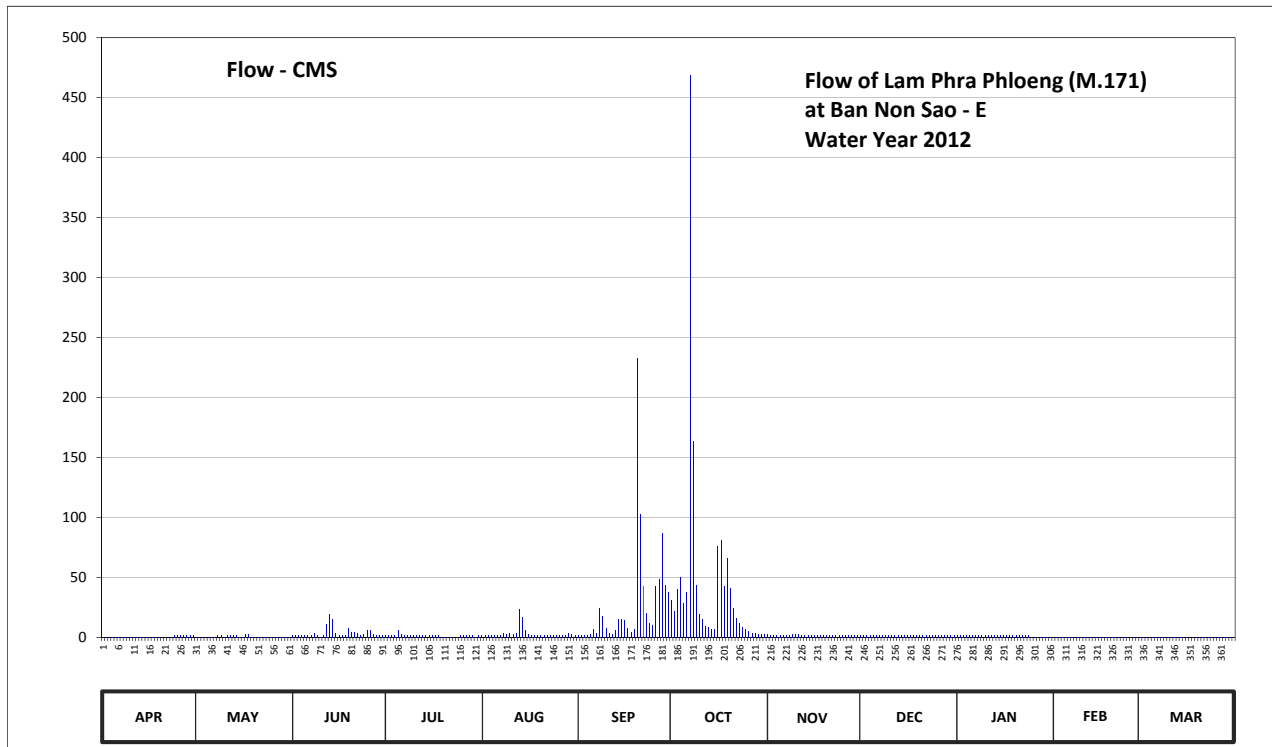
**Location :** on right bank at Ban Non Sao - E

|                                         |                                                                                           |             |               |                |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Non Sao - E | <b>Amphoe</b> | Wang Nam Khieo | <b>Changwat</b>  | Nakhon Ratchasima  |
| <b>Drainage Area</b>                    | 553                                                                                       | sq.km.      |               |                |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |             |               |                |                  |                    |
| <b>Zero Gage at Bottom</b>              | +273.230                                                                                  | m. (MSL.)   |               |                |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |                |                  |                    |
| <b>Location BM</b>                      | On left bank downstream at the footpath                                                   |             |               |                | <b>Elevation</b> | +280.170 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                |             |               |                |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |             |               |                |                  |                    |
| <b>Period of Available Gage Records</b> | 2002 to date                                                                              |             |               |                |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |             |               |                |                  |                    |
| <b>Period of Rating</b>                 | 2002 to date                                                                              |             |               |                |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |                |                  |                    |
| <b>Rated by Current Meter</b>           | 2002 to date                                                                              |             |               |                |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |             |               |                |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |                |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 71 discharge measurements made in 2013. |             |               |                |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 271.96 | 272.35 | 272.56                                          | 272.64 | 272.70 | 272.85 | 273.63 | 272.97 | 272.78 | 272.58 | 272.50 | 272.43 |        |
| 2                                | 271.97 | 272.08 | 272.82                                          | 272.56 | 272.76 | 272.80 | 273.51 | 272.93 | 272.78 | 272.58 | 272.50 | 272.43 |        |
| 3                                | 272.14 | 271.97 | 272.87                                          | 272.54 | 272.83 | 272.77 | 273.72 | 272.93 | 272.75 | 272.58 | 272.50 | 272.41 |        |
| 4                                | 272.08 | 271.91 | 272.80                                          | 272.67 | 272.78 | 272.83 | 273.82 | 272.93 | 272.72 | 272.56 | 272.49 | 272.41 |        |
| 5                                | 272.05 | 271.97 | 272.65                                          | 273.15 | 272.83 | 272.99 | 273.61 | 272.92 | 272.71 | 272.53 | 272.48 | 272.41 |        |
| 6                                | 272.02 | 272.03 | 272.86                                          | 272.94 | 272.91 | 273.17 | 273.70 | 272.91 | 272.71 | 272.53 | 272.48 | 272.41 |        |
| 7                                | 272.01 | 272.02 | 272.79                                          | 272.86 | 272.76 | 273.09 | 276.02 | 272.90 | 272.71 | 272.53 | 272.46 | 272.41 |        |
| 8                                | 271.98 | 272.62 | 273.05                                          | 272.79 | 273.10 | 273.54 | 274.70 | 272.93 | 272.68 | 272.53 | 272.46 | 272.40 |        |
| 9                                | 271.96 | 272.59 | 272.79                                          | 272.69 | 273.02 | 273.44 | 273.76 | 273.01 | 272.68 | 272.53 | 272.46 | 272.38 |        |
| 10                               | 271.96 | 272.33 | 272.45                                          | 272.66 | 273.08 | 273.21 | 273.46 | 273.00 | 272.68 | 272.52 | 272.45 | 272.37 |        |
| 11                               | 271.96 | 272.62 | 272.64                                          | 272.71 | 273.04 | 273.06 | 273.38 | 272.95 | 272.66 | 272.52 | 272.45 | 272.33 |        |
| 12                               | 271.96 | 272.74 | 273.29                                          | 272.64 | 273.09 | 273.03 | 273.24 | 272.93 | 272.63 | 272.52 | 272.45 | 272.33 |        |
| 13                               | 271.96 | 272.75 | 273.46                                          | 272.61 | 273.53 | 273.15 | 273.23 | 272.91 | 272.63 | 272.52 | 272.44 | 272.33 |        |
| 14                               | 271.95 | 272.60 | 273.39                                          | 272.56 | 273.42 | 273.39 | 273.17 | 272.88 | 272.63 | 272.52 | 272.44 | 272.33 |        |
| 15                               | 271.94 | 272.15 | 273.09                                          | 272.53 | 273.16 | 273.39 | 273.17 | 272.91 | 272.63 | 272.52 | 272.43 | 272.33 |        |
| 16                               | 271.94 | 272.15 | 272.84                                          | 272.52 | 272.97 | 273.36 | 274.07 | 272.91 | 272.63 | 272.51 | 272.43 | 272.33 |        |
| 17                               | 271.94 | 272.97 | 272.72                                          | 272.52 | 272.84 | 273.20 | 274.11 | 272.91 | 272.63 | 272.51 | 272.43 | 272.33 |        |
| 18                               | 271.94 | 272.94 | 272.73                                          | 272.51 | 272.75 | 273.11 | 273.75 | 272.91 | 272.63 | 272.51 | 272.43 | 272.33 |        |
| 19                               | 271.94 | 272.36 | 273.21                                          | 272.48 | 272.71 | 273.18 | 273.98 | 272.88 | 272.63 | 272.51 | 272.43 | 272.37 |        |
| 20                               | 271.94 | 272.15 | 273.12                                          | 272.46 | 272.65 | 275.06 | 273.73 | 272.88 | 272.63 | 272.51 | 272.43 | 272.45 |        |
| 21                               | 271.94 | 272.19 | 273.11                                          | 272.43 | 272.60 | 274.29 | 273.55 | 272.88 | 272.63 | 272.51 | 272.43 | 272.43 |        |
| 22                               | 271.94 | 272.18 | 273.05                                          | 272.43 | 272.55 | 273.75 | 273.40 | 272.87 | 272.63 | 272.51 | 272.43 | 272.50 |        |
| 23                               | 272.01 | 272.18 | 272.84                                          | 272.47 | 272.56 | 273.47 | 273.30 | 272.84 | 272.63 | 272.51 | 272.43 | 272.46 |        |
| 24                               | 272.86 | 272.13 | 272.94                                          | 272.49 | 272.90 | 273.30 | 273.22 | 272.82 | 272.63 | 272.51 | 272.43 | 272.41 |        |
| 25                               | 272.84 | 272.08 | 273.16                                          | 272.54 | 272.93 | 273.27 | 273.19 | 272.81 | 272.63 | 272.50 | 272.43 | 272.41 |        |
| 26                               | 272.78 | 272.07 | 273.15                                          | 272.54 | 272.78 | 273.75 | 273.13 | 272.82 | 272.62 | 272.50 | 272.43 | 272.38 |        |
| 27                               | 272.74 | 272.14 | 273.00                                          | 272.52 | 272.73 | 273.81 | 273.10 | 272.83 | 272.61 | 272.50 | 272.43 | 272.38 |        |
| 28                               | 272.71 | 272.06 | 272.83                                          | 272.52 | 272.76 | 274.16 | 273.06 | 272.82 | 272.59 | 272.50 | 272.43 | 272.42 |        |
| 29                               | 272.68 | 272.01 | 272.75                                          | 272.52 | 273.06 | 273.76 | 273.03 | 272.81 | 272.58 | 272.50 |        | 272.43 |        |
| 30                               | 272.68 | 271.98 | 272.70                                          | 272.49 | 272.95 | 273.70 | 273.02 | 272.78 | 272.58 | 272.50 |        | 272.41 |        |
| 31                               |        | 271.99 |                                                 | 272.53 | 272.84 |        | 273.00 |        | 272.58 | 272.50 |        | 272.39 |        |
| Mean                             | 272.16 | 272.27 | 272.92                                          | 272.60 | 272.89 | 273.40 | 273.57 | 272.89 | 272.65 | 272.52 | 272.45 | 272.39 |        |
| Max                              | 272.86 | 272.97 | 273.46                                          | 273.15 | 273.53 | 275.06 | 276.02 | 273.01 | 272.78 | 272.58 | 272.50 | 272.50 | 276.02 |
| Min                              | 271.94 | 271.91 | 272.45                                          | 272.43 | 272.55 | 272.77 | 273.00 | 272.78 | 272.58 | 272.50 | 272.43 | 272.33 | 271.94 |
| Annual Max Momentary Gage Height |        | 277.38 | m. (MSL.) , at 05.00 Hours, on Oct 7, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 272.23 | m. (MSL.) , River Bed 271.94 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 279.89 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 278.85 | m. (MSL.) , Drainage Area 553 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep      | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|----------|--------------------------|-------|-------|-------|-------|-------|----------------|
| 1              | 0.06                                                            | 0.45                     | 1.79   | 1.79                 | 1.80   | 2.00     | 31.00                    | 2.62  | 1.80  | 1.79  | 0.70  | 0.56  |                |
| 2              | 0.07                                                            | 0.18                     | 1.88   | 1.79                 | 1.80   | 1.80     | 22.42                    | 2.38  | 1.80  | 1.79  | 0.70  | 0.56  |                |
| 3              | 0.24                                                            | 0.07                     | 2.08   | 1.79                 | 1.92   | 1.80     | 40.00                    | 2.38  | 1.80  | 1.79  | 0.70  | 0.52  |                |
| 4              | 0.18                                                            | 0.01                     | 1.80   | 1.79                 | 1.80   | 1.92     | 50.00                    | 2.38  | 1.80  | 1.79  | 0.68  | 0.52  |                |
| 5              | 0.15                                                            | 0.07                     | 1.79   | 5.80                 | 1.92   | 2.74     | 29.00                    | 2.32  | 1.80  | 1.79  | 0.66  | 0.52  |                |
| 6              | 0.12                                                            | 0.13                     | 2.04   | 2.44                 | 2.26   | 6.60     | 38.00                    | 2.26  | 1.80  | 1.79  | 0.66  | 0.52  |                |
| 7              | 0.11                                                            | 0.12                     | 1.80   | 2.04                 | 1.80   | 3.70     | 468.40                   | 2.20  | 1.80  | 1.79  | 0.62  | 0.52  |                |
| 8              | 0.08                                                            | 1.79                     | 3.30   | 1.80                 | 3.80   | 24.28    | 164.00                   | 2.38  | 1.80  | 1.79  | 0.62  | 0.50  |                |
| 9              | 0.06                                                            | 1.79                     | 1.80   | 1.80                 | 3.00   | 18.20    | 44.00                    | 2.90  | 1.80  | 1.79  | 0.62  | 0.48  |                |
| 10             | 0.06                                                            | 0.43                     | 0.60   | 1.79                 | 3.60   | 8.20     | 19.40                    | 2.80  | 1.80  | 1.79  | 0.60  | 0.47  |                |
| 11             | 0.06                                                            | 1.79                     | 1.79   | 1.80                 | 3.20   | 3.40     | 15.00                    | 2.50  | 1.79  | 1.79  | 0.60  | 0.43  |                |
| 12             | 0.06                                                            | 1.80                     | 11.40  | 1.79                 | 3.70   | 3.10     | 9.40                     | 2.38  | 1.79  | 1.79  | 0.60  | 0.43  |                |
| 13             | 0.06                                                            | 1.80                     | 19.40  | 1.79                 | 23.66  | 5.80     | 9.00                     | 2.26  | 1.79  | 1.79  | 0.58  | 0.43  |                |
| 14             | 0.05                                                            | 1.79                     | 15.40  | 1.79                 | 17.00  | 15.40    | 6.60                     | 2.12  | 1.79  | 1.79  | 0.58  | 0.43  |                |
| 15             | 0.04                                                            | 0.25                     | 3.70   | 1.79                 | 6.20   | 15.40    | 6.60                     | 2.26  | 1.79  | 1.79  | 0.56  | 0.43  |                |
| 16             | 0.04                                                            | 0.25                     | 1.96   | 1.79                 | 2.62   | 14.20    | 76.40                    | 2.26  | 1.79  | 1.79  | 0.56  | 0.43  |                |
| 17             | 0.04                                                            | 2.62                     | 1.80   | 1.79                 | 1.96   | 7.80     | 81.20                    | 2.26  | 1.79  | 1.79  | 0.56  | 0.43  |                |
| 18             | 0.04                                                            | 2.44                     | 1.80   | 1.79                 | 1.80   | 4.20     | 43.00                    | 2.26  | 1.79  | 1.79  | 0.56  | 0.43  |                |
| 19             | 0.04                                                            | 0.46                     | 8.20   | 0.66                 | 1.80   | 7.00     | 66.00                    | 2.12  | 1.79  | 1.79  | 0.56  | 0.47  |                |
| 20             | 0.04                                                            | 0.25                     | 4.60   | 0.62                 | 1.79   | 232.40   | 41.00                    | 2.12  | 1.79  | 1.79  | 0.56  | 0.60  |                |
| 21             | 0.04                                                            | 0.29                     | 4.20   | 0.56                 | 1.79   | 102.80   | 24.90                    | 2.12  | 1.79  | 1.79  | 0.56  | 0.56  |                |
| 22             | 0.04                                                            | 0.28                     | 3.30   | 0.56                 | 1.79   | 43.00    | 15.80                    | 2.08  | 1.79  | 1.79  | 0.56  | 0.70  |                |
| 23             | 0.11                                                            | 0.28                     | 1.96   | 0.64                 | 1.79   | 20.00    | 11.80                    | 1.96  | 1.79  | 1.79  | 0.56  | 0.62  |                |
| 24             | 2.04                                                            | 0.23                     | 2.44   | 0.68                 | 2.20   | 11.80    | 8.60                     | 1.88  | 1.79  | 1.79  | 0.56  | 0.52  |                |
| 25             | 1.96                                                            | 0.18                     | 6.20   | 1.79                 | 2.38   | 10.60    | 7.40                     | 1.84  | 1.79  | 0.70  | 0.56  | 0.52  |                |
| 26             | 1.80                                                            | 0.17                     | 5.80   | 1.79                 | 1.80   | 43.00    | 5.00                     | 1.88  | 1.79  | 0.70  | 0.56  | 0.48  |                |
| 27             | 1.80                                                            | 0.24                     | 2.80   | 1.79                 | 1.80   | 49.00    | 3.80                     | 1.92  | 1.79  | 0.70  | 0.56  | 0.48  |                |
| 28             | 1.80                                                            | 0.16                     | 1.92   | 1.79                 | 1.80   | 87.20    | 3.40                     | 1.88  | 1.79  | 0.70  | 0.56  | 0.54  |                |
| 29             | 1.80                                                            | 0.11                     | 1.80   | 1.79                 | 3.40   | 44.00    | 3.10                     | 1.84  | 1.79  | 0.70  |       | 0.56  |                |
| 30             | 1.80                                                            | 0.08                     | 1.80   | 0.68                 | 2.50   | 38.00    | 3.00                     | 1.80  | 1.79  | 0.70  |       | 0.52  |                |
| 31             |                                                                 | 0.09                     |        | 1.79                 | 1.96   |          | 2.80                     |       | 1.79  | 0.70  |       | 0.49  |                |
| Total          | 14.79                                                           | 20.60                    | 121.15 | 52.30                | 110.64 | 829.34   | 1350.02                  | 66.36 | 55.59 | 47.86 | 16.76 | 15.67 | 2701.08 CMSDAY |
| Mean           | 0.49                                                            | 0.66                     | 4.04   | 1.69                 | 3.57   | 27.64    | 43.55                    | 2.21  | 1.79  | 1.54  | 0.60  | 0.51  | 7.40 CMS       |
| Max            | 2.04                                                            | 2.62                     | 19.40  | 5.80                 | 23.66  | 232.40   | 468.40                   | 2.90  | 1.80  | 1.79  | 0.70  | 0.70  | 468.40 CMS     |
| Min            | 0.04                                                            | 0.01                     | 0.60   | 0.56                 | 1.79   | 1.80     | 2.80                     | 1.80  | 1.79  | 0.70  | 0.56  | 0.43  | 0.01 CMS       |
| Runoff         | 1.28                                                            | 1.78                     | 10.47  | 4.52                 | 9.56   | 71.66    | 116.64                   | 5.73  | 4.80  | 4.14  | 1.45  | 1.35  | 233.37 MCM     |
| Momentary Peak | 944.40 CMS, at 277.38 m. (MSL.), at 05.00 Hours, on Oct 7, 2013 |                          |        |                      |        |          |                          |       |       |       |       |       |                |
| Runoff Yield   | 13.38                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 1707.776 | Liters/Second/Square KM. |       |       |       |       |       |                |

**WATER YEAR : 2013****MUN RIVER BASIN****Khlong Phai at Ban Non Sao - E, Nakhon Ratchasima (M.172)**

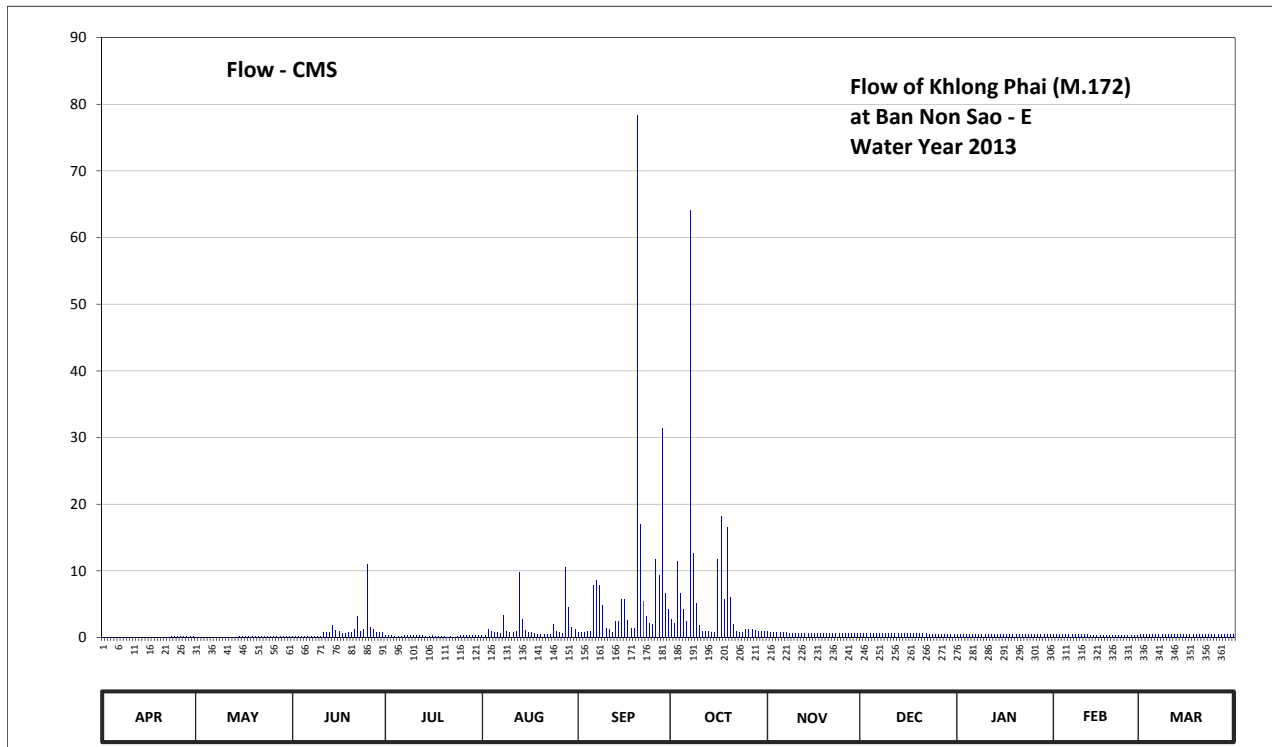
Lat 14 - 29 - 14 N Long 101 - 46 - 57 E

Location : on right bank at the bridge.

|                                         |                                                                                           |             |               |                |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Non Sao - E | <b>Amphoe</b> | Wang Nam Khieo | <b>Changwat</b>  | Nakhon Ratchasima  |
| <b>Drainage Area</b>                    | 143                                                                                       | sq.km.      |               |                |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |             |               |                |                  |                    |
| <b>Zero Gage at Bottom</b>              | +293.220                                                                                  | m. (MSL.)   |               |                |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |                |                  |                    |
| <b>Location BM</b>                      | On right bank downstream side at the footpath of the bridge.                              |             |               |                | <b>Elevation</b> | +299.100 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00 , 12.00 and 18.00 hours.                                   |             |               |                |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |             |               |                |                  |                    |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                              |             |               |                |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |             |               |                |                  |                    |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |             |               |                |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |                |                  |                    |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |             |               |                |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |             |               |                |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |                |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2013. |             |               |                |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

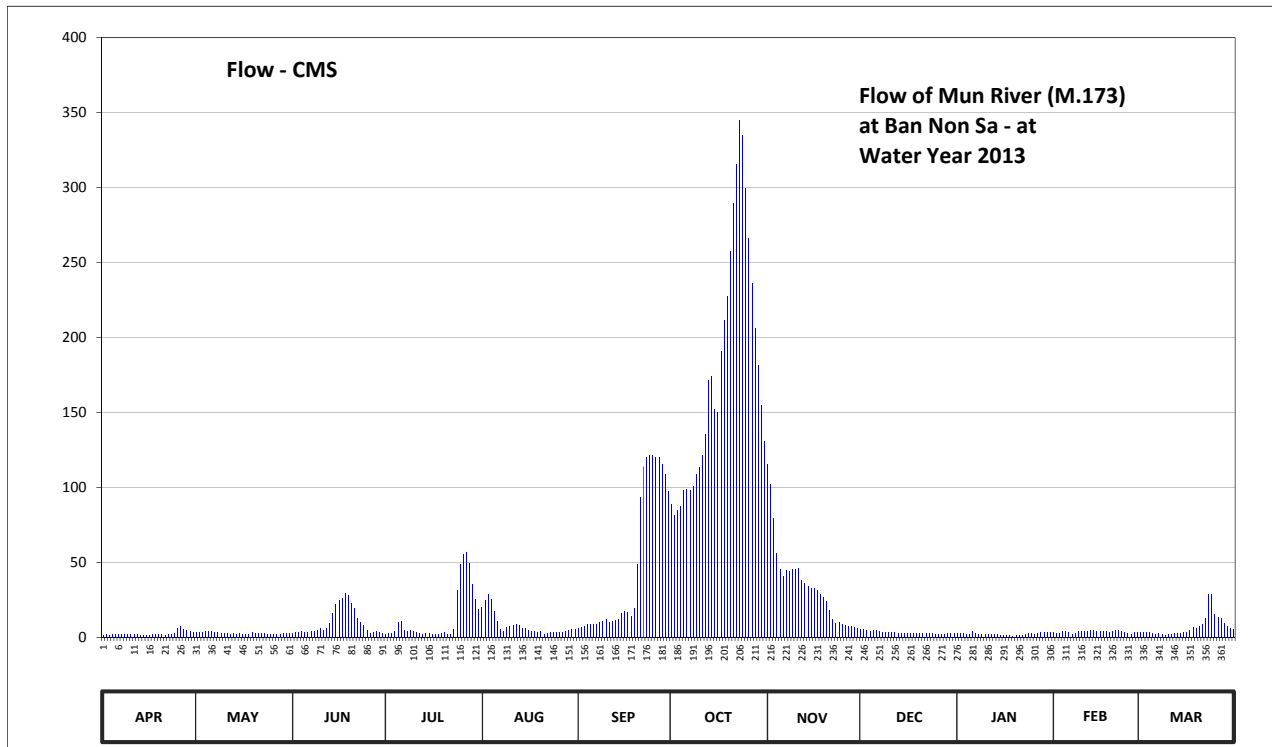
| Date                             | Apr    | May    | Jun         | Jul    | Aug                            | Sep    | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------------------------------|--------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 293.05 | 293.02 | 293.10      | 293.16 | 293.17                         | 293.42 | 293.64 | 293.46            | 293.35 | 293.28 | 293.24 | 293.22 |        |
| 2                                | 293.05 | 293.02 | 293.10      | 293.16 | 293.17                         | 293.38 | 293.61 | 293.42            | 293.35 | 293.27 | 293.24 | 293.22 |        |
| 3                                | 293.05 | 293.02 | 293.10      | 293.16 | 293.52                         | 293.38 | 293.91 | 293.42            | 293.34 | 293.26 | 293.24 | 293.22 |        |
| 4                                | 293.05 | 293.02 | 293.10      | 293.10 | 293.48                         | 293.46 | 293.79 | 293.42            | 293.34 | 293.24 | 293.24 | 293.22 |        |
| 5                                | 293.05 | 293.02 | 293.10      | 293.11 | 293.39                         | 293.50 | 293.71 | 293.39            | 293.34 | 293.24 | 293.23 | 293.22 |        |
| 6                                | 293.05 | 293.02 | 293.10      | 293.13 | 293.38                         | 293.82 | 293.62 | 293.39            | 293.33 | 293.24 | 293.23 | 293.22 |        |
| 7                                | 293.05 | 293.02 | 293.10      | 293.16 | 293.30                         | 293.84 | 294.92 | 293.38            | 293.32 | 293.24 | 293.23 | 293.22 |        |
| 8                                | 293.05 | 293.03 | 293.10      | 293.16 | 293.67                         | 293.82 | 293.94 | 293.37            | 293.32 | 293.24 | 293.23 | 293.22 |        |
| 9                                | 293.05 | 293.04 | 293.10      | 293.16 | 293.49                         | 293.73 | 293.74 | 293.37            | 293.32 | 293.24 | 293.22 | 293.22 |        |
| 10                               | 293.01 | 293.06 | 293.10      | 293.17 | 293.44                         | 293.54 | 293.59 | 293.37            | 293.32 | 293.24 | 293.22 | 293.22 |        |
| 11                               | 293.01 | 293.06 | 293.39      | 293.16 | 293.44                         | 293.52 | 293.50 | 293.35            | 293.32 | 293.24 | 293.22 | 293.22 |        |
| 12                               | 293.01 | 293.06 | 293.42      | 293.15 | 293.46                         | 293.42 | 293.49 | 293.34            | 293.32 | 293.24 | 293.22 | 293.22 |        |
| 13                               | 293.01 | 293.07 | 293.42      | 293.15 | 293.87                         | 293.62 | 293.49 | 293.34            | 293.32 | 293.25 | 293.21 | 293.22 |        |
| 14                               | 293.01 | 293.07 | 293.58      | 293.14 | 293.64                         | 293.62 | 293.44 | 293.34            | 293.32 | 293.25 | 293.21 | 293.22 |        |
| 15                               | 293.01 | 293.08 | 293.51      | 293.14 | 293.51                         | 293.76 | 293.41 | 293.34            | 293.32 | 293.25 | 293.21 | 293.22 |        |
| 16                               | 293.01 | 293.09 | 293.48      | 293.15 | 293.44                         | 293.76 | 293.92 | 293.35            | 293.32 | 293.24 | 293.21 | 293.22 |        |
| 17                               | 293.01 | 293.10 | 293.33      | 293.11 | 293.40                         | 293.63 | 294.08 | 293.35            | 293.32 | 293.24 | 293.21 | 293.22 |        |
| 18                               | 293.01 | 293.10 | 293.36      | 293.08 | 293.33                         | 293.54 | 293.76 | 293.35            | 293.31 | 293.24 | 293.21 | 293.22 |        |
| 19                               | 293.01 | 293.10 | 293.38      | 293.09 | 293.29                         | 293.54 | 294.04 | 293.35            | 293.31 | 293.24 | 293.21 | 293.22 |        |
| 20                               | 293.01 | 293.10 | 293.38      | 293.09 | 293.29                         | 295.15 | 293.77 | 293.35            | 293.31 | 293.24 | 293.21 | 293.22 |        |
| 21                               | 293.01 | 293.10 | 293.53      | 293.07 | 293.28                         | 294.05 | 293.60 | 293.35            | 293.31 | 293.24 | 293.21 | 293.22 |        |
| 22                               | 293.01 | 293.10 | 293.66      | 293.14 | 293.27                         | 293.75 | 293.50 | 293.34            | 293.31 | 293.24 | 293.21 | 293.22 |        |
| 23                               | 293.09 | 293.10 | 293.45      | 293.07 | 293.27                         | 293.66 | 293.41 | 293.34            | 293.29 | 293.24 | 293.21 | 293.22 |        |
| 24                               | 293.09 | 293.10 | 293.52      | 293.14 | 293.60                         | 293.61 | 293.41 | 293.35            | 293.29 | 293.24 | 293.21 | 293.22 |        |
| 25                               | 293.09 | 293.09 | 293.90      | 293.15 | 293.47                         | 293.60 | 293.53 | 293.37            | 293.29 | 293.24 | 293.21 | 293.22 |        |
| 26                               | 293.09 | 293.09 | 293.56      | 293.16 | 293.40                         | 293.92 | 293.52 | 293.36            | 293.29 | 293.24 | 293.21 | 293.22 |        |
| 27                               | 293.09 | 293.09 | 293.52      | 293.16 | 293.37                         | 293.86 | 293.52 | 293.37            | 293.29 | 293.24 | 293.21 | 293.22 |        |
| 28                               | 293.09 | 293.09 | 293.44      | 293.17 | 293.89                         | 294.35 | 293.51 | 293.35            | 293.29 | 293.24 | 293.21 | 293.22 |        |
| 29                               | 293.09 | 293.09 | 293.42      | 293.17 | 293.72                         | 293.79 | 293.47 | 293.35            | 293.29 | 293.24 |        | 293.22 |        |
| 30                               | 293.09 | 293.10 | 293.42      | 293.17 | 293.55                         | 293.71 | 293.46 | 293.35            | 293.29 | 293.24 |        | 293.22 |        |
| 31                               |        | 293.10 |             | 293.17 | 293.53                         |        | 293.45 |                   | 293.29 | 293.24 |        | 293.22 |        |
| Mean                             | 293.04 | 293.07 | 293.36      | 293.14 | 293.45                         | 293.73 | 293.67 | 293.37            | 293.31 | 293.24 | 293.22 | 293.22 |        |
| Max                              | 293.09 | 293.10 | 293.90      | 293.17 | 293.89                         | 295.15 | 294.92 | 293.46            | 293.35 | 293.28 | 293.24 | 293.22 | 295.15 |
| Min                              | 293.01 | 293.02 | 293.10      | 293.07 | 293.17                         | 293.38 | 293.41 | 293.34            | 293.29 | 293.24 | 293.21 | 293.22 | 293.01 |
| Annual Max Momentary Gage Height | 295.72 |        | m. (MSL.) , |        | at 12.00 Hours, on Oct 7, 2013 |        |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 293.22 |        | m. (MSL.) , |        | River Bed                      |        | 292.81 | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 299.12 |        | m. (MSL.) , |        |                                |        |        |                   |        |        |        |        |        |
| Right Bank Elevation             | 299.11 |        | m. (MSL.) , |        | Drainage Area                  |        | 143    | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|--------|----------------------------------------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 0.10   | 0.04                                                     | 0.20  | 0.32                 | 0.34  | 0.84    | 2.80                     | 0.92  | 0.70  | 0.56  | 0.48  | 0.44  |               |
| 2              | 0.10   | 0.04                                                     | 0.20  | 0.32                 | 0.34  | 0.76    | 2.20                     | 0.84  | 0.70  | 0.54  | 0.48  | 0.44  |               |
| 3              | 0.10   | 0.04                                                     | 0.20  | 0.32                 | 1.20  | 0.76    | 11.40                    | 0.84  | 0.68  | 0.52  | 0.48  | 0.44  |               |
| 4              | 0.10   | 0.04                                                     | 0.20  | 0.20                 | 0.96  | 0.92    | 6.70                     | 0.84  | 0.68  | 0.48  | 0.48  | 0.44  |               |
| 5              | 0.10   | 0.04                                                     | 0.20  | 0.22                 | 0.78  | 1.00    | 4.30                     | 0.78  | 0.68  | 0.48  | 0.46  | 0.44  |               |
| 6              | 0.10   | 0.04                                                     | 0.20  | 0.26                 | 0.76  | 7.80    | 2.40                     | 0.78  | 0.66  | 0.48  | 0.46  | 0.44  |               |
| 7              | 0.10   | 0.04                                                     | 0.20  | 0.32                 | 0.60  | 8.60    | 64.00                    | 0.76  | 0.64  | 0.48  | 0.46  | 0.44  |               |
| 8              | 0.10   | 0.06                                                     | 0.20  | 0.32                 | 3.40  | 7.80    | 12.60                    | 0.74  | 0.64  | 0.48  | 0.46  | 0.44  |               |
| 9              | 0.10   | 0.08                                                     | 0.20  | 0.32                 | 0.98  | 4.90    | 5.20                     | 0.74  | 0.64  | 0.48  | 0.44  | 0.44  |               |
| 10             | 0.02   | 0.12                                                     | 0.20  | 0.34                 | 0.88  | 1.40    | 1.90                     | 0.74  | 0.64  | 0.48  | 0.44  | 0.44  |               |
| 11             | 0.02   | 0.12                                                     | 0.78  | 0.32                 | 0.88  | 1.20    | 1.00                     | 0.70  | 0.64  | 0.48  | 0.44  | 0.44  |               |
| 12             | 0.02   | 0.12                                                     | 0.84  | 0.30                 | 0.92  | 0.84    | 0.98                     | 0.68  | 0.64  | 0.48  | 0.44  | 0.44  |               |
| 13             | 0.02   | 0.14                                                     | 0.84  | 0.30                 | 9.80  | 2.40    | 0.98                     | 0.68  | 0.64  | 0.50  | 0.42  | 0.44  |               |
| 14             | 0.02   | 0.14                                                     | 1.80  | 0.28                 | 2.80  | 2.40    | 0.88                     | 0.68  | 0.64  | 0.50  | 0.42  | 0.44  |               |
| 15             | 0.02   | 0.16                                                     | 1.10  | 0.28                 | 1.10  | 5.80    | 0.82                     | 0.68  | 0.64  | 0.50  | 0.42  | 0.44  |               |
| 16             | 0.02   | 0.18                                                     | 0.96  | 0.30                 | 0.88  | 5.80    | 11.80                    | 0.70  | 0.64  | 0.48  | 0.42  | 0.44  |               |
| 17             | 0.02   | 0.20                                                     | 0.66  | 0.22                 | 0.80  | 2.60    | 18.20                    | 0.70  | 0.64  | 0.48  | 0.42  | 0.44  |               |
| 18             | 0.02   | 0.20                                                     | 0.72  | 0.16                 | 0.66  | 1.40    | 5.80                     | 0.70  | 0.62  | 0.48  | 0.42  | 0.44  |               |
| 19             | 0.02   | 0.20                                                     | 0.76  | 0.18                 | 0.58  | 1.40    | 16.60                    | 0.70  | 0.62  | 0.48  | 0.42  | 0.44  |               |
| 20             | 0.02   | 0.20                                                     | 0.76  | 0.18                 | 0.58  | 78.37   | 6.10                     | 0.70  | 0.62  | 0.48  | 0.42  | 0.44  |               |
| 21             | 0.02   | 0.20                                                     | 1.30  | 0.14                 | 0.56  | 17.00   | 2.00                     | 0.70  | 0.62  | 0.48  | 0.42  | 0.44  |               |
| 22             | 0.02   | 0.20                                                     | 3.20  | 0.28                 | 0.54  | 5.50    | 1.00                     | 0.68  | 0.62  | 0.48  | 0.42  | 0.44  |               |
| 23             | 0.18   | 0.20                                                     | 0.90  | 0.14                 | 0.54  | 3.20    | 0.82                     | 0.68  | 0.58  | 0.48  | 0.42  | 0.44  |               |
| 24             | 0.18   | 0.20                                                     | 1.20  | 0.28                 | 2.00  | 2.20    | 0.82                     | 0.70  | 0.58  | 0.48  | 0.42  | 0.44  |               |
| 25             | 0.18   | 0.18                                                     | 11.00 | 0.30                 | 0.94  | 2.00    | 1.30                     | 0.74  | 0.58  | 0.48  | 0.42  | 0.44  |               |
| 26             | 0.18   | 0.18                                                     | 1.60  | 0.32                 | 0.80  | 11.80   | 1.20                     | 0.72  | 0.58  | 0.48  | 0.42  | 0.44  |               |
| 27             | 0.18   | 0.18                                                     | 1.20  | 0.32                 | 0.74  | 9.40    | 1.20                     | 0.74  | 0.58  | 0.48  | 0.42  | 0.44  |               |
| 28             | 0.18   | 0.18                                                     | 0.88  | 0.34                 | 10.60 | 31.50   | 1.10                     | 0.70  | 0.58  | 0.48  | 0.42  | 0.44  |               |
| 29             | 0.18   | 0.18                                                     | 0.84  | 0.34                 | 4.60  | 6.70    | 0.94                     | 0.70  | 0.58  | 0.48  |       | 0.44  |               |
| 30             | 0.18   | 0.20                                                     | 0.84  | 0.34                 | 1.50  | 4.30    | 0.92                     | 0.70  | 0.58  | 0.48  |       | 0.44  |               |
| 31             |        | 0.20                                                     |       | 0.34                 | 1.30  |         | 0.90                     |       | 0.58  | 0.48  |       | 0.44  |               |
| Total          | 2.60   | 4.30                                                     | 34.18 | 8.60                 | 53.36 | 230.59  | 188.86                   | 21.96 | 19.46 | 15.12 | 12.24 | 13.64 | 604.91 CMSDAY |
| Mean           | 0.09   | 0.14                                                     | 1.14  | 0.28                 | 1.72  | 7.69    | 6.09                     | 0.73  | 0.63  | 0.49  | 0.44  | 0.44  | 1.66 CMS      |
| Max            | 0.18   | 0.20                                                     | 11.00 | 0.34                 | 10.60 | 78.37   | 64.00                    | 0.92  | 0.70  | 0.56  | 0.48  | 0.44  | 78.37 CMS     |
| Min            | 0.02   | 0.04                                                     | 0.20  | 0.14                 | 0.34  | 0.76    | 0.82                     | 0.68  | 0.58  | 0.48  | 0.42  | 0.44  | 0.02 CMS      |
| Runoff         | 0.23   | 0.37                                                     | 2.95  | 0.74                 | 4.61  | 19.92   | 16.32                    | 1.90  | 1.68  | 1.31  | 1.06  | 1.18  | 52.26 MCM     |
| Momentary Peak | 114.00 | CMS, at 295.72 m. (MSL.), at 12.00 Hours, on Oct 7, 2013 |       |                      |       |         |                          |       |       |       |       |       |               |
| Runoff Yield   | 11.59  | Liters/Second/Square KM.                                 |       | Momentary Peak Yield |       | 797.203 | Liters/Second/Square KM. |       |       |       |       |       |               |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov     | Dec    | Jan   | Feb    | Mar    | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|---------|--------|-------|--------|--------|----------------|
| 1              | 1.94                                                             | 3.85                     | 2.70   | 2.16                 | 20.55  | 6.10    | 89.20                    | 115.50  | 5.50   | 2.60  | 3.55   | 3.85   |                |
| 2              | 1.98                                                             | 3.85                     | 3.40   | 3.20                 | 25.20  | 7.10    | 81.62                    | 102.00  | 5.40   | 2.65  | 3.05   | 3.90   |                |
| 3              | 1.94                                                             | 3.85                     | 3.85   | 2.95                 | 28.65  | 7.70    | 85.00                    | 79.32   | 5.20   | 2.65  | 2.75   | 3.85   |                |
| 4              | 1.96                                                             | 4.15                     | 4.15   | 4.35                 | 25.95  | 8.70    | 87.50                    | 56.40   | 4.60   | 2.26  | 4.00   | 3.50   |                |
| 5              | 2.00                                                             | 4.15                     | 3.40   | 10.30                | 17.85  | 9.20    | 98.20                    | 45.80   | 4.90   | 2.16  | 4.60   | 2.90   |                |
| 6              | 2.00                                                             | 4.15                     | 3.45   | 10.90                | 10.60  | 9.30    | 98.90                    | 40.80   | 4.80   | 4.00  | 3.45   | 2.45   |                |
| 7              | 2.00                                                             | 3.75                     | 4.25   | 5.00                 | 5.90   | 9.30    | 98.20                    | 45.20   | 4.50   | 3.30  | 2.50   | 3.15   |                |
| 8              | 2.00                                                             | 3.50                     | 4.30   | 4.30                 | 4.50   | 10.10   | 101.00                   | 44.00   | 3.90   | 2.32  | 3.00   | 2.55   |                |
| 9              | 2.00                                                             | 3.10                     | 5.20   | 5.20                 | 6.90   | 11.30   | 109.00                   | 45.60   | 3.75   | 2.36  | 4.00   | 1.86   |                |
| 10             | 2.00                                                             | 2.95                     | 6.10   | 4.30                 | 7.50   | 12.60   | 114.00                   | 45.80   | 3.65   | 2.22  | 4.30   | 2.24   |                |
| 11             | 2.00                                                             | 2.75                     | 4.70   | 3.85                 | 8.10   | 10.10   | 121.50                   | 46.20   | 3.50   | 2.02  | 4.30   | 2.40   |                |
| 12             | 1.98                                                             | 2.30                     | 6.60   | 3.10                 | 9.00   | 10.70   | 135.60                   | 38.40   | 3.35   | 2.06  | 4.35   | 2.90   |                |
| 13             | 1.86                                                             | 3.00                     | 9.60   | 2.55                 | 8.00   | 11.60   | 171.60                   | 36.40   | 3.15   | 2.24  | 4.90   | 2.90   |                |
| 14             | 1.80                                                             | 2.38                     | 16.50  | 3.20                 | 6.10   | 12.40   | 174.00                   | 34.00   | 3.10   | 2.20  | 5.00   | 3.10   |                |
| 15             | 1.80                                                             | 2.70                     | 22.20  | 3.15                 | 6.40   | 16.05   | 152.40                   | 32.80   | 3.05   | 1.94  | 4.40   | 3.55   |                |
| 16             | 1.86                                                             | 2.34                     | 24.90  | 2.40                 | 5.20   | 17.55   | 150.00                   | 33.20   | 3.10   | 1.66  | 4.40   | 3.60   |                |
| 17             | 2.06                                                             | 2.34                     | 26.40  | 2.34                 | 4.40   | 16.80   | 190.80                   | 31.65   | 3.30   | 1.66  | 4.40   | 4.70   |                |
| 18             | 2.04                                                             | 2.38                     | 29.85  | 2.34                 | 4.05   | 14.55   | 211.50                   | 29.10   | 3.30   | 1.36  | 4.00   | 6.80   |                |
| 19             | 2.08                                                             | 3.35                     | 28.20  | 2.70                 | 3.55   | 19.65   | 227.70                   | 27.00   | 3.30   | 0.96  | 3.35   | 6.60   |                |
| 20             | 2.02                                                             | 2.80                     | 23.25  | 3.35                 | 4.15   | 48.80   | 257.60                   | 24.30   | 3.20   | 1.44  | 4.05   | 7.90   |                |
| 21             | 1.94                                                             | 2.75                     | 19.35  | 2.30                 | 2.50   | 93.40   | 289.60                   | 18.30   | 3.20   | 1.72  | 4.80   | 9.20   |                |
| 22             | 2.06                                                             | 3.30                     | 13.10  | 2.32                 | 3.10   | 114.00  | 315.30                   | 12.00   | 2.95   | 1.94  | 4.80   | 13.10  |                |
| 23             | 2.10                                                             | 2.90                     | 10.20  | 5.40                 | 3.40   | 120.00  | 345.00                   | 9.80    | 2.95   | 2.50  | 4.20   | 29.25  |                |
| 24             | 2.70                                                             | 1.96                     | 8.20   | 31.80                | 3.45   | 121.50  | 335.10                   | 10.20   | 2.60   | 2.80  | 3.85   | 29.25  |                |
| 25             | 6.50                                                             | 2.02                     | 5.00   | 49.00                | 3.80   | 121.50  | 299.20                   | 9.20    | 2.40   | 2.85  | 3.25   | 15.60  |                |
| 26             | 7.30                                                             | 2.10                     | 3.15   | 55.60                | 3.60   | 120.00  | 266.00                   | 8.20    | 2.38   | 2.34  | 2.38   | 14.00  |                |
| 27             | 5.40                                                             | 2.10                     | 3.80   | 56.80                | 3.80   | 120.00  | 235.80                   | 7.70    | 2.40   | 2.95  | 3.40   | 12.80  |                |
| 28             | 5.10                                                             | 2.18                     | 4.20   | 49.60                | 4.10   | 115.50  | 206.10                   | 7.40    | 2.45   | 3.60  | 3.40   | 9.90   |                |
| 29             | 4.10                                                             | 2.70                     | 3.50   | 35.40                | 5.20   | 109.00  | 181.20                   | 7.00    | 2.70   | 3.35  |        | 7.40   |                |
| 30             | 3.90                                                             | 2.95                     | 2.80   | 25.35                | 5.70   | 97.50   | 154.80                   | 6.30    | 2.65   | 3.55  |        | 6.40   |                |
| 31             |                                                                  | 2.85                     |        | 18.90                | 5.70   |         | 130.80                   |         | 2.60   | 3.65  |        | 5.60   |                |
| Total          | 80.42                                                            | 91.45                    | 306.30 | 414.11               | 256.90 | 1402.00 | 5514.22                  | 1049.57 | 107.83 | 75.31 | 108.43 | 227.20 | 9633.74 CMSDAY |
| Mean           | 2.68                                                             | 2.95                     | 10.21  | 13.36                | 8.29   | 46.73   | 177.88                   | 34.99   | 3.48   | 2.43  | 3.87   | 7.33   | 26.39 CMS      |
| Max            | 7.30                                                             | 4.15                     | 29.85  | 56.80                | 28.65  | 121.50  | 345.00                   | 115.50  | 5.50   | 4.00  | 5.00   | 29.25  | 345.00 CMS     |
| Min            | 1.80                                                             | 1.96                     | 2.70   | 2.16                 | 2.50   | 6.10    | 81.62                    | 6.30    | 2.38   | 0.96  | 2.38   | 1.86   | 0.96 CMS       |
| Runoff         | 6.95                                                             | 7.90                     | 26.46  | 35.78                | 22.20  | 121.13  | 476.43                   | 90.68   | 9.32   | 6.51  | 9.37   | 19.63  | 832.36 MCM     |
| Momentary Peak | 345.00 CMS, at 182.40 m. (MSL.), at 06.00 Hours, on Oct 23, 2013 |                          |        |                      |        |         |                          |         |        |       |        |        |                |
| Runoff Yield   | 6.27                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 81.928  | Liters/Second/Square KM. |         |        |       |        |        |                |

**WATER YEAR : 2013**

## MUN RIVER BASIN

**Huai Khayung at Ban Non Si Khlai, Si Sa Ket (M.176)**

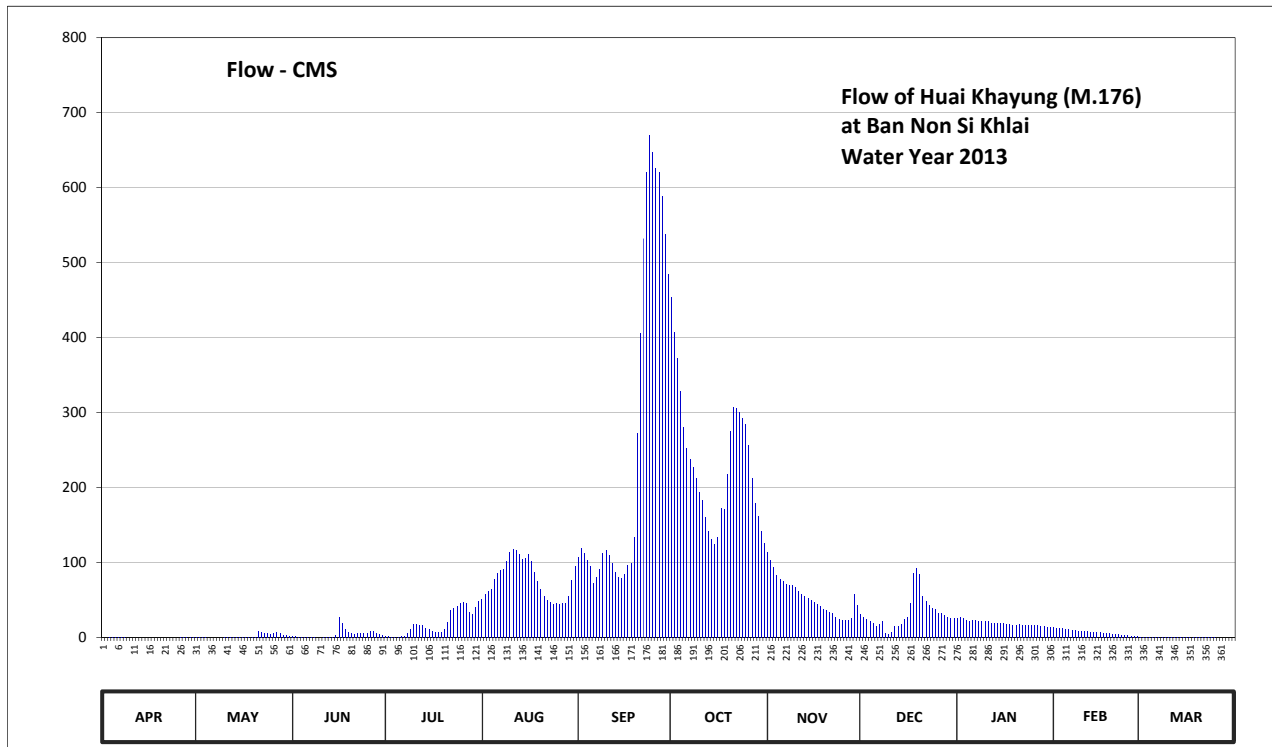
Lat 15 - 00 - 18 N    Long 104 - 38 - 14 E

**Location : on left bank at Ban Non Si Khlai.**

|                                         |                                                                                                |              |               |             |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------------|--------------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                     | Non Si Khlai | <b>Amphoe</b> | Kanthararom | <b>Changwat</b>  | Si Sa Ket          |
| <b>Drainage Area</b>                    | 3,131                                                                                          | sq.km.       |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                                    |              |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +110.210                                                                                       | m. (MSL.)    |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                      |              |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank at the footpath of the bridge.                                                    |              |               |             | <b>Elevation</b> | +124.131 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                         |              |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                                  |              |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                                   |              |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                |              |               |             |                  |                    |
| <b>Period of Rating</b>                 | 2003 to date                                                                                   |              |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                              |              |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                                   |              |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                 |              |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                              |              |               |             |                  |                    |
| <b>General Description</b>              | Records very good. Stage-discharge relation defined by 60 discharge measurements made in 2013. |              |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 110.59 | 110.91 | 111.09                                           | 111.15 | 114.07 | 116.35 | 121.95 | 116.58 | 112.98 | 112.75 | 111.99 | 110.99 |        |
| 2                                | 110.70 | 110.82 | 111.07                                           | 111.07 | 114.31 | 116.80 | 121.69 | 116.15 | 112.76 | 112.77 | 111.97 | 110.92 |        |
| 3                                | 110.77 | 110.80 | 111.01                                           | 110.98 | 114.51 | 116.52 | 121.44 | 115.77 | 112.62 | 112.70 | 111.93 | 110.93 |        |
| 4                                | 110.74 | 110.75 | 111.00                                           | 110.95 | 114.59 | 116.14 | 121.06 | 115.36 | 112.53 | 112.57 | 111.91 | 110.90 |        |
| 5                                | 110.75 | 110.71 | 110.99                                           | 111.00 | 115.11 | 115.82 | 120.58 | 115.12 | 112.39 | 112.51 | 111.83 | 110.85 |        |
| 6                                | 110.78 | 110.69 | 110.95                                           | 111.06 | 115.47 | 114.94 | 120.24 | 115.03 | 112.09 | 112.59 | 111.83 | 110.84 |        |
| 7                                | 110.77 | 110.66 | 110.89                                           | 111.16 | 115.64 | 115.27 | 120.05 | 114.89 | 112.30 | 112.56 | 111.78 | 110.83 |        |
| 8                                | 110.77 | 110.66 | 110.81                                           | 111.54 | 115.69 | 115.69 | 119.88 | 114.80 | 112.49 | 112.50 | 111.75 | 110.81 |        |
| 9                                | 110.70 | 110.68 | 110.64                                           | 111.90 | 116.13 | 116.51 | 119.63 | 114.80 | 111.45 | 112.49 | 111.71 | 110.81 |        |
| 10                               | 110.56 | 110.74 | 110.67                                           | 112.27 | 116.57 | 116.69 | 119.25 | 114.69 | 111.41 | 112.50 | 111.69 | 110.83 |        |
| 11                               | 110.56 | 110.80 | 110.88                                           | 112.30 | 116.73 | 116.41 | 118.97 | 114.48 | 111.56 | 112.47 | 111.67 | 110.85 |        |
| 12                               | 110.53 | 110.95 | 110.89                                           | 112.22 | 116.69 | 115.98 | 118.27 | 114.31 | 112.12 | 112.40 | 111.63 | 110.84 |        |
| 13                               | 110.51 | 110.91 | 110.85                                           | 112.18 | 116.49 | 115.53 | 117.62 | 114.22 | 112.14 | 112.38 | 111.60 | 110.83 |        |
| 14                               | 110.51 | 110.85 | 110.81                                           | 111.91 | 116.23 | 115.25 | 117.27 | 114.11 | 112.30 | 112.37 | 111.58 | 110.84 |        |
| 15                               | 110.47 | 110.84 | 111.22                                           | 111.81 | 116.29 | 115.20 | 117.02 | 114.01 | 112.62 | 112.36 | 111.57 | 110.84 |        |
| 16                               | 110.43 | 110.86 | 112.80                                           | 111.64 | 116.46 | 115.39 | 117.33 | 113.84 | 112.79 | 112.35 | 111.56 | 110.84 |        |
| 17                               | 110.42 | 110.87 | 112.35                                           | 111.60 | 116.11 | 115.91 | 118.65 | 113.71 | 113.77 | 112.32 | 111.51 | 110.85 |        |
| 18                               | 110.41 | 110.93 | 111.87                                           | 111.61 | 115.52 | 115.99 | 118.63 | 113.55 | 115.44 | 112.28 | 111.48 | 110.87 |        |
| 19                               | 110.41 | 110.95 | 111.59                                           | 111.60 | 115.05 | 117.38 | 119.72 | 113.35 | 115.71 | 112.25 | 111.42 | 110.87 |        |
| 20                               | 110.41 | 111.01 | 111.42                                           | 111.81 | 114.60 | 120.48 | 120.52 | 113.26 | 115.38 | 112.24 | 111.36 | 110.86 |        |
| 21                               | 110.39 | 111.69 | 111.40                                           | 112.46 | 114.24 | 121.68 | 120.85 | 113.16 | 114.20 | 112.26 | 111.31 | 110.83 |        |
| 22                               | 110.39 | 111.59 | 111.45                                           | 113.30 | 114.00 | 122.37 | 120.84 | 113.06 | 113.95 | 112.25 | 111.29 | 110.81 |        |
| 23                               | 110.39 | 111.47 | 111.45                                           | 113.40 | 113.87 | 122.77 | 120.79 | 112.76 | 113.64 | 112.23 | 111.26 | 110.78 |        |
| 24                               | 110.49 | 111.42 | 111.46                                           | 113.55 | 113.73 | 122.96 | 120.71 | 112.65 | 113.46 | 112.22 | 111.22 | 110.77 |        |
| 25                               | 110.71 | 111.37 | 111.51                                           | 113.78 | 113.76 | 122.87 | 120.62 | 112.59 | 113.36 | 112.23 | 111.17 | 110.75 |        |
| 26                               | 110.74 | 111.48 | 111.67                                           | 113.87 | 113.75 | 122.79 | 120.29 | 112.57 | 113.09 | 112.21 | 111.12 | 110.69 |        |
| 27                               | 110.90 | 111.55 | 111.69                                           | 113.81 | 113.78 | 122.77 | 119.61 | 112.57 | 113.04 | 112.19 | 111.09 | 110.68 |        |
| 28                               | 111.01 | 111.47 | 111.48                                           | 113.17 | 113.80 | 122.63 | 118.85 | 112.72 | 112.92 | 112.13 | 111.07 | 110.67 |        |
| 29                               | 110.97 | 111.28 | 111.39                                           | 112.99 | 114.24 | 122.40 | 118.34 | 114.30 | 112.79 | 112.08 |        | 110.65 |        |
| 30                               | 110.97 | 111.17 | 111.20                                           | 113.52 | 115.09 | 122.12 | 117.65 | 113.65 | 112.71 | 112.07 |        | 110.63 |        |
| 31                               |        | 111.07 |                                                  | 113.95 | 115.81 |        | 117.08 |        | 112.69 | 112.07 |        | 110.70 |        |
| Mean                             | 110.62 | 111.03 | 111.28                                           | 112.24 | 115.11 | 118.32 | 119.53 | 114.07 | 112.99 | 112.36 | 111.55 | 110.81 |        |
| Max                              | 111.01 | 111.69 | 112.80                                           | 113.95 | 116.73 | 122.96 | 121.95 | 116.58 | 115.71 | 112.77 | 111.99 | 110.99 | 122.96 |
| Min                              | 110.39 | 110.66 | 110.64                                           | 110.95 | 113.73 | 114.94 | 117.02 | 112.57 | 111.41 | 112.07 | 111.07 | 110.63 | 110.39 |
| Annual Max Momentary Gage Height | 122.97 |        | m. (MSL.) , at 12.00 Hours, on Sep 24, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 110.21 |        | m. (MSL.) , River Bed 109.79 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 123.85 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 123.59 |        | m. (MSL.) , Drainage Area 3131 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

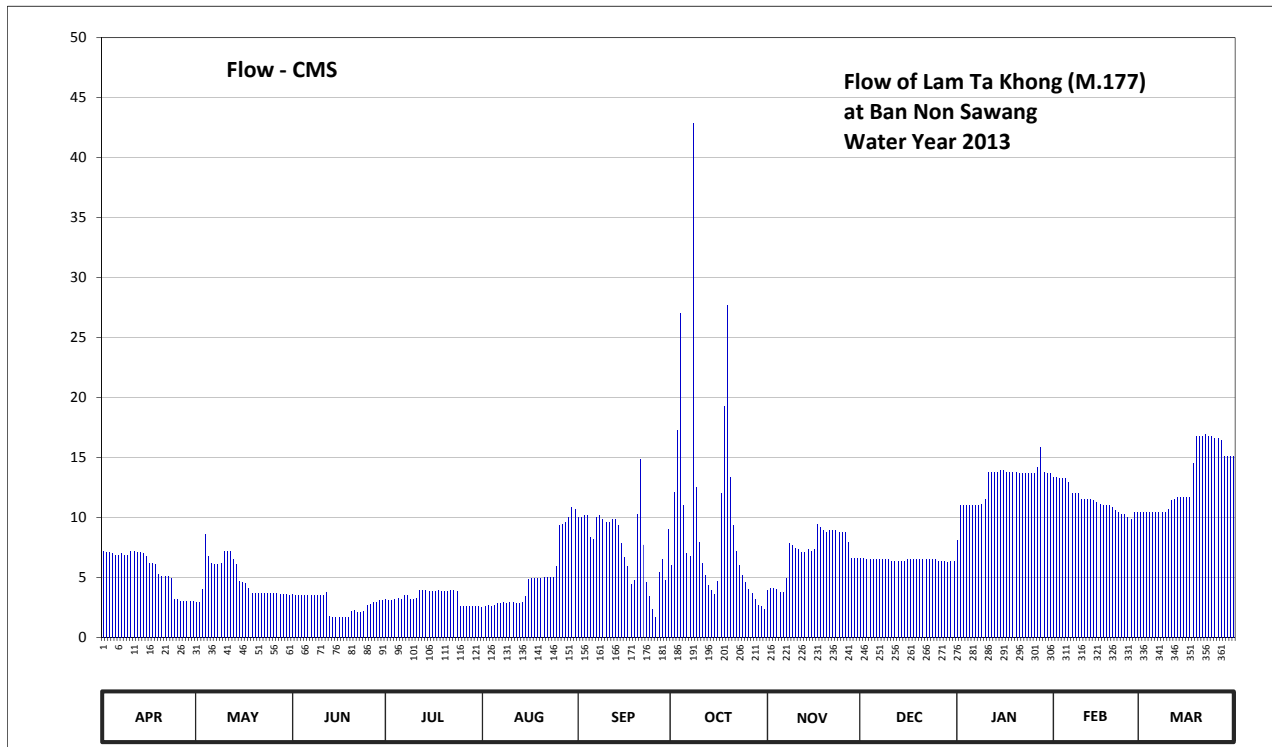


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan    | Feb    | Mar  | Annual          |
|----------------|--------|-----------------------------------------------------------|--------|----------------------|---------|---------|--------------------------|---------|---------|--------|--------|------|-----------------|
| 1              | 0.00   | 0.55                                                      | 1.90   | 2.50                 | 51.73   | 107.97  | 453.00                   | 113.64  | 30.80   | 26.47  | 13.35  | 0.95 |                 |
| 2              | 0.05   | 0.18                                                      | 1.70   | 1.70                 | 57.65   | 119.07  | 406.60                   | 103.03  | 26.66   | 26.85  | 13.05  | 0.60 |                 |
| 3              | 0.08   | 0.10                                                      | 1.10   | 0.90                 | 62.58   | 112.16  | 371.60                   | 93.66   | 24.02   | 25.53  | 12.45  | 0.65 |                 |
| 4              | 0.07   | 0.07                                                      | 1.00   | 0.75                 | 64.55   | 102.79  | 328.00                   | 83.55   | 22.33   | 23.08  | 12.15  | 0.50 |                 |
| 5              | 0.07   | 0.05                                                      | 0.95   | 1.00                 | 77.38   | 94.89   | 280.40                   | 77.63   | 19.69   | 21.95  | 10.95  | 0.30 |                 |
| 6              | 0.09   | 0.05                                                      | 0.75   | 1.60                 | 86.26   | 73.19   | 253.20                   | 75.41   | 14.85   | 23.46  | 10.95  | 0.26 |                 |
| 7              | 0.08   | 0.03                                                      | 0.46   | 2.60                 | 90.45   | 81.33   | 238.50                   | 71.95   | 18.00   | 22.89  | 10.20  | 0.22 |                 |
| 8              | 0.08   | 0.03                                                      | 0.14   | 6.60                 | 91.69   | 91.69   | 226.80                   | 69.73   | 21.58   | 21.76  | 9.75   | 0.14 |                 |
| 9              | 0.05   | 0.04                                                      | 0.02   | 12.00                | 102.54  | 111.91  | 213.00                   | 69.73   | 5.50    | 21.58  | 9.15   | 0.14 |                 |
| 10             | 0.00   | 0.07                                                      | 0.03   | 17.55                | 113.39  | 116.35  | 194.50                   | 67.02   | 5.10    | 21.76  | 8.85   | 0.22 |                 |
| 11             | 0.00   | 0.10                                                      | 0.42   | 18.00                | 117.34  | 109.45  | 183.45                   | 61.84   | 6.90    | 21.20  | 8.55   | 0.30 |                 |
| 12             | 0.00   | 0.75                                                      | 0.46   | 16.80                | 116.35  | 98.84   | 160.10                   | 57.65   | 15.30   | 19.88  | 7.95   | 0.26 |                 |
| 13             | 0.00   | 0.55                                                      | 0.30   | 16.20                | 111.42  | 87.74   | 141.36                   | 55.43   | 15.60   | 19.51  | 7.50   | 0.22 |                 |
| 14             | 0.00   | 0.30                                                      | 0.14   | 12.15                | 105.01  | 80.83   | 131.56                   | 52.71   | 18.00   | 19.32  | 7.20   | 0.26 |                 |
| 15             | 0.00   | 0.26                                                      | 3.20   | 10.65                | 106.49  | 79.60   | 124.56                   | 50.25   | 24.02   | 19.13  | 7.05   | 0.26 |                 |
| 16             | 0.00   | 0.34                                                      | 27.41  | 8.10                 | 110.68  | 84.29   | 133.24                   | 46.99   | 27.22   | 18.94  | 6.90   | 0.26 |                 |
| 17             | 0.00   | 0.38                                                      | 18.94  | 7.50                 | 102.05  | 97.11   | 172.25                   | 44.54   | 45.67   | 18.38  | 6.15   | 0.30 |                 |
| 18             | 0.00   | 0.65                                                      | 11.55  | 7.65                 | 87.49   | 99.09   | 171.55                   | 41.53   | 85.52   | 17.70  | 5.80   | 0.38 |                 |
| 19             | 0.00   | 0.75                                                      | 7.35   | 7.50                 | 75.90   | 134.64  | 217.60                   | 37.76   | 92.18   | 17.25  | 5.20   | 0.38 |                 |
| 20             | 0.00   | 1.10                                                      | 5.20   | 10.65                | 64.80   | 272.40  | 275.60                   | 36.07   | 84.04   | 17.10  | 4.60   | 0.34 |                 |
| 21             | 0.00   | 8.85                                                      | 5.00   | 21.01                | 55.92   | 405.20  | 307.00                   | 34.19   | 54.93   | 17.40  | 4.10   | 0.22 |                 |
| 22             | 0.00   | 7.35                                                      | 5.50   | 36.82                | 50.00   | 532.00  | 306.00                   | 32.31   | 49.06   | 17.25  | 3.90   | 0.14 |                 |
| 23             | 0.00   | 5.70                                                      | 5.50   | 38.71                | 47.55   | 620.80  | 301.00                   | 26.66   | 43.22   | 16.95  | 3.60   | 0.09 |                 |
| 24             | 0.00   | 5.20                                                      | 5.60   | 41.53                | 44.92   | 669.60  | 293.00                   | 24.59   | 39.84   | 16.80  | 3.20   | 0.08 |                 |
| 25             | 0.05   | 4.70                                                      | 6.15   | 45.86                | 45.48   | 646.20  | 284.00                   | 23.46   | 37.95   | 16.95  | 2.70   | 0.07 |                 |
| 26             | 0.07   | 5.80                                                      | 8.55   | 47.55                | 45.29   | 625.60  | 257.20                   | 23.08   | 32.87   | 16.65  | 2.20   | 0.05 |                 |
| 27             | 0.50   | 6.75                                                      | 8.85   | 46.42                | 45.86   | 620.80  | 212.00                   | 23.08   | 31.93   | 16.35  | 1.90   | 0.04 |                 |
| 28             | 1.10   | 5.70                                                      | 5.80   | 34.38                | 46.24   | 588.60  | 179.25                   | 25.91   | 29.67   | 15.45  | 1.70   | 0.03 |                 |
| 29             | 0.85   | 3.80                                                      | 4.90   | 30.99                | 55.92   | 538.00  | 162.20                   | 57.40   | 27.22   | 14.70  |        | 0.03 |                 |
| 30             | 0.85   | 2.70                                                      | 3.00   | 40.96                | 76.89   | 483.60  | 142.20                   | 43.41   | 25.72   | 14.55  |        | 0.01 |                 |
| 31             |        | 1.70                                                      |        | 49.06                | 94.65   |         | 126.24                   |         | 25.34   | 14.55  |        | 0.05 |                 |
| Total          | 3.99   | 64.60                                                     | 141.87 | 595.69               | 2404.47 | 7885.74 | 7246.96                  | 1624.21 | 1000.73 | 601.34 | 201.05 | 7.75 | 21778.40 CMSDAY |
| Mean           | 0.13   | 2.08                                                      | 4.73   | 19.22                | 77.56   | 262.86  | 233.77                   | 54.14   | 32.28   | 19.40  | 7.18   | 0.25 | 59.67 CMS       |
| Max            | 1.10   | 8.85                                                      | 27.41  | 49.06                | 117.34  | 669.60  | 453.00                   | 113.64  | 92.18   | 26.85  | 13.35  | 0.95 | 669.60 CMS      |
| Min            | 0.00   | 0.03                                                      | 0.02   | 0.75                 | 44.92   | 73.19   | 124.56                   | 23.08   | 5.10    | 14.55  | 1.70   | 0.01 | 0.00 CMS        |
| Runoff         | 0.35   | 5.58                                                      | 12.26  | 51.47                | 207.75  | 681.33  | 626.14                   | 140.33  | 86.46   | 51.96  | 17.37  | 0.67 | 1881.65 MCM     |
| Momentary Peak | 672.20 | CMS, at 122.97 m. (MSL.), at 12.00 Hours, on Sep 24, 2013 |        |                      |         |         |                          |         |         |        |        |      |                 |
| Runoff Yield   | 19.06  | Liters/Second/Square KM.                                  |        | Momentary Peak Yield |         | 214.692 | Liters/Second/Square KM. |         |         |        |        |      |                 |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                            | Sep    | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------------------------------|--------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 239.50 | 238.95 | 239.05      | 238.98 | 238.88                         | 239.71 | 239.38 | 239.10            | 239.44 | 239.57 | 239.95 | 239.74 |        |
| 2                                | 239.49 | 238.95 | 239.04      | 238.97 | 238.89                         | 239.71 | 239.86 | 239.13            | 239.44 | 239.78 | 239.95 | 239.74 |        |
| 3                                | 239.49 | 239.12 | 239.04      | 238.97 | 238.91                         | 239.72 | 240.21 | 239.13            | 239.43 | 239.78 | 239.94 | 239.74 |        |
| 4                                | 239.48 | 239.61 | 239.04      | 238.99 | 238.90                         | 239.72 | 240.65 | 239.11            | 239.43 | 239.78 | 239.94 | 239.74 |        |
| 5                                | 239.47 | 239.46 | 239.04      | 239.00 | 238.91                         | 239.59 | 239.78 | 239.08            | 239.43 | 239.78 | 239.94 | 239.74 |        |
| 6                                | 239.47 | 239.40 | 239.04      | 238.99 | 238.93                         | 239.58 | 239.48 | 239.07            | 239.43 | 239.78 | 239.92 | 239.74 |        |
| 7                                | 239.48 | 239.39 | 239.04      | 239.03 | 238.93                         | 239.71 | 239.46 | 239.24            | 239.43 | 239.78 | 239.85 | 239.74 |        |
| 8                                | 239.47 | 239.39 | 239.04      | 239.04 | 238.95                         | 239.72 | 241.23 | 239.55            | 239.43 | 239.78 | 239.85 | 239.74 |        |
| 9                                | 239.47 | 239.40 | 239.04      | 238.99 | 238.94                         | 239.70 | 239.89 | 239.54            | 239.43 | 239.79 | 239.85 | 239.74 |        |
| 10                               | 239.50 | 239.50 | 239.04      | 238.99 | 238.95                         | 239.68 | 239.56 | 239.52            | 239.43 | 239.82 | 239.82 | 239.76 |        |
| 11                               | 239.50 | 239.50 | 239.04      | 239.00 | 238.95                         | 239.68 | 239.40 | 239.51            | 239.42 | 239.98 | 239.82 | 239.81 |        |
| 12                               | 239.49 | 239.50 | 239.08      | 239.10 | 238.93                         | 239.70 | 239.28 | 239.49            | 239.42 | 239.98 | 239.82 | 239.82 |        |
| 13                               | 239.49 | 239.43 | 238.65      | 239.10 | 238.94                         | 239.70 | 239.16 | 239.49            | 239.42 | 239.98 | 239.82 | 239.83 |        |
| 14                               | 239.48 | 239.39 | 238.62      | 239.10 | 238.95                         | 239.66 | 239.10 | 239.51            | 239.42 | 239.98 | 239.81 | 239.83 |        |
| 15                               | 239.46 | 239.21 | 238.62      | 239.09 | 239.02                         | 239.55 | 239.05 | 239.50            | 239.42 | 239.99 | 239.80 | 239.83 |        |
| 16                               | 239.40 | 239.20 | 238.62      | 239.09 | 239.23                         | 239.45 | 239.21 | 239.51            | 239.43 | 239.99 | 239.79 | 239.83 |        |
| 17                               | 239.40 | 239.19 | 238.62      | 239.09 | 239.24                         | 239.37 | 239.85 | 239.67            | 239.43 | 239.98 | 239.78 | 239.83 |        |
| 18                               | 239.39 | 239.13 | 238.62      | 239.10 | 239.24                         | 239.18 | 240.30 | 239.65            | 239.43 | 239.98 | 239.78 | 240.03 |        |
| 19                               | 239.29 | 239.06 | 238.63      | 239.09 | 239.24                         | 239.22 | 240.68 | 239.63            | 239.43 | 239.98 | 239.78 | 240.18 |        |
| 20                               | 239.27 | 239.06 | 238.79      | 239.09 | 239.24                         | 239.73 | 239.95 | 239.62            | 239.43 | 239.98 | 239.77 | 240.18 |        |
| 21                               | 239.27 | 239.06 | 238.80      | 239.09 | 239.25                         | 240.05 | 239.66 | 239.63            | 239.43 | 239.97 | 239.75 | 240.18 |        |
| 22                               | 239.27 | 239.06 | 238.75      | 239.10 | 239.25                         | 239.54 | 239.50 | 239.63            | 239.43 | 239.97 | 239.74 | 240.19 |        |
| 23                               | 239.24 | 239.06 | 238.75      | 239.10 | 239.26                         | 239.20 | 239.38 | 239.63            | 239.43 | 239.97 | 239.73 | 240.18 |        |
| 24                               | 238.98 | 239.06 | 238.79      | 239.09 | 239.26                         | 239.02 | 239.28 | 239.62            | 239.43 | 239.97 | 239.73 | 240.18 |        |
| 25                               | 238.98 | 239.06 | 238.91      | 238.90 | 239.37                         | 238.82 | 239.20 | 239.62            | 239.43 | 239.97 | 239.71 | 240.17 |        |
| 26                               | 238.96 | 239.06 | 238.92      | 238.89 | 239.66                         | 238.63 | 239.12 | 239.62            | 239.42 | 239.97 | 239.70 | 240.17 |        |
| 27                               | 238.96 | 239.06 | 238.95      | 238.89 | 239.67                         | 239.31 | 239.06 | 239.56            | 239.42 | 240.01 | 239.74 | 240.16 |        |
| 28                               | 238.96 | 239.05 | 238.95      | 238.89 | 239.68                         | 239.43 | 238.99 | 239.44            | 239.42 | 240.12 | 239.74 | 240.07 |        |
| 29                               | 238.96 | 239.05 | 238.97      | 238.90 | 239.71                         | 239.22 | 238.91 | 239.44            | 239.41 | 239.98 |        | 240.07 |        |
| 30                               | 238.96 | 239.05 | 238.97      | 238.89 | 239.77                         | 239.64 | 238.89 | 239.44            | 239.42 | 239.97 |        | 240.07 |        |
| 31                               |        | 239.04 |             | 238.89 | 239.76                         |        | 238.83 |                   | 239.42 | 239.97 |        | 240.07 |        |
| Mean                             | 239.32 | 239.21 | 238.88      | 239.01 | 239.19                         | 239.50 | 239.56 | 239.46            | 239.43 | 239.91 | 239.82 | 239.94 |        |
| Max                              | 239.50 | 239.61 | 239.08      | 239.10 | 239.77                         | 240.05 | 241.23 | 239.67            | 239.44 | 240.12 | 239.95 | 240.19 | 241.23 |
| Min                              | 238.96 | 238.95 | 238.62      | 238.89 | 238.88                         | 238.63 | 238.83 | 239.07            | 239.41 | 239.57 | 239.70 | 239.74 | 238.62 |
| Annual Max Momentary Gage Height | 242.01 |        | m. (MSL.) , |        | at 07.00 Hours, on Oct 8, 2013 |        |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 236.70 |        | m. (MSL.) , |        | River Bed                      | 237.43 |        | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 243.96 |        | m. (MSL.) , |        |                                |        |        |                   |        |        |        |        |        |
| Right Bank Elevation             | 243.93 |        | m. (MSL.) , |        | Drainage Area                  | 1519   |        | Square Kilometers |        |        |        |        |        |

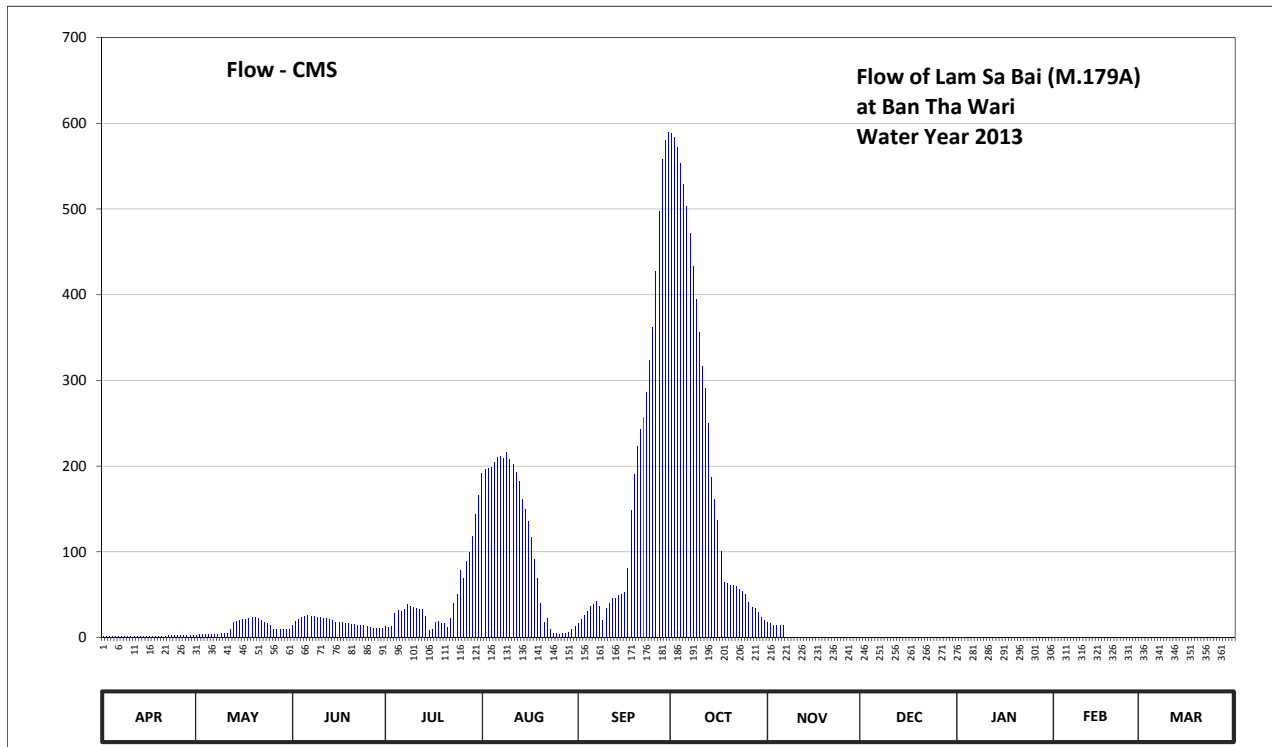




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|--------|----------------------------------------------------------|-------|----------------------|--------|--------|--------------------------|--------|--------|--------|--------|--------|----------------|
| 1              | 7.20   | 2.98                                                     | 3.63  | 3.17                 | 2.57   | 10.04  | 6.04                     | 3.95   | 6.60   | 8.11   | 13.40  | 10.46  |                |
| 2              | 7.10   | 2.98                                                     | 3.56  | 3.11                 | 2.61   | 10.04  | 12.14                    | 4.15   | 6.60   | 11.02  | 13.40  | 10.46  |                |
| 3              | 7.10   | 4.08                                                     | 3.56  | 3.11                 | 2.72   | 10.18  | 17.32                    | 4.15   | 6.50   | 11.02  | 13.26  | 10.46  |                |
| 4              | 7.00   | 8.64                                                     | 3.56  | 3.24                 | 2.65   | 10.18  | 27.00                    | 4.02   | 6.50   | 11.02  | 13.26  | 10.46  |                |
| 5              | 6.90   | 6.80                                                     | 3.56  | 3.30                 | 2.72   | 8.37   | 11.02                    | 3.82   | 6.50   | 11.02  | 13.26  | 10.46  |                |
| 6              | 6.90   | 6.20                                                     | 3.56  | 3.24                 | 2.84   | 8.24   | 7.00                     | 3.76   | 6.50   | 11.02  | 12.98  | 10.46  |                |
| 7              | 7.00   | 6.12                                                     | 3.56  | 3.50                 | 2.84   | 10.04  | 6.80                     | 4.92   | 6.50   | 11.02  | 12.00  | 10.46  |                |
| 8              | 6.90   | 6.12                                                     | 3.56  | 3.56                 | 2.98   | 10.18  | 42.90                    | 7.85   | 6.50   | 11.02  | 12.00  | 10.46  |                |
| 9              | 6.90   | 6.20                                                     | 3.56  | 3.24                 | 2.91   | 9.90   | 12.56                    | 7.72   | 6.50   | 11.16  | 12.00  | 10.46  |                |
| 10             | 7.20   | 7.20                                                     | 3.56  | 3.24                 | 2.98   | 9.62   | 7.98                     | 7.46   | 6.50   | 11.58  | 11.58  | 10.74  |                |
| 11             | 7.20   | 7.20                                                     | 3.56  | 3.30                 | 2.98   | 9.62   | 6.20                     | 7.33   | 6.40   | 13.82  | 11.58  | 11.44  |                |
| 12             | 7.10   | 7.20                                                     | 3.82  | 3.95                 | 2.84   | 9.90   | 5.24                     | 7.10   | 6.40   | 13.82  | 11.58  | 11.58  |                |
| 13             | 7.10   | 6.50                                                     | 1.80  | 3.95                 | 2.91   | 9.90   | 4.34                     | 7.10   | 6.40   | 13.82  | 11.58  | 11.72  |                |
| 14             | 7.00   | 6.12                                                     | 1.71  | 3.95                 | 2.98   | 9.34   | 3.95                     | 7.33   | 6.40   | 13.82  | 11.44  | 11.72  |                |
| 15             | 6.80   | 4.68                                                     | 1.71  | 3.89                 | 3.43   | 7.85   | 3.63                     | 7.20   | 6.40   | 13.96  | 11.30  | 11.72  |                |
| 16             | 6.20   | 4.60                                                     | 1.71  | 3.89                 | 4.84   | 6.70   | 4.68                     | 7.33   | 6.50   | 13.96  | 11.16  | 11.72  |                |
| 17             | 6.20   | 4.54                                                     | 1.71  | 3.89                 | 4.92   | 5.96   | 12.00                    | 9.48   | 6.50   | 13.82  | 11.02  | 11.72  |                |
| 18             | 6.12   | 4.15                                                     | 1.71  | 3.95                 | 4.92   | 4.47   | 19.30                    | 9.20   | 6.50   | 13.82  | 11.02  | 14.55  |                |
| 19             | 5.32   | 3.69                                                     | 1.74  | 3.89                 | 4.92   | 4.76   | 27.66                    | 8.92   | 6.50   | 13.82  | 11.02  | 16.80  |                |
| 20             | 5.16   | 3.69                                                     | 2.22  | 3.89                 | 4.92   | 10.32  | 13.40                    | 8.78   | 6.50   | 13.82  | 10.88  | 16.80  |                |
| 21             | 5.16   | 3.69                                                     | 2.25  | 3.89                 | 5.00   | 14.85  | 9.34                     | 8.92   | 6.50   | 13.68  | 10.60  | 16.80  |                |
| 22             | 5.16   | 3.69                                                     | 2.10  | 3.95                 | 5.00   | 7.72   | 7.20                     | 8.92   | 6.50   | 13.68  | 10.46  | 16.95  |                |
| 23             | 4.92   | 3.69                                                     | 2.10  | 3.95                 | 5.08   | 4.60   | 6.04                     | 8.92   | 6.50   | 13.68  | 10.32  | 16.80  |                |
| 24             | 3.17   | 3.69                                                     | 2.22  | 3.89                 | 5.08   | 3.43   | 5.24                     | 8.78   | 6.50   | 13.68  | 10.32  | 16.80  |                |
| 25             | 3.17   | 3.69                                                     | 2.72  | 2.65                 | 5.96   | 2.33   | 4.60                     | 8.78   | 6.50   | 13.68  | 10.04  | 16.65  |                |
| 26             | 3.04   | 3.69                                                     | 2.78  | 2.61                 | 9.34   | 1.74   | 4.08                     | 8.78   | 6.40   | 13.68  | 9.90   | 16.65  |                |
| 27             | 3.04   | 3.69                                                     | 2.98  | 2.61                 | 9.48   | 5.48   | 3.69                     | 7.98   | 6.40   | 14.25  | 10.46  | 16.50  |                |
| 28             | 3.04   | 3.63                                                     | 2.98  | 2.61                 | 9.62   | 6.50   | 3.24                     | 6.60   | 6.40   | 15.90  | 10.46  | 15.15  |                |
| 29             | 3.04   | 3.63                                                     | 3.11  | 2.65                 | 10.04  | 4.76   | 2.72                     | 6.60   | 6.30   | 13.82  |        | 15.15  |                |
| 30             | 3.04   | 3.63                                                     | 3.11  | 2.61                 | 10.88  | 9.06   | 2.61                     | 6.60   | 6.40   | 13.68  |        | 15.15  |                |
| 31             |        | 3.56                                                     |       | 2.61                 | 10.74  |        | 2.37                     |        | 6.40   | 13.68  |        | 15.15  |                |
| Total          | 171.18 | 149.97                                                   | 83.71 | 105.29               | 153.70 | 236.08 | 302.29                   | 212.45 | 200.50 | 399.88 | 322.28 | 412.40 | 2749.73 CMSDAY |
| Mean           | 5.71   | 4.84                                                     | 2.79  | 3.40                 | 4.96   | 7.87   | 9.75                     | 7.08   | 6.47   | 12.90  | 11.51  | 13.30  | 7.53 CMS       |
| Max            | 7.20   | 8.64                                                     | 3.82  | 3.95                 | 10.88  | 14.85  | 42.90                    | 9.48   | 6.60   | 15.90  | 13.40  | 16.95  | 42.90 CMS      |
| Min            | 3.04   | 2.98                                                     | 1.71  | 2.61                 | 2.57   | 1.74   | 2.37                     | 3.76   | 6.30   | 8.11   | 9.90   | 10.46  | 1.71 CMS       |
| Runoff         | 14.79  | 12.96                                                    | 7.23  | 9.10                 | 13.28  | 20.40  | 26.12                    | 18.36  | 17.32  | 34.55  | 27.85  | 35.63  | 237.58 MCM     |
| Momentary Peak | 67.85  | CMS, at 242.01 m. (MSL.), at 07.00 Hours, on Oct 8, 2013 |       |                      |        |        |                          |        |        |        |        |        |                |
| Runoff Yield   | 4.96   | Liters/Second/Square KM.                                 |       | Momentary Peak Yield |        | 44.668 | Liters/Second/Square KM. |        |        |        |        |        |                |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun    | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual          |
|----------------|--------|----------------------------------------------------------|--------|---------|----------------------|---------|---------|---------|--------------------------|------|------|------|-----------------|
| 1              | 1.75   | 3.35                                                     | 14.60  | 13.00   | 191.50               | 16.50   | 588.70  | 17.50   | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 2              | 1.75   | 3.65                                                     | 19.50  | 11.80   | 196.50               | 21.20   | 583.30  | 16.50   | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 3              | 1.75   | 3.85                                                     | 21.80  | 13.40   | 198.00               | 26.60   | 572.50  | 15.00   | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 4              | 1.75   | 4.00                                                     | 23.60  | 28.40   | 199.50               | 30.80   | 553.60  | 14.60   | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 5              | 1.80   | 4.10                                                     | 25.40  | 32.00   | 204.20               | 36.20   | 528.40  | 14.20   | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 6              | 1.80   | 4.20                                                     | 26.00  | 31.40   | 210.20               | 39.20   | 502.95  | 14.60   | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 7              | 1.85   | 4.35                                                     | 25.40  | 33.20   | 212.00               | 42.20   | 471.50  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 8              | 1.85   | 4.40                                                     | 24.80  | 38.60   | 209.60               | 36.80   | 432.40  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 9              | 1.90   | 4.55                                                     | 24.20  | 36.80   | 216.20               | 20.60   | 394.00  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 10             | 1.90   | 4.75                                                     | 23.60  | 35.00   | 207.80               | 34.40   | 356.40  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 11             | 1.90   | 5.35                                                     | 23.00  | 34.40   | 201.80               | 39.80   | 316.40  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 12             | 1.95   | 9.20                                                     | 22.40  | 33.80   | 193.50               | 45.80   | 290.80  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 13             | 1.95   | 18.50                                                    | 21.20  | 33.20   | 182.00               | 45.80   | 250.50  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 14             | 1.95   | 19.50                                                    | 20.00  | 24.80   | 161.50               | 50.00   | 187.00  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 15             | 1.95   | 20.00                                                    | 18.00  | 9.00    | 149.50               | 51.20   | 162.00  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 16             | 2.00   | 21.20                                                    | 17.50  | 9.20    | 135.50               | 53.00   | 137.50  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 17             | 2.00   | 21.80                                                    | 17.50  | 17.50   | 116.70               | 81.60   | 101.40  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 18             | 2.00   | 23.00                                                    | 17.00  | 19.50   | 91.20                | 148.50  | 64.80   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 19             | 2.10   | 24.20                                                    | 16.50  | 17.00   | 68.80                | 190.50  | 63.20   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 20             | 2.15   | 23.60                                                    | 16.00  | 16.50   | 40.40                | 223.20  | 61.60   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 21             | 2.25   | 22.40                                                    | 15.50  | 12.60   | 17.50                | 242.80  | 60.80   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 22             | 2.30   | 20.60                                                    | 15.00  | 22.40   | 23.00                | 257.20  | 60.00   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 23             | 2.40   | 18.50                                                    | 15.00  | 39.80   | 9.40                 | 286.00  | 56.80   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 24             | 2.50   | 16.50                                                    | 14.20  | 50.60   | 5.55                 | 323.60  | 54.20   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 25             | 2.60   | 14.20                                                    | 13.40  | 79.20   | 5.15                 | 362.00  | 50.60   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 26             | 2.70   | 9.60                                                     | 12.20  | 69.60   | 4.00                 | 426.80  | 41.00   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 27             | 2.75   | 9.20                                                     | 11.40  | 89.60   | 4.85                 | 497.00  | 35.60   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 28             | 2.85   | 9.40                                                     | 11.40  | 99.60   | 5.70                 | 558.10  | 34.40   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |                 |
| 29             | 2.90   | 9.60                                                     | 11.00  | 118.50  | 6.70                 | 579.70  | 30.20   | 0.00    | 0.00                     | 0.00 |      | 0.00 |                 |
| 30             | 3.00   | 9.60                                                     | 10.80  | 144.50  | 10.20                | 589.60  | 24.20   | 0.00    | 0.00                     | 0.00 |      | 0.00 |                 |
| 31             |        | 9.40                                                     |        | 166.50  | 13.00                |         | 20.00   |         | 0.00                     | 0.00 |      | 0.00 |                 |
| Total          | 64.30  | 376.55                                                   | 547.90 | 1381.40 | 3491.45              | 5356.70 | 7086.75 | 92.40   | 0.00                     | 0.00 | 0.00 | 0.00 | 18397.45 CMSDAY |
| Mean           | 2.14   | 12.15                                                    | 18.26  | 44.56   | 112.63               | 178.56  | 228.60  | 3.08    | 0.00                     | 0.00 | 0.00 | 0.00 | 50.40 CMS       |
| Max            | 3.00   | 24.20                                                    | 26.00  | 166.50  | 216.20               | 589.60  | 588.70  | 17.50   | 0.00                     | 0.00 | 0.00 | 0.00 | 589.60 CMS      |
| Min            | 1.75   | 3.35                                                     | 10.80  | 9.00    | 4.00                 | 16.50   | 20.00   | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 5.56   | 32.53                                                    | 47.34  | 119.35  | 301.66               | 462.82  | 612.30  | 7.98    | 0.00                     | 0.00 | 0.00 | 0.00 | 1589.54 MCM     |
| Momentary Peak | 590.50 | CMS, at 11.45 m. (A.D.), at 09.00 Hours, on Sep 30, 2013 |        |         |                      |         |         |         |                          |      |      |      |                 |
| Runoff Yield   | 14.21  | Liters/Second/Square KM.                                 |        |         | Momentary Peak Yield |         |         | 166.526 | Liters/Second/Square KM. |      |      |      |                 |

## WATER YEAR : 2013

## MUN RIVER BASIN

**Lam Phra Phloeng at Ban Tha Yiam, Nakhon Ratchasima (M.180**

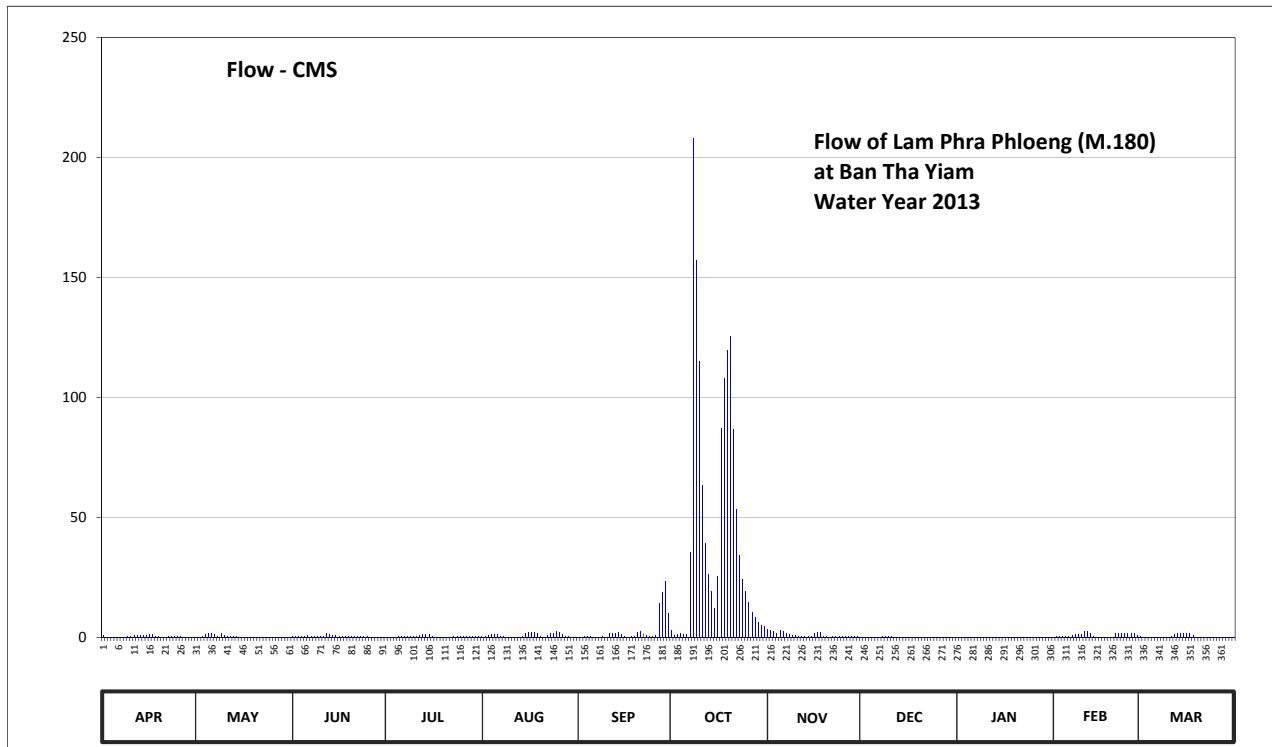
Lat 14 - 38 - 04 N Long 101 - 53 - 16 E

**Location : on left bank at Ban Tha Yian**

|                                         |                                                                                          |           |               |                |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | Tha Yiam  | <b>Amphoe</b> | Pak Thong Chai | <b>Changwat</b>  | Nakhon Ratchasima  |
| <b>Drainage Area</b>                    | 864                                                                                      | sq.km.    |               |                |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                               |           |               |                |                  |                    |
| <b>Zero Gage at Bottom</b>              | 219.210                                                                                  | m. (MSL.) |               |                |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |                |                  |                    |
| <b>Location BM</b>                      | On left bank at the footpath of the bridge.                                              |           |               |                | <b>Elevation</b> | +227.886 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00 , 12.00 and 18.00 hours.                                  |           |               |                |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                            |           |               |                |                  |                    |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                             |           |               |                |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |           |               |                |                  |                    |
| <b>Period of Rating</b>                 | 2003 to date                                                                             |           |               |                |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |                |                  |                    |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                             |           |               |                |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |                |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |                |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 21 discharge measurement made in 2013. |           |               |                |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun    | Jul                                        | Aug    | Sep           | Oct    | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|--------|--------------------------------------------|--------|---------------|--------|--------|-------------------|--------|--------|--------|--------|
|                                  | 1  | 220.27 | 219.56 | 219.86 | 219.68                                     | 220.05 | 219.72        | 220.93 | 221.06 | 219.81            | 219.79 | 219.78 | 220.20 |        |
|                                  | 2  | 219.66 | 219.56 | 219.90 | 219.70                                     | 220.04 | 219.72        | 220.27 | 220.93 | 219.80            | 219.79 | 219.84 | 219.79 |        |
|                                  | 3  | 219.61 | 219.99 | 220.08 | 219.75                                     | 220.31 | 219.98        | 220.47 | 220.82 | 219.80            | 219.79 | 219.95 | 219.64 |        |
|                                  | 4  | 219.58 | 220.42 | 219.94 | 219.75                                     | 220.48 | 220.01        | 220.61 | 220.62 | 219.80            | 219.79 | 220.02 | 219.67 |        |
|                                  | 5  | 219.59 | 220.56 | 219.89 | 219.87                                     | 220.49 | 219.96        | 220.46 | 221.03 | 219.80            | 219.79 | 220.06 | 219.65 |        |
|                                  | 6  | 219.60 | 220.54 | 220.30 | 219.88                                     | 220.43 | 219.79        | 220.40 | 220.82 | 219.80            | 219.79 | 220.13 | 219.63 |        |
|                                  | 7  | 219.63 | 220.49 | 220.05 | 219.88                                     | 220.02 | 219.69        | 223.55 | 220.53 | 219.80            | 219.79 | 220.23 | 219.59 |        |
|                                  | 8  | 219.74 | 220.17 | 219.93 | 219.89                                     | 219.86 | 219.80        | 227.37 | 220.40 | 219.83            | 219.79 | 220.42 | 219.59 |        |
|                                  | 9  | 219.96 | 220.52 | 219.85 | 219.93                                     | 219.69 | 219.91        | 226.57 | 220.34 | 219.83            | 219.79 | 220.43 | 219.59 |        |
|                                  | 10 | 220.18 | 220.31 | 219.83 | 219.91                                     | 219.69 | 219.77        | 225.80 | 220.26 | 219.83            | 219.78 | 220.49 | 219.59 |        |
|                                  | 11 | 220.23 | 220.10 | 220.00 | 219.96                                     | 219.70 | 220.56        | 224.59 | 220.20 | 219.82            | 219.77 | 220.82 | 219.85 |        |
|                                  | 12 | 220.29 | 220.10 | 220.58 | 220.29                                     | 219.70 | 220.56        | 223.72 | 220.09 | 219.79            | 219.77 | 220.84 | 220.43 |        |
|                                  | 13 | 220.32 | 220.08 | 220.38 | 220.45                                     | 219.76 | 220.56        | 223.07 | 220.04 | 219.79            | 219.77 | 220.65 | 220.54 |        |
|                                  | 14 | 220.34 | 219.85 | 220.24 | 220.45                                     | 220.04 | 220.73        | 222.62 | 220.04 | 219.79            | 219.77 | 219.87 | 220.56 |        |
|                                  | 15 | 220.35 | 219.65 | 220.23 | 220.41                                     | 220.51 | 220.47        | 222.16 | 220.16 | 219.79            | 219.77 | 219.80 | 220.56 |        |
|                                  | 16 | 220.43 | 219.61 | 220.11 | 220.01                                     | 220.71 | 219.96        | 223.04 | 220.53 | 219.79            | 219.77 | 219.57 | 220.56 |        |
|                                  | 17 | 220.40 | 219.66 | 219.99 | 219.75                                     | 220.74 | 219.73        | 225.22 | 220.75 | 219.79            | 219.77 | 219.57 | 220.56 |        |
|                                  | 18 | 220.00 | 219.73 | 220.14 | 219.72                                     | 220.69 | 219.84        | 225.66 | 220.71 | 219.79            | 219.77 | 219.55 | 220.22 |        |
|                                  | 19 | 219.91 | 219.67 | 220.06 | 219.71                                     | 220.64 | 220.20        | 225.89 | 220.00 | 219.79            | 219.77 | 219.55 | 219.56 |        |
|                                  | 20 | 219.74 | 219.68 | 220.03 | 219.73                                     | 220.02 | 220.77        | 226.01 | 219.89 | 219.79            | 219.77 | 219.69 | 219.56 |        |
|                                  | 21 | 219.80 | 219.74 | 219.93 | 219.74                                     | 219.80 | 220.88        | 225.21 | 219.72 | 219.79            | 219.77 | 220.51 | 219.56 |        |
|                                  | 22 | 219.97 | 219.77 | 219.88 | 219.79                                     | 220.31 | 220.51        | 224.28 | 219.86 | 219.79            | 219.77 | 220.53 | 219.56 |        |
|                                  | 23 | 219.96 | 219.77 | 219.86 | 219.87                                     | 220.58 | 220.33        | 223.50 | 219.95 | 219.79            | 219.77 | 220.53 | 219.56 |        |
|                                  | 24 | 219.96 | 219.77 | 219.86 | 220.02                                     | 220.64 | 220.18        | 222.95 | 219.91 | 219.79            | 219.77 | 220.54 | 219.58 |        |
|                                  | 25 | 219.96 | 219.78 | 219.83 | 220.11                                     | 220.83 | 220.04        | 222.63 | 219.89 | 219.79            | 219.77 | 220.63 | 219.61 |        |
|                                  | 26 | 219.84 | 219.64 | 219.76 | 220.07                                     | 220.72 | 220.34        | 222.31 | 219.89 | 219.79            | 219.77 | 220.63 | 219.61 |        |
|                                  | 27 | 219.75 | 219.64 | 219.68 | 220.05                                     | 220.47 | 222.30        | 222.01 | 219.88 | 219.79            | 219.77 | 220.59 | 219.61 |        |
|                                  | 28 | 219.71 | 219.67 | 219.68 | 220.06                                     | 219.93 | 222.60        | 221.78 | 219.85 | 219.79            | 219.77 | 220.33 | 219.61 |        |
|                                  | 29 | 219.66 | 219.81 | 219.68 | 220.06                                     | 219.88 | 222.90        | 221.56 | 219.85 | 219.79            | 219.77 |        | 219.61 |        |
|                                  | 30 | 219.60 | 219.68 | 219.68 | 220.02                                     | 219.72 | 221.95        | 221.40 | 219.83 | 219.79            | 219.77 |        | 219.61 |        |
|                                  | 31 |        | 219.73 |        | 220.01                                     | 219.66 |               | 221.35 |        | 219.79            | 219.77 |        | 219.61 |        |
| Mean                             |    | 219.93 | 219.91 | 219.97 | 219.95                                     | 220.20 | 220.46        | 223.14 | 220.26 | 219.80            | 219.78 | 220.20 | 219.83 |        |
| Max                              |    | 220.43 | 220.56 | 220.58 | 220.45                                     | 220.83 | 222.90        | 227.37 | 221.06 | 219.83            | 219.79 | 220.84 | 220.56 | 227.37 |
| Min                              |    | 219.58 | 219.56 | 219.68 | 219.68                                     | 219.66 | 219.69        | 220.27 | 219.72 | 219.79            | 219.77 | 219.55 | 219.56 | 219.58 |
| Annual Max Momentary Gage Height |    |        |        | 227.46 | m. (MSL.) , at 06.00 Hours, on Oct 8, 2013 |        |               |        |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        |        | 219.21 | m. (MSL.) ,                                |        | River Bed     |        | 219.11 | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              |    |        |        | 227.56 | m. (MSL.) ,                                |        |               |        |        |                   |        |        |        |        |
| Right Bank Elevation             |    |        |        | 227.59 | m. (MSL.) ,                                |        | Drainage Area |        | 864    | Square Kilometers |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun   | Jul   | Aug                  | Sep   | Oct     | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual         |
|----------------|--------|----------------------------------------------------------|-------|-------|----------------------|-------|---------|---------|--------------------------|-------|-------|-------|----------------|
| 1              | 0.94   | 0.16                                                     | 0.46  | 0.28  | 0.65                 | 0.32  | 2.90    | 3.29    | 0.41                     | 0.39  | 0.38  | 0.80  |                |
| 2              | 0.26   | 0.16                                                     | 0.50  | 0.30  | 0.64                 | 0.32  | 0.94    | 2.90    | 0.40                     | 0.39  | 0.44  | 0.39  |                |
| 3              | 0.21   | 0.59                                                     | 0.68  | 0.35  | 1.03                 | 0.58  | 1.51    | 2.57    | 0.40                     | 0.39  | 0.55  | 0.24  |                |
| 4              | 0.18   | 1.36                                                     | 0.54  | 0.35  | 1.54                 | 0.61  | 1.93    | 1.96    | 0.40                     | 0.39  | 0.62  | 0.27  |                |
| 5              | 0.19   | 1.78                                                     | 0.49  | 0.47  | 1.57                 | 0.56  | 1.48    | 3.20    | 0.40                     | 0.39  | 0.66  | 0.25  |                |
| 6              | 0.20   | 1.72                                                     | 1.00  | 0.48  | 1.39                 | 0.39  | 1.30    | 2.57    | 0.40                     | 0.39  | 0.73  | 0.23  |                |
| 7              | 0.23   | 1.57                                                     | 0.65  | 0.48  | 0.62                 | 0.29  | 35.50   | 1.69    | 0.40                     | 0.39  | 0.86  | 0.19  |                |
| 8              | 0.34   | 0.77                                                     | 0.53  | 0.49  | 0.46                 | 0.40  | 207.94  | 1.30    | 0.43                     | 0.39  | 1.36  | 0.19  |                |
| 9              | 0.56   | 1.66                                                     | 0.45  | 0.53  | 0.29                 | 0.51  | 157.20  | 1.12    | 0.43                     | 0.39  | 1.39  | 0.19  |                |
| 10             | 0.78   | 1.03                                                     | 0.43  | 0.51  | 0.29                 | 0.37  | 115.00  | 0.92    | 0.43                     | 0.38  | 1.57  | 0.19  |                |
| 11             | 0.86   | 0.70                                                     | 0.60  | 0.56  | 0.30                 | 1.78  | 63.65   | 0.80    | 0.42                     | 0.37  | 2.57  | 0.45  |                |
| 12             | 0.98   | 0.70                                                     | 1.84  | 0.98  | 0.30                 | 1.78  | 39.50   | 0.69    | 0.39                     | 0.37  | 2.63  | 1.39  |                |
| 13             | 1.06   | 0.68                                                     | 1.24  | 1.45  | 0.36                 | 1.78  | 26.26   | 0.64    | 0.39                     | 0.37  | 2.05  | 1.72  |                |
| 14             | 1.12   | 0.45                                                     | 0.88  | 1.45  | 0.64                 | 2.30  | 19.30   | 0.64    | 0.39                     | 0.37  | 0.47  | 1.78  |                |
| 15             | 1.15   | 0.25                                                     | 0.86  | 1.33  | 1.63                 | 1.51  | 12.40   | 0.76    | 0.39                     | 0.37  | 0.40  | 1.78  |                |
| 16             | 1.39   | 0.21                                                     | 0.71  | 0.61  | 2.24                 | 0.56  | 25.72   | 1.69    | 0.39                     | 0.37  | 0.17  | 1.78  |                |
| 17             | 1.30   | 0.26                                                     | 0.59  | 0.35  | 2.33                 | 0.33  | 87.40   | 2.36    | 0.39                     | 0.37  | 0.17  | 1.78  |                |
| 18             | 0.60   | 0.33                                                     | 0.74  | 0.32  | 2.17                 | 0.44  | 108.00  | 2.24    | 0.39                     | 0.37  | 0.15  | 0.84  |                |
| 19             | 0.51   | 0.27                                                     | 0.66  | 0.31  | 2.02                 | 0.80  | 119.50  | 0.60    | 0.39                     | 0.37  | 0.15  | 0.16  |                |
| 20             | 0.34   | 0.28                                                     | 0.63  | 0.33  | 0.62                 | 2.42  | 125.50  | 0.49    | 0.39                     | 0.37  | 0.29  | 0.16  |                |
| 21             | 0.40   | 0.34                                                     | 0.53  | 0.34  | 0.40                 | 2.75  | 86.95   | 0.32    | 0.39                     | 0.37  | 1.63  | 0.16  |                |
| 22             | 0.57   | 0.37                                                     | 0.48  | 0.39  | 1.03                 | 1.63  | 53.50   | 0.46    | 0.39                     | 0.37  | 1.69  | 0.16  |                |
| 23             | 0.56   | 0.37                                                     | 0.46  | 0.47  | 1.84                 | 1.09  | 34.50   | 0.55    | 0.39                     | 0.37  | 1.69  | 0.16  |                |
| 24             | 0.56   | 0.37                                                     | 0.46  | 0.62  | 2.02                 | 0.78  | 24.25   | 0.51    | 0.39                     | 0.37  | 1.72  | 0.18  |                |
| 25             | 0.56   | 0.38                                                     | 0.43  | 0.71  | 2.60                 | 0.64  | 19.45   | 0.49    | 0.39                     | 0.37  | 1.99  | 0.21  |                |
| 26             | 0.44   | 0.24                                                     | 0.36  | 0.67  | 2.27                 | 1.12  | 14.65   | 0.49    | 0.39                     | 0.37  | 1.99  | 0.21  |                |
| 27             | 0.35   | 0.24                                                     | 0.28  | 0.65  | 1.51                 | 14.50 | 10.60   | 0.48    | 0.39                     | 0.37  | 1.87  | 0.21  |                |
| 28             | 0.31   | 0.27                                                     | 0.28  | 0.66  | 0.53                 | 19.00 | 8.30    | 0.45    | 0.39                     | 0.37  | 1.09  | 0.21  |                |
| 29             | 0.26   | 0.41                                                     | 0.28  | 0.66  | 0.48                 | 23.50 | 6.22    | 0.45    | 0.39                     | 0.37  |       | 0.21  |                |
| 30             | 0.20   | 0.28                                                     | 0.28  | 0.62  | 0.32                 | 10.00 | 5.20    | 0.43    | 0.39                     | 0.37  |       | 0.21  |                |
| 31             |        | 0.33                                                     |       | 0.61  | 0.26                 |       | 4.90    |         | 0.39                     | 0.37  |       | 0.21  |                |
| Total          | 17.41  | 18.53                                                    | 18.32 | 18.33 | 34.35                | 93.06 | 1421.45 | 37.06   | 12.32                    | 11.66 | 31.28 | 16.91 | 1730.68 CMSDAY |
| Mean           | 0.58   | 0.60                                                     | 0.61  | 0.59  | 1.11                 | 3.10  | 45.85   | 1.24    | 0.40                     | 0.38  | 1.12  | 0.55  | 4.74 CMS       |
| Max            | 1.39   | 1.78                                                     | 1.84  | 1.45  | 2.60                 | 23.50 | 207.94  | 3.29    | 0.43                     | 0.39  | 2.63  | 1.78  | 207.94 CMS     |
| Min            | 0.18   | 0.16                                                     | 0.28  | 0.28  | 0.26                 | 0.29  | 0.94    | 0.32    | 0.39                     | 0.37  | 0.15  | 0.16  | 0.15 CMS       |
| Runoff         | 1.50   | 1.60                                                     | 1.58  | 1.58  | 2.97                 | 8.04  | 122.81  | 3.20    | 1.06                     | 1.01  | 2.70  | 1.46  | 149.53 MCM     |
| Momentary Peak | 213.87 | CMS, at 227.46 m. (MSL.), at 06.00 Hours, on Oct 8, 2013 |       |       |                      |       |         |         |                          |       |       |       |                |
| Runoff Yield   | 5.49   | Liters/Second/Square KM.                                 |       |       | Momentary Peak Yield |       |         | 247.535 | Liters/Second/Square KM. |       |       |       |                |

**WATER YEAR : 2013**

## MUN RIVER BASIN

## Mun River at Ban Si Than, Si Sa Ket (M.182)

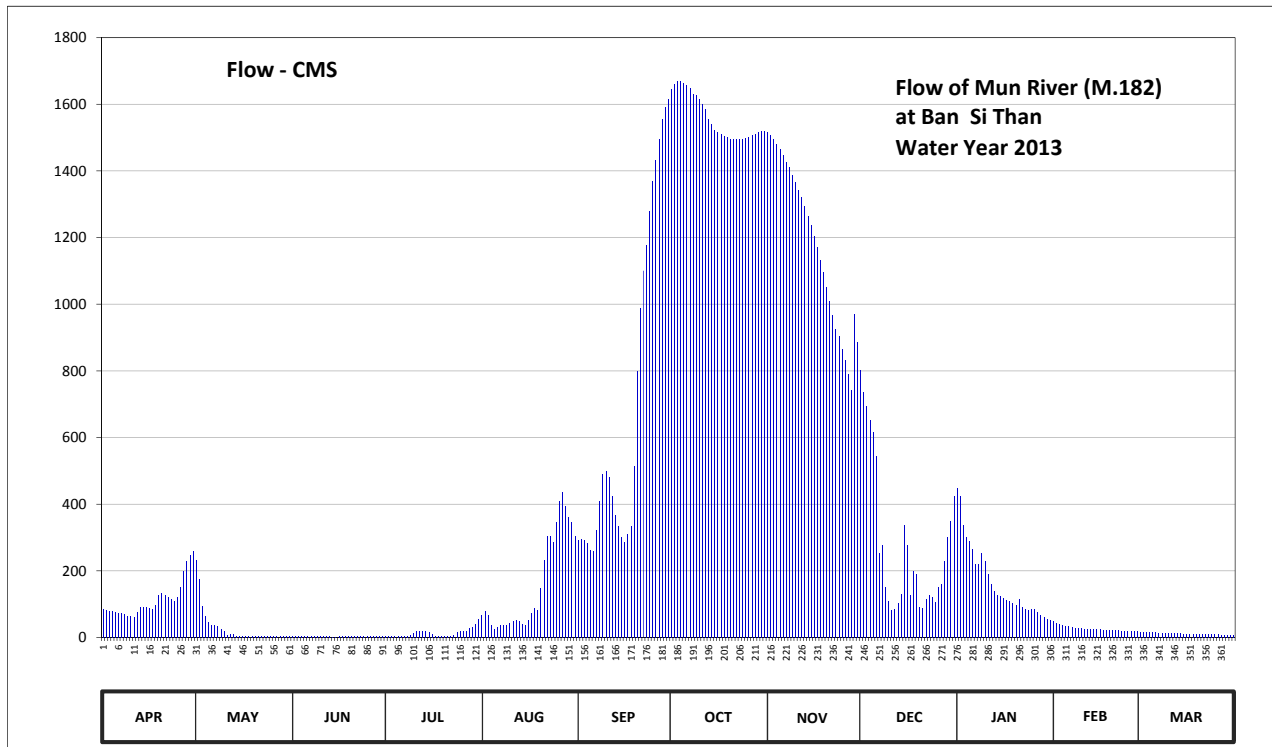
Lat 15 - 07 - 58 N    Long 104 - 29 - 18 E

**Location : on right bank at the bridge on highway**

|                                         |                                                                                                |           |               |             |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                     | Si Than   | <b>Amphoe</b> | Kanthararom | <b>Changwat</b>  | Si Sa Ket          |
| <b>Drainage Area</b>                    | 49,778                                                                                         | sq.km.    |               |             |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                        |           |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +106.490                                                                                       | m. (MSL.) |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                      |           |               |             |                  |                    |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                                   |           |               |             | <b>Elevation</b> | +119.797 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                     |           |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                 |           |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                                   |           |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                |           |               |             |                  |                    |
| <b>Period of Rating</b>                 | 2008 to date                                                                                   |           |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                              |           |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                                   |           |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                                            |           |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +116.440 m.(MSL.), records are channel flow only.            |           |               |             |                  |                    |
| <b>General Description</b>              | Records very good. Stage-discharge relation defined by 55 discharge measurements made in 2013. |           |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                            | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 109.79 | 110.59 | 108.99      | 108.90 | 109.68                         | 110.91 | 117.57            | 116.95 | 113.54 | 112.44 | 111.85 | 110.76 |        |
| 2                                | 109.77 | 110.28 | 108.99      | 108.90 | 109.76                         | 110.92 | 117.65            | 116.91 | 113.20 | 112.43 | 111.81 | 110.72 |        |
| 3                                | 109.76 | 109.84 | 108.96      | 108.89 | 109.68                         | 110.90 | 117.68            | 116.86 | 113.00 | 112.39 | 111.78 | 110.67 |        |
| 4                                | 109.75 | 109.66 | 108.88      | 108.87 | 109.49                         | 110.85 | 117.69            | 116.79 | 112.80 | 112.36 | 111.74 | 110.63 |        |
| 5                                | 109.74 | 109.54 | 108.76      | 108.86 | 109.37                         | 110.75 | 117.66            | 116.71 | 112.60 | 112.35 | 111.70 | 110.58 |        |
| 6                                | 109.72 | 109.49 | 108.68      | 108.93 | 109.40                         | 110.73 | 117.63            | 116.62 | 112.23 | 112.33 | 111.66 | 110.53 |        |
| 7                                | 109.71 | 109.49 | 108.73      | 108.94 | 109.46                         | 111.06 | 117.59            | 116.53 | 112.32 | 112.29 | 111.61 | 110.48 |        |
| 8                                | 109.70 | 109.45 | 108.77      | 108.97 | 109.49                         | 111.51 | 117.50            | 116.45 | 112.34 | 112.29 | 111.58 | 110.44 |        |
| 9                                | 109.67 | 109.36 | 108.79      | 109.07 | 109.49                         | 111.95 | 117.49            | 116.34 | 112.22 | 112.32 | 111.53 | 110.40 |        |
| 10                               | 109.66 | 109.27 | 108.81      | 109.18 | 109.53                         | 111.99 | 117.43            | 116.24 | 112.13 | 112.30 | 111.51 | 110.36 |        |
| 11                               | 109.65 | 109.07 | 108.83      | 109.26 | 109.57                         | 111.90 | 117.35            | 116.13 | 112.04 | 112.26 | 111.46 | 110.32 |        |
| 12                               | 109.73 | 109.13 | 108.82      | 109.29 | 109.59                         | 111.59 | 117.28            | 116.02 | 112.05 | 112.23 | 111.41 | 110.27 |        |
| 13                               | 109.83 | 109.08 | 108.70      | 109.30 | 109.56                         | 111.29 | 117.15            | 115.90 | 112.11 | 112.21 | 111.37 | 110.24 |        |
| 14                               | 109.83 | 108.99 | 108.59      | 109.30 | 109.51                         | 111.13 | 117.07            | 115.75 | 112.20 | 112.19 | 111.33 | 110.19 |        |
| 15                               | 109.83 | 108.90 | 108.57      | 109.25 | 109.47                         | 110.95 | 116.99            | 115.62 | 112.39 | 112.18 | 111.30 | 110.15 |        |
| 16                               | 109.81 | 108.88 | 108.68      | 109.12 | 109.58                         | 110.87 | 116.96            | 115.47 | 112.34 | 112.16 | 111.27 | 110.11 |        |
| 17                               | 109.80 | 108.81 | 108.82      | 108.95 | 109.71                         | 110.99 | 116.93            | 115.31 | 112.19 | 112.14 | 111.23 | 110.07 |        |
| 18                               | 109.87 | 108.75 | 108.82      | 108.81 | 109.81                         | 111.12 | 116.90            | 115.13 | 112.27 | 112.13 | 111.18 | 110.03 |        |
| 19                               | 110.03 | 108.78 | 108.77      | 108.71 | 109.78                         | 112.07 | 116.89            | 114.95 | 112.26 | 112.11 | 111.15 | 109.98 |        |
| 20                               | 110.06 | 108.81 | 108.71      | 108.71 | 110.14                         | 113.52 | 116.86            | 114.74 | 112.07 | 112.09 | 111.11 | 109.93 |        |
| 21                               | 110.03 | 108.84 | 108.68      | 108.73 | 110.58                         | 114.44 | 116.86            | 114.54 | 112.06 | 112.15 | 111.08 | 109.89 |        |
| 22                               | 110.01 | 108.87 | 108.67      | 108.83 | 110.97                         | 114.98 | 116.86            | 114.34 | 112.15 | 112.07 | 111.05 | 109.87 |        |
| 23                               | 109.97 | 108.89 | 108.65      | 109.05 | 110.96                         | 115.34 | 116.86            | 114.14 | 112.19 | 112.05 | 111.02 | 109.86 |        |
| 24                               | 109.94 | 108.93 | 108.65      | 109.22 | 110.87                         | 115.82 | 116.86            | 114.04 | 112.17 | 112.04 | 110.99 | 109.84 |        |
| 25                               | 110.00 | 108.93 | 108.64      | 109.27 | 111.19                         | 116.26 | 116.87            | 113.85 | 112.12 | 112.05 | 110.94 | 109.80 |        |
| 26                               | 110.16 | 108.92 | 108.67      | 109.27 | 111.52                         | 116.56 | 116.89            | 113.68 | 112.22 | 112.05 | 110.90 | 109.77 |        |
| 27                               | 110.42 | 108.90 | 108.69      | 109.30 | 111.66                         | 116.86 | 116.91            | 113.47 | 112.23 | 112.02 | 110.86 | 109.73 |        |
| 28                               | 110.57 | 108.95 | 108.72      | 109.39 | 111.44                         | 117.15 | 116.93            | 113.24 | 112.30 | 111.98 | 110.81 | 109.70 |        |
| 29                               | 110.66 | 109.01 | 108.80      | 109.42 | 111.27                         | 117.32 | 116.95            | 114.35 | 112.36 | 111.95 |        | 109.66 |        |
| 30                               | 110.73 | 109.00 | 108.87      | 109.51 | 111.18                         | 117.43 | 116.97            | 113.96 | 112.40 | 111.91 |        | 109.63 |        |
| 31                               |        | 108.97 |             | 109.61 | 110.96                         |        | 116.97            |        | 112.43 | 111.88 |        | 109.60 |        |
| Mean                             | 109.94 | 109.17 | 108.76      | 109.09 | 110.15                         | 112.97 | 117.17            | 115.37 | 112.35 | 112.17 | 111.33 | 110.14 |        |
| Max                              | 110.73 | 110.59 | 108.99      | 109.61 | 111.66                         | 117.43 | 117.69            | 116.95 | 113.54 | 112.44 | 111.85 | 110.76 | 117.69 |
| Min                              | 109.65 | 108.75 | 108.57      | 108.71 | 109.37                         | 110.73 | 116.86            | 113.24 | 112.04 | 111.88 | 110.81 | 109.60 | 108.57 |
| Annual Max Momentary Gage Height |        | 117.69 | m. (MSL.) , |        | at 01.00 Hours, on Oct 4, 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 106.49 | m. (MSL.) , |        | River Bed                      | 106.27 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 116.44 | m. (MSL.) , |        |                                |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 118.61 | m. (MSL.) , |        | Drainage Area                  | 49778  | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                                                      | Jun    | Jul                  | Aug     | Sep      | Oct                      | Nov      | Dec     | Jan     | Feb    | Mar    | Annual           |
|----------------|---------|----------------------------------------------------------|--------|----------------------|---------|----------|--------------------------|----------|---------|---------|--------|--------|------------------|
| 1              | 85.30   | 233.10                                                   | 4.90   | 4.50                 | 67.00   | 293.90   | 1644.70                  | 1514.50  | 802.00  | 448.40  | 48.50  | 17.60  |                  |
| 2              | 81.90   | 174.20                                                   | 4.90   | 4.50                 | 80.20   | 295.80   | 1661.50                  | 1506.10  | 734.00  | 423.80  | 43.30  | 17.20  |                  |
| 3              | 80.20   | 93.80                                                    | 4.80   | 4.40                 | 67.00   | 292.00   | 1667.80                  | 1495.60  | 694.00  | 338.00  | 40.60  | 16.70  |                  |
| 4              | 78.50   | 64.00                                                    | 4.40   | 4.40                 | 39.00   | 282.50   | 1669.90                  | 1480.90  | 654.00  | 302.00  | 37.80  | 16.30  |                  |
| 5              | 76.80   | 46.00                                                    | 3.80   | 4.30                 | 27.00   | 263.50   | 1663.60                  | 1464.10  | 615.00  | 290.00  | 35.00  | 15.80  |                  |
| 6              | 73.40   | 39.00                                                    | 3.40   | 4.70                 | 30.00   | 259.70   | 1657.30                  | 1445.20  | 544.70  | 266.00  | 33.00  | 15.30  |                  |
| 7              | 71.70   | 39.00                                                    | 3.70   | 4.70                 | 36.00   | 322.40   | 1648.90                  | 1426.30  | 254.00  | 220.00  | 30.50  | 14.80  |                  |
| 8              | 70.00   | 35.00                                                    | 3.80   | 4.90                 | 39.00   | 407.90   | 1630.00                  | 1409.50  | 278.00  | 220.00  | 29.50  | 14.40  |                  |
| 9              | 65.50   | 26.00                                                    | 4.00   | 8.50                 | 39.00   | 491.50   | 1627.90                  | 1386.40  | 150.00  | 254.00  | 28.20  | 14.00  |                  |
| 10             | 64.00   | 18.50                                                    | 4.00   | 14.00                | 44.50   | 499.10   | 1615.30                  | 1365.40  | 109.00  | 230.00  | 27.80  | 13.60  |                  |
| 11             | 62.50   | 8.50                                                     | 4.20   | 18.00                | 50.50   | 482.00   | 1598.50                  | 1342.30  | 82.00   | 190.00  | 26.90  | 13.20  |                  |
| 12             | 75.10   | 11.50                                                    | 4.10   | 19.50                | 53.50   | 423.10   | 1583.80                  | 1319.20  | 85.00   | 160.00  | 26.20  | 12.70  |                  |
| 13             | 92.10   | 9.00                                                     | 3.50   | 20.00                | 49.00   | 366.10   | 1556.50                  | 1294.00  | 103.00  | 140.00  | 25.60  | 12.40  |                  |
| 14             | 92.10   | 4.90                                                     | 2.90   | 20.00                | 41.50   | 335.70   | 1539.70                  | 1262.50  | 130.00  | 127.00  | 25.00  | 11.90  |                  |
| 15             | 92.10   | 4.50                                                     | 2.80   | 17.50                | 37.00   | 301.50   | 1522.90                  | 1235.20  | 338.00  | 124.00  | 24.50  | 11.50  |                  |
| 16             | 88.70   | 4.40                                                     | 3.40   | 11.00                | 52.00   | 286.30   | 1516.60                  | 1203.70  | 278.00  | 118.00  | 24.00  | 11.10  |                  |
| 17             | 87.00   | 4.00                                                     | 4.10   | 4.70                 | 71.70   | 309.10   | 1510.30                  | 1170.10  | 127.00  | 112.00  | 23.50  | 10.70  |                  |
| 18             | 98.90   | 3.70                                                     | 4.10   | 4.00                 | 88.70   | 333.80   | 1504.00                  | 1132.30  | 200.00  | 109.00  | 22.70  | 10.30  |                  |
| 19             | 126.70  | 3.90                                                     | 3.80   | 3.50                 | 83.60   | 514.30   | 1501.90                  | 1094.50  | 190.00  | 103.00  | 22.30  | 9.90   |                  |
| 20             | 132.40  | 4.00                                                     | 3.50   | 3.50                 | 147.60  | 798.00   | 1495.60                  | 1050.40  | 91.00   | 97.00   | 21.70  | 9.70   |                  |
| 21             | 126.70  | 4.20                                                     | 3.40   | 3.70                 | 231.20  | 987.40   | 1495.60                  | 1008.40  | 88.00   | 115.00  | 21.20  | 9.40   |                  |
| 22             | 122.90  | 4.40                                                     | 3.30   | 4.20                 | 305.30  | 1100.80  | 1495.60                  | 966.40   | 115.00  | 91.00   | 20.80  | 9.40   |                  |
| 23             | 115.90  | 4.40                                                     | 3.30   | 7.50                 | 303.40  | 1176.40  | 1495.60                  | 924.40   | 127.00  | 85.00   | 20.30  | 9.30   |                  |
| 24             | 110.80  | 4.70                                                     | 3.30   | 16.00                | 286.30  | 1277.20  | 1495.60                  | 903.40   | 121.00  | 82.00   | 19.90  | 9.20   |                  |
| 25             | 121.00  | 4.70                                                     | 3.20   | 18.50                | 347.10  | 1369.60  | 1497.70                  | 864.00   | 106.00  | 85.00   | 19.40  | 9.00   |                  |
| 26             | 151.40  | 4.60                                                     | 3.30   | 18.50                | 409.80  | 1432.60  | 1501.90                  | 830.00   | 150.00  | 85.00   | 19.00  | 8.80   |                  |
| 27             | 200.80  | 4.50                                                     | 3.50   | 20.00                | 436.40  | 1495.60  | 1506.10                  | 788.00   | 160.00  | 76.00   | 18.60  | 8.70   |                  |
| 28             | 229.30  | 4.70                                                     | 3.60   | 29.00                | 394.60  | 1556.50  | 1510.30                  | 742.00   | 230.00  | 67.00   | 18.10  | 8.50   |                  |
| 29             | 246.40  | 5.50                                                     | 4.00   | 32.00                | 362.30  | 1592.20  | 1514.50                  | 968.50   | 302.00  | 62.50   |        | 8.30   |                  |
| 30             | 259.70  | 5.00                                                     | 4.40   | 41.50                | 345.20  | 1615.30  | 1518.70                  | 886.60   | 350.00  | 56.50   |        | 8.10   |                  |
| 31             |         | 4.90                                                     |        | 56.50                | 303.40  |          | 1518.70                  |          | 423.80  | 52.40   |        | 8.00   |                  |
| Total          | 3379.80 | 878.60                                                   | 113.40 | 428.00               | 4868.80 | 21161.80 | 48367.00                 | 35479.90 | 8631.50 | 5129.60 | 753.90 | 365.80 | 129558.10 CMSDAY |
| Mean           | 112.70  | 28.30                                                    | 3.80   | 13.80                | 157.10  | 705.40   | 1560.20                  | 1182.70  | 278.40  | 165.50  | 26.90  | 11.80  | 355.00 CMS       |
| Max            | 259.70  | 233.10                                                   | 4.90   | 56.50                | 436.40  | 1615.30  | 1669.90                  | 1514.50  | 802.00  | 448.40  | 48.50  | 17.60  | 1669.90 CMS      |
| Min            | 62.50   | 3.70                                                     | 2.80   | 3.50                 | 27.00   | 259.70   | 1495.60                  | 742.00   | 82.00   | 52.40   | 18.10  | 8.00   | 2.80 CMS         |
| Runoff         | 292.01  | 75.91                                                    | 9.80   | 36.98                | 420.66  | 1828.38  | 4178.91                  | 3065.46  | 745.76  | 443.20  | 65.14  | 31.61  | 11193.82 MCM     |
| Momentary Peak | 1669.90 | CMS, at 117.69 m. (MSL.), at 01.00 Hours, on Oct 4, 2013 |        |                      |         |          |                          |          |         |         |        |        |                  |
| Runoff Yield   | 7.13    | Liters/Second/Square KM.                                 |        | Momentary Peak Yield |         | 33.547   | Liters/Second/Square KM. |          |         |         |        |        |                  |

**WATER YEAR : 2013****MUN RIVER BASIN****Huai Hin Lap at Ban Khlong Hin Lap, Nakhon Ratchasima (M.183)**

Lat 14 - 43 - 26 N Long 101 - 34 - 19 E

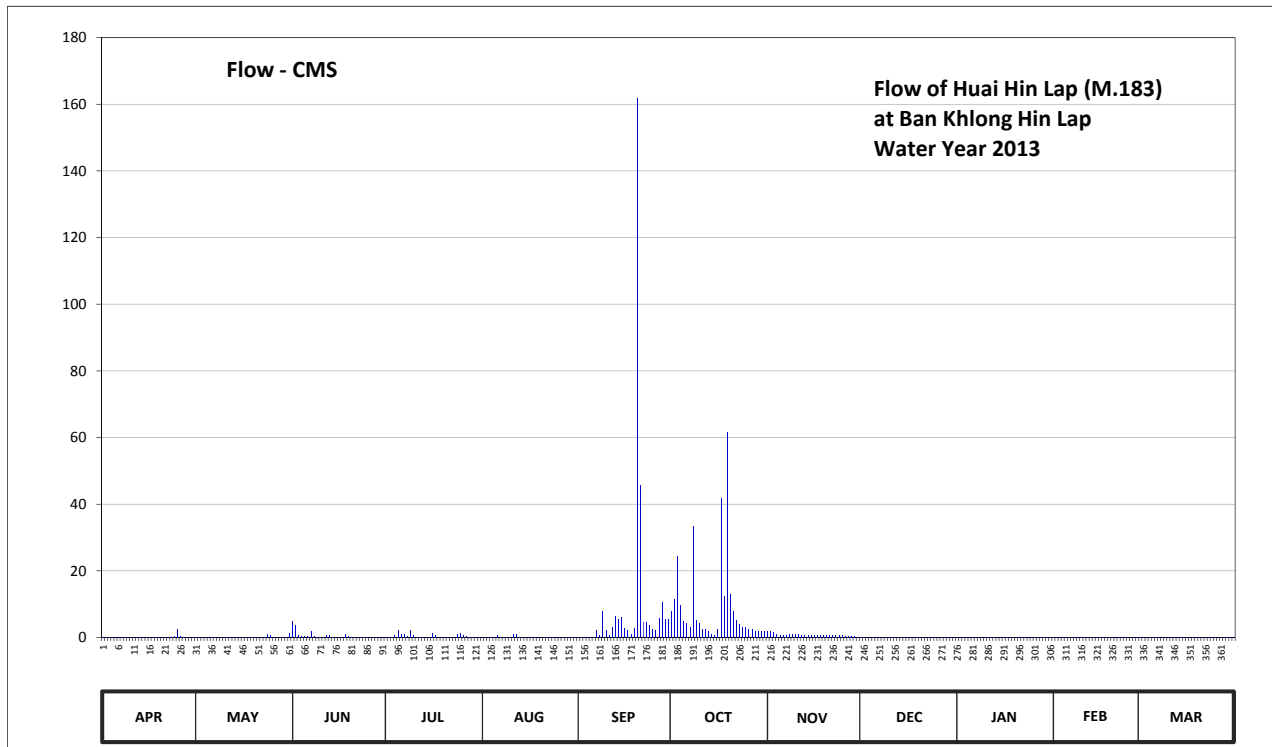
Location : on left bank at the bridge on highway.

|                                         |                                                                                           |                |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Khlong Hin Lap | <b>Amphoe</b> | Pak Chong | <b>Changwat</b>  | Nakhon Ratchasima  |
| <b>Drainage Area</b>                    | 250                                                                                       | sq.km.         |               |           |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +300.800                                                                                  | m. (MSL.)      |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |           |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |                |               |           | <b>Elevation</b> | +307.014 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00 , 12.00 and 18.00 hours.                                   |                |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |                |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |           |                  |                    |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |                |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |                |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |           |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2013. |                |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                             | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|---------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 301.15 | 301.15 | 301.48      | 301.16 | 301.18 | 301.12        | 301.57                          | 301.34            | 301.22 | 301.20 | 301.17 | 301.14 |        |
| 2                                | 301.15 | 301.15 | 301.43      | 301.15 | 301.18 | 301.12        | 301.67                          | 301.34            | 301.20 | 301.20 | 301.17 | 301.14 |        |
| 3                                | 301.15 | 301.15 | 301.26      | 301.15 | 301.18 | 301.17        | 302.00                          | 301.33            | 301.20 | 301.20 | 301.16 | 301.14 |        |
| 4                                | 301.15 | 301.14 | 301.25      | 301.28 | 301.17 | 301.17        | 301.62                          | 301.30            | 301.20 | 301.20 | 301.16 | 301.14 |        |
| 5                                | 301.15 | 301.14 | 301.23      | 301.36 | 301.19 | 301.17        | 301.48                          | 301.28            | 301.20 | 301.20 | 301.16 | 301.14 |        |
| 6                                | 301.15 | 301.14 | 301.23      | 301.30 | 301.27 | 301.17        | 301.45                          | 301.28            | 301.20 | 301.19 | 301.16 | 301.14 |        |
| 7                                | 301.15 | 301.14 | 301.34      | 301.29 | 301.21 | 301.36        | 301.40                          | 301.28            | 301.20 | 301.18 | 301.16 | 301.14 |        |
| 8                                | 301.15 | 301.14 | 301.24      | 301.25 | 301.20 | 301.28        | 302.22                          | 301.30            | 301.20 | 301.18 | 301.16 | 301.14 |        |
| 9                                | 301.15 | 301.14 | 301.20      | 301.36 | 301.20 | 301.57        | 301.49                          | 301.30            | 301.20 | 301.18 | 301.16 | 301.14 |        |
| 10                               | 301.15 | 301.14 | 301.18      | 301.28 | 301.20 | 301.36        | 301.45                          | 301.29            | 301.20 | 301.18 | 301.16 | 301.14 |        |
| 11                               | 301.15 | 301.14 | 301.17      | 301.20 | 301.29 | 301.28        | 301.38                          | 301.29            | 301.20 | 301.18 | 301.16 | 301.14 |        |
| 12                               | 301.15 | 301.14 | 301.27      | 301.19 | 301.30 | 301.40        | 301.37                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.14 |        |
| 13                               | 301.15 | 301.16 | 301.26      | 301.16 | 301.20 | 301.53        | 301.34                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.14 |        |
| 14                               | 301.15 | 301.15 | 301.22      | 301.15 | 301.20 | 301.50        | 301.30                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.14 |        |
| 15                               | 301.15 | 301.15 | 301.21      | 301.16 | 301.19 | 301.52        | 301.28                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.14 |        |
| 16                               | 301.15 | 301.15 | 301.17      | 301.32 | 301.18 | 301.39        | 301.38                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.14 |        |
| 17                               | 301.15 | 301.15 | 301.17      | 301.28 | 301.17 | 301.36        | 302.43                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.14 |        |
| 18                               | 301.15 | 301.14 | 301.30      | 301.20 | 301.15 | 301.29        | 301.70                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.14 |        |
| 19                               | 301.15 | 301.14 | 301.25      | 301.18 | 301.15 | 301.39        | 302.93                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.12 |        |
| 20                               | 301.15 | 301.14 | 301.20      | 301.16 | 301.15 | 305.23        | 301.71                          | 301.28            | 301.20 | 301.17 | 301.15 | 301.12 |        |
| 21                               | 301.15 | 301.15 | 301.19      | 301.16 | 301.15 | 302.53        | 301.57                          | 301.28            | 301.20 | 301.17 | 301.15 | 301.12 |        |
| 22                               | 301.15 | 301.14 | 301.20      | 301.16 | 301.14 | 301.47        | 301.49                          | 301.28            | 301.20 | 301.17 | 301.15 | 301.12 |        |
| 23                               | 301.15 | 301.17 | 301.19      | 301.16 | 301.14 | 301.46        | 301.44                          | 301.28            | 301.20 | 301.17 | 301.15 | 301.13 |        |
| 24                               | 301.25 | 301.30 | 301.19      | 301.29 | 301.12 | 301.43        | 301.40                          | 301.27            | 301.20 | 301.17 | 301.15 | 301.13 |        |
| 25                               | 301.37 | 301.26 | 301.19      | 301.31 | 301.12 | 301.37        | 301.40                          | 301.26            | 301.20 | 301.17 | 301.15 | 301.13 |        |
| 26                               | 301.25 | 301.19 | 301.19      | 301.28 | 301.12 | 301.36        | 301.37                          | 301.25            | 301.20 | 301.17 | 301.15 | 301.13 |        |
| 27                               | 301.18 | 301.17 | 301.18      | 301.24 | 301.12 | 301.51        | 301.37                          | 301.23            | 301.20 | 301.17 | 301.15 | 301.13 |        |
| 28                               | 301.17 | 301.17 | 301.17      | 301.21 | 301.12 | 301.65        | 301.35                          | 301.23            | 301.20 | 301.17 | 301.15 | 301.13 |        |
| 29                               | 301.17 | 301.16 | 301.17      | 301.20 | 301.12 | 301.50        | 301.34                          | 301.23            | 301.20 | 301.17 |        | 301.13 |        |
| 30                               | 301.16 | 301.15 | 301.17      | 301.19 | 301.12 | 301.50        | 301.34                          | 301.22            | 301.20 | 301.17 |        | 301.13 |        |
| 31                               |        | 301.32 |             | 301.20 | 301.12 |               | 301.34                          |                   | 301.20 | 301.17 |        | 301.13 |        |
| Mean                             | 301.17 | 301.16 | 301.23      | 301.23 | 301.17 | 301.54        | 301.57                          | 301.28            | 301.20 | 301.18 | 301.15 | 301.13 |        |
| Max                              | 301.37 | 301.32 | 301.48      | 301.36 | 301.30 | 305.23        | 302.93                          | 301.34            | 301.22 | 301.20 | 301.17 | 301.14 | 305.23 |
| Min                              | 301.15 | 301.14 | 301.17      | 301.15 | 301.12 | 301.12        | 301.28                          | 301.22            | 301.20 | 301.17 | 301.15 | 301.12 | 301.12 |
| Annual Max Momentary Gage Height |        | 305.80 | m. (MSL.) , |        |        |               | at 12.00 Hours, on Sep 20, 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 300.80 | m. (MSL.) , |        |        | River Bed     | 300.93                          | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 306.99 | m. (MSL.) , |        |        |               |                                 |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 307.01 | m. (MSL.) , |        |        | Drainage Area | 250                             | Square Kilometers |        |        |        |        |        |

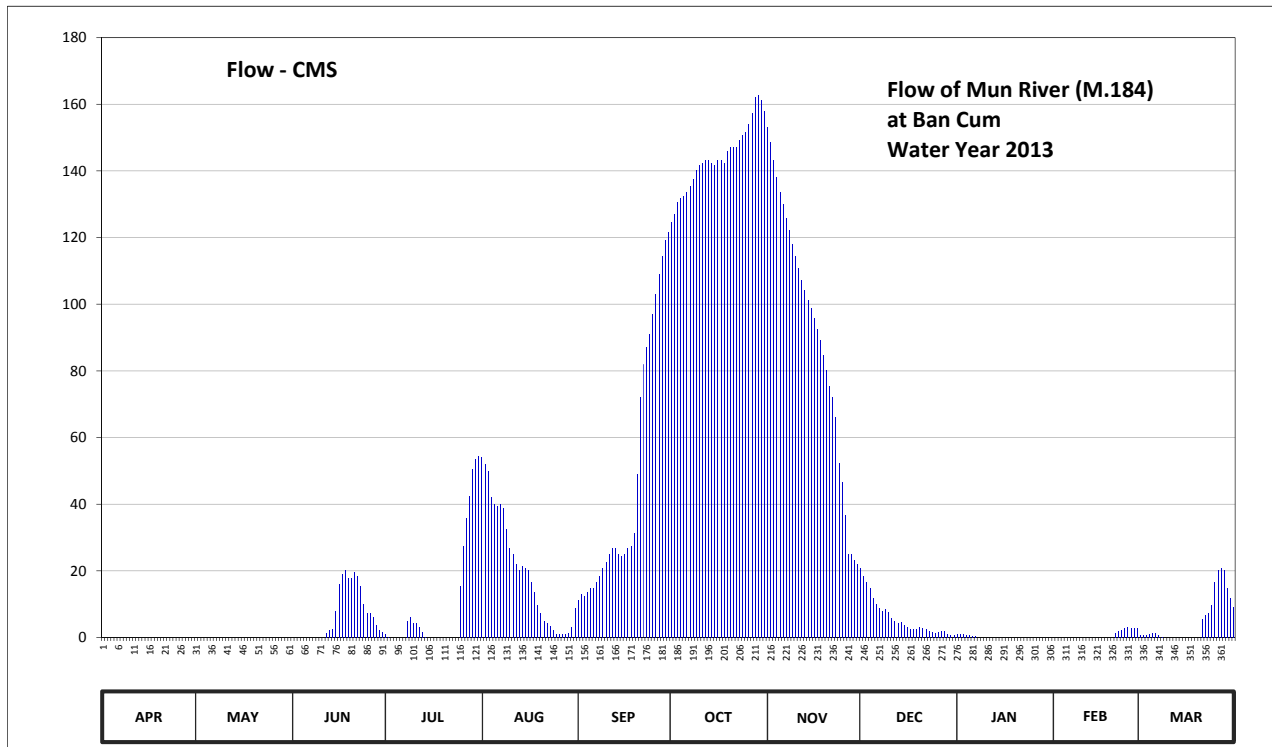




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug  | Sep     | Oct                      | Nov   | Dec  | Jan  | Feb  | Mar  | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|------|---------|--------------------------|-------|------|------|------|------|---------------|
| 1              | 0.05                                                             | 0.05                     | 5.00  | 0.06                 | 0.08 | 0.02    | 7.95                     | 1.80  | 0.28 | 0.10 | 0.07 | 0.04 |               |
| 2              | 0.05                                                             | 0.05                     | 3.75  | 0.05                 | 0.08 | 0.02    | 11.45                    | 1.80  | 0.10 | 0.10 | 0.07 | 0.04 |               |
| 3              | 0.05                                                             | 0.05                     | 0.64  | 0.05                 | 0.08 | 0.07    | 24.50                    | 1.60  | 0.10 | 0.10 | 0.06 | 0.04 |               |
| 4              | 0.05                                                             | 0.04                     | 0.55  | 0.82                 | 0.07 | 0.07    | 9.70                     | 1.00  | 0.10 | 0.10 | 0.06 | 0.04 |               |
| 5              | 0.05                                                             | 0.04                     | 0.37  | 2.20                 | 0.09 | 0.07    | 5.00                     | 0.82  | 0.10 | 0.10 | 0.06 | 0.04 |               |
| 6              | 0.05                                                             | 0.04                     | 0.37  | 1.00                 | 0.73 | 0.07    | 4.25                     | 0.82  | 0.10 | 0.09 | 0.06 | 0.04 |               |
| 7              | 0.05                                                             | 0.04                     | 1.80  | 0.91                 | 0.19 | 2.20    | 3.00                     | 0.82  | 0.10 | 0.08 | 0.06 | 0.04 |               |
| 8              | 0.05                                                             | 0.04                     | 0.46  | 0.55                 | 0.10 | 0.82    | 33.30                    | 1.00  | 0.10 | 0.08 | 0.06 | 0.04 |               |
| 9              | 0.05                                                             | 0.04                     | 0.10  | 2.20                 | 0.10 | 7.95    | 5.25                     | 1.00  | 0.10 | 0.08 | 0.06 | 0.04 |               |
| 10             | 0.05                                                             | 0.04                     | 0.08  | 0.82                 | 0.10 | 2.20    | 4.25                     | 0.91  | 0.10 | 0.08 | 0.06 | 0.04 |               |
| 11             | 0.05                                                             | 0.04                     | 0.07  | 0.10                 | 0.91 | 0.82    | 2.60                     | 0.91  | 0.10 | 0.08 | 0.06 | 0.04 |               |
| 12             | 0.05                                                             | 0.04                     | 0.73  | 0.09                 | 1.00 | 3.00    | 2.40                     | 0.82  | 0.10 | 0.08 | 0.05 | 0.04 |               |
| 13             | 0.05                                                             | 0.06                     | 0.64  | 0.06                 | 0.10 | 6.55    | 1.80                     | 0.82  | 0.10 | 0.08 | 0.05 | 0.04 |               |
| 14             | 0.05                                                             | 0.05                     | 0.28  | 0.05                 | 0.10 | 5.50    | 1.00                     | 0.82  | 0.10 | 0.08 | 0.05 | 0.04 |               |
| 15             | 0.05                                                             | 0.05                     | 0.19  | 0.06                 | 0.09 | 6.20    | 0.82                     | 0.82  | 0.10 | 0.08 | 0.05 | 0.04 |               |
| 16             | 0.05                                                             | 0.05                     | 0.07  | 1.40                 | 0.08 | 2.80    | 2.60                     | 0.82  | 0.10 | 0.08 | 0.05 | 0.04 |               |
| 17             | 0.05                                                             | 0.05                     | 0.07  | 0.82                 | 0.07 | 2.20    | 41.70                    | 0.82  | 0.10 | 0.08 | 0.05 | 0.04 |               |
| 18             | 0.05                                                             | 0.04                     | 1.00  | 0.10                 | 0.05 | 0.91    | 12.50                    | 0.82  | 0.10 | 0.08 | 0.05 | 0.04 |               |
| 19             | 0.05                                                             | 0.04                     | 0.55  | 0.08                 | 0.05 | 2.80    | 61.70                    | 0.82  | 0.10 | 0.08 | 0.05 | 0.02 |               |
| 20             | 0.05                                                             | 0.04                     | 0.10  | 0.06                 | 0.05 | 161.75  | 12.90                    | 0.82  | 0.10 | 0.07 | 0.05 | 0.02 |               |
| 21             | 0.05                                                             | 0.05                     | 0.09  | 0.06                 | 0.05 | 45.70   | 7.95                     | 0.82  | 0.10 | 0.07 | 0.05 | 0.02 |               |
| 22             | 0.05                                                             | 0.04                     | 0.10  | 0.06                 | 0.04 | 4.75    | 5.25                     | 0.82  | 0.10 | 0.07 | 0.05 | 0.02 |               |
| 23             | 0.05                                                             | 0.07                     | 0.09  | 0.06                 | 0.04 | 4.50    | 4.00                     | 0.82  | 0.10 | 0.07 | 0.05 | 0.03 |               |
| 24             | 0.55                                                             | 1.00                     | 0.09  | 0.91                 | 0.02 | 3.75    | 3.00                     | 0.73  | 0.10 | 0.07 | 0.05 | 0.03 |               |
| 25             | 2.40                                                             | 0.64                     | 0.09  | 1.20                 | 0.02 | 2.40    | 3.00                     | 0.64  | 0.10 | 0.07 | 0.05 | 0.03 |               |
| 26             | 0.55                                                             | 0.09                     | 0.09  | 0.82                 | 0.02 | 2.20    | 2.40                     | 0.55  | 0.10 | 0.07 | 0.05 | 0.03 |               |
| 27             | 0.08                                                             | 0.07                     | 0.08  | 0.46                 | 0.02 | 5.85    | 2.40                     | 0.37  | 0.10 | 0.07 | 0.05 | 0.03 |               |
| 28             | 0.07                                                             | 0.07                     | 0.07  | 0.19                 | 0.02 | 10.75   | 2.00                     | 0.37  | 0.10 | 0.07 | 0.05 | 0.03 |               |
| 29             | 0.07                                                             | 0.06                     | 0.07  | 0.10                 | 0.02 | 5.50    | 1.80                     | 0.37  | 0.10 | 0.07 |      | 0.03 |               |
| 30             | 0.06                                                             | 0.05                     | 0.07  | 0.09                 | 0.02 | 5.50    | 1.80                     | 0.28  | 0.10 | 0.07 |      | 0.03 |               |
| 31             |                                                                  | 1.40                     |       | 0.10                 | 0.02 |         | 1.80                     |       | 0.10 | 0.07 |      | 0.03 |               |
| Total          | 4.93                                                             | 4.43                     | 17.66 | 15.53                | 4.41 | 296.92  | 284.07                   | 25.63 | 3.28 | 2.47 | 1.53 | 1.07 | 661.93 CMSDAY |
| Mean           | 0.16                                                             | 0.14                     | 0.59  | 0.50                 | 0.14 | 9.90    | 9.16                     | 0.85  | 0.11 | 0.08 | 0.05 | 0.03 | 1.81 CMS      |
| Max            | 2.40                                                             | 1.40                     | 5.00  | 2.20                 | 1.00 | 161.75  | 61.70                    | 1.80  | 0.28 | 0.10 | 0.07 | 0.04 | 161.75 CMS    |
| Min            | 0.05                                                             | 0.04                     | 0.07  | 0.05                 | 0.02 | 0.02    | 0.82                     | 0.28  | 0.10 | 0.07 | 0.05 | 0.02 | 0.02 CMS      |
| Runoff         | 0.43                                                             | 0.38                     | 1.53  | 1.34                 | 0.38 | 25.65   | 24.54                    | 2.21  | 0.28 | 0.21 | 0.13 | 0.09 | 57.19 MCM     |
| Momentary Peak | 188.00 CMS, at 305.80 m. (MSL.), at 12.00 Hours, on Sep 20, 2013 |                          |       |                      |      |         |                          |       |      |      |      |      |               |
| Runoff Yield   | 7.25                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |      | 752.000 | Liters/Second/Square KM. |       |      |      |      |      |               |

| Date                             | Apr    | May    | Jun                                               | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 151.83 | 151.51 | 151.33                                            | 153.09 | 154.10 | 153.42 | 155.41 | 155.84 | 153.58 | 153.10 | 151.85 | 153.08 |        |
| 2                                | 151.82 | 151.50 | 151.32                                            | 153.01 | 154.06 | 153.45 | 155.45 | 155.78 | 153.54 | 153.10 | 151.82 | 153.06 |        |
| 3                                | 151.82 | 151.49 | 151.30                                            | 152.86 | 154.02 | 153.44 | 155.51 | 155.70 | 153.51 | 153.09 | 151.73 | 153.08 |        |
| 4                                | 151.80 | 151.47 | 151.29                                            | 152.76 | 153.86 | 153.46 | 155.53 | 155.63 | 153.48 | 153.08 | 151.68 | 153.10 |        |
| 5                                | 151.79 | 151.47 | 151.28                                            | 152.68 | 153.82 | 153.48 | 155.54 | 155.56 | 153.43 | 153.07 | 151.65 | 153.11 |        |
| 6                                | 151.79 | 151.46 | 151.39                                            | 152.64 | 153.81 | 153.48 | 155.56 | 155.50 | 153.40 | 153.05 | 151.61 | 153.11 |        |
| 7                                | 151.79 | 151.46 | 152.00                                            | 152.65 | 153.82 | 153.51 | 155.59 | 155.43 | 153.37 | 153.03 | 151.57 | 153.06 |        |
| 8                                | 151.78 | 151.45 | 152.11                                            | 153.27 | 153.80 | 153.54 | 155.62 | 155.37 | 153.35 | 152.94 | 151.52 | 153.01 |        |
| 9                                | 151.77 | 151.44 | 152.17                                            | 153.30 | 153.74 | 153.58 | 155.66 | 155.30 | 153.36 | 152.83 | 151.49 | 152.93 |        |
| 10                               | 151.76 | 151.44 | 152.17                                            | 153.24 | 153.68 | 153.61 | 155.68 | 155.24 | 153.34 | 152.74 | 151.46 | 152.87 |        |
| 11                               | 151.75 | 151.44 | 152.44                                            | 153.24 | 153.65 | 153.65 | 155.69 | 155.18 | 153.29 | 152.66 | 151.43 | 152.84 |        |
| 12                               | 151.74 | 151.43 | 153.11                                            | 153.20 | 153.60 | 153.68 | 155.70 | 155.12 | 153.26 | 152.60 | 151.40 | 152.77 |        |
| 13                               | 151.74 | 151.43 | 153.16                                            | 153.13 | 153.57 | 153.68 | 155.70 | 155.07 | 153.24 | 152.52 | 151.36 | 152.68 |        |
| 14                               | 151.73 | 151.41 | 153.18                                            | 153.02 | 153.59 | 153.65 | 155.69 | 155.02 | 153.25 | 152.43 | 151.29 | 152.64 |        |
| 15                               | 151.72 | 151.40 | 153.35                                            | 152.88 | 153.58 | 153.64 | 155.68 | 154.98 | 153.23 | 152.40 | 151.25 | 152.59 |        |
| 16                               | 151.71 | 151.38 | 153.50                                            | 152.79 | 153.57 | 153.65 | 155.70 | 154.93 | 153.20 | 152.36 | 151.23 | 152.53 |        |
| 17                               | 151.71 | 151.36 | 153.55                                            | 152.73 | 153.51 | 153.68 | 155.70 | 154.87 | 153.18 | 152.30 | 151.23 | 152.46 |        |
| 18                               | 151.68 | 151.35 | 153.57                                            | 152.68 | 153.46 | 153.69 | 155.69 | 154.80 | 153.18 | 152.23 | 151.57 | 152.39 |        |
| 19                               | 151.66 | 151.33 | 153.53                                            | 152.63 | 153.39 | 153.73 | 155.74 | 154.71 | 153.18 | 152.20 | 152.27 | 152.36 |        |
| 20                               | 151.65 | 151.31 | 153.53                                            | 152.56 | 153.33 | 154.00 | 155.76 | 154.62 | 153.20 | 152.18 | 152.79 | 152.46 |        |
| 21                               | 151.62 | 151.28 | 153.56                                            | 152.53 | 153.27 | 154.46 | 155.76 | 154.53 | 153.19 | 152.15 | 153.12 | 153.28 |        |
| 22                               | 151.62 | 151.26 | 153.54                                            | 152.51 | 153.24 | 154.66 | 155.76 | 154.46 | 153.17 | 152.14 | 153.14 | 153.32 |        |
| 23                               | 151.61 | 151.25 | 153.49                                            | 152.51 | 153.21 | 154.76 | 155.79 | 154.34 | 153.14 | 152.11 | 153.16 | 153.33 |        |
| 24                               | 151.59 | 151.24 | 153.40                                            | 152.70 | 153.16 | 154.84 | 155.81 | 154.07 | 153.13 | 152.08 | 153.19 | 153.39 |        |
| 25                               | 151.58 | 151.24 | 153.33                                            | 153.49 | 153.09 | 154.95 | 155.82 | 153.95 | 153.12 | 152.05 | 153.20 | 153.51 |        |
| 26                               | 151.56 | 151.27 | 153.33                                            | 153.69 | 153.09 | 155.05 | 155.85 | 153.78 | 153.13 | 152.03 | 153.19 | 153.57 |        |
| 27                               | 151.55 | 151.32 | 153.30                                            | 153.77 | 153.09 | 155.15 | 155.89 | 153.65 | 153.15 | 152.00 | 153.19 | 153.58 |        |
| 28                               | 151.55 | 151.33 | 153.23                                            | 153.87 | 153.10 | 155.24 | 155.95 | 153.65 | 153.14 | 151.97 | 153.19 | 153.57 |        |
| 29                               | 151.54 | 151.33 | 153.16                                            | 154.03 | 153.12 | 155.32 | 155.96 | 153.62 | 153.10 | 151.92 |        | 153.48 |        |
| 30                               | 151.52 | 151.33 | 153.13                                            | 154.09 | 153.20 | 155.36 | 155.94 | 153.60 | 153.08 | 151.89 |        | 153.43 |        |
| 31                               |        | 151.33 |                                                   | 154.11 | 153.37 |        | 155.90 |        | 153.08 | 151.88 |        | 153.38 |        |
| Mean                             | 151.69 | 151.38 | 152.76                                            | 153.09 | 153.51 | 154.06 | 155.71 | 154.81 | 153.26 | 152.46 | 152.06 | 153.03 |        |
| Max                              | 151.83 | 151.51 | 153.57                                            | 154.11 | 154.10 | 155.36 | 155.96 | 155.84 | 153.58 | 153.10 | 153.20 | 153.58 | 155.96 |
| Min                              | 151.52 | 151.24 | 151.28                                            | 152.51 | 153.09 | 153.42 | 155.41 | 153.60 | 153.08 | 151.88 | 151.23 | 152.36 | 151.23 |
| Annual Max Momentary Gage Height | 155.96 |        | m. (MSL.) , at 06.00 Hours, on Oct 29, 2013       |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 150.00 |        | m. (MSL.) , River Bed 149.59 m. (MSL.)            |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 156.07 |        | m. (MSL.) ,                                       |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 156.03 |        | m. (MSL.) , Drainage Area 11489 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov                      | Dec    | Jan  | Feb   | Mar    | Annual   |        |
|----------------|--------|----------------------------------------------------------|--------|--------|----------------------|---------|---------|--------------------------|--------|------|-------|--------|----------|--------|
| 1              | 0.00   | 0.00                                                     | 0.00   | 0.90   | 54.00                | 11.20   | 124.60  | 153.20                   | 20.80  | 1.00 | 0.00  | 0.80   |          |        |
| 2              | 0.00   | 0.00                                                     | 0.00   | 0.10   | 52.00                | 13.00   | 127.00  | 148.60                   | 18.40  | 1.00 | 0.00  | 0.60   |          |        |
| 3              | 0.00   | 0.00                                                     | 0.00   | 0.00   | 50.00                | 12.40   | 130.60  | 143.00                   | 16.60  | 0.90 | 0.00  | 0.80   |          |        |
| 4              | 0.00   | 0.00                                                     | 0.00   | 0.00   | 42.00                | 13.60   | 131.80  | 138.10                   | 14.80  | 0.80 | 0.00  | 1.00   |          |        |
| 5              | 0.00   | 0.00                                                     | 0.00   | 0.00   | 40.00                | 14.80   | 132.40  | 133.60                   | 11.80  | 0.70 | 0.00  | 1.20   |          |        |
| 6              | 0.00   | 0.00                                                     | 0.00   | 0.00   | 39.50                | 14.80   | 133.60  | 130.00                   | 10.00  | 0.50 | 0.00  | 1.20   |          |        |
| 7              | 0.00   | 0.00                                                     | 0.00   | 0.00   | 40.00                | 16.60   | 135.40  | 125.80                   | 8.80   | 0.30 | 0.00  | 0.60   |          |        |
| 8              | 0.00   | 0.00                                                     | 0.00   | 5.10   | 39.00                | 18.40   | 137.40  | 122.20                   | 8.00   | 0.00 | 0.00  | 0.10   |          |        |
| 9              | 0.00   | 0.00                                                     | 0.00   | 6.00   | 32.40                | 20.80   | 140.20  | 118.00                   | 8.40   | 0.00 | 0.00  | 0.00   |          |        |
| 10             | 0.00   | 0.00                                                     | 0.00   | 4.20   | 26.80                | 22.60   | 141.60  | 114.40                   | 7.60   | 0.00 | 0.00  | 0.00   |          |        |
| 11             | 0.00   | 0.00                                                     | 0.00   | 4.20   | 25.00                | 25.00   | 142.30  | 110.80                   | 5.70   | 0.00 | 0.00  | 0.00   |          |        |
| 12             | 0.00   | 0.00                                                     | 1.20   | 3.00   | 22.00                | 26.80   | 143.00  | 107.20                   | 4.80   | 0.00 | 0.00  | 0.00   |          |        |
| 13             | 0.00   | 0.00                                                     | 2.20   | 1.60   | 20.20                | 26.80   | 143.00  | 104.20                   | 4.20   | 0.00 | 0.00  | 0.00   |          |        |
| 14             | 0.00   | 0.00                                                     | 2.60   | 0.20   | 21.40                | 25.00   | 142.30  | 101.20                   | 4.50   | 0.00 | 0.00  | 0.00   |          |        |
| 15             | 0.00   | 0.00                                                     | 8.00   | 0.00   | 20.80                | 24.40   | 141.60  | 98.80                    | 3.90   | 0.00 | 0.00  | 0.00   |          |        |
| 16             | 0.00   | 0.00                                                     | 16.00  | 0.00   | 20.20                | 25.00   | 143.00  | 95.80                    | 3.00   | 0.00 | 0.00  | 0.00   |          |        |
| 17             | 0.00   | 0.00                                                     | 19.00  | 0.00   | 16.60                | 26.80   | 143.00  | 92.50                    | 2.60   | 0.00 | 0.00  | 0.00   |          |        |
| 18             | 0.00   | 0.00                                                     | 20.20  | 0.00   | 13.60                | 27.40   | 142.30  | 89.00                    | 2.60   | 0.00 | 0.00  | 0.00   |          |        |
| 19             | 0.00   | 0.00                                                     | 17.80  | 0.00   | 9.60                 | 31.30   | 145.80  | 84.50                    | 2.60   | 0.00 | 0.00  | 0.00   |          |        |
| 20             | 0.00   | 0.00                                                     | 17.80  | 0.00   | 7.20                 | 49.00   | 147.20  | 80.00                    | 3.00   | 0.00 | 0.00  | 0.00   |          |        |
| 21             | 0.00   | 0.00                                                     | 19.60  | 0.00   | 5.10                 | 72.00   | 147.20  | 75.50                    | 2.80   | 0.00 | 1.40  | 5.40   |          |        |
| 22             | 0.00   | 0.00                                                     | 18.40  | 0.00   | 4.20                 | 82.00   | 147.20  | 72.00                    | 2.40   | 0.00 | 1.80  | 6.80   |          |        |
| 23             | 0.00   | 0.00                                                     | 15.40  | 0.00   | 3.30                 | 87.00   | 149.30  | 66.00                    | 1.80   | 0.00 | 2.20  | 7.20   |          |        |
| 24             | 0.00   | 0.00                                                     | 10.00  | 0.00   | 2.20                 | 91.00   | 150.80  | 52.50                    | 1.60   | 0.00 | 2.80  | 9.60   |          |        |
| 25             | 0.00   | 0.00                                                     | 7.20   | 15.40  | 0.90                 | 97.00   | 151.60  | 46.50                    | 1.40   | 0.00 | 3.00  | 16.60  |          |        |
| 26             | 0.00   | 0.00                                                     | 7.20   | 27.40  | 0.90                 | 103.00  | 154.00  | 36.80                    | 1.60   | 0.00 | 2.80  | 20.20  |          |        |
| 27             | 0.00   | 0.00                                                     | 6.00   | 35.70  | 0.90                 | 109.00  | 157.20  | 25.00                    | 2.00   | 0.00 | 2.80  | 20.80  |          |        |
| 28             | 0.00   | 0.00                                                     | 3.90   | 42.50  | 1.00                 | 114.40  | 162.00  | 25.00                    | 1.80   | 0.00 | 2.80  | 20.20  |          |        |
| 29             | 0.00   | 0.00                                                     | 2.20   | 50.50  | 1.40                 | 119.20  | 162.80  | 23.20                    | 1.00   | 0.00 |       | 14.80  |          |        |
| 30             | 0.00   | 0.00                                                     | 1.60   | 53.50  | 3.00                 | 121.60  | 161.20  | 22.00                    | 0.80   | 0.00 |       | 11.80  |          |        |
| 31             |        | 0.00                                                     |        | 54.50  | 8.80                 |         | 158.00  |                          | 0.80   | 0.00 |       | 9.20   |          |        |
| Total          | 0.00   | 0.00                                                     | 196.30 | 304.80 | 624.00               | 1441.90 | 4469.40 | 2735.40                  | 180.10 | 5.20 | 19.60 | 148.90 | 10125.60 | CMSDAY |
| Mean           | 0.00   | 0.00                                                     | 6.54   | 9.83   | 20.13                | 48.06   | 144.17  | 91.18                    | 5.81   | 0.17 | 0.70  | 4.80   | 27.74    | CMS    |
| Max            | 0.00   | 0.00                                                     | 20.20  | 54.50  | 54.00                | 121.60  | 162.80  | 153.20                   | 20.80  | 1.00 | 3.00  | 20.80  | 162.80   | CMS    |
| Min            | 0.00   | 0.00                                                     | 0.00   | 0.00   | 0.90                 | 11.20   | 124.60  | 22.00                    | 0.80   | 0.00 | 0.00  | 0.00   | 0.00     | CMS    |
| Runoff         | 0.00   | 0.00                                                     | 16.96  | 26.34  | 53.91                | 124.58  | 386.16  | 236.34                   | 15.56  | 0.45 | 1.69  | 12.87  | 874.85   | MCM    |
| Momentary Peak | 162.80 | CMS, at 155.96 m (MSL.), at 06.00 Hours, on Oct 29, 2013 |        |        |                      |         |         |                          |        |      |       |        |          |        |
| Runoff Yield   | 2.41   | Liters/Second/Square KM.                                 |        |        | Momentary Peak Yield |         | 14.170  | Liters/Second/Square KM. |        |      |       |        |          |        |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Plai Mat at Ban Phai Noi, Nakhon Ratchasima (M.185)**

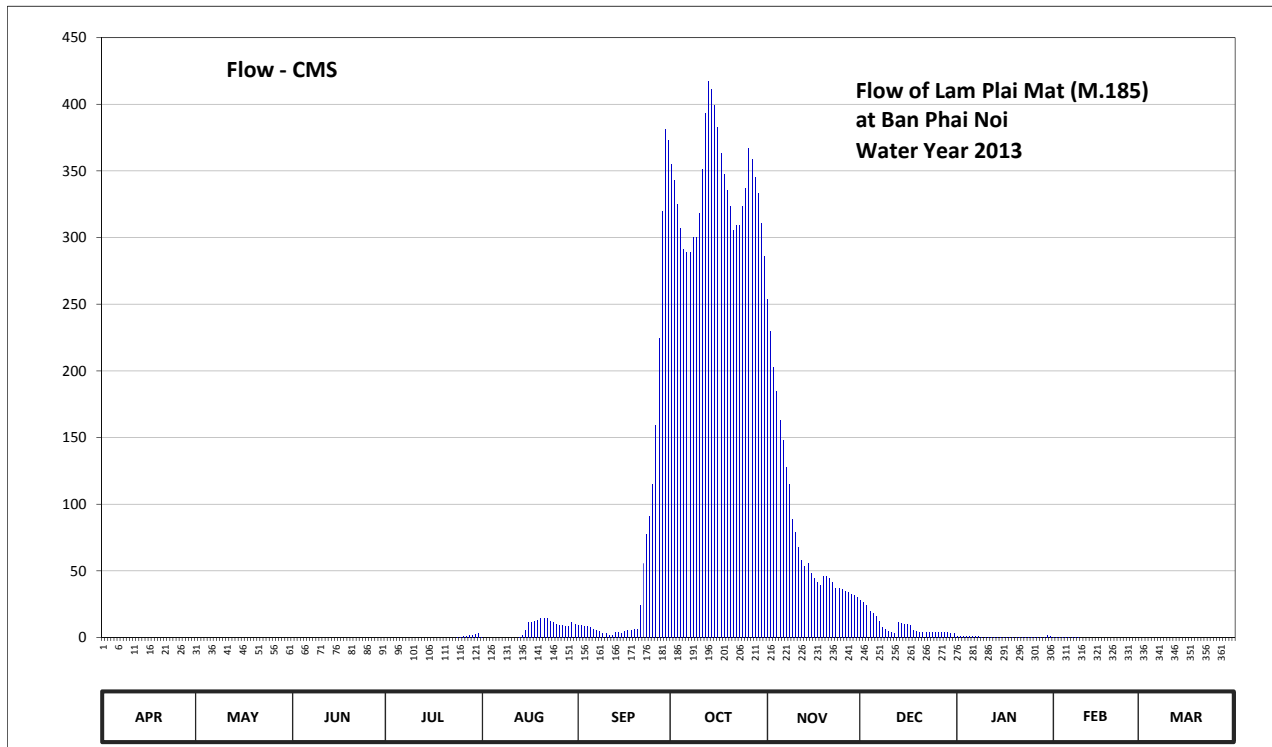
Lat 14 - 59 - 57 N Long 102 - 49 - 02 E

Location : on right at the bridge on highway.

|                                         |                                                                                           |           |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Phai Noi  | <b>Amphoe</b> | Lam Plai Mat | <b>Changwat</b>  | Nakhon Ratchasima  |
| <b>Drainage Area</b>                    | 4,880                                                                                     | sq.km.    |               |              |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +149.700                                                                                  | m. (MSL.) |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |              |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |           |               |              | <b>Elevation</b> | +157.900 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00, and 18.00 hours.                                   |           |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                              |           |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |              |                  |                    |
| <b>Period of Rating</b>                 | 2008 to date                                                                              |           |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                              |           |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |           |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |              |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |           |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

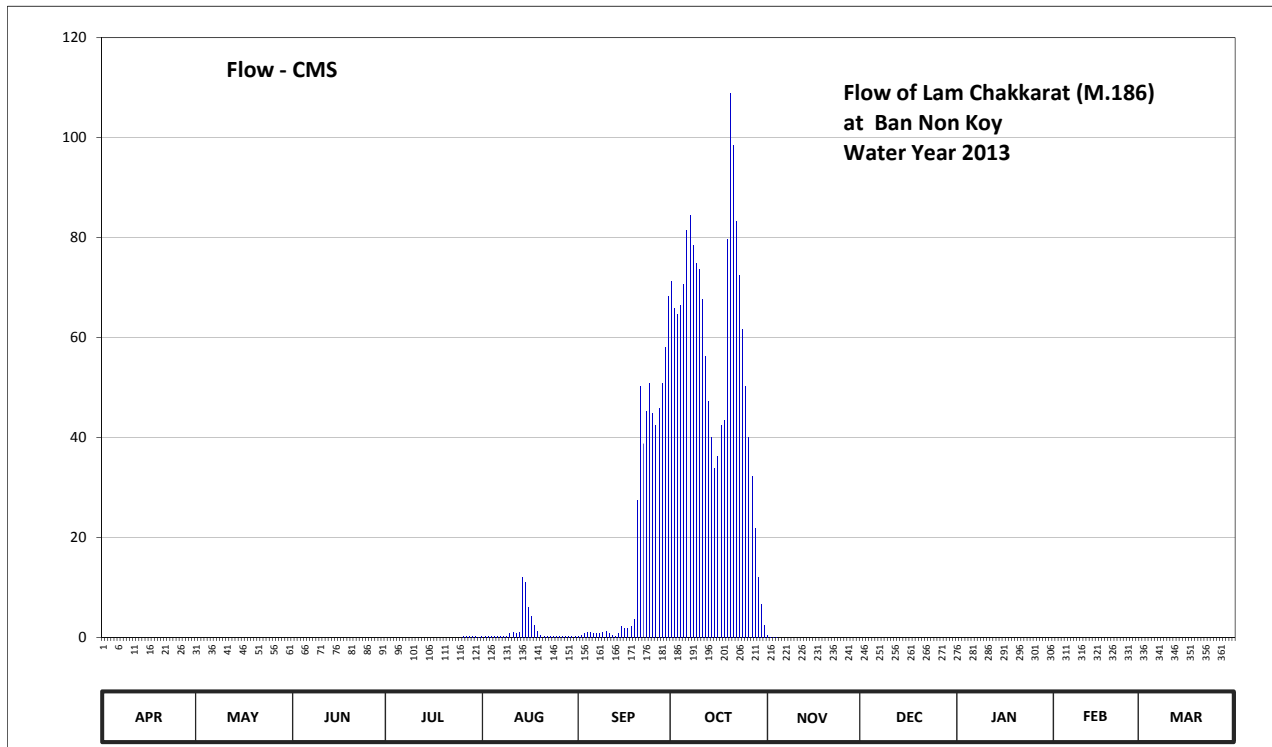
| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                             | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|---------------------------------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 154.64 | 154.20 | 153.75      | 154.30 | 155.25 | 155.63        | 158.14                          | 157.59 | 155.90            | 155.34 | 155.24 | 154.90 |        |
| 2                                | 154.64 | 154.20 | 153.75      | 154.37 | 155.10 | 155.63        | 158.08                          | 157.45 | 155.88            | 155.30 | 155.24 | 154.90 |        |
| 3                                | 154.63 | 154.19 | 153.74      | 154.40 | 155.05 | 155.62        | 157.99                          | 157.29 | 155.85            | 155.32 | 155.24 | 154.89 |        |
| 4                                | 154.62 | 154.18 | 153.73      | 154.43 | 155.00 | 155.61        | 157.89                          | 157.17 | 155.80            | 155.31 | 155.24 | 154.88 |        |
| 5                                | 154.60 | 154.17 | 153.73      | 154.47 | 154.95 | 155.60        | 157.80                          | 157.03 | 155.78            | 155.30 | 155.24 | 154.87 |        |
| 6                                | 154.55 | 154.15 | 153.73      | 154.51 | 154.90 | 155.55        | 157.79                          | 156.93 | 155.75            | 155.29 | 155.23 | 154.85 |        |
| 7                                | 154.53 | 154.13 | 153.73      | 154.55 | 154.90 | 155.53        | 157.79                          | 156.79 | 155.70            | 155.28 | 155.22 | 154.84 |        |
| 8                                | 154.50 | 154.12 | 153.73      | 154.58 | 154.90 | 155.50        | 157.85                          | 156.70 | 155.60            | 155.28 | 155.22 | 154.83 |        |
| 9                                | 154.48 | 154.10 | 153.72      | 154.60 | 154.85 | 155.45        | 157.85                          | 156.47 | 155.55            | 155.27 | 155.21 | 154.80 |        |
| 10                               | 154.45 | 154.09 | 153.00      | 154.63 | 154.85 | 155.45        | 157.95                          | 156.38 | 155.50            | 155.27 | 155.20 | 154.80 |        |
| 11                               | 154.40 | 154.05 | 153.00      | 154.67 | 154.98 | 155.40        | 158.12                          | 156.28 | 155.48            | 155.27 | 155.19 | 154.78 |        |
| 12                               | 154.39 | 154.00 | 152.99      | 154.71 | 155.12 | 155.40        | 158.33                          | 156.19 | 155.45            | 155.27 | 155.19 | 154.75 |        |
| 13                               | 154.38 | 154.00 | 152.98      | 154.75 | 155.26 | 155.47        | 158.45                          | 156.15 | 155.68            | 155.27 | 155.18 | 154.75 |        |
| 14                               | 154.37 | 153.99 | 152.97      | 154.80 | 155.38 | 155.47        | 158.42                          | 156.17 | 155.67            | 155.26 | 155.10 | 154.75 |        |
| 15                               | 154.35 | 153.98 | 152.96      | 154.84 | 155.52 | 155.44        | 158.36                          | 156.10 | 155.66            | 155.26 | 155.05 | 154.74 |        |
| 16                               | 154.34 | 153.90 | 152.96      | 154.88 | 155.68 | 155.50        | 158.28                          | 156.07 | 155.65            | 155.25 | 155.03 | 154.74 |        |
| 17                               | 154.33 | 153.89 | 152.95      | 154.92 | 155.69 | 155.52        | 158.18                          | 156.04 | 155.64            | 155.25 | 155.03 | 154.73 |        |
| 18                               | 154.32 | 153.88 | 152.94      | 154.96 | 155.70 | 155.53        | 158.10                          | 156.02 | 155.52            | 155.26 | 155.00 | 154.72 |        |
| 19                               | 154.30 | 153.87 | 152.94      | 154.99 | 155.71 | 155.54        | 158.04                          | 156.08 | 155.50            | 155.25 | 154.99 | 153.70 |        |
| 20                               | 154.29 | 153.87 | 152.93      | 155.03 | 155.73 | 155.55        | 157.98                          | 156.08 | 155.48            | 155.25 | 154.98 | 153.60 |        |
| 21                               | 154.28 | 153.86 | 152.92      | 155.09 | 155.73 | 155.85        | 157.88                          | 156.07 | 155.48            | 155.24 | 154.97 | 153.57 |        |
| 22                               | 154.27 | 153.86 | 152.90      | 155.15 | 155.73 | 156.17        | 157.90                          | 156.04 | 155.48            | 155.24 | 154.96 | 153.55 |        |
| 23                               | 154.26 | 153.86 | 153.40      | 155.19 | 155.70 | 156.37        | 157.90                          | 156.00 | 155.48            | 155.24 | 154.95 | 153.55 |        |
| 24                               | 154.25 | 153.86 | 153.50      | 155.23 | 155.68 | 156.49        | 157.98                          | 156.00 | 155.48            | 155.24 | 154.94 | 153.50 |        |
| 25                               | 154.24 | 153.86 | 153.60      | 155.27 | 155.65 | 156.70        | 158.05                          | 155.99 | 155.48            | 155.24 | 154.94 | 153.48 |        |
| 26                               | 154.23 | 153.86 | 154.00      | 155.30 | 155.64 | 157.00        | 158.20                          | 155.98 | 155.47            | 155.24 | 154.93 | 153.48 |        |
| 27                               | 154.22 | 153.86 | 154.20      | 155.33 | 155.63 | 157.42        | 158.16                          | 155.97 | 155.47            | 155.24 | 154.90 | 153.45 |        |
| 28                               | 154.22 | 153.86 | 154.20      | 155.37 | 155.62 | 157.96        | 158.09                          | 155.95 | 155.46            | 155.24 | 154.90 | 153.45 |        |
| 29                               | 154.21 | 153.86 | 154.25      | 155.40 | 155.62 | 158.27        | 158.03                          | 155.94 | 155.46            | 155.24 |        | 153.45 |        |
| 30                               | 154.20 | 153.86 | 154.25      | 155.43 | 155.68 | 158.23        | 157.91                          | 155.93 | 155.45            | 155.35 |        | 153.44 |        |
| 31                               |        | 153.86 |             | 155.45 | 155.65 |               | 157.77                          |        | 155.45            | 155.34 |        | 153.44 |        |
| Mean                             | 154.38 | 153.98 | 153.45      | 154.89 | 155.38 | 156.03        | 158.04                          | 156.36 | 155.59            | 155.27 | 155.09 | 154.26 |        |
| Max                              | 154.64 | 154.20 | 154.25      | 155.45 | 155.73 | 158.27        | 158.45                          | 157.59 | 155.90            | 155.35 | 155.24 | 154.90 | 158.45 |
| Min                              | 154.20 | 153.86 | 152.90      | 154.30 | 154.85 | 155.40        | 157.77                          | 155.93 | 155.45            | 155.24 | 154.90 | 153.44 | 152.90 |
| Annual Max Momentary Gage Height | 158.45 |        | m. (MSL.) , |        |        |               | at 06.00 Hours, on Oct 13, 2013 |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 149.70 |        | m. (MSL.) , |        |        | River Bed     | 153.44                          |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 161.26 |        | m. (MSL.) , |        |        |               |                                 |        |                   |        |        |        |        |
| Right Bank Elevation             | 161.27 |        | m. (MSL.) , |        |        | Drainage Area | 4880                            |        | Square Kilometers |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun  | Jul                  | Aug    | Sep     | Oct                      | Nov     | Dec    | Jan   | Feb  | Mar  | Annual   |        |
|----------------|--------|----------------------------------------------------------|------|----------------------|--------|---------|--------------------------|---------|--------|-------|------|------|----------|--------|
| 1              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.50   | 9.20    | 355.00                   | 253.30  | 28.00  | 1.40  | 0.40 | 0.00 |          |        |
| 2              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 9.20    | 343.00                   | 229.50  | 26.40  | 1.00  | 0.40 | 0.00 |          |        |
| 3              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 8.80    | 325.20                   | 202.50  | 24.00  | 1.20  | 0.40 | 0.00 |          |        |
| 4              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 8.40    | 307.20                   | 184.50  | 20.00  | 1.10  | 0.40 | 0.00 |          |        |
| 5              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 8.00    | 291.00                   | 163.50  | 18.40  | 1.00  | 0.40 | 0.00 |          |        |
| 6              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 6.50    | 289.20                   | 148.50  | 16.00  | 0.90  | 0.30 | 0.00 |          |        |
| 7              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 5.90    | 289.20                   | 127.60  | 12.00  | 0.80  | 0.20 | 0.00 |          |        |
| 8              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 5.00    | 300.00                   | 115.00  | 8.00   | 0.80  | 0.20 | 0.00 |          |        |
| 9              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 3.50    | 300.00                   | 88.70   | 6.50   | 0.70  | 0.10 | 0.00 |          |        |
| 10             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 3.50    | 318.00                   | 78.80   | 5.00   | 0.70  | 0.00 | 0.00 |          |        |
| 11             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 2.00    | 351.00                   | 67.80   | 4.40   | 0.70  | 0.00 | 0.00 |          |        |
| 12             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 2.00    | 393.00                   | 57.90   | 3.50   | 0.70  | 0.00 | 0.00 |          |        |
| 13             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.60   | 4.10    | 417.00                   | 53.50   | 11.20  | 0.70  | 0.00 | 0.00 |          |        |
| 14             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 1.80   | 4.10    | 411.00                   | 55.70   | 10.80  | 0.60  | 0.00 | 0.00 |          |        |
| 15             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 5.60   | 3.20    | 399.00                   | 48.00   | 10.40  | 0.60  | 0.00 | 0.00 |          |        |
| 16             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 11.20  | 5.00    | 383.00                   | 44.70   | 10.00  | 0.50  | 0.00 | 0.00 |          |        |
| 17             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 11.60  | 5.60    | 363.00                   | 41.40   | 9.60   | 0.50  | 0.00 | 0.00 |          |        |
| 18             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 12.00  | 5.90    | 347.00                   | 39.20   | 5.60   | 0.60  | 0.00 | 0.00 |          |        |
| 19             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 12.80  | 6.20    | 335.00                   | 45.80   | 5.00   | 0.50  | 0.00 | 0.00 |          |        |
| 20             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 14.40  | 6.50    | 323.40                   | 45.80   | 4.40   | 0.50  | 0.00 | 0.00 |          |        |
| 21             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 14.40  | 24.00   | 305.40                   | 44.70   | 4.40   | 0.40  | 0.00 | 0.00 |          |        |
| 22             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 14.40  | 55.70   | 309.00                   | 41.40   | 4.40   | 0.40  | 0.00 | 0.00 |          |        |
| 23             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 12.00  | 77.70   | 309.00                   | 37.00   | 4.40   | 0.40  | 0.00 | 0.00 |          |        |
| 24             | 0.00   | 0.00                                                     | 0.00 | 0.30                 | 11.20  | 90.90   | 323.40                   | 37.00   | 4.40   | 0.40  | 0.00 | 0.00 |          |        |
| 25             | 0.00   | 0.00                                                     | 0.00 | 0.70                 | 10.00  | 115.00  | 337.00                   | 36.10   | 4.40   | 0.40  | 0.00 | 0.00 |          |        |
| 26             | 0.00   | 0.00                                                     | 0.00 | 1.00                 | 9.60   | 159.00  | 367.00                   | 35.20   | 4.10   | 0.40  | 0.00 | 0.00 |          |        |
| 27             | 0.00   | 0.00                                                     | 0.00 | 1.30                 | 9.20   | 224.40  | 359.00                   | 34.30   | 4.10   | 0.40  | 0.00 | 0.00 |          |        |
| 28             | 0.00   | 0.00                                                     | 0.00 | 1.70                 | 8.80   | 319.80  | 345.00                   | 32.50   | 3.80   | 0.40  | 0.00 | 0.00 |          |        |
| 29             | 0.00   | 0.00                                                     | 0.00 | 2.00                 | 8.80   | 381.00  | 333.00                   | 31.60   | 3.80   | 0.40  |      | 0.00 |          |        |
| 30             | 0.00   | 0.00                                                     | 0.00 | 2.90                 | 11.20  | 373.00  | 310.80                   | 30.70   | 3.50   | 1.50  |      | 0.00 |          |        |
| 31             |        | 0.00                                                     |      | 3.50                 | 10.00  |         | 285.60                   |         | 3.50   | 1.40  |      | 0.00 |          |        |
| Total          | 0.00   | 0.00                                                     | 0.00 | 13.40                | 190.10 | 1933.10 | 10424.40                 | 2452.20 | 284.00 | 22.00 | 2.80 | 0.00 | 15322.00 | CMSDAY |
| Mean           | 0.00   | 0.00                                                     | 0.00 | 0.43                 | 6.13   | 64.44   | 336.27                   | 81.74   | 9.16   | 0.71  | 0.10 | 0.00 | 41.98    | CMS    |
| Max            | 0.00   | 0.00                                                     | 0.00 | 3.50                 | 14.40  | 381.00  | 417.00                   | 253.30  | 28.00  | 1.50  | 0.40 | 0.00 | 417.00   | CMS    |
| Min            | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.00   | 2.00    | 285.60                   | 30.70   | 3.50   | 0.40  | 0.00 | 0.00 | 0.00     | CMS    |
| Runoff         | 0.00   | 0.00                                                     | 0.00 | 1.16                 | 16.43  | 167.02  | 900.67                   | 211.87  | 24.54  | 1.90  | 0.24 | 0.00 | 1323.82  | MCM    |
| Momentary Peak | 417.00 | CMS. at 158.45 m (MSL.), at 06.00 Hours, on Oct 13, 2013 |      |                      |        |         |                          |         |        |       |      |      |          |        |
| Runoff Yield   | 8.60   | Liters/Second/Square KM.                                 |      | Momentary Peak Yield |        | 85.451  | Liters/Second/Square KM. |         |        |       |      |      |          |        |



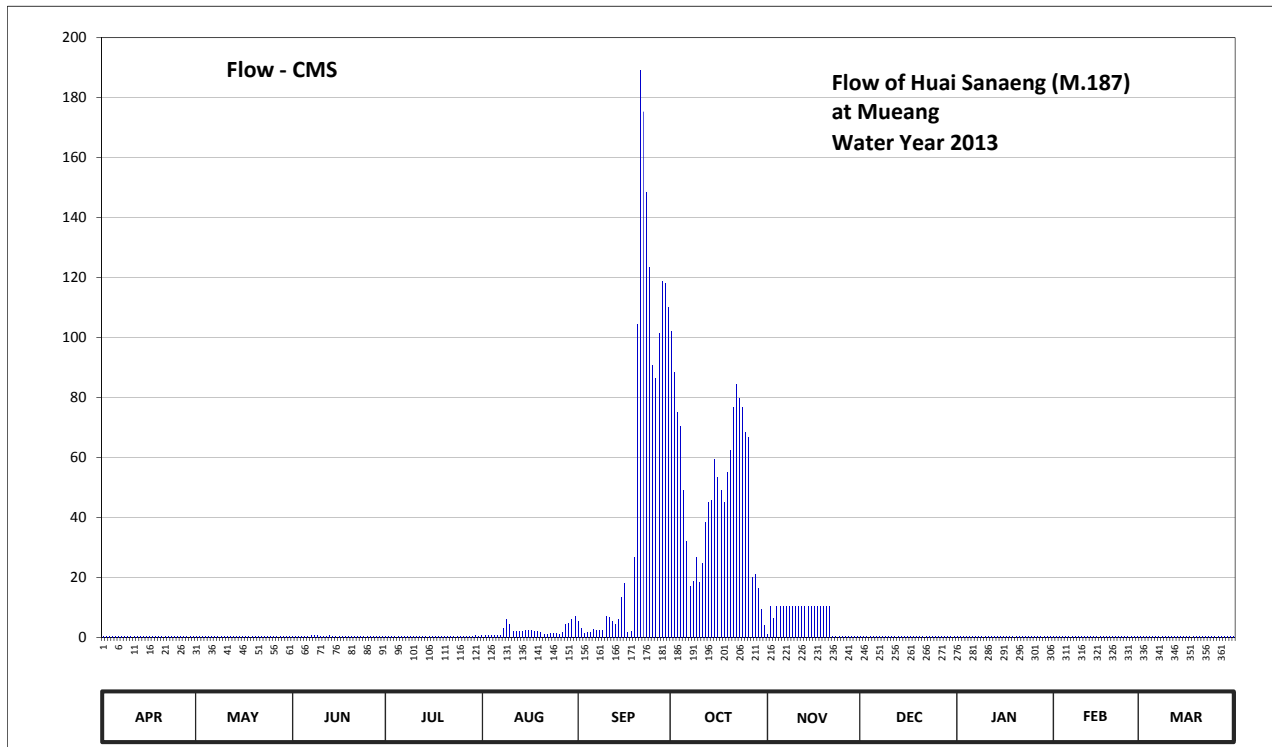


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun  | Jul                  | Aug   | Sep    | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual         |
|----------------|--------|----------------------------------------------------------|------|----------------------|-------|--------|--------------------------|------|------|------|------|------|----------------|
| 1              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.24  | 0.30   | 71.20                    | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.22  | 0.42   | 65.80                    | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.20  | 0.78   | 64.60                    | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.22  | 1.02   | 66.40                    | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.26  | 1.14   | 70.60                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.22  | 0.90   | 81.40                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.20  | 0.90   | 84.40                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.20  | 0.90   | 78.40                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.26  | 1.02   | 74.80                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.78  | 1.26   | 73.60                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 1.02  | 0.78   | 67.60                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.90  | 0.54   | 56.20                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 1.02  | 0.30   | 47.20                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 12.15 | 0.90   | 40.00                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 11.05 | 2.20   | 34.00                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 6.10  | 1.85   | 36.40                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 4.30  | 1.85   | 42.40                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 2.55  | 2.20   | 43.60                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 1.38  | 3.60   | 79.60                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.54  | 27.40  | 108.95                   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.28  | 50.20  | 98.55                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.28  | 38.80  | 83.20                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.28  | 45.40  | 72.40                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.26  | 50.80  | 61.60                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.24  | 44.80  | 50.20                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00   | 0.00                                                     | 0.00 | 0.26                 | 0.20  | 42.40  | 40.00                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00   | 0.00                                                     | 0.00 | 0.28                 | 0.22  | 46.00  | 32.20                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00   | 0.00                                                     | 0.00 | 0.24                 | 0.28  | 50.80  | 22.00                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00   | 0.00                                                     | 0.00 | 0.24                 | 0.28  | 58.00  | 12.15                    | 0.00 | 0.00 | 0.00 |      | 0.00 |                |
| 30             | 0.00   | 0.00                                                     | 0.00 | 0.26                 | 0.24  | 68.20  | 6.65                     | 0.00 | 0.00 | 0.00 |      | 0.00 |                |
| 31             |        | 0.00                                                     |      | 0.16                 | 0.28  |        | 2.55                     |      | 0.00 | 0.00 |      | 0.00 |                |
| Total          | 0.00   | 0.00                                                     | 0.00 | 1.44                 | 46.65 | 545.66 | 1768.65                  | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 | 2363.25 CMSDAY |
| Mean           | 0.00   | 0.00                                                     | 0.00 | 0.05                 | 1.50  | 18.19  | 57.05                    | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 6.47 CMS       |
| Max            | 0.00   | 0.00                                                     | 0.00 | 0.28                 | 12.15 | 68.20  | 108.95                   | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 108.95 CMS     |
| Min            | 0.00   | 0.00                                                     | 0.00 | 0.00                 | 0.20  | 0.30   | 2.55                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00   | 0.00                                                     | 0.00 | 0.12                 | 4.03  | 47.15  | 152.81                   | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 204.19 MCM     |
| Momentary Peak | 111.55 | CMS. at 162.87 m (MSL.), at 06.00 Hours, on Oct 20, 2013 |      |                      |       |        |                          |      |      |      |      |      |                |
| Runoff Yield   | 4.84   | Liters/Second/Square KM.                                 |      | Momentary Peak Yield |       | 83.433 | Liters/Second/Square KM. |      |      |      |      |      |                |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 138.24 | 138.24 | 138.25      | 138.25 | 138.28                            | 138.55 | 141.08 | 138.30            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 2                                | 138.25 | 138.24 | 138.25      | 138.25 | 138.28                            | 138.43 | 140.90 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 3                                | 138.25 | 138.24 | 138.25      | 138.25 | 138.28                            | 138.33 | 140.70 | 138.60            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 4                                | 138.25 | 138.24 | 138.25      | 138.25 | 138.28                            | 138.35 | 140.63 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 5                                | 138.25 | 138.25 | 138.25      | 138.25 | 138.27                            | 138.35 | 140.25 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 6                                | 138.25 | 138.25 | 138.25      | 138.25 | 138.27                            | 138.42 | 139.72 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 7                                | 138.25 | 138.25 | 138.27      | 138.25 | 138.27                            | 138.40 | 139.12 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 8                                | 138.25 | 138.25 | 138.27      | 138.25 | 138.43                            | 138.40 | 139.20 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 9                                | 138.25 | 138.25 | 138.27      | 138.25 | 138.58                            | 138.40 | 139.51 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 10                               | 138.25 | 138.25 | 138.25      | 138.25 | 138.50                            | 138.63 | 139.18 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 |        |
| 11                               | 138.25 | 138.25 | 138.25      | 138.25 | 138.38                            | 138.61 | 139.43 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 12                               | 138.25 | 138.24 | 138.25      | 138.25 | 138.37                            | 138.54 | 139.95 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 13                               | 138.25 | 138.24 | 138.27      | 138.25 | 138.38                            | 138.50 | 140.15 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 14                               | 138.25 | 138.24 | 138.25      | 138.25 | 138.38                            | 138.58 | 140.17 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 15                               | 138.24 | 138.24 | 138.25      | 138.25 | 138.40                            | 138.95 | 140.45 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 16                               | 138.24 | 138.24 | 138.25      | 138.25 | 138.40                            | 139.16 | 140.34 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 17                               | 138.24 | 138.24 | 138.25      | 138.25 | 138.40                            | 138.35 | 140.25 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 18                               | 138.24 | 138.24 | 138.25      | 138.25 | 138.38                            | 138.37 | 140.15 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 19                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.38                            | 139.52 | 140.37 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 20                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.36                            | 141.11 | 140.50 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 21                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.30                            | 142.14 | 140.73 | 138.80            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 22                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.30                            | 141.98 | 140.84 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 23                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.32                            | 141.66 | 140.77 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 24                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.32                            | 141.35 | 140.73 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 25                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.32                            | 140.93 | 140.60 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 26                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.30                            | 140.87 | 140.57 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 27                               | 138.24 | 138.25 | 138.25      | 138.25 | 138.35                            | 141.07 | 139.25 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 28                               | 138.24 | 138.24 | 138.25      | 138.25 | 138.50                            | 141.29 | 139.28 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| 29                               | 138.24 | 138.24 | 138.25      | 138.25 | 138.52                            | 141.28 | 139.10 | 138.25            | 138.25 | 138.24 |        | 138.24 |        |
| 30                               | 138.24 | 138.24 | 138.25      | 138.29 | 138.58                            | 141.18 | 138.75 | 138.25            | 138.25 | 138.24 |        | 138.24 |        |
| 31                               |        | 138.24 |             | 138.25 | 138.64                            |        | 138.49 |                   | 138.25 | 138.24 |        | 138.24 |        |
| Mean                             | 138.24 | 138.25 | 138.25      | 138.25 | 138.38                            | 139.59 | 140.04 | 138.61            | 138.25 | 138.24 | 138.24 | 138.24 |        |
| Max                              | 138.25 | 138.25 | 138.27      | 138.29 | 138.64                            | 142.14 | 141.08 | 138.80            | 138.25 | 138.25 | 138.24 | 138.24 | 142.14 |
| Min                              | 138.24 | 138.24 | 138.25      | 138.25 | 138.27                            | 138.33 | 138.49 | 138.25            | 138.25 | 138.24 | 138.24 | 138.24 | 138.24 |
| Annual Max Momentary Gage Height | 142.24 |        | m. (MSL.) , |        | at 10.00 Hours , on Sep 21 , 2013 |        |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 136.80 |        | m. (MSL.) , |        | River Bed                         | 136.55 |        | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 143.65 |        | m. (MSL.) , |        |                                   |        |        |                   |        |        |        |        |        |
| Right Bank Elevation             | 143.65 |        | m. (MSL.) , |        | Drainage Area                     | 641    |        | Square Kilometers |        |        |        |        |        |

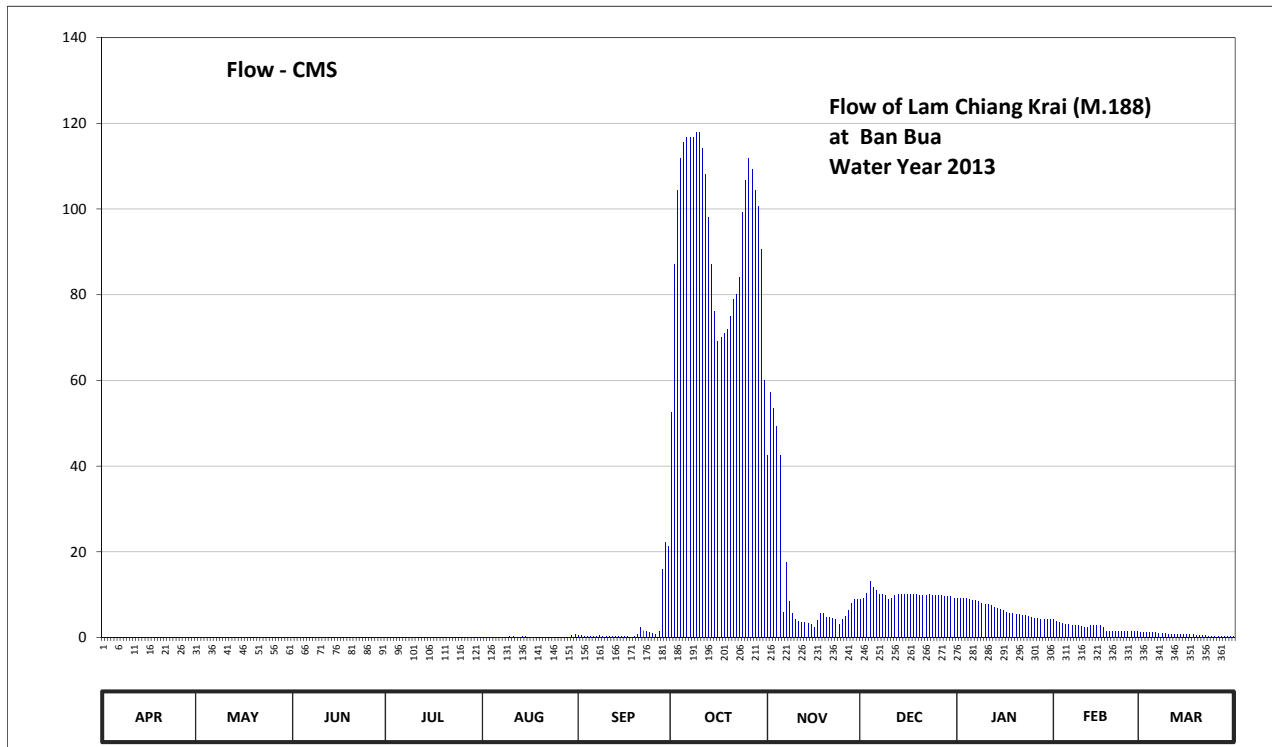




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|--------|-----------------------------------------------------------|-------|----------------------|-------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 0.80  | 5.50    | 102.00                   | 1.00   | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 2              | 0.50   | 0.40                                                      | 0.50  | 0.50                 | 0.80  | 3.10    | 88.50                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 3              | 0.50   | 0.40                                                      | 0.50  | 0.50                 | 0.80  | 1.45    | 75.00                    | 6.50   | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 4              | 0.50   | 0.40                                                      | 0.50  | 0.50                 | 0.80  | 1.75    | 70.45                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 5              | 0.50   | 0.50                                                      | 0.50  | 0.50                 | 0.70  | 1.75    | 49.25                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 6              | 0.50   | 0.50                                                      | 0.50  | 0.50                 | 0.70  | 2.90    | 32.00                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 7              | 0.50   | 0.50                                                      | 0.70  | 0.50                 | 0.70  | 2.50    | 17.00                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 8              | 0.50   | 0.50                                                      | 0.70  | 0.50                 | 3.10  | 2.50    | 19.00                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 9              | 0.50   | 0.50                                                      | 0.70  | 0.50                 | 6.10  | 2.50    | 26.75                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 10             | 0.50   | 0.50                                                      | 0.50  | 0.50                 | 4.50  | 7.10    | 18.50                    | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  |                |
| 11             | 0.50   | 0.50                                                      | 0.50  | 0.50                 | 2.20  | 6.70    | 24.75                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 12             | 0.50   | 0.40                                                      | 0.50  | 0.50                 | 2.05  | 5.30    | 38.50                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 13             | 0.50   | 0.40                                                      | 0.70  | 0.50                 | 2.20  | 4.50    | 45.25                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 14             | 0.50   | 0.40                                                      | 0.50  | 0.50                 | 2.20  | 6.10    | 45.95                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 15             | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 2.50  | 13.50   | 59.50                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 16             | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 2.50  | 18.00   | 53.50                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 17             | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 2.50  | 1.75    | 49.25                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 18             | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 2.20  | 2.05    | 45.25                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 19             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 2.20  | 27.00   | 55.00                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 20             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.90  | 104.30  | 62.50                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 21             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.00  | 189.10  | 76.95                    | 10.50  | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 22             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.00  | 175.30  | 84.30                    | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 23             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.30  | 148.30  | 79.55                    | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 24             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.30  | 123.50  | 76.95                    | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 25             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.30  | 90.75   | 68.50                    | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 26             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.00  | 86.40   | 66.70                    | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 27             | 0.40   | 0.50                                                      | 0.50  | 0.50                 | 1.75  | 101.25  | 20.25                    | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 28             | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 4.50  | 118.70  | 21.00                    | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  |                |
| 29             | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 4.90  | 117.90  | 16.50                    | 0.50   | 0.50  | 0.40  |       | 0.40  |                |
| 30             | 0.40   | 0.40                                                      | 0.50  | 0.90                 | 6.10  | 109.90  | 9.50                     | 0.50   | 0.50  | 0.40  |       | 0.40  |                |
| 31             |        | 0.40                                                      |       | 0.50                 | 7.30  |         | 4.30                     |        | 0.50  | 0.40  |       | 0.40  |                |
| Total          | 13.30  | 14.00                                                     | 15.80 | 15.90                | 72.90 | 1481.35 | 1502.40                  | 211.50 | 15.50 | 13.40 | 11.20 | 12.40 | 3379.60 CMSDAY |
| Mean           | 0.44   | 0.45                                                      | 0.53  | 0.51                 | 2.35  | 49.38   | 48.46                    | 7.05   | 0.50  | 0.43  | 0.40  | 0.40  | 9.26 CMS       |
| Max            | 0.50   | 0.50                                                      | 0.70  | 0.90                 | 7.30  | 189.10  | 102.00                   | 10.50  | 0.50  | 0.50  | 0.40  | 0.40  | 189.10 CMS     |
| Min            | 0.40   | 0.40                                                      | 0.50  | 0.50                 | 0.70  | 1.45    | 4.30                     | 0.50   | 0.50  | 0.40  | 0.40  | 0.40  | 0.40 CMS       |
| Runoff         | 1.15   | 1.21                                                      | 1.37  | 1.37                 | 6.30  | 127.99  | 129.81                   | 18.27  | 1.34  | 1.16  | 0.97  | 1.07  | 292.00 MCM     |
| Momentary Peak | 198.10 | CMS. at 142.24 m. (MSL.), at 10.00 Hours, on Sep 21, 2013 |       |                      |       |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 14.45  | Liters/Second/Square KM.                                  |       | Momentary Peak Yield |       | 309.048 | Liters/Second/Square KM. |        |       |       |       |       |                |

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 160.22 | 160.06 | 159.98                                           | 159.91 | 160.53 | 160.62 | 161.93 | 161.80 | 161.10 | 161.11 | 160.91 | 160.72 |        |
| 2                                | 160.22 | 160.06 | 159.98                                           | 159.90 | 160.53 | 160.61 | 162.29 | 161.98 | 161.11 | 161.11 | 160.89 | 160.72 |        |
| 3                                | 160.20 | 160.06 | 159.98                                           | 159.88 | 160.53 | 160.59 | 162.43 | 161.94 | 161.15 | 161.11 | 160.88 | 160.72 |        |
| 4                                | 160.18 | 160.05 | 159.98                                           | 159.87 | 160.53 | 160.58 | 162.49 | 161.89 | 161.23 | 161.11 | 160.87 | 160.72 |        |
| 5                                | 160.12 | 160.04 | 160.01                                           | 159.83 | 160.54 | 160.57 | 162.52 | 161.80 | 161.19 | 161.10 | 160.86 | 160.72 |        |
| 6                                | 160.12 | 160.05 | 160.06                                           | 159.83 | 160.53 | 160.56 | 162.53 | 161.69 | 161.17 | 161.09 | 160.86 | 160.73 |        |
| 7                                | 160.12 | 160.05 | 160.09                                           | 159.84 | 160.52 | 160.57 | 162.53 | 161.35 | 161.14 | 161.09 | 160.85 | 160.70 |        |
| 8                                | 160.11 | 160.08 | 160.09                                           | 159.86 | 160.52 | 160.60 | 162.53 | 161.08 | 161.14 | 161.08 | 160.85 | 160.70 |        |
| 9                                | 160.11 | 160.08 | 160.11                                           | 159.86 | 160.52 | 160.57 | 162.54 | 160.99 | 161.13 | 161.07 | 160.84 | 160.69 |        |
| 10                               | 160.11 | 160.07 | 160.10                                           | 159.86 | 160.55 | 160.57 | 162.54 | 160.91 | 161.10 | 161.06 | 160.83 | 160.68 |        |
| 11                               | 160.10 | 160.07 | 160.10                                           | 159.86 | 160.55 | 160.56 | 162.51 | 160.89 | 161.11 | 161.06 | 160.82 | 160.67 |        |
| 12                               | 160.10 | 160.06 | 160.09                                           | 159.84 | 160.54 | 160.57 | 162.46 | 160.88 | 161.13 | 161.05 | 160.82 | 160.66 |        |
| 13                               | 160.09 | 160.05 | 160.09                                           | 159.82 | 160.54 | 160.57 | 162.38 | 160.88 | 161.14 | 161.04 | 160.84 | 160.65 |        |
| 14                               | 160.09 | 160.05 | 160.07                                           | 159.81 | 160.57 | 160.57 | 162.29 | 160.87 | 161.14 | 161.03 | 160.85 | 160.65 |        |
| 15                               | 160.08 | 160.06 | 160.02                                           | 159.80 | 160.55 | 160.56 | 162.18 | 160.86 | 161.14 | 161.02 | 160.85 | 160.64 |        |
| 16                               | 160.07 | 160.03 | 160.00                                           | 159.79 | 160.54 | 160.56 | 162.11 | 160.82 | 161.14 | 161.01 | 160.85 | 160.64 |        |
| 17                               | 160.07 | 160.00 | 159.98                                           | 159.79 | 160.53 | 160.55 | 162.12 | 160.90 | 161.14 | 161.00 | 160.82 | 160.64 |        |
| 18                               | 160.07 | 160.01 | 159.97                                           | 159.79 | 160.52 | 160.54 | 162.13 | 160.99 | 161.14 | 160.99 | 160.76 | 160.64 |        |
| 19                               | 160.06 | 160.01 | 159.98                                           | 159.77 | 160.50 | 160.57 | 162.14 | 160.99 | 161.14 | 160.98 | 160.76 | 160.62 |        |
| 20                               | 160.06 | 160.00 | 159.95                                           | 159.75 | 160.50 | 160.67 | 162.17 | 160.94 | 161.13 | 160.97 | 160.74 | 160.62 |        |
| 21                               | 160.05 | 160.00 | 159.91                                           | 159.74 | 160.49 | 160.82 | 162.21 | 160.94 | 161.13 | 160.97 | 160.74 | 160.61 |        |
| 22                               | 160.03 | 159.99 | 159.90                                           | 159.78 | 160.49 | 160.76 | 162.22 | 160.93 | 161.13 | 160.96 | 160.74 | 160.60 |        |
| 23                               | 160.04 | 159.99 | 159.89                                           | 160.06 | 160.49 | 160.74 | 162.26 | 160.91 | 161.14 | 160.96 | 160.74 | 160.59 |        |
| 24                               | 160.06 | 159.99 | 159.88                                           | 160.29 | 160.50 | 160.73 | 162.39 | 160.86 | 161.13 | 160.95 | 160.74 | 160.58 |        |
| 25                               | 160.05 | 159.99 | 159.89                                           | 160.23 | 160.49 | 160.71 | 162.45 | 160.91 | 161.13 | 160.94 | 160.74 | 160.58 |        |
| 26                               | 160.05 | 159.99 | 159.97                                           | 160.25 | 160.48 | 160.66 | 162.49 | 160.95 | 161.13 | 160.93 | 160.74 | 160.57 |        |
| 27                               | 160.04 | 159.99 | 159.98                                           | 160.27 | 160.48 | 160.74 | 162.47 | 161.01 | 161.13 | 160.93 | 160.74 | 160.56 |        |
| 28                               | 160.03 | 159.99 | 159.96                                           | 160.29 | 160.48 | 161.31 | 162.43 | 161.07 | 161.12 | 160.92 | 160.74 | 160.56 |        |
| 29                               | 160.02 | 159.98 | 159.94                                           | 160.37 | 160.52 | 161.47 | 162.40 | 161.10 | 161.12 | 160.92 |        | 160.56 |        |
| 30                               | 160.02 | 159.98 | 159.93                                           | 160.44 | 160.61 | 161.63 | 162.32 | 161.10 | 161.12 | 160.92 |        | 160.55 |        |
| 31                               |        | 159.98 |                                                  | 160.51 | 160.65 |        | 162.01 |        | 161.11 | 160.92 |        | 160.58 |        |
| Mean                             | 160.09 | 160.03 | 160.00                                           | 159.96 | 160.53 | 160.70 | 162.34 | 161.14 | 161.14 | 161.01 | 160.81 | 160.64 |        |
| Max                              | 160.22 | 160.08 | 160.11                                           | 160.51 | 160.65 | 161.63 | 162.54 | 161.98 | 161.23 | 161.11 | 160.91 | 160.73 | 162.54 |
| Min                              | 160.02 | 159.98 | 159.88                                           | 159.74 | 160.48 | 160.54 | 161.93 | 160.82 | 161.10 | 160.92 | 160.74 | 160.55 | 159.74 |
| Annual Max Momentary Gage Height | 162.54 |        | m. (MSL.) , at 06.00 Hours , on Oct 9 , 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 157.90 |        | m. (MSL.) , River Bed 156.91 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 162.87 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 162.25 |        | m. (MSL.) , Drainage Area 2764 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul  | Aug                  | Sep   | Oct     | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual  |        |
|----------------|-----------------------------------------------------------------|--------------------------|------|------|----------------------|-------|---------|--------------------------|--------|--------|-------|-------|---------|--------|
| 1              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.15                 | 0.60  | 52.70   | 42.50                    | 9.00   | 9.30   | 4.20  | 1.20  |         |        |
| 2              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.15                 | 0.55  | 87.00   | 57.20                    | 9.30   | 9.30   | 3.80  | 1.20  |         |        |
| 3              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.15                 | 0.45  | 104.25  | 53.60                    | 10.50  | 9.30   | 3.60  | 1.20  |         |        |
| 4              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.15                 | 0.40  | 111.75  | 49.25                    | 13.05  | 9.30   | 3.40  | 1.20  |         |        |
| 5              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.20                 | 0.35  | 115.50  | 42.50                    | 11.70  | 9.00   | 3.20  | 1.20  |         |        |
| 6              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.15                 | 0.30  | 116.75  | 6.05                     | 11.10  | 8.70   | 3.20  | 1.30  |         |        |
| 7              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.10                 | 0.35  | 116.75  | 17.50                    | 10.20  | 8.70   | 3.00  | 1.00  |         |        |
| 8              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.10                 | 0.50  | 116.75  | 8.40                     | 10.20  | 8.40   | 3.00  | 1.00  |         |        |
| 9              | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.10                 | 0.35  | 118.00  | 5.80                     | 9.90   | 8.10   | 2.80  | 0.95  |         |        |
| 10             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.25                 | 0.35  | 118.00  | 4.20                     | 9.00   | 7.80   | 2.60  | 0.90  |         |        |
| 11             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.25                 | 0.30  | 114.25  | 3.80                     | 9.30   | 7.80   | 2.40  | 0.85  |         |        |
| 12             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.20                 | 0.35  | 108.00  | 3.60                     | 9.90   | 7.50   | 2.40  | 0.80  |         |        |
| 13             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.20                 | 0.35  | 98.00   | 3.60                     | 10.20  | 7.20   | 2.80  | 0.75  |         |        |
| 14             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.35                 | 0.35  | 87.00   | 3.40                     | 10.20  | 6.90   | 3.00  | 0.75  |         |        |
| 15             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.25                 | 0.30  | 76.00   | 3.20                     | 10.20  | 6.60   | 3.00  | 0.70  |         |        |
| 16             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.20                 | 0.30  | 69.00   | 2.40                     | 10.20  | 6.30   | 3.00  | 0.70  |         |        |
| 17             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.15                 | 0.25  | 70.00   | 4.00                     | 10.20  | 6.00   | 2.40  | 0.70  |         |        |
| 18             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.10                 | 0.20  | 71.00   | 5.80                     | 10.20  | 5.80   | 1.60  | 0.70  |         |        |
| 19             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.35  | 72.00   | 5.80                     | 10.20  | 5.60   | 1.60  | 0.60  |         |        |
| 20             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.85  | 75.00   | 4.80                     | 9.90   | 5.40   | 1.40  | 0.60  |         |        |
| 21             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 2.40  | 79.00   | 4.80                     | 9.90   | 5.40   | 1.40  | 0.55  |         |        |
| 22             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 1.60  | 80.00   | 4.60                     | 9.90   | 5.20   | 1.40  | 0.50  |         |        |
| 23             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 1.40  | 84.00   | 4.20                     | 10.20  | 5.20   | 1.40  | 0.45  |         |        |
| 24             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 1.30  | 99.25   | 3.20                     | 9.90   | 5.00   | 1.40  | 0.40  |         |        |
| 25             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 1.10  | 106.75  | 4.20                     | 9.90   | 4.80   | 1.40  | 0.40  |         |        |
| 26             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.80  | 111.75  | 5.00                     | 9.90   | 4.60   | 1.40  | 0.35  |         |        |
| 27             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 1.40  | 109.25  | 6.30                     | 9.90   | 4.60   | 1.40  | 0.30  |         |        |
| 28             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 15.90 | 104.25  | 8.10                     | 9.60   | 4.40   | 1.40  | 0.30  |         |        |
| 29             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.10                 | 22.30 | 100.50  | 9.00                     | 9.60   | 4.40   |       | 0.30  |         |        |
| 30             | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.55                 | 21.35 | 90.50   | 9.00                     | 9.60   | 4.40   |       | 0.25  |         |        |
| 31             |                                                                 | 0.00                     |      | 0.05 | 0.75                 |       | 59.90   |                          | 9.30   | 4.40   |       | 0.40  |         |        |
| Total          | 0.00                                                            | 0.00                     | 0.00 | 0.05 | 4.60                 | 77.35 | 2922.85 | 385.80                   | 312.15 | 205.40 | 67.60 | 22.50 | 3998.30 | CMSDAY |
| Mean           | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.15                 | 2.58  | 94.29   | 12.86                    | 10.07  | 6.63   | 2.41  | 0.73  | 10.95   | CMS    |
| Max            | 0.00                                                            | 0.00                     | 0.00 | 0.05 | 0.75                 | 22.30 | 118.00  | 57.20                    | 13.05  | 9.30   | 4.20  | 1.30  | 118.00  | CMS    |
| Min            | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.00                 | 0.20  | 52.70   | 2.40                     | 9.00   | 4.40   | 1.40  | 0.25  | 0.00    | CMS    |
| Runoff         | 0.00                                                            | 0.00                     | 0.00 | 0.00 | 0.40                 | 6.68  | 252.53  | 33.33                    | 26.97  | 17.75  | 5.84  | 1.94  | 345.45  | MCM    |
| Momentary Peak | 118.00 CMS. at 162.54 m. (MSL.), at 06.00 Hours, on Oct 9, 2013 |                          |      |      |                      |       |         |                          |        |        |       |       |         |        |
| Runoff Yield   | 3.96                                                            | Liters/Second/Square KM. |      |      | Momentary Peak Yield |       | 42.692  | Liters/Second/Square KM. |        |        |       |       |         |        |

## WATER YEAR : 2013

## MUN RIVER BASIN

**Huai Samran at Ban Khwaw, Si Sa Ket (M.190**

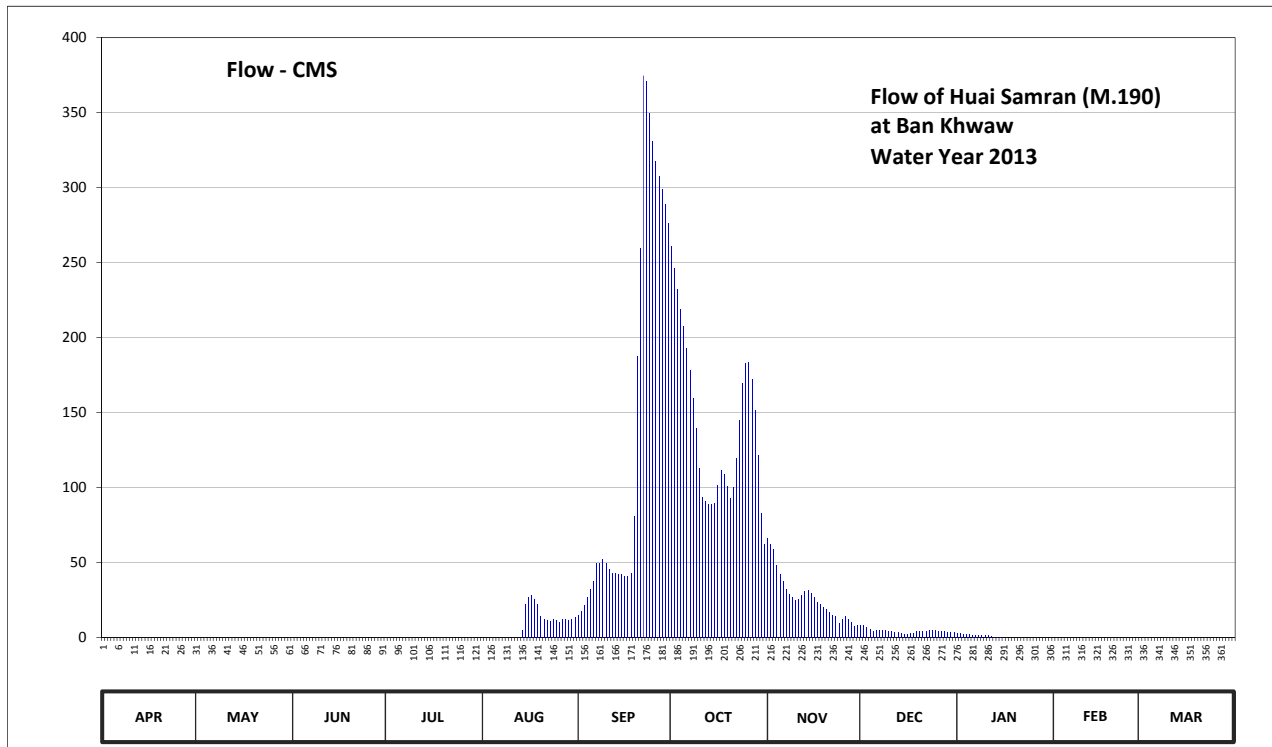
Lat 07 - 54 - 13 N    Long 98 - 21 - 02 E

**Location : on right at the bridge on highway**

|                                         | Ban                                                                                       | Khwaw     | Amphoe | Uthumphon Phisai | Changwat         | Si Sa Ket          |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|--------|------------------|------------------|--------------------|
| <b>Drainge Area</b>                     | 2,339                                                                                     | sq.km.    |        |                  |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |           |        |                  |                  |                    |
| <b>Zero Gage at Bottom</b>              | +119.700                                                                                  | m. (MSL.) |        |                  |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |        |                  |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |           |        |                  | <b>Elevation</b> | +129.804 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |        |                  |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |        |                  |                  |                    |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                              |           |        |                  |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |        |                  |                  |                    |
| <b>Period of Rating</b>                 | 2008 to date                                                                              |           |        |                  |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |        |                  |                  |                    |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                              |           |        |                  |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |        |                  |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |        |                  |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 34 discharge measurements made in 2013. |           |        |                  |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

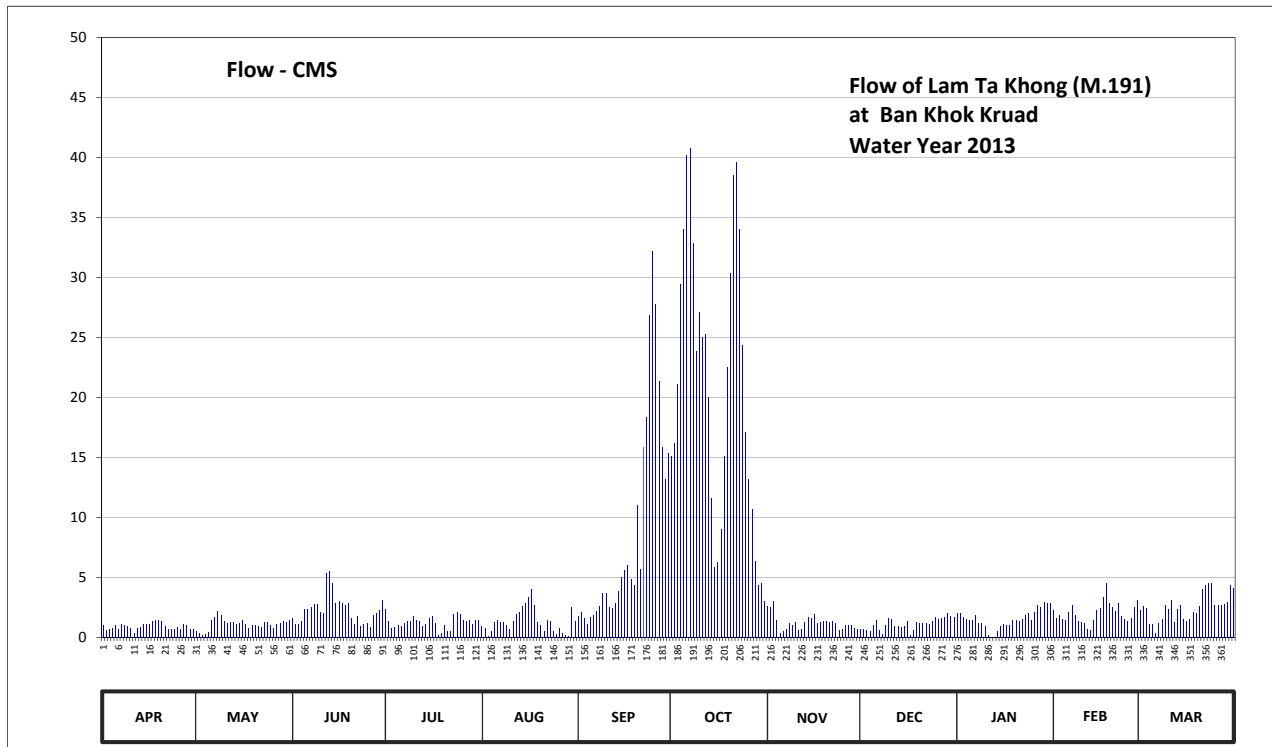
| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 121.01 | 121.14 | 121.33                                           | 121.25 | 121.42 | 124.60 | 127.52 | 125.28 | 124.46 | 124.33 | 123.46 | 122.64 |        |
| 2                                | 121.05 | 121.14 | 121.32                                           | 121.24 | 121.42 | 124.64 | 127.40 | 125.16 | 124.45 | 124.32 | 123.43 | 122.60 |        |
| 3                                | 121.05 | 121.13 | 121.32                                           | 121.23 | 121.43 | 124.71 | 127.29 | 125.09 | 124.43 | 124.31 | 123.40 | 122.56 |        |
| 4                                | 121.05 | 121.14 | 121.33                                           | 121.23 | 121.43 | 124.78 | 127.17 | 125.01 | 124.39 | 124.30 | 123.37 | 122.53 |        |
| 5                                | 121.05 | 121.16 | 121.32                                           | 121.22 | 121.45 | 124.85 | 127.05 | 124.95 | 124.35 | 124.30 | 123.33 | 122.49 |        |
| 6                                | 121.05 | 121.16 | 121.32                                           | 121.22 | 121.45 | 124.91 | 126.90 | 124.91 | 124.37 | 124.29 | 123.31 | 122.46 |        |
| 7                                | 121.05 | 121.15 | 121.32                                           | 121.21 | 121.46 | 125.02 | 126.74 | 124.85 | 124.38 | 124.29 | 123.28 | 122.45 |        |
| 8                                | 121.05 | 121.15 | 121.31                                           | 121.22 | 121.46 | 125.02 | 126.55 | 124.81 | 124.37 | 124.28 | 123.25 | 122.45 |        |
| 9                                | 121.05 | 121.14 | 121.30                                           | 121.22 | 121.47 | 125.04 | 126.33 | 124.78 | 124.37 | 124.27 | 123.23 | 122.44 |        |
| 10                               | 121.06 | 121.13 | 121.30                                           | 121.21 | 121.47 | 125.02 | 126.03 | 124.76 | 124.36 | 124.26 | 123.21 | 122.42 |        |
| 11                               | 121.06 | 121.13 | 121.29                                           | 121.21 | 121.49 | 124.99 | 125.77 | 124.77 | 124.35 | 124.26 | 123.19 | 122.39 |        |
| 12                               | 121.06 | 121.13 | 121.30                                           | 121.20 | 121.88 | 124.96 | 125.73 | 124.80 | 124.34 | 124.24 | 123.17 | 122.36 |        |
| 13                               | 121.05 | 121.13 | 121.30                                           | 121.19 | 123.09 | 124.96 | 125.70 | 124.83 | 124.34 | 124.18 | 123.15 | 122.33 |        |
| 14                               | 121.05 | 121.12 | 121.30                                           | 121.18 | 124.37 | 124.95 | 125.70 | 124.84 | 124.33 | 124.15 | 123.12 | 122.29 |        |
| 15                               | 121.04 | 121.12 | 121.29                                           | 121.17 | 124.72 | 124.95 | 125.71 | 124.82 | 124.31 | 124.12 | 123.10 | 122.26 |        |
| 16                               | 121.04 | 121.11 | 121.29                                           | 121.16 | 124.79 | 124.94 | 125.88 | 124.78 | 124.31 | 124.09 | 123.08 | 122.24 |        |
| 17                               | 121.03 | 121.12 | 121.29                                           | 121.14 | 124.80 | 124.94 | 126.02 | 124.74 | 124.32 | 124.04 | 123.05 | 122.21 |        |
| 18                               | 121.03 | 121.10 | 121.28                                           | 121.13 | 124.77 | 124.96 | 125.99 | 124.72 | 124.33 | 124.00 | 123.03 | 122.17 |        |
| 19                               | 121.03 | 121.09 | 121.27                                           | 121.13 | 124.72 | 125.55 | 125.87 | 124.69 | 124.35 | 123.96 | 123.00 | 122.14 |        |
| 20                               | 121.03 | 121.09 | 121.26                                           | 121.16 | 124.59 | 126.84 | 125.76 | 124.66 | 124.35 | 123.91 | 122.97 | 122.12 |        |
| 21                               | 121.03 | 121.08 | 121.26                                           | 121.17 | 124.55 | 127.51 | 125.86 | 124.63 | 124.35 | 123.86 | 122.94 | 122.10 |        |
| 22                               | 121.02 | 121.07 | 121.28                                           | 121.17 | 124.53 | 128.40 | 126.11 | 124.60 | 124.35 | 123.82 | 122.91 | 122.07 |        |
| 23                               | 121.02 | 121.10 | 121.28                                           | 121.19 | 124.52 | 128.37 | 126.39 | 124.59 | 124.37 | 123.78 | 122.87 | 122.04 |        |
| 24                               | 121.01 | 121.12 | 121.27                                           | 121.20 | 124.54 | 128.21 | 126.65 | 124.49 | 124.37 | 123.74 | 122.83 | 122.03 |        |
| 25                               | 121.01 | 121.11 | 121.26                                           | 121.20 | 124.53 | 128.07 | 126.79 | 124.55 | 124.37 | 123.69 | 122.80 | 122.01 |        |
| 26                               | 121.01 | 121.11 | 121.28                                           | 121.20 | 124.51 | 127.97 | 126.80 | 124.59 | 124.36 | 123.65 | 122.76 | 121.99 |        |
| 27                               | 121.13 | 121.10 | 121.28                                           | 121.20 | 124.54 | 127.89 | 126.68 | 124.55 | 124.35 | 123.62 | 122.72 | 121.98 |        |
| 28                               | 121.14 | 121.09 | 121.28                                           | 121.24 | 124.55 | 127.82 | 126.46 | 124.51 | 124.35 | 123.59 | 122.67 | 121.97 |        |
| 29                               | 121.14 | 121.21 | 121.27                                           | 121.25 | 124.53 | 127.74 | 126.13 | 124.44 | 124.34 | 123.56 |        | 121.96 |        |
| 30                               | 121.14 | 121.32 | 121.26                                           | 121.39 | 124.55 | 127.64 | 125.59 | 124.46 | 124.34 | 123.53 |        | 121.95 |        |
| 31                               |        | 121.33 |                                                  | 121.41 | 124.58 |        | 125.16 |        | 124.34 | 123.49 |        | 121.94 |        |
| Mean                             | 121.05 | 121.14 | 121.29                                           | 121.21 | 123.34 | 126.01 | 126.31 | 124.76 | 124.36 | 124.01 | 123.09 | 122.24 |        |
| Max                              | 121.14 | 121.33 | 121.33                                           | 121.41 | 124.80 | 128.40 | 127.52 | 125.28 | 124.46 | 124.33 | 123.46 | 122.64 | 128.40 |
| Min                              | 121.01 | 121.07 | 121.26                                           | 121.13 | 121.42 | 124.60 | 125.16 | 124.44 | 124.31 | 123.49 | 122.67 | 121.94 | 121.01 |
| Annual Max Momentary Gage Height |        | 128.47 | m. (MSL.) , at 12.00 Hours, on Sep 22, 2013      |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 119.70 | m. (MSL.) , River Bed 121.71 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 129.61 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 129.85 | m. (MSL.) , Drainage Area 2339 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun  | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb  | Mar  | Annual         |
|----------------|--------|-----------------------------------------------------------|------|----------------------|--------|---------|--------------------------|--------|--------|-------|------|------|----------------|
| 1              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 15.00   | 261.00                   | 66.30  | 8.40   | 3.20  | 0.00 | 0.00 |                |
| 2              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 17.40   | 246.00                   | 62.10  | 8.00   | 2.80  | 0.00 | 0.00 |                |
| 3              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 21.70   | 232.35                   | 58.70  | 7.20   | 2.40  | 0.00 | 0.00 |                |
| 4              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 26.60   | 219.00                   | 48.30  | 5.60   | 2.00  | 0.00 | 0.00 |                |
| 5              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 32.50   | 207.25                   | 42.00  | 4.00   | 2.00  | 0.00 | 0.00 |                |
| 6              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 38.00   | 193.00                   | 38.00  | 4.80   | 1.85  | 0.00 | 0.00 |                |
| 7              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 49.60   | 177.80                   | 32.50  | 5.20   | 1.85  | 0.00 | 0.00 |                |
| 8              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 49.60   | 159.75                   | 28.90  | 4.80   | 1.70  | 0.00 | 0.00 |                |
| 9              | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 52.20   | 139.70                   | 26.60  | 4.80   | 1.55  | 0.00 | 0.00 |                |
| 10             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 49.60   | 112.70                   | 25.20  | 4.40   | 1.40  | 0.00 | 0.00 |                |
| 11             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 46.00   | 93.90                    | 25.90  | 4.00   | 1.40  | 0.00 | 0.00 |                |
| 12             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 43.00   | 91.10                    | 28.00  | 3.60   | 1.10  | 0.00 | 0.00 |                |
| 13             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 43.00   | 89.00                    | 30.70  | 3.60   | 0.40  | 0.00 | 0.00 |                |
| 14             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 4.80   | 42.00   | 89.00                    | 31.60  | 3.20   | 0.25  | 0.00 | 0.00 |                |
| 15             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 22.40  | 42.00   | 89.70                    | 29.80  | 2.40   | 0.10  | 0.00 | 0.00 |                |
| 16             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 27.30  | 41.00   | 101.60                   | 26.60  | 2.40   | 0.00  | 0.00 | 0.00 |                |
| 17             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 28.00  | 41.00   | 111.80                   | 23.80  | 2.80   | 0.00  | 0.00 | 0.00 |                |
| 18             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 25.90  | 43.00   | 109.30                   | 22.40  | 3.20   | 0.00  | 0.00 | 0.00 |                |
| 19             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 22.40  | 80.75   | 100.90                   | 20.40  | 4.00   | 0.00  | 0.00 | 0.00 |                |
| 20             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 14.50  | 187.30  | 93.20                    | 18.60  | 4.00   | 0.00  | 0.00 | 0.00 |                |
| 21             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 12.50  | 259.75  | 100.20                   | 16.80  | 4.00   | 0.00  | 0.00 | 0.00 |                |
| 22             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 11.50  | 374.70  | 119.90                   | 15.00  | 4.00   | 0.00  | 0.00 | 0.00 |                |
| 23             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 11.00  | 370.71  | 145.10                   | 14.50  | 4.80   | 0.00  | 0.00 | 0.00 |                |
| 24             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 12.00  | 349.43  | 169.25                   | 9.60   | 4.80   | 0.00  | 0.00 | 0.00 |                |
| 25             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 11.50  | 330.81  | 182.55                   | 12.50  | 4.80   | 0.00  | 0.00 | 0.00 |                |
| 26             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 10.50  | 317.60  | 183.50                   | 14.50  | 4.40   | 0.00  | 0.00 | 0.00 |                |
| 27             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 12.00  | 307.25  | 172.10                   | 12.50  | 4.00   | 0.00  | 0.00 | 0.00 |                |
| 28             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 12.50  | 298.50  | 151.40                   | 10.50  | 4.00   | 0.00  | 0.00 | 0.00 |                |
| 29             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 11.50  | 288.50  | 121.70                   | 7.60   | 3.60   | 0.00  |      | 0.00 |                |
| 30             | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 12.50  | 276.00  | 82.95                    | 8.40   | 3.60   | 0.00  |      | 0.00 |                |
| 31             |        | 0.00                                                      |      | 0.00                 | 14.00  |         | 62.10                    |        | 3.60   | 0.00  |      | 0.00 |                |
| Total          | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 276.80 | 4134.50 | 4408.80                  | 808.30 | 136.00 | 24.00 | 0.00 | 0.00 | 9788.40 CMSDAY |
| Mean           | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 8.93   | 137.82  | 142.22                   | 26.94  | 4.39   | 0.77  | 0.00 | 0.00 | 26.82 CMS      |
| Max            | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 28.00  | 374.70  | 261.00                   | 66.30  | 8.40   | 3.20  | 0.00 | 0.00 | 374.70 CMS     |
| Min            | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 0.00   | 15.00   | 62.10                    | 7.60   | 2.40   | 0.00  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00   | 0.00                                                      | 0.00 | 0.00                 | 23.92  | 357.22  | 380.92                   | 69.84  | 11.75  | 2.07  | 0.00 | 0.00 | 845.72 MCM     |
| Momentary Peak | 384.01 | CMS, at 128.47 m. (MSL.), at 12.00 Hours, on Sep 22, 2013 |      |                      |        |         |                          |        |        |       |      |      |                |
| Runoff Yield   | 11.47  | Liters/Second/Square KM.                                  |      | Momentary Peak Yield |        | 164.177 | Liters/Second/Square KM. |        |        |       |      |      |                |



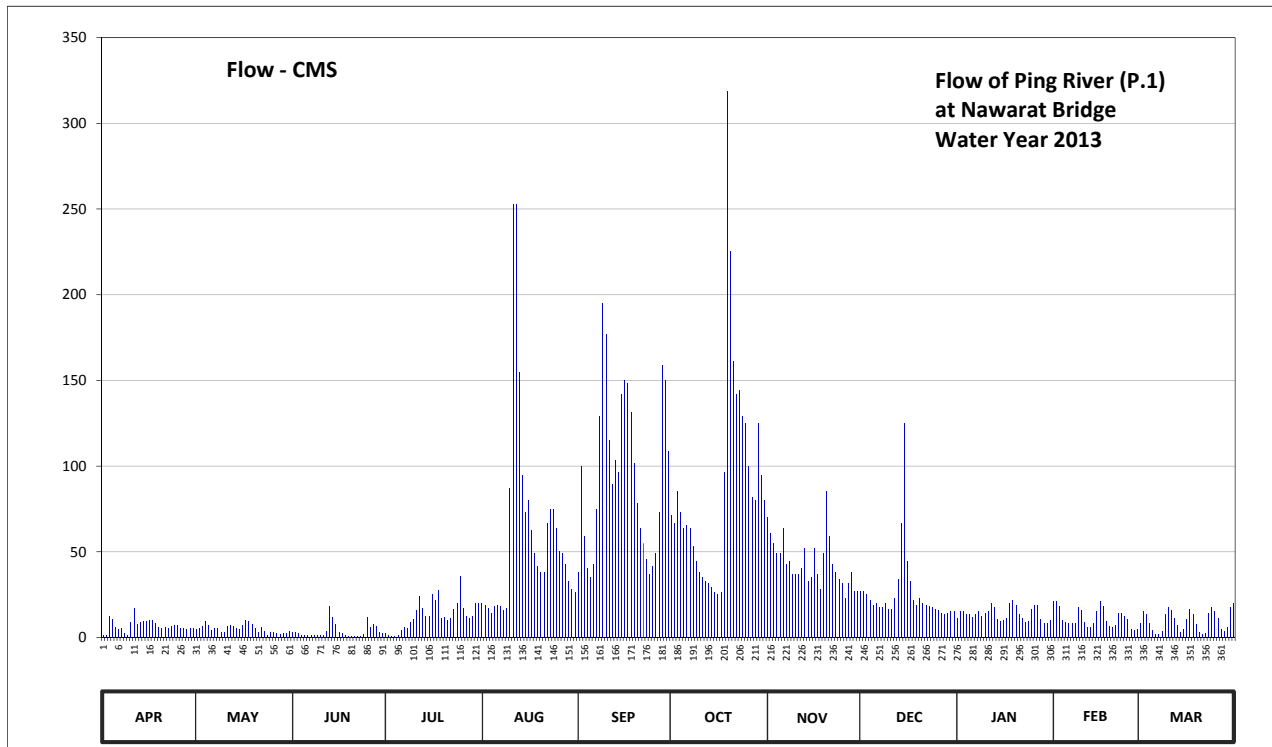


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                      | Jun   | Jul                  | Aug   | Sep    | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------|----------------------------------------------------------|-------|----------------------|-------|--------|--------------------------|-------|-------|-------|-------|-------|----------------|
| 1              | 1.05  | 0.50                                                     | 1.60  | 2.35                 | 0.97  | 1.80   | 15.16                    | 2.60  | 0.68  | 2.05  | 2.30  | 2.25  |                |
| 2              | 0.65  | 0.40                                                     | 1.10  | 1.35                 | 0.77  | 2.15   | 16.24                    | 2.50  | 0.70  | 2.00  | 1.60  | 2.65  |                |
| 3              | 0.75  | 0.22                                                     | 1.10  | 0.80                 | 0.13  | 1.65   | 21.12                    | 3.00  | 0.60  | 1.75  | 1.85  | 2.45  |                |
| 4              | 0.80  | 0.27                                                     | 1.35  | 0.88                 | 0.50  | 1.15   | 29.40                    | 1.45  | 0.50  | 1.50  | 1.55  | 1.15  |                |
| 5              | 1.08  | 0.48                                                     | 2.35  | 1.02                 | 1.28  | 1.75   | 34.00                    | 0.33  | 1.05  | 1.45  | 1.47  | 1.15  |                |
| 6              | 0.75  | 1.43                                                     | 2.35  | 0.93                 | 1.47  | 1.90   | 40.20                    | 0.53  | 1.47  | 1.47  | 2.15  | 0.35  |                |
| 7              | 1.12  | 1.70                                                     | 2.50  | 1.20                 | 1.28  | 2.20   | 40.80                    | 0.73  | 0.62  | 1.85  | 2.75  | 1.23  |                |
| 8              | 1.05  | 2.20                                                     | 2.80  | 1.37                 | 1.25  | 2.60   | 32.85                    | 1.17  | 0.25  | 1.20  | 1.90  | 1.55  |                |
| 9              | 0.95  | 1.90                                                     | 2.80  | 1.37                 | 1.08  | 3.70   | 23.88                    | 1.05  | 1.00  | 1.23  | 1.40  | 2.70  |                |
| 10             | 0.80  | 1.40                                                     | 2.15  | 1.80                 | 0.73  | 3.70   | 27.10                    | 1.28  | 1.65  | 0.95  | 1.28  | 2.35  |                |
| 11             | 0.33  | 1.20                                                     | 2.05  | 1.43                 | 1.40  | 2.50   | 25.03                    | 0.65  | 1.50  | 0.18  | 1.20  | 3.10  |                |
| 12             | 0.82  | 1.25                                                     | 5.37  | 1.35                 | 1.95  | 2.45   | 25.26                    | 0.70  | 0.97  | 0.00  | 0.70  | 1.32  |                |
| 13             | 0.90  | 1.25                                                     | 5.50  | 0.93                 | 2.10  | 2.90   | 20.02                    | 1.32  | 0.97  | 0.00  | 0.65  | 2.35  |                |
| 14             | 1.15  | 1.12                                                     | 4.50  | 1.12                 | 2.60  | 3.90   | 11.65                    | 1.70  | 0.88  | 0.50  | 1.43  | 2.70  |                |
| 15             | 1.12  | 1.23                                                     | 2.90  | 1.65                 | 2.85  | 5.00   | 5.87                     | 1.65  | 0.97  | 0.93  | 2.30  | 1.55  |                |
| 16             | 1.15  | 1.47                                                     | 3.00  | 1.80                 | 3.40  | 5.63   | 6.25                     | 1.95  | 1.35  | 1.15  | 2.45  | 1.35  |                |
| 17             | 1.40  | 1.10                                                     | 2.85  | 1.23                 | 4.00  | 6.00   | 9.00                     | 1.23  | 0.22  | 1.05  | 3.40  | 1.55  |                |
| 18             | 1.47  | 0.82                                                     | 2.75  | 0.22                 | 2.75  | 4.90   | 15.16                    | 1.25  | 0.60  | 1.08  | 4.50  | 2.10  |                |
| 19             | 1.43  | 1.08                                                     | 2.85  | 0.40                 | 1.28  | 4.40   | 22.50                    | 1.35  | 1.25  | 1.45  | 2.90  | 2.05  |                |
| 20             | 1.35  | 1.08                                                     | 1.60  | 1.05                 | 1.08  | 11.05  | 30.32                    | 1.40  | 1.23  | 1.47  | 2.50  | 2.65  |                |
| 21             | 0.95  | 0.95                                                     | 1.15  | 0.53                 | 0.57  | 5.75   | 38.48                    | 1.32  | 1.20  | 1.37  | 2.20  | 4.00  |                |
| 22             | 0.75  | 0.90                                                     | 1.80  | 0.55                 | 1.47  | 15.88  | 39.60                    | 1.37  | 1.17  | 1.55  | 2.85  | 4.40  |                |
| 23             | 0.68  | 1.32                                                     | 0.97  | 1.95                 | 1.37  | 18.40  | 34.00                    | 1.20  | 1.10  | 1.90  | 1.80  | 4.50  |                |
| 24             | 0.73  | 1.28                                                     | 1.10  | 2.15                 | 0.55  | 26.87  | 24.34                    | 0.62  | 1.37  | 2.00  | 1.50  | 4.50  |                |
| 25             | 0.85  | 1.00                                                     | 1.17  | 1.95                 | 0.30  | 32.16  | 17.14                    | 0.73  | 1.70  | 1.45  | 1.40  | 2.70  |                |
| 26             | 0.75  | 0.77                                                     | 0.90  | 1.47                 | 0.77  | 27.79  | 13.18                    | 1.02  | 1.55  | 2.15  | 1.65  | 2.70  |                |
| 27             | 1.10  | 1.10                                                     | 1.85  | 1.40                 | 0.38  | 21.35  | 10.75                    | 1.05  | 1.60  | 2.70  | 2.55  | 2.75  |                |
| 28             | 1.05  | 1.20                                                     | 2.05  | 1.45                 | 0.20  | 15.88  | 6.38                     | 1.00  | 1.70  | 2.50  | 3.10  | 2.80  |                |
| 29             | 0.75  | 1.40                                                     | 2.25  | 1.12                 | 0.15  | 13.18  | 4.40                     | 0.80  | 2.00  | 2.95  |       | 2.95  |                |
| 30             | 0.68  | 1.30                                                     | 3.10  | 1.45                 | 2.50  | 15.34  | 4.50                     | 0.68  | 1.80  | 2.85  |       | 4.40  |                |
| 31             |       | 1.47                                                     |       | 1.43                 | 1.35  |        | 3.00                     |       | 1.75  | 2.85  |       | 4.10  |                |
| Total          | 28.41 | 34.79                                                    | 69.81 | 39.70                | 42.48 | 263.93 | 647.58                   | 37.63 | 35.40 | 47.53 | 57.33 | 78.35 | 1382.94 CMSDAY |
| Mean           | 0.95  | 1.12                                                     | 2.33  | 1.28                 | 1.37  | 8.80   | 20.89                    | 1.25  | 1.14  | 1.53  | 2.05  | 2.53  | 3.79 CMS       |
| Max            | 1.47  | 2.20                                                     | 5.50  | 2.35                 | 4.00  | 32.16  | 40.80                    | 3.00  | 2.00  | 2.95  | 4.50  | 4.50  | 40.80 CMS      |
| Min            | 0.33  | 0.22                                                     | 0.90  | 0.22                 | 0.13  | 1.15   | 3.00                     | 0.33  | 0.22  | 0.00  | 0.65  | 0.35  | 0.00 CMS       |
| Runoff         | 2.46  | 3.01                                                     | 6.03  | 3.43                 | 3.67  | 22.80  | 55.95                    | 3.25  | 3.06  | 4.11  | 4.95  | 6.77  | 119.49 MCM     |
| Momentary Peak | 41.70 | CMS. at 195.17 m. (MSL.), at 18.00 Hours, on Oct 6, 2013 |       |                      |       |        |                          |       |       |       |       |       |                |
| Runoff Yield   | 1.33  | Liters/Second/Square KM.                                 |       | Momentary Peak Yield |       | 14.611 | Liters/Second/Square KM. |       |       |       |       |       |                |







Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                        | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|------------------------------------------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 1.35   | 4.98                                                       | 3.14   | 2.60   | 19.92                | 38.00   | 71.50   | 70.00   | 27.35                    | 11.45  | 21.05  | 8.70   |          |        |
| 2              | 1.63   | 5.72                                                       | 2.96   | 1.70   | 19.08                | 100.00  | 67.00   | 61.00   | 27.35                    | 15.20  | 21.05  | 15.20  |          |        |
| 3              | 12.60  | 6.83                                                       | 2.78   | 0.88   | 17.40                | 59.50   | 85.60   | 55.00   | 25.25                    | 15.20  | 18.40  | 13.60  |          |        |
| 4              | 10.80  | 9.60                                                       | 1.35   | 1.14   | 14.04                | 40.50   | 73.00   | 49.00   | 22.10                    | 13.60  | 10.35  | 8.15   |          |        |
| 5              | 6.09   | 7.20                                                       | 1.49   | 1.28   | 18.24                | 35.50   | 64.00   | 49.00   | 19.20                    | 13.60  | 9.25   | 4.10   |          |        |
| 6              | 4.98   | 4.24                                                       | 1.35   | 4.24   | 19.08                | 43.00   | 65.50   | 64.00   | 20.00                    | 12.00  | 8.70   | 2.25   |          |        |
| 7              | 5.72   | 5.72                                                       | 1.49   | 6.09   | 18.24                | 74.80   | 64.00   | 43.00   | 17.60                    | 13.60  | 8.15   | 2.25   |          |        |
| 8              | 2.78   | 5.72                                                       | 1.63   | 5.72   | 15.72                | 129.50  | 53.50   | 44.50   | 17.60                    | 15.20  | 8.70   | 3.80   |          |        |
| 9              | 1.70   | 3.14                                                       | 1.70   | 9.00   | 17.40                | 195.00  | 44.50   | 36.75   | 20.00                    | 12.80  | 17.60  | 13.60  |          |        |
| 10             | 9.00   | 3.14                                                       | 1.63   | 10.80  | 87.40                | 177.00  | 38.00   | 36.75   | 16.80                    | 14.40  | 16.00  | 17.60  |          |        |
| 11             | 17.40  | 6.46                                                       | 1.56   | 15.72  | 252.95               | 115.15  | 35.50   | 36.75   | 16.80                    | 15.20  | 9.25   | 16.00  |          |        |
| 12             | 7.80   | 7.20                                                       | 3.87   | 24.08  | 252.95               | 89.20   | 33.00   | 40.50   | 23.15                    | 20.00  | 5.90   | 11.45  |          |        |
| 13             | 9.00   | 6.83                                                       | 18.24  | 17.40  | 154.50               | 103.60  | 31.75   | 52.00   | 34.25                    | 17.60  | 5.90   | 7.05   |          |        |
| 14             | 9.60   | 5.72                                                       | 12.00  | 12.60  | 94.60                | 96.40   | 29.45   | 33.00   | 67.00                    | 10.90  | 8.70   | 3.00   |          |        |
| 15             | 9.60   | 4.61                                                       | 7.80   | 12.60  | 73.00                | 141.80  | 26.30   | 35.50   | 125.40                   | 9.80   | 15.20  | 4.70   |          |        |
| 16             | 10.20  | 7.20                                                       | 3.14   | 25.32  | 80.20                | 150.00  | 25.25   | 52.00   | 44.50                    | 10.35  | 21.05  | 10.90  |          |        |
| 17             | 10.20  | 10.20                                                      | 2.42   | 21.60  | 62.50                | 147.95  | 26.30   | 36.75   | 33.00                    | 11.45  | 18.40  | 16.80  |          |        |
| 18             | 8.40   | 9.60                                                       | 1.56   | 27.80  | 49.00                | 131.55  | 96.40   | 28.40   | 22.10                    | 20.00  | 9.80   | 13.60  |          |        |
| 19             | 6.09   | 7.80                                                       | 1.00   | 11.40  | 41.75                | 101.80  | 318.65  | 49.00   | 19.20                    | 22.10  | 6.50   | 7.60   |          |        |
| 20             | 5.72   | 5.35                                                       | 0.94   | 12.00  | 38.00                | 78.40   | 225.00  | 85.60   | 23.15                    | 19.20  | 6.20   | 3.25   |          |        |
| 21             | 6.09   | 3.32                                                       | 0.76   | 10.20  | 38.00                | 64.00   | 161.25  | 59.50   | 20.00                    | 13.60  | 7.05   | 2.00   |          |        |
| 22             | 5.72   | 6.09                                                       | 0.82   | 11.40  | 67.00                | 55.00   | 141.80  | 43.00   | 19.20                    | 11.45  | 14.40  | 2.75   |          |        |
| 23             | 6.46   | 3.87                                                       | 0.82   | 16.56  | 74.80                | 46.00   | 143.85  | 38.00   | 18.40                    | 9.25   | 14.40  | 14.40  |          |        |
| 24             | 7.20   | 1.70                                                       | 2.06   | 19.92  | 74.80                | 36.75   | 129.50  | 34.25   | 17.60                    | 9.80   | 12.80  | 17.60  |          |        |
| 25             | 7.20   | 3.32                                                       | 12.00  | 35.90  | 64.00                | 41.75   | 125.40  | 31.75   | 16.80                    | 16.80  | 10.90  | 15.20  |          |        |
| 26             | 5.72   | 3.32                                                       | 6.09   | 17.40  | 50.50                | 49.00   | 100.00  | 23.15   | 16.00                    | 19.20  | 5.00   | 11.45  |          |        |
| 27             | 5.72   | 2.60                                                       | 7.80   | 12.60  | 49.00                | 73.00   | 82.00   | 31.75   | 14.40                    | 19.20  | 4.40   | 4.70   |          |        |
| 28             | 4.98   | 2.24                                                       | 6.46   | 11.40  | 43.00                | 159.00  | 80.20   | 38.00   | 13.60                    | 10.90  | 4.70   | 3.80   |          |        |
| 29             | 5.35   | 2.42                                                       | 3.14   | 12.60  | 33.00                | 150.00  | 125.40  | 27.35   | 14.40                    | 8.15   |        | 6.20   |          |        |
| 30             | 5.72   | 2.78                                                       | 2.60   | 19.92  | 28.40                | 109.00  | 94.60   | 27.35   | 15.20                    | 8.15   |        | 17.60  |          |        |
| 31             |        | 3.87                                                       |        | 19.92  | 26.30                |         | 80.20   |         | 15.20                    | 10.35  |        | 20.00  |          |        |
| Total          | 210.82 | 162.79                                                     | 114.60 | 411.79 | 1894.77              | 2832.15 | 2738.40 | 1312.60 | 802.60                   | 430.50 | 319.80 | 299.30 | 11530.12 | CMSDAY |
| Mean           | 7.03   | 5.25                                                       | 3.82   | 13.28  | 61.12                | 94.41   | 88.34   | 43.75   | 25.89                    | 13.89  | 11.42  | 9.65   | 31.59    | CMS    |
| Max            | 17.40  | 10.20                                                      | 18.24  | 35.90  | 252.95               | 195.00  | 318.65  | 85.60   | 125.40                   | 22.10  | 21.05  | 20.00  | 318.65   | CMS    |
| Min            | 1.35   | 1.70                                                       | 0.76   | 0.88   | 14.04                | 35.50   | 25.25   | 23.15   | 13.60                    | 8.15   | 4.40   | 2.00   | 0.76     | CMS    |
| Runoff         | 18.22  | 14.07                                                      | 9.90   | 35.58  | 163.71               | 244.70  | 236.60  | 113.41  | 69.35                    | 37.20  | 27.63  | 25.86  | 996.20   | MCM    |
| Momentary Peak | 345.20 | CMS. at 303.36 m. (MSL.) at 10.00 Hours , on Oct 19 , 2013 |        |        |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 4.97   | Liters/Second/Square KM.                                   |        |        | Momentary Peak Yield |         |         | 54.362  | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013****PING RIVER BASIN****Ping River at Ban Tha Khae , Tak (P.2A)**

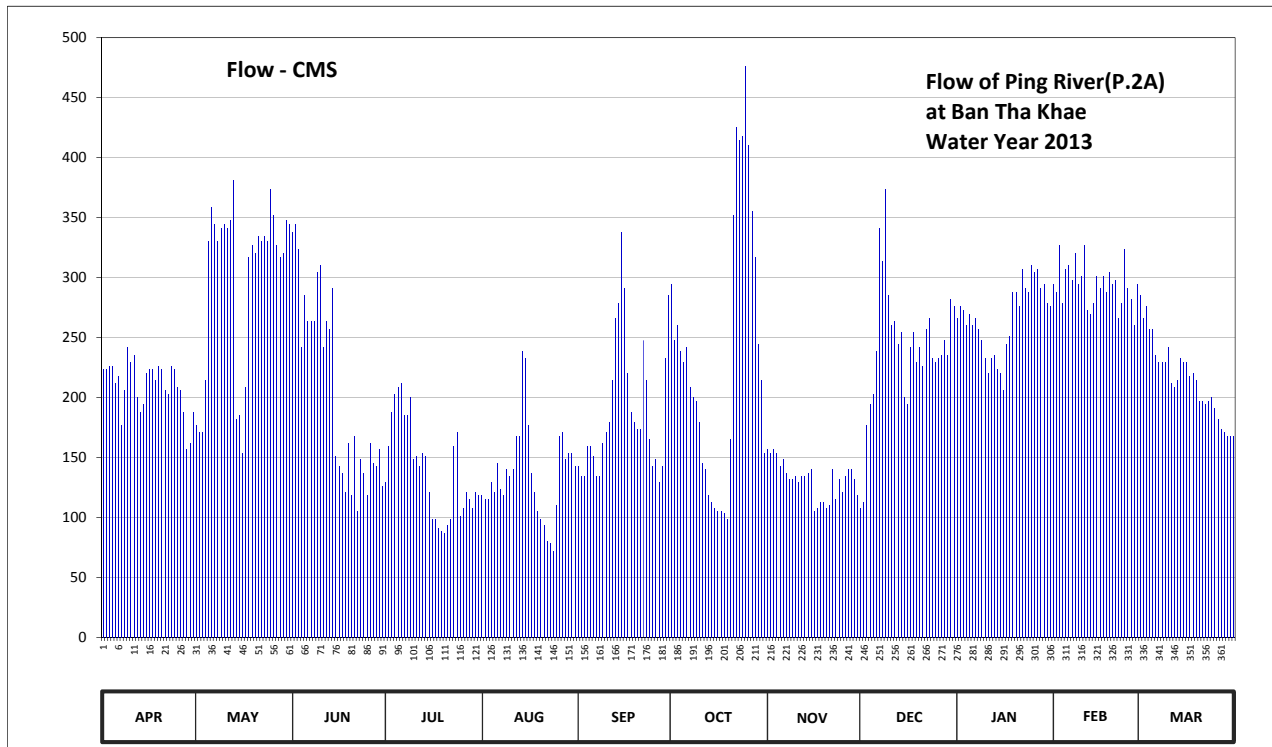
Lat 16 - 51 - 11 N Long 99 - 07 - 34 E

**Location : on right bank about 200 meters downstream from Kittikhachon I Bridge.**

|                                         |                                                                                                                                                    |                 |               |               |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                         | <b>Tha Khae</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b>  | <b>Tak</b>         |
| <b>Drainage Area</b>                    | 38,681                                                                                                                                             | sq.km.          |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                                                                                        |                 |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +104.000                                                                                                                                           | m. (MSL.)       |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                          |                 |               |               |                  |                    |
| <b>Location BM</b>                      | Near automatic gage building                                                                                                                       |                 |               |               | <b>Elevation</b> | +116.118 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                                                                               |                 |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                                                                                      |                 |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 1952 to date                                                                                                                                       |                 |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                    |                 |               |               |                  |                    |
| <b>Period of Rating</b>                 | 1952 - 1960 , 1963 - 1967 , 1971 to date                                                                                                           |                 |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                  |                 |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 1952 - 1960 , 1963 - 1967 , 1971 to date                                                                                                           |                 |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                                                                            |                 |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                  |                 |               |               |                  |                    |
| <b>General Description</b>              | Records good. Flow regulated by Phumiphol Dam reservoir since 1964.<br>Stage-discharge relation defined by 28 discharge measurements made in 2013. |                 |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

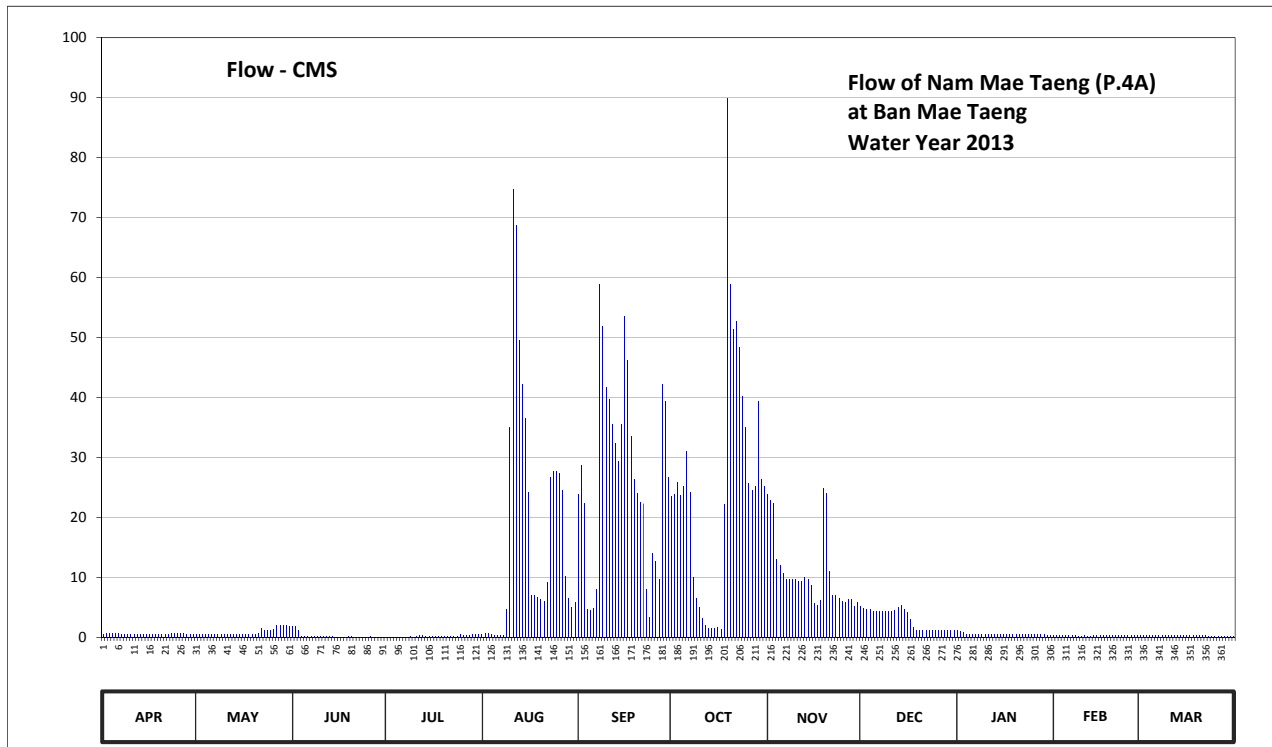
| Date                             | Apr    | May    | Jun         | Jul    | Aug                             | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|---------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 104.79 | 104.63 | 105.15      | 104.46 | 104.42                          | 104.51 | 105.02            | 104.56 | 104.38 | 104.93 | 105.02 | 104.99 |        |
| 2                                | 104.79 | 104.61 | 105.17      | 104.57 | 104.41                          | 104.48 | 104.87            | 104.55 | 104.40 | 104.96 | 105.00 | 104.93 |        |
| 3                                | 104.80 | 104.61 | 105.11      | 104.67 | 104.41                          | 104.48 | 104.91            | 104.56 | 104.63 | 104.95 | 105.12 | 104.96 |        |
| 4                                | 104.80 | 104.76 | 104.85      | 104.72 | 104.46                          | 104.57 | 104.84            | 104.55 | 104.69 | 104.91 | 104.97 | 104.90 |        |
| 5                                | 104.75 | 105.13 | 104.99      | 104.74 | 104.43                          | 104.57 | 104.81            | 104.51 | 104.72 | 104.94 | 105.06 | 104.90 |        |
| 6                                | 104.77 | 105.21 | 104.92      | 104.75 | 104.52                          | 104.54 | 104.85            | 104.53 | 104.84 | 104.91 | 105.07 | 104.83 |        |
| 7                                | 104.63 | 105.17 | 104.92      | 104.66 | 104.44                          | 104.48 | 104.74            | 104.49 | 105.16 | 104.93 | 105.03 | 104.81 |        |
| 8                                | 104.73 | 105.13 | 104.92      | 104.66 | 104.42                          | 104.48 | 104.71            | 104.47 | 105.08 | 104.90 | 105.10 | 104.81 |        |
| 9                                | 104.85 | 105.16 | 105.05      | 104.71 | 104.50                          | 104.58 | 104.70            | 104.47 | 105.25 | 104.87 | 105.02 | 104.81 |        |
| 10                               | 104.81 | 105.17 | 105.07      | 104.53 | 104.48                          | 104.61 | 104.64            | 104.48 | 104.99 | 104.82 | 105.04 | 104.85 |        |
| 11                               | 104.83 | 105.16 | 104.85      | 104.54 | 104.50                          | 104.64 | 104.52            | 104.46 | 104.91 | 104.78 | 105.12 | 104.75 |        |
| 12                               | 104.71 | 105.18 | 104.92      | 104.51 | 104.60                          | 104.76 | 104.50            | 104.48 | 104.92 | 104.82 | 104.95 | 104.74 |        |
| 13                               | 104.67 | 105.27 | 104.90      | 104.55 | 104.60                          | 104.93 | 104.42            | 104.48 | 104.86 | 104.83 | 104.94 | 104.76 |        |
| 14                               | 104.69 | 104.65 | 105.01      | 104.54 | 104.84                          | 104.97 | 104.40            | 104.49 | 104.89 | 104.79 | 104.97 | 104.82 |        |
| 15                               | 104.78 | 104.66 | 104.54      | 104.43 | 104.82                          | 105.15 | 104.38            | 104.50 | 104.71 | 104.78 | 105.04 | 104.81 |        |
| 16                               | 104.79 | 104.55 | 104.51      | 104.34 | 104.63                          | 105.01 | 104.37            | 104.37 | 104.69 | 104.73 | 105.01 | 104.81 |        |
| 17                               | 104.79 | 104.74 | 104.49      | 104.34 | 104.49                          | 104.78 | 104.37            | 104.38 | 104.85 | 104.86 | 105.04 | 104.77 |        |
| 18                               | 104.76 | 105.09 | 104.43      | 104.31 | 104.43                          | 104.67 | 104.36            | 104.40 | 104.89 | 104.88 | 105.00 | 104.78 |        |
| 19                               | 104.80 | 105.12 | 104.58      | 104.30 | 104.37                          | 104.64 | 104.34            | 104.40 | 104.81 | 105.00 | 105.05 | 104.76 |        |
| 20                               | 104.79 | 105.10 | 104.42      | 104.29 | 104.34                          | 104.62 | 104.59            | 104.38 | 104.85 | 105.00 | 105.02 | 104.70 |        |
| 21                               | 104.73 | 105.14 | 104.60      | 104.32 | 104.32                          | 104.62 | 105.19            | 104.39 | 104.80 | 104.96 | 105.03 | 104.70 |        |
| 22                               | 104.72 | 105.13 | 104.37      | 104.34 | 104.26                          | 104.87 | 105.39            | 104.50 | 104.90 | 105.06 | 104.93 | 104.69 |        |
| 23                               | 104.80 | 105.14 | 104.53      | 104.57 | 104.25                          | 104.76 | 105.36            | 104.41 | 104.93 | 105.01 | 104.97 | 104.70 |        |
| 24                               | 104.79 | 105.13 | 104.49      | 104.61 | 104.22                          | 104.59 | 105.37            | 104.47 | 104.82 | 105.00 | 105.11 | 104.71 |        |
| 25                               | 104.74 | 105.25 | 104.42      | 104.35 | 104.39                          | 104.51 | 105.52            | 104.43 | 104.81 | 105.07 | 105.01 | 104.68 |        |
| 26                               | 104.73 | 105.19 | 104.58      | 104.38 | 104.60                          | 104.53 | 105.35            | 104.48 | 104.82 | 105.05 | 104.98 | 104.65 |        |
| 27                               | 104.67 | 105.12 | 104.52      | 104.43 | 104.61                          | 104.46 | 105.20            | 104.50 | 104.83 | 105.06 | 104.91 | 104.62 |        |
| 28                               | 104.56 | 105.09 | 104.51      | 104.41 | 104.53                          | 104.51 | 105.09            | 104.50 | 104.87 | 105.01 | 105.02 | 104.61 |        |
| 29                               | 104.58 | 105.10 | 104.56      | 104.38 | 104.55                          | 104.82 | 104.86            | 104.47 | 104.83 | 105.02 |        | 104.60 |        |
| 30                               | 104.67 | 105.18 | 104.45      | 104.43 | 104.55                          | 104.99 | 104.76            | 104.42 | 104.98 | 104.97 |        | 104.60 |        |
| 31                               |        | 105.17 |             | 104.42 | 104.51                          |        | 104.55            |        | 104.96 | 104.96 |        | 104.60 |        |
| Mean                             | 104.74 | 105.02 | 104.73      | 104.49 | 104.48                          | 104.67 | 104.81            | 104.47 | 104.84 | 104.93 | 105.02 | 104.76 |        |
| Max                              | 104.85 | 105.27 | 105.17      | 104.75 | 104.84                          | 105.15 | 105.52            | 104.56 | 105.25 | 105.07 | 105.12 | 104.99 | 105.52 |
| Min                              | 104.56 | 104.55 | 104.37      | 104.29 | 104.22                          | 104.46 | 104.34            | 104.37 | 104.38 | 104.73 | 104.91 | 104.60 | 104.22 |
| Annual Max Momentary Gage Height |        | 105.70 | m. (MSL.) , |        | at 06.00 Hours, on May 25, 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 104.00 | m. (MSL.) , |        | River Bed                       | 101.23 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 109.05 | m. (MSL.) , |        |                                 |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 109.86 | m. (MSL.) , |        | Drainage Area                   | 38681  | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                                                       | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|---------|-----------------------------------------------------------|---------|----------------------|---------|---------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 223.10  | 176.70                                                    | 337.50  | 129.20               | 118.40  | 142.80  | 294.40                   | 156.80  | 108.20  | 266.30  | 294.40  | 284.90  |          |        |
| 2              | 223.10  | 170.90                                                    | 344.50  | 159.60               | 115.70  | 134.60  | 247.70                   | 154.00  | 113.00  | 275.60  | 288.00  | 266.30  |          |        |
| 3              | 226.00  | 170.90                                                    | 323.50  | 188.30               | 115.70  | 134.60  | 260.10                   | 156.80  | 176.70  | 272.50  | 327.00  | 275.60  |          |        |
| 4              | 226.00  | 214.40                                                    | 241.50  | 202.80               | 129.20  | 159.60  | 238.40                   | 154.00  | 194.10  | 260.10  | 278.70  | 257.00  |          |        |
| 5              | 211.50  | 330.50                                                    | 284.90  | 208.60               | 121.10  | 159.60  | 229.10                   | 142.80  | 202.80  | 269.40  | 307.20  | 257.00  |          |        |
| 6              | 217.30  | 358.70                                                    | 263.20  | 211.50               | 145.60  | 151.20  | 241.50                   | 148.40  | 238.40  | 260.10  | 310.40  | 235.30  |          |        |
| 7              | 176.70  | 344.50                                                    | 263.20  | 185.40               | 123.80  | 134.60  | 208.60                   | 137.30  | 341.00  | 266.30  | 297.60  | 229.10  |          |        |
| 8              | 205.70  | 330.50                                                    | 263.20  | 185.40               | 118.40  | 134.60  | 199.90                   | 131.90  | 313.60  | 257.00  | 320.00  | 229.10  |          |        |
| 9              | 241.50  | 341.00                                                    | 304.00  | 199.90               | 140.00  | 162.40  | 197.00                   | 131.90  | 373.50  | 247.70  | 294.40  | 229.10  |          |        |
| 10             | 229.10  | 344.50                                                    | 310.40  | 148.40               | 134.60  | 170.90  | 179.60                   | 134.60  | 284.90  | 232.20  | 300.80  | 241.50  |          |        |
| 11             | 235.30  | 341.00                                                    | 241.50  | 151.20               | 140.00  | 179.60  | 145.60                   | 129.20  | 260.10  | 220.20  | 327.00  | 211.50  |          |        |
| 12             | 199.90  | 348.00                                                    | 263.20  | 142.80               | 168.00  | 214.40  | 140.00                   | 134.60  | 263.20  | 232.20  | 272.50  | 208.60  |          |        |
| 13             | 188.30  | 380.90                                                    | 257.00  | 154.00               | 168.00  | 266.30  | 118.40                   | 134.60  | 244.60  | 235.30  | 269.40  | 214.40  |          |        |
| 14             | 194.10  | 182.50                                                    | 291.20  | 151.20               | 238.40  | 278.70  | 113.00                   | 137.30  | 253.90  | 223.10  | 278.70  | 232.20  |          |        |
| 15             | 220.20  | 185.40                                                    | 151.20  | 121.10               | 232.20  | 337.50  | 108.20                   | 140.00  | 199.90  | 220.20  | 300.80  | 229.10  |          |        |
| 16             | 223.10  | 154.00                                                    | 142.80  | 98.60                | 176.70  | 291.20  | 105.80                   | 105.80  | 194.10  | 205.70  | 291.20  | 229.10  |          |        |
| 17             | 223.10  | 208.60                                                    | 137.30  | 98.60                | 137.30  | 220.20  | 105.80                   | 108.20  | 241.50  | 244.60  | 300.80  | 217.30  |          |        |
| 18             | 214.40  | 316.80                                                    | 121.10  | 91.40                | 121.10  | 188.30  | 103.40                   | 113.00  | 253.90  | 250.80  | 288.00  | 220.20  |          |        |
| 19             | 226.00  | 327.00                                                    | 162.40  | 89.00                | 105.80  | 179.60  | 98.60                    | 113.00  | 229.10  | 288.00  | 304.00  | 214.40  |          |        |
| 20             | 223.10  | 320.00                                                    | 118.40  | 86.90                | 98.60   | 173.80  | 165.20                   | 108.20  | 241.50  | 288.00  | 294.40  | 197.00  |          |        |
| 21             | 205.70  | 334.00                                                    | 168.00  | 93.80                | 93.80   | 173.80  | 351.50                   | 110.60  | 226.00  | 275.60  | 297.60  | 197.00  |          |        |
| 22             | 202.80  | 330.50                                                    | 105.80  | 98.60                | 80.60   | 247.70  | 425.30                   | 140.00  | 257.00  | 307.20  | 266.30  | 194.10  |          |        |
| 23             | 226.00  | 334.00                                                    | 148.40  | 159.60               | 78.50   | 214.40  | 414.20                   | 115.70  | 266.30  | 291.20  | 278.70  | 197.00  |          |        |
| 24             | 223.10  | 330.50                                                    | 137.30  | 170.90               | 72.20   | 165.20  | 417.90                   | 131.90  | 232.20  | 288.00  | 323.50  | 199.90  |          |        |
| 25             | 208.60  | 373.50                                                    | 118.40  | 101.00               | 110.60  | 142.80  | 476.00                   | 121.10  | 229.10  | 310.40  | 291.20  | 191.20  |          |        |
| 26             | 205.70  | 351.50                                                    | 162.40  | 108.20               | 168.00  | 148.40  | 410.50                   | 134.60  | 232.20  | 304.00  | 281.80  | 182.50  |          |        |
| 27             | 188.30  | 327.00                                                    | 145.60  | 121.10               | 170.90  | 129.20  | 355.00                   | 140.00  | 235.30  | 307.20  | 260.10  | 173.80  |          |        |
| 28             | 156.80  | 316.80                                                    | 142.80  | 115.70               | 148.40  | 142.80  | 316.80                   | 140.00  | 247.70  | 291.20  | 294.40  | 170.90  |          |        |
| 29             | 162.40  | 320.00                                                    | 156.80  | 108.20               | 154.00  | 232.20  | 244.60                   | 131.90  | 235.30  | 294.40  |         | 168.00  |          |        |
| 30             | 188.30  | 348.00                                                    | 126.50  | 121.10               | 154.00  | 284.90  | 214.40                   | 118.40  | 281.80  | 278.70  |         | 168.00  |          |        |
| 31             |         | 344.50                                                    |         | 118.40               | 142.80  |         | 154.00                   |         | 275.60  | 275.60  |         | 168.00  |          |        |
| Total          | 6295.20 | 9257.10                                                   | 6234.00 | 4320.50              | 4222.40 | 5695.90 | 7280.50                  | 3956.60 | 7446.50 | 8238.80 | 8238.90 | 6689.10 | 77875.51 | CMSDAY |
| Mean           | 209.84  | 298.62                                                    | 207.80  | 139.37               | 136.21  | 189.86  | 234.85                   | 131.89  | 240.21  | 265.77  | 294.25  | 215.78  | 213.36   | CMS    |
| Max            | 241.50  | 380.90                                                    | 344.50  | 211.50               | 238.40  | 337.50  | 476.00                   | 156.80  | 373.50  | 310.40  | 327.00  | 284.90  | 476.00   | CMS    |
| Min            | 156.80  | 154.00                                                    | 105.80  | 86.90                | 72.20   | 129.20  | 98.60                    | 105.80  | 108.20  | 205.70  | 260.10  | 168.00  | 72.20    | CMS    |
| Runoff         | 543.91  | 799.81                                                    | 538.62  | 373.29               | 364.82  | 492.13  | 629.04                   | 341.85  | 643.38  | 711.83  | 711.84  | 577.94  | 6728.44  | MCM    |
| Momentary Peak | 549.00  | CMS. at 105.70 m. (MSL.) at 06.00 Hours , on May 25, 2013 |         |                      |         |         |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 5.52    | Liters/Second/Square KM.                                  |         | Momentary Peak Yield |         | 14.193  | Liters/Second/Square KM. |         |         |         |         |         |          |        |

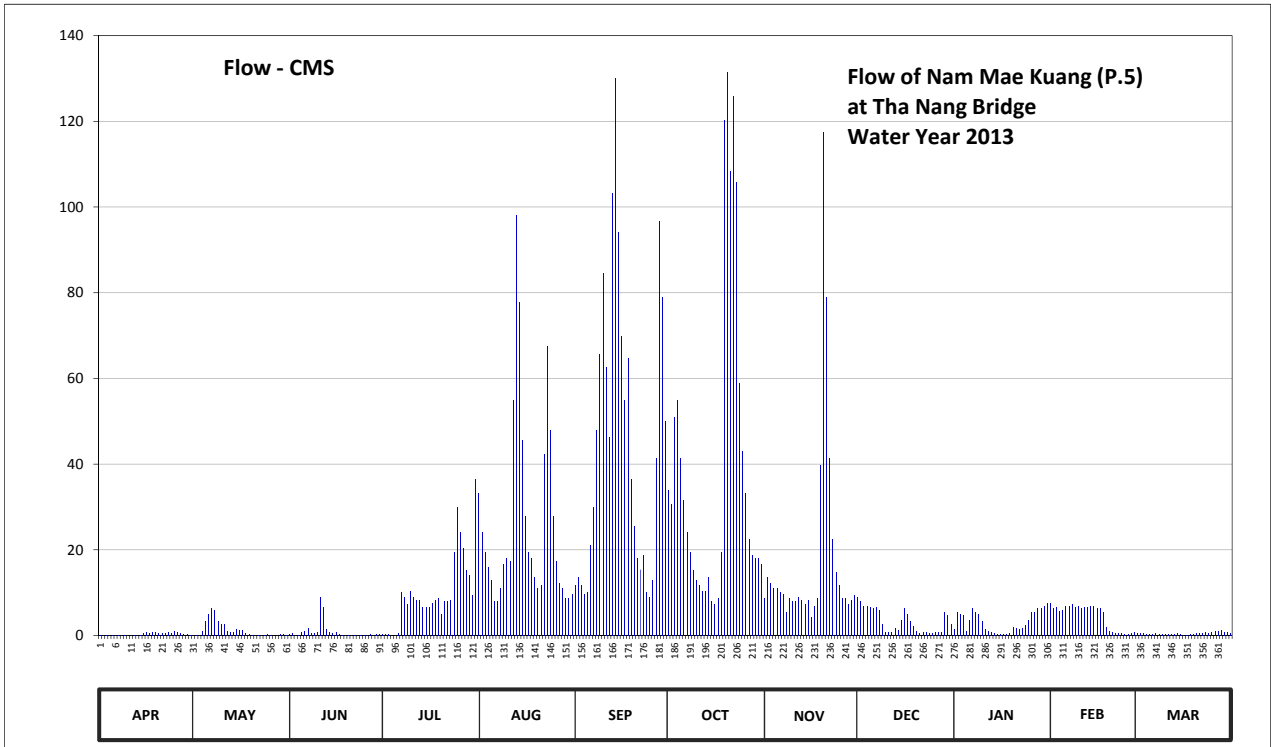




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun  | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|------|----------------------|--------|--------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.64                                                             | 0.60                     | 1.96 | 0.15                 | 0.60   | 23.90  | 23.58                    | 23.90  | 5.29  | 1.20  | 0.40  | 0.40  |                |
| 2              | 0.80                                                             | 0.60                     | 1.88 | 0.15                 | 0.68   | 28.72  | 23.90                    | 22.95  | 4.95  | 1.12  | 0.40  | 0.40  |                |
| 3              | 0.80                                                             | 0.60                     | 1.16 | 0.15                 | 0.76   | 22.43  | 25.89                    | 22.43  | 4.65  | 0.88  | 0.40  | 0.40  |                |
| 4              | 0.80                                                             | 0.60                     | 0.30 | 0.15                 | 0.64   | 4.80   | 23.69                    | 13.00  | 4.80  | 0.64  | 0.40  | 0.36  |                |
| 5              | 0.80                                                             | 0.60                     | 0.27 | 0.15                 | 0.45   | 4.50   | 25.26                    | 12.00  | 4.35  | 0.56  | 0.40  | 0.40  |                |
| 6              | 0.72                                                             | 0.60                     | 0.27 | 0.15                 | 0.48   | 4.95   | 31.10                    | 10.75  | 4.35  | 0.56  | 0.40  | 0.40  |                |
| 7              | 0.54                                                             | 0.64                     | 0.24 | 0.15                 | 0.45   | 8.00   | 24.21                    | 9.75   | 4.35  | 0.56  | 0.40  | 0.40  |                |
| 8              | 0.54                                                             | 0.60                     | 0.24 | 0.15                 | 0.45   | 58.86  | 10.00                    | 9.75   | 4.35  | 0.56  | 0.36  | 0.40  |                |
| 9              | 0.54                                                             | 0.57                     | 0.24 | 0.27                 | 4.80   | 51.78  | 6.62                     | 9.75   | 4.35  | 0.56  | 0.32  | 0.40  |                |
| 10             | 0.54                                                             | 0.54                     | 0.21 | 0.15                 | 35.11  | 41.73  | 5.10                     | 9.75   | 4.35  | 0.56  | 0.32  | 0.40  |                |
| 11             | 0.54                                                             | 0.54                     | 0.21 | 0.24                 | 74.68  | 39.73  | 3.30                     | 9.50   | 4.35  | 0.56  | 0.36  | 0.40  |                |
| 12             | 0.54                                                             | 0.54                     | 0.21 | 0.45                 | 68.62  | 35.50  | 2.10                     | 9.50   | 4.50  | 0.56  | 0.32  | 0.40  |                |
| 13             | 0.54                                                             | 0.54                     | 0.21 | 0.42                 | 49.58  | 32.46  | 1.65                     | 10.00  | 5.10  | 0.56  | 0.32  | 0.40  |                |
| 14             | 0.54                                                             | 0.57                     | 0.18 | 0.30                 | 42.14  | 29.40  | 1.65                     | 9.75   | 5.48  | 0.56  | 0.36  | 0.40  |                |
| 15             | 0.54                                                             | 0.60                     | 0.15 | 0.30                 | 36.65  | 35.50  | 1.65                     | 8.80   | 4.80  | 0.56  | 0.40  | 0.40  |                |
| 16             | 0.54                                                             | 0.60                     | 0.15 | 0.30                 | 24.21  | 53.54  | 1.74                     | 5.67   | 4.20  | 0.56  | 0.40  | 0.40  |                |
| 17             | 0.51                                                             | 0.60                     | 0.15 | 0.27                 | 7.00   | 46.24  | 1.38                     | 5.48   | 3.15  | 0.56  | 0.40  | 0.40  |                |
| 18             | 0.51                                                             | 0.60                     | 0.15 | 0.24                 | 7.00   | 33.57  | 22.32                    | 6.24   | 1.74  | 0.56  | 0.40  | 0.40  |                |
| 19             | 0.60                                                             | 0.60                     | 0.21 | 0.24                 | 6.81   | 26.34  | 89.90                    | 24.95  | 1.20  | 0.56  | 0.40  | 0.40  |                |
| 20             | 0.60                                                             | 0.57                     | 0.18 | 0.24                 | 6.43   | 24.00  | 58.86                    | 24.00  | 1.20  | 0.56  | 0.40  | 0.40  |                |
| 21             | 0.60                                                             | 0.72                     | 0.15 | 0.27                 | 6.05   | 22.53  | 51.34                    | 11.00  | 1.20  | 0.56  | 0.40  | 0.40  |                |
| 22             | 0.64                                                             | 1.56                     | 0.12 | 0.30                 | 9.25   | 22.32  | 52.66                    | 7.00   | 1.20  | 0.56  | 0.40  | 0.36  |                |
| 23             | 0.68                                                             | 1.24                     | 0.12 | 0.30                 | 26.68  | 8.00   | 48.29                    | 7.00   | 1.20  | 0.56  | 0.40  | 0.32  |                |
| 24             | 0.68                                                             | 1.24                     | 0.12 | 0.30                 | 27.70  | 3.45   | 40.11                    | 6.62   | 1.20  | 0.56  | 0.36  | 0.28  |                |
| 25             | 0.68                                                             | 1.24                     | 0.12 | 0.51                 | 27.70  | 14.00  | 35.11                    | 6.05   | 1.20  | 0.56  | 0.40  | 0.32  |                |
| 26             | 0.68                                                             | 1.40                     | 0.18 | 0.45                 | 27.36  | 12.75  | 25.79                    | 5.86   | 1.20  | 0.56  | 0.40  | 0.32  |                |
| 27             | 0.68                                                             | 2.04                     | 0.12 | 0.45                 | 24.63  | 9.75   | 24.53                    | 6.43   | 1.20  | 0.56  | 0.40  | 0.32  |                |
| 28             | 0.64                                                             | 2.04                     | 0.12 | 0.45                 | 10.25  | 42.14  | 25.26                    | 6.43   | 1.20  | 0.56  | 0.40  | 0.32  |                |
| 29             | 0.60                                                             | 2.04                     | 0.15 | 0.51                 | 6.62   | 39.35  | 39.35                    | 5.29   | 1.20  | 0.56  |       | 0.32  |                |
| 30             | 0.60                                                             | 2.04                     | 0.15 | 0.57                 | 5.10   | 26.68  | 26.34                    | 5.86   | 1.20  | 0.48  |       | 0.32  |                |
| 31             |                                                                  | 1.96                     |      | 0.54                 | 5.86   |        | 25.26                    |        | 1.20  | 0.40  |       | 0.32  |                |
| Total          | 18.66                                                            | 29.23                    | 9.92 | 9.27                 | 544.74 | 806.92 | 777.94                   | 325.46 | 94.71 | 18.72 | 10.72 | 11.56 | 2657.85 CMSDAY |
| Mean           | 0.62                                                             | 0.94                     | 0.33 | 0.30                 | 17.57  | 26.90  | 25.09                    | 10.85  | 3.06  | 0.60  | 0.38  | 0.37  | 7.28 CMS       |
| Max            | 0.80                                                             | 2.04                     | 1.96 | 0.57                 | 74.68  | 58.86  | 89.90                    | 24.95  | 5.48  | 1.20  | 0.40  | 0.40  | 89.90 CMS      |
| Min            | 0.51                                                             | 0.54                     | 0.12 | 0.15                 | 0.45   | 3.45   | 1.38                     | 5.29   | 1.20  | 0.40  | 0.32  | 0.28  | 0.12 CMS       |
| Runoff         | 1.61                                                             | 2.53                     | 0.86 | 0.80                 | 47.07  | 69.72  | 67.21                    | 28.12  | 8.18  | 1.62  | 0.93  | 1.00  | 229.64 MCM     |
| Momentary Peak | 99.16 CMS. at 336.22 m. (MSL.) at 12.00 Hours , on Oct 19 , 2013 |                          |      |                      |        |        |                          |        |       |       |       |       |                |
| Runoff Yield   | 3.77                                                             | Liters/Second/Square KM. |      | Momentary Peak Yield |        | 51.378 | Liters/Second/Square KM. |        |       |       |       |       |                |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                      | Jun                                                   | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan   | Feb    | Mar   | Annual  |        |
|----------------|--------|--------------------------|-------------------------------------------------------|--------|----------------------|---------|---------|---------|--------------------------|-------|--------|-------|---------|--------|
| 1              | 0.10   | 0.23                     | 0.30                                                  | 0.44   | 33.15                | 11.72   | 33.98   | 8.70    | 9.06                     | 1.50  | 7.62   | 0.62  |         |        |
| 2              | 0.19   | 0.23                     | 0.46                                                  | 0.44   | 24.05                | 13.55   | 30.75   | 13.55   | 7.98                     | 5.40  | 6.30   | 0.52  |         |        |
| 3              | 0.21   | 0.23                     | 0.14                                                  | 0.24   | 19.58                | 11.72   | 50.92   | 12.33   | 6.90                     | 5.10  | 6.60   | 0.60  |         |        |
| 4              | 0.20   | 0.91                     | 0.21                                                  | 0.23   | 15.99                | 9.78    | 54.83   | 11.11   | 6.90                     | 4.80  | 5.70   | 0.28  |         |        |
| 5              | 0.19   | 3.33                     | 0.70                                                  | 0.16   | 12.94                | 10.14   | 41.40   | 11.11   | 6.60                     | 1.10  | 6.00   | 0.26  |         |        |
| 6              | 0.19   | 5.10                     | 0.94                                                  | 0.66   | 7.98                 | 21.07   | 31.50   | 10.14   | 6.30                     | 3.52  | 6.90   | 0.44  |         |        |
| 7              | 0.17   | 6.30                     | 1.70                                                  | 10.14  | 7.98                 | 30.01   | 24.05   | 9.78    | 6.60                     | 6.30  | 6.90   | 0.56  |         |        |
| 8              | 0.12   | 6.00                     | 0.68                                                  | 9.06   | 11.11                | 48.00   | 19.58   | 5.40    | 6.00                     | 5.40  | 7.26   | 0.34  |         |        |
| 9              | 0.10   | 3.33                     | 0.56                                                  | 7.26   | 16.60                | 65.55   | 15.38   | 8.70    | 2.76                     | 5.10  | 6.60   | 0.32  |         |        |
| 10             | 0.13   | 2.76                     | 0.85                                                  | 10.50  | 18.09                | 84.52   | 12.94   | 7.98    | 0.82                     | 3.33  | 6.90   | 0.25  |         |        |
| 11             | 0.10   | 2.76                     | 9.06                                                  | 9.06   | 17.35                | 62.63   | 11.72   | 7.98    | 0.76                     | 1.40  | 6.30   | 0.26  |         |        |
| 12             | 0.11   | 1.10                     | 6.60                                                  | 8.34   | 54.83                | 46.35   | 10.50   | 9.06    | 0.88                     | 1.00  | 6.60   | 0.24  |         |        |
| 13             | 0.18   | 0.88                     | 1.60                                                  | 8.34   | 97.94                | 103.10  | 10.50   | 8.34    | 1.80                     | 0.79  | 6.60   | 0.25  |         |        |
| 14             | 0.21   | 0.88                     | 0.79                                                  | 6.60   | 77.71                | 130.00  | 13.55   | 7.26    | 1.20                     | 0.50  | 6.90   | 0.50  |         |        |
| 15             | 0.62   | 1.50                     | 0.46                                                  | 6.60   | 45.52                | 94.07   | 7.98    | 8.34    | 3.52                     | 0.36  | 6.90   | 0.30  |         |        |
| 16             | 0.88   | 1.30                     | 0.85                                                  | 6.60   | 27.77                | 69.77   | 7.26    | 4.20    | 6.30                     | 0.28  | 6.30   | 0.19  |         |        |
| 17             | 0.68   | 1.20                     | 0.42                                                  | 7.62   | 19.58                | 54.83   | 8.70    | 6.90    | 5.10                     | 0.42  | 6.30   | 0.20  |         |        |
| 18             | 0.88   | 0.52                     | 0.18                                                  | 8.34   | 18.09                | 64.58   | 19.58   | 8.70    | 3.33                     | 0.42  | 5.40   | 0.29  |         |        |
| 19             | 0.88   | 0.44                     | 0.08                                                  | 8.70   | 13.55                | 36.45   | 120.20  | 39.75   | 2.19                     | 0.56  | 2.00   | 0.40  |         |        |
| 20             | 0.62   | 0.17                     | 0.16                                                  | 5.10   | 11.11                | 25.54   | 131.40  | 117.40  | 0.91                     | 1.90  | 1.00   | 0.46  |         |        |
| 21             | 0.46   | 0.15                     | 0.11                                                  | 7.98   | 11.72                | 18.09   | 108.26  | 78.85   | 0.54                     | 1.70  | 0.73   | 0.56  |         |        |
| 22             | 0.54   | 0.15                     | 0.08                                                  | 7.98   | 42.23                | 15.38   | 125.80  | 41.40   | 0.70                     | 1.40  | 0.56   | 0.48  |         |        |
| 23             | 0.85   | 0.16                     | 0.07                                                  | 8.34   | 67.50                | 18.83   | 105.68  | 22.56   | 0.70                     | 1.70  | 0.48   | 0.76  |         |        |
| 24             | 0.64   | 0.22                     | 0.16                                                  | 19.58  | 48.00                | 10.14   | 58.73   | 14.77   | 0.68                     | 2.38  | 0.48   | 0.62  |         |        |
| 25             | 0.94   | 0.24                     | 0.18                                                  | 30.01  | 27.77                | 9.06    | 43.05   | 11.72   | 0.68                     | 3.52  | 0.40   | 0.85  |         |        |
| 26             | 0.79   | 0.17                     | 0.22                                                  | 24.05  | 17.35                | 12.94   | 33.15   | 8.70    | 0.79                     | 5.40  | 0.34   | 0.97  |         |        |
| 27             | 0.48   | 0.06                     | 0.25                                                  | 20.33  | 12.33                | 41.40   | 22.56   | 8.70    | 0.73                     | 5.40  | 0.46   | 0.91  |         |        |
| 28             | 0.42   | 0.08                     | 0.19                                                  | 15.38  | 11.11                | 96.65   | 18.83   | 7.26    | 0.82                     | 6.30  | 0.85   | 1.20  |         |        |
| 29             | 0.27   | 0.27                     | 0.29                                                  | 14.16  | 8.70                 | 78.85   | 18.09   | 8.34    | 5.40                     | 6.30  |        | 0.76  |         |        |
| 30             | 0.18   | 0.42                     | 0.42                                                  | 9.42   | 8.70                 | 49.95   | 18.09   | 9.42    | 4.80                     | 6.90  |        | 0.88  |         |        |
| 31             |        | 0.18                     |                                                       | 36.45  | 9.78                 |         | 16.60   |         | 2.57                     | 7.62  |        | 0.66  |         |        |
| Total          | 12.33  | 41.27                    | 28.71                                                 | 308.11 | 816.11               | 1344.67 | 1225.56 | 528.45  | 104.32                   | 97.80 | 125.38 | 15.93 | 4648.64 | CMSDAY |
| Mean           | 0.41   | 1.33                     | 0.96                                                  | 9.94   | 26.33                | 44.82   | 39.53   | 17.61   | 3.37                     | 3.15  | 4.48   | 0.51  | 12.74   | CMS    |
| Max            | 0.94   | 6.30                     | 9.06                                                  | 36.45  | 97.94                | 130.00  | 131.40  | 117.40  | 9.06                     | 7.62  | 7.62   | 1.20  | 131.40  | CMS    |
| Min            | 0.10   | 0.06                     | 0.07                                                  | 0.16   | 7.98                 | 9.06    | 7.26    | 4.20    | 0.54                     | 0.28  | 0.34   | 0.19  | 0.06    | CMS    |
| Runoff         | 1.07   | 3.57                     | 2.48                                                  | 26.62  | 70.51                | 116.18  | 105.89  | 45.66   | 9.01                     | 8.45  | 10.83  | 1.38  | 401.64  | MCM    |
| Momentary Peak | 163.60 | CMS.                     | at 292.74 m. (MSL.) at 22.00 Hours , on Oct 19 , 2013 |        |                      |         |         |         |                          |       |        |       |         |        |
| Runoff Yield   | 8.12   | Liters/Second/Square KM. |                                                       |        | Momentary Peak Yield |         |         | 104.270 | Liters/Second/Square KM. |       |        |       |         |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Ping River at Ban Huai Yang , Kamphaeng Phet (P.7A**

Lat 16 - 28 - 41 N Long 99 - 31 - 19 W

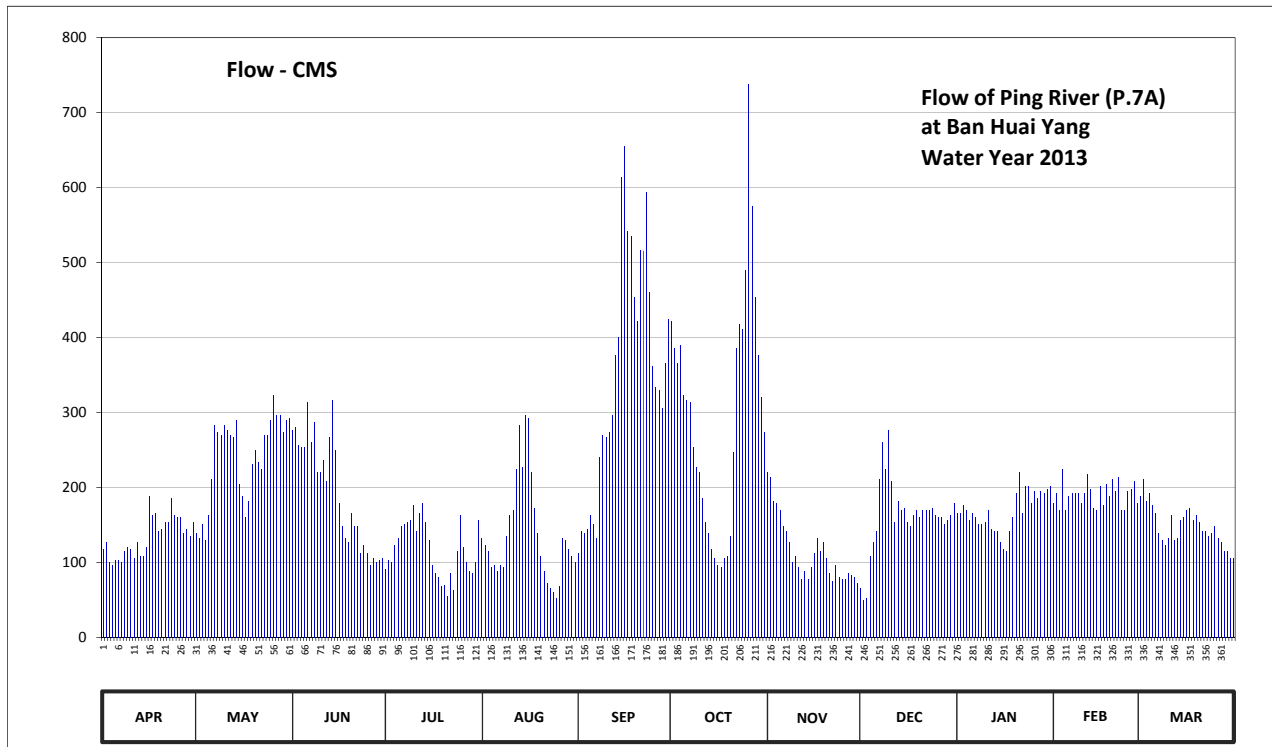
**Location :** on left bank about 100 meters upstream from the bridge on highway

|                                         |                                                                                                                                                         |           |               |        |                  |                   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                                                                              | Huai Yang | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Kamphaeng Phet    |
| <b>Drainage Area</b>                    | 42,464                                                                                                                                                  | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Staff gage.                                                                                                                                             |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +71.730                                                                                                                                                 | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                               |           |               |        |                  |                   |
| <b>Location BM</b>                      | Near the gage observers house.                                                                                                                          |           |               |        | <b>Elevation</b> | +77.717 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                                                                                    |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                                                                                           |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1960 to date                                                                                                                                            |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                                                                                         |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1960 - 1961 , 1967 to date                                                                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                                                                                       |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1960 - 1961 , 1967 to date                                                                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                                                                                 |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                       |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by Phumiphol Dam reservior above gage site.<br>Stage-discharge relation defined by 34 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 72.06 | 72.13 | 72.56                                             | 71.97 | 72.11 | 72.04 | 72.98 | 72.39 | 71.87 | 72.22 | 72.26 | 72.29 |        |
| 2                                | 72.09 | 72.11 | 72.57                                             | 72.01 | 72.08 | 72.14 | 72.88 | 72.37 | 71.81 | 72.22 | 72.30 | 72.36 |        |
| 3                                | 72.00 | 72.17 | 72.50                                             | 72.00 | 72.05 | 72.13 | 72.82 | 72.27 | 71.82 | 72.25 | 72.23 | 72.27 |        |
| 4                                | 71.99 | 72.10 | 72.49                                             | 72.08 | 71.98 | 72.15 | 72.89 | 72.26 | 72.03 | 72.23 | 72.40 | 72.30 |        |
| 5                                | 72.01 | 72.21 | 72.49                                             | 72.11 | 71.99 | 72.21 | 72.70 | 72.23 | 72.09 | 72.19 | 72.23 | 72.25 |        |
| 6                                | 72.01 | 72.36 | 72.67                                             | 72.16 | 71.96 | 72.17 | 72.68 | 72.16 | 72.14 | 72.22 | 72.29 | 72.22 |        |
| 7                                | 72.00 | 72.58 | 72.51                                             | 72.17 | 71.99 | 72.11 | 72.67 | 72.14 | 72.36 | 72.20 | 72.30 | 72.13 |        |
| 8                                | 72.05 | 72.55 | 72.59                                             | 72.18 | 71.98 | 72.45 | 72.49 | 72.09 | 72.51 | 72.17 | 72.30 | 72.10 |        |
| 9                                | 72.07 | 72.54 | 72.39                                             | 72.19 | 72.12 | 72.54 | 72.41 | 72.00 | 72.40 | 72.17 | 72.30 | 72.08 |        |
| 10                               | 72.06 | 72.58 | 72.39                                             | 72.25 | 72.21 | 72.53 | 72.39 | 72.03 | 72.56 | 72.18 | 72.26 | 72.11 |        |
| 11                               | 72.02 | 72.56 | 72.44                                             | 72.14 | 72.23 | 72.55 | 72.28 | 71.98 | 72.35 | 72.23 | 72.30 | 72.21 |        |
| 12                               | 72.09 | 72.54 | 72.35                                             | 72.22 | 72.40 | 72.62 | 72.18 | 71.92 | 72.18 | 72.15 | 72.38 | 72.10 |        |
| 13                               | 72.03 | 72.53 | 72.53                                             | 72.26 | 72.58 | 72.85 | 72.13 | 71.96 | 72.27 | 72.14 | 72.32 | 72.11 |        |
| 14                               | 72.03 | 72.60 | 72.68                                             | 72.18 | 72.41 | 72.92 | 72.06 | 71.92 | 72.23 | 72.14 | 72.24 | 72.19 |        |
| 15                               | 72.07 | 72.34 | 72.48                                             | 72.10 | 72.62 | 73.50 | 72.02 | 71.98 | 72.24 | 72.09 | 72.23 | 72.20 |        |
| 16                               | 72.29 | 72.29 | 72.26                                             | 71.99 | 72.61 | 73.61 | 71.99 | 72.04 | 72.18 | 72.06 | 72.33 | 72.23 |        |
| 17                               | 72.21 | 72.20 | 72.16                                             | 71.95 | 72.39 | 73.31 | 71.98 | 72.11 | 72.16 | 72.05 | 72.25 | 72.24 |        |
| 18                               | 72.22 | 72.27 | 72.11                                             | 71.93 | 72.24 | 73.29 | 72.02 | 72.05 | 72.21 | 72.14 | 72.34 | 72.19 |        |
| 19                               | 72.14 | 72.42 | 72.09                                             | 71.88 | 72.13 | 73.07 | 72.03 | 72.09 | 72.23 | 72.20 | 72.29 | 72.21 |        |
| 20                               | 72.15 | 72.48 | 72.22                                             | 71.89 | 72.03 | 72.98 | 72.12 | 72.02 | 72.20 | 72.30 | 72.36 | 72.18 |        |
| 21                               | 72.18 | 72.43 | 72.16                                             | 71.83 | 71.96 | 73.24 | 72.47 | 71.95 | 72.23 | 72.39 | 72.31 | 72.14 |        |
| 22                               | 72.18 | 72.40 | 72.16                                             | 71.95 | 71.90 | 73.24 | 72.88 | 71.91 | 72.23 | 72.22 | 72.37 | 72.14 |        |
| 23                               | 72.28 | 72.54 | 72.04                                             | 71.86 | 71.87 | 73.45 | 72.97 | 71.99 | 72.23 | 72.33 | 72.23 | 72.12 |        |
| 24                               | 72.21 | 72.54 | 72.08                                             | 72.05 | 71.85 | 73.09 | 72.95 | 71.93 | 72.24 | 72.33 | 72.23 | 72.13 |        |
| 25                               | 72.20 | 72.60 | 72.04                                             | 72.21 | 71.82 | 72.81 | 73.17 | 71.92 | 72.21 | 72.26 | 72.31 | 72.16 |        |
| 26                               | 72.20 | 72.70 | 71.99                                             | 72.07 | 71.88 | 72.73 | 73.83 | 71.92 | 72.20 | 72.31 | 72.32 | 72.11 |        |
| 27                               | 72.13 | 72.62 | 72.02                                             | 72.00 | 72.11 | 72.72 | 73.40 | 71.95 | 72.20 | 72.28 | 72.35 | 72.09 |        |
| 28                               | 72.15 | 72.62 | 72.00                                             | 71.96 | 72.10 | 72.65 | 73.07 | 71.94 | 72.17 | 72.31 | 72.26 | 72.05 |        |
| 29                               | 72.12 | 72.55 | 72.01                                             | 71.95 | 72.06 | 72.82 | 72.85 | 71.93 | 72.19 | 72.30 |       | 72.05 |        |
| 30                               | 72.18 | 72.60 | 72.02                                             | 72.00 | 72.03 | 72.99 | 72.69 | 71.90 | 72.21 | 72.32 |       | 72.02 |        |
| 31                               |       | 72.61 |                                                   | 72.19 | 72.00 |       | 72.55 |       | 72.26 | 72.33 |       | 72.02 |        |
| Mean                             | 72.11 | 72.44 | 72.30                                             | 72.06 | 72.12 | 72.76 | 72.60 | 72.05 | 72.20 | 72.22 | 72.30 | 72.16 |        |
| Max                              | 72.29 | 72.70 | 72.68                                             | 72.26 | 72.62 | 73.61 | 73.83 | 72.39 | 72.56 | 72.39 | 72.40 | 72.36 | 73.83  |
| Min                              | 71.99 | 72.10 | 71.99                                             | 71.83 | 71.82 | 72.04 | 71.98 | 71.90 | 71.81 | 72.05 | 72.23 | 72.02 | 71.83  |
| Annual Max Momentary Gage Height |       | 73.86 | m. (MSL.) , at 09.00 Hours , on Oct 26 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 71.73 | m. (MSL.) , River Bed 69.99 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 77.94 | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 77.79 | m. (MSL.) , Drainage Area 42464 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun     | Jul     | Aug                  | Sep      | Oct     | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|---------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 118.00                                                           | 139.00                   | 276.80  | 91.90   | 133.00               | 112.00   | 421.00  | 220.80  | 65.50                    | 166.40  | 179.20  | 188.80  |          |        |
| 2              | 127.00                                                           | 133.00                   | 280.10  | 103.00  | 124.00               | 142.00   | 386.00  | 214.40  | 50.50                    | 166.40  | 192.00  | 211.20  |          |        |
| 3              | 100.00                                                           | 151.00                   | 257.00  | 100.00  | 115.00               | 139.00   | 365.00  | 182.40  | 53.00                    | 176.00  | 169.60  | 182.40  |          |        |
| 4              | 97.30                                                            | 130.00                   | 253.70  | 124.00  | 94.60                | 145.00   | 389.50  | 179.20  | 109.00                   | 169.60  | 224.00  | 192.00  |          |        |
| 5              | 103.00                                                           | 163.20                   | 253.70  | 133.00  | 97.30                | 163.20   | 323.00  | 169.60  | 127.00                   | 157.00  | 169.60  | 176.00  |          |        |
| 6              | 103.00                                                           | 211.20                   | 313.10  | 148.00  | 89.20                | 151.00   | 316.40  | 148.00  | 142.00                   | 166.40  | 188.80  | 166.40  |          |        |
| 7              | 100.00                                                           | 283.40                   | 260.30  | 151.00  | 97.30                | 133.00   | 313.10  | 142.00  | 211.20                   | 160.00  | 192.00  | 139.00  |          |        |
| 8              | 115.00                                                           | 273.50                   | 286.70  | 154.00  | 94.60                | 240.50   | 253.70  | 127.00  | 260.30                   | 151.00  | 192.00  | 130.00  |          |        |
| 9              | 121.00                                                           | 270.20                   | 220.80  | 157.00  | 136.00               | 270.20   | 227.30  | 100.00  | 224.00                   | 151.00  | 192.00  | 124.00  |          |        |
| 10             | 118.00                                                           | 283.40                   | 220.80  | 176.00  | 163.20               | 266.90   | 220.80  | 109.00  | 276.80                   | 154.00  | 179.20  | 133.00  |          |        |
| 11             | 106.00                                                           | 276.80                   | 237.20  | 142.00  | 169.60               | 273.50   | 185.60  | 94.60   | 208.00                   | 169.60  | 192.00  | 163.20  |          |        |
| 12             | 127.00                                                           | 270.20                   | 208.00  | 166.40  | 224.00               | 296.60   | 154.00  | 78.40   | 154.00                   | 145.00  | 217.60  | 130.00  |          |        |
| 13             | 109.00                                                           | 266.90                   | 266.90  | 179.20  | 283.40               | 375.50   | 139.00  | 89.20   | 182.40                   | 142.00  | 198.40  | 133.00  |          |        |
| 14             | 109.00                                                           | 290.00                   | 316.40  | 154.00  | 227.30               | 400.00   | 118.00  | 78.40   | 169.60                   | 142.00  | 172.80  | 157.00  |          |        |
| 15             | 121.00                                                           | 204.80                   | 250.40  | 130.00  | 296.60               | 613.00   | 106.00  | 94.60   | 172.80                   | 127.00  | 169.60  | 160.00  |          |        |
| 16             | 188.80                                                           | 188.80                   | 179.20  | 97.30   | 293.30               | 654.80   | 97.30   | 112.00  | 154.00                   | 118.00  | 201.60  | 169.60  |          |        |
| 17             | 163.20                                                           | 160.00                   | 148.00  | 86.50   | 220.80               | 541.70   | 94.60   | 133.00  | 148.00                   | 115.00  | 176.00  | 172.80  |          |        |
| 18             | 166.40                                                           | 182.40                   | 133.00  | 81.10   | 172.80               | 534.30   | 106.00  | 115.00  | 163.20                   | 142.00  | 204.80  | 157.00  |          |        |
| 19             | 142.00                                                           | 230.60                   | 127.00  | 68.00   | 139.00               | 453.20   | 109.00  | 127.00  | 169.60                   | 160.00  | 188.80  | 163.20  |          |        |
| 20             | 145.00                                                           | 250.40                   | 166.40  | 70.50   | 109.00               | 421.00   | 136.00  | 106.00  | 160.00                   | 192.00  | 211.20  | 154.00  |          |        |
| 21             | 154.00                                                           | 233.90                   | 148.00  | 55.50   | 89.20                | 515.80   | 247.10  | 86.50   | 169.60                   | 220.80  | 195.20  | 142.00  |          |        |
| 22             | 154.00                                                           | 224.00                   | 148.00  | 86.50   | 73.00                | 515.80   | 386.00  | 75.70   | 169.60                   | 166.40  | 214.40  | 142.00  |          |        |
| 23             | 185.60                                                           | 270.20                   | 112.00  | 63.00   | 65.50                | 594.00   | 417.50  | 97.30   | 169.60                   | 201.60  | 169.60  | 136.00  |          |        |
| 24             | 163.20                                                           | 270.20                   | 124.00  | 115.00  | 60.50                | 460.40   | 410.50  | 81.10   | 172.80                   | 201.60  | 169.60  | 139.00  |          |        |
| 25             | 160.00                                                           | 290.00                   | 112.00  | 163.20  | 53.00                | 361.50   | 489.90  | 78.40   | 163.20                   | 179.20  | 195.20  | 148.00  |          |        |
| 26             | 160.00                                                           | 323.00                   | 97.30   | 121.00  | 68.00                | 333.50   | 738.40  | 78.40   | 160.00                   | 195.20  | 198.40  | 133.00  |          |        |
| 27             | 139.00                                                           | 296.60                   | 106.00  | 100.00  | 133.00               | 330.00   | 575.00  | 86.50   | 160.00                   | 185.60  | 208.00  | 127.00  |          |        |
| 28             | 145.00                                                           | 296.60                   | 100.00  | 89.20   | 130.00               | 306.50   | 453.20  | 83.80   | 151.00                   | 195.20  | 179.20  | 115.00  |          |        |
| 29             | 136.00                                                           | 273.50                   | 103.00  | 86.50   | 118.00               | 365.00   | 375.50  | 81.10   | 157.00                   | 192.00  |         | 115.00  |          |        |
| 30             | 154.00                                                           | 290.00                   | 106.00  | 100.00  | 109.00               | 424.50   | 319.70  | 73.00   | 163.20                   | 198.40  |         | 106.00  |          |        |
| 31             |                                                                  | 293.30                   |         | 157.00  | 100.00               |          | 273.50  |         | 179.20                   | 201.60  |         | 106.00  |          |        |
| Total          | 4030.50                                                          | 7420.10                  | 5811.80 | 3649.80 | 4279.20              | 10533.40 | 9147.60 | 3442.40 | 5016.10                  | 5208.00 | 5340.80 | 4611.60 | 68491.30 | CMSDAY |
| Mean           | 134.35                                                           | 239.36                   | 193.73  | 117.74  | 138.04               | 351.11   | 295.08  | 114.75  | 161.81                   | 168.00  | 190.74  | 148.76  | 187.65   | CMS    |
| Max            | 188.80                                                           | 323.00                   | 316.40  | 179.20  | 296.60               | 654.80   | 738.40  | 220.80  | 276.80                   | 220.80  | 224.00  | 211.20  | 738.40   | CMS    |
| Min            | 97.30                                                            | 130.00                   | 97.30   | 55.50   | 53.00                | 112.00   | 94.60   | 73.00   | 50.50                    | 115.00  | 169.60  | 106.00  | 50.50    | CMS    |
| Runoff         | 348.24                                                           | 641.10                   | 502.14  | 315.34  | 369.72               | 910.09   | 790.35  | 297.42  | 433.39                   | 449.97  | 461.45  | 398.44  | 5917.65  | MCM    |
| Momentary Peak | 749.80 CMS. at 73.86 m. (MSL.) at 09.00 Hours , on Oct 26 , 2013 |                          |         |         |                      |          |         |         |                          |         |         |         |          |        |
| Runoff Yield   | 4.42                                                             | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |         | 17.657  | Liters/Second/Square KM. |         |         |         |          |        |

**WATER YEAR : 2013****PING RIVER BASIN****Ping River at Ban Yanree , Tak (P.12C)**

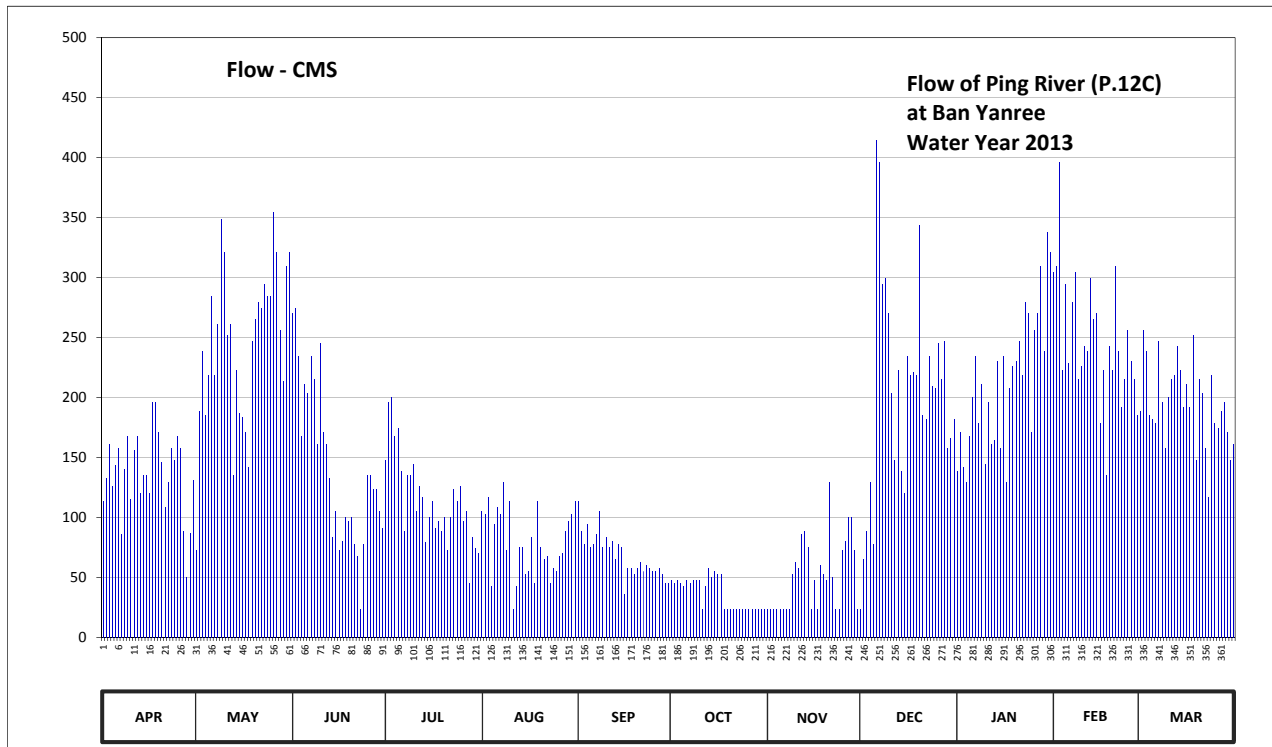
Lat 17 - 14 - 17 N Long 99 - 01 - 32 E

**Location : on right bank about 3 kilometers from Phumiphol Dam reservoir.**

|                                         |                                                                                        |               |               |                 |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------------|---------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                             | <b>Yanree</b> | <b>Amphoe</b> | <b>Sam Ngao</b> | <b>Changwat</b>  | <b>Tak</b>         |
| <b>Drainage Area</b>                    | 26,241                                                                                 | sq.km.        |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                  | gage          |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +129.000                                                                               | m. (MSL.)     |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                              |               |               |                 |                  |                    |
| <b>Location BM</b>                      | On right bank at the pier of the bridge.                                               |               |               |                 | <b>Elevation</b> | +137.031 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                   |               |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                          |               |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 1995 to date                                                                           |               |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                                        |               |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 1996 to date                                                                           |               |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                      |               |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                           |               |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                |               |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                      |               |               |                 |                  |                    |
| <b>General Description</b>              | Records good. Flow regulated by Phumiphol Dam reservior downstream from the gage site. |               |               |                 |                  |                    |
|                                         | Stage-discharge relation defined by 17 discharge measurements made in 2013.            |               |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug    | Sep           | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual                           |
|----------------------------------|--------|-------------|--------|--------|--------|---------------|--------|-------------------|--------|--------|--------|--------|----------------------------------|
| 1                                | 129.90 | 129.60      | 130.76 | 130.12 | 129.84 | 129.90        | 129.40 | 129.20            | 129.20 | 130.06 | 130.90 | 130.36 |                                  |
| 2                                | 130.02 | 130.36      | 130.78 | 130.40 | 129.82 | 129.72        | 129.38 | 129.20            | 129.54 | 130.26 | 130.92 | 130.70 |                                  |
| 3                                | 130.20 | 130.62      | 130.60 | 130.42 | 129.92 | 129.64        | 129.40 | 129.20            | 129.72 | 130.08 | 131.22 | 130.62 |                                  |
| 4                                | 129.98 | 130.34      | 130.24 | 130.24 | 129.36 | 129.76        | 129.38 | 129.20            | 130.00 | 130.00 | 130.54 | 130.34 |                                  |
| 5                                | 130.09 | 130.52      | 130.48 | 130.28 | 129.76 | 129.62        | 129.36 | 129.20            | 129.64 | 130.24 | 130.86 | 130.32 |                                  |
| 6                                | 130.18 | 130.82      | 130.44 | 130.06 | 129.86 | 129.64        | 129.40 | 129.20            | 131.28 | 130.42 | 130.57 | 130.30 |                                  |
| 7                                | 129.70 | 130.52      | 130.60 | 129.72 | 129.82 | 129.70        | 129.38 | 129.20            | 131.22 | 130.60 | 130.80 | 130.66 |                                  |
| 8                                | 130.07 | 130.72      | 130.50 | 130.04 | 130.00 | 129.84        | 129.40 | 129.20            | 130.86 | 130.30 | 130.90 | 130.40 |                                  |
| 9                                | 130.24 | 131.06      | 130.20 | 130.04 | 129.60 | 129.62        | 129.40 | 129.44            | 130.88 | 130.48 | 130.50 | 130.18 |                                  |
| 10                               | 129.91 | 130.96      | 130.65 | 130.10 | 129.90 | 129.68        | 129.40 | 129.52            | 130.76 | 130.10 | 130.56 | 130.42 |                                  |
| 11                               | 130.17 | 130.68      | 130.26 | 129.84 | 129.20 | 129.62        | 129.20 | 129.48            | 130.44 | 130.40 | 130.64 | 130.50 |                                  |
| 12                               | 130.24 | 130.72      | 130.20 | 129.98 | 129.36 | 129.66        | 129.36 | 129.70            | 130.12 | 130.20 | 130.62 | 130.52 |                                  |
| 13                               | 129.94 | 130.04      | 130.02 | 129.92 | 129.62 | 129.54        | 129.48 | 129.72            | 130.54 | 130.22 | 130.88 | 130.64 |                                  |
| 14                               | 130.04 | 130.54      | 129.68 | 129.65 | 129.62 | 129.64        | 129.42 | 129.62            | 130.06 | 130.58 | 130.74 | 130.54 |                                  |
| 15                               | 130.04 | 130.35      | 129.84 | 129.80 | 129.44 | 129.62        | 129.46 | 129.20            | 129.94 | 130.18 | 130.76 | 130.38 |                                  |
| 16                               | 129.94 | 130.33      | 129.60 | 129.90 | 129.46 | 129.30        | 129.44 | 129.40            | 130.60 | 130.60 | 130.30 | 130.48 |                                  |
| 17                               | 130.40 | 130.26      | 129.66 | 129.74 | 129.68 | 129.48        | 129.44 | 129.20            | 130.52 | 130.00 | 130.54 | 130.38 |                                  |
| 18                               | 130.40 | 130.08      | 129.80 | 129.78 | 129.38 | 129.48        | 129.20 | 129.50            | 130.53 | 130.46 | 130.04 | 130.68 |                                  |
| 19                               | 130.26 | 130.66      | 129.78 | 129.72 | 129.90 | 129.44        | 129.20 | 129.44            | 130.52 | 130.56 | 130.64 | 130.12 |                                  |
| 20                               | 130.11 | 130.74      | 129.80 | 129.80 | 129.62 | 129.48        | 129.20 | 129.40            | 131.04 | 130.58 | 130.54 | 130.50 |                                  |
| 21                               | 129.86 | 130.80      | 129.64 | 129.60 | 129.54 | 129.52        | 129.20 | 130.00            | 130.34 | 130.66 | 130.92 | 130.44 |                                  |
| 22                               | 130.00 | 130.78      | 129.56 | 129.80 | 129.56 | 129.46        | 129.20 | 129.42            | 130.32 | 130.52 | 130.62 | 130.18 |                                  |
| 23                               | 130.18 | 130.86      | 129.20 | 129.96 | 129.38 | 129.50        | 129.20 | 129.20            | 130.60 | 130.80 | 130.38 | 129.92 |                                  |
| 24                               | 130.12 | 130.82      | 129.64 | 129.90 | 129.48 | 129.48        | 129.20 | 129.20            | 130.47 | 130.76 | 130.50 | 130.52 |                                  |
| 25                               | 130.24 | 130.82      | 130.04 | 129.98 | 129.46 | 129.46        | 129.20 | 129.60            | 130.46 | 130.26 | 130.70 | 130.30 |                                  |
| 26                               | 130.18 | 131.08      | 130.04 | 129.78 | 129.56 | 129.46        | 129.20 | 129.66            | 130.65 | 130.70 | 130.58 | 130.28 |                                  |
| 27                               | 129.72 | 130.96      | 129.96 | 129.84 | 129.58 | 129.48        | 129.20 | 129.80            | 130.50 | 130.76 | 130.50 | 130.36 |                                  |
| 28                               | 129.42 | 130.70      | 129.96 | 129.38 | 129.72 | 129.44        | 129.20 | 129.80            | 130.66 | 130.92 | 130.34 | 130.40 |                                  |
| 29                               | 129.71 | 130.49      | 129.84 | 129.68 | 129.78 | 129.38        | 129.20 | 129.60            | 130.18 | 130.62 |        | 130.26 |                                  |
| 30                               | 130.01 | 130.92      | 129.74 | 129.61 | 129.82 | 129.38        | 129.20 | 129.20            | 130.23 | 131.02 |        | 130.12 |                                  |
| 31                               |        | 130.96      |        | 129.58 | 129.90 |               | 129.20 |                   | 130.32 | 130.96 |        | 130.20 |                                  |
| Mean                             | 130.04 | 130.62      | 130.05 | 129.89 | 129.64 | 129.56        | 129.31 | 129.42            | 130.39 | 130.46 | 130.64 | 130.39 |                                  |
| Max                              | 130.40 | 131.08      | 130.78 | 130.42 | 130.00 | 129.90        | 129.48 | 130.00            | 131.28 | 131.02 | 131.22 | 130.70 | 131.28                           |
| Min                              | 129.42 | 129.60      | 129.20 | 129.38 | 129.20 | 129.30        | 129.20 | 129.20            | 129.20 | 130.00 | 130.04 | 129.92 | 129.20                           |
| Annual Max Momentary Gage Height | 132.00 | m. (MSL.) , |        |        |        |               |        |                   |        |        |        |        | at 15.00 Hours , on May 6 , 2013 |
| Zero Gage at Bottom Elevation    | 129.00 | m. (MSL.) , |        |        |        | River Bed     | 127.38 | m. (MSL.)         |        |        |        |        |                                  |
| Left Bank Elevation              | 136.83 | m. (MSL.) , |        |        |        |               |        |                   |        |        |        |        |                                  |
| Right Bank Elevation             | 136.79 | m. (MSL.) , |        |        |        | Drainage Area | 26241  | Square Kilometers |        |        |        |        |                                  |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 114.00                                                           | 73.00                    | 269.80  | 148.20               | 105.60  | 114.00  | 48.00                    | 24.00   | 24.00   | 138.80  | 304.00  | 189.00  |          |        |
| 2              | 132.60                                                           | 189.00                   | 274.40  | 196.00               | 102.80  | 88.80   | 45.60                    | 24.00   | 65.20   | 171.50  | 309.60  | 256.00  |          |        |
| 3              | 161.00                                                           | 238.40                   | 234.00  | 199.80               | 117.10  | 78.20   | 48.00                    | 24.00   | 88.80   | 141.90  | 396.20  | 238.40  |          |        |
| 4              | 126.40                                                           | 185.50                   | 168.00  | 168.00               | 43.20   | 94.40   | 45.60                    | 24.00   | 129.50  | 129.50  | 222.60  | 185.50  |          |        |
| 5              | 143.45                                                           | 218.80                   | 211.20  | 175.00               | 94.40   | 75.60   | 43.20                    | 24.00   | 78.20   | 168.00  | 294.00  | 182.00  |          |        |
| 6              | 157.80                                                           | 284.00                   | 203.60  | 138.80               | 108.40  | 78.20   | 48.00                    | 24.00   | 414.80  | 199.80  | 228.30  | 178.50  |          |        |
| 7              | 86.00                                                            | 218.80                   | 234.00  | 88.80                | 102.80  | 86.00   | 45.60                    | 24.00   | 396.20  | 234.00  | 279.00  | 247.20  |          |        |
| 8              | 140.35                                                           | 260.60                   | 215.00  | 135.70               | 129.50  | 105.60  | 48.00                    | 24.00   | 294.00  | 178.50  | 304.00  | 196.00  |          |        |
| 9              | 168.00                                                           | 348.80                   | 161.00  | 135.70               | 73.00   | 75.60   | 48.00                    | 52.80   | 299.00  | 211.20  | 215.00  | 157.80  |          |        |
| 10             | 115.55                                                           | 320.80                   | 245.00  | 145.00               | 114.00  | 83.40   | 48.00                    | 62.60   | 269.80  | 145.00  | 226.40  | 199.80  |          |        |
| 11             | 156.20                                                           | 251.60                   | 171.50  | 105.60               | 24.00   | 75.60   | 24.00                    | 57.60   | 203.60  | 196.00  | 242.80  | 215.00  |          |        |
| 12             | 168.00                                                           | 260.60                   | 161.00  | 126.40               | 43.20   | 80.80   | 43.20                    | 86.00   | 148.20  | 161.00  | 238.40  | 218.80  |          |        |
| 13             | 120.20                                                           | 135.70                   | 132.60  | 117.10               | 75.60   | 65.20   | 57.60                    | 88.80   | 222.60  | 164.50  | 299.00  | 242.80  |          |        |
| 14             | 135.70                                                           | 222.60                   | 83.40   | 79.50                | 75.60   | 78.20   | 50.40                    | 75.60   | 138.80  | 230.20  | 265.20  | 222.60  |          |        |
| 15             | 135.70                                                           | 187.25                   | 105.60  | 100.00               | 52.80   | 75.60   | 55.20                    | 24.00   | 120.20  | 157.80  | 269.80  | 192.50  |          |        |
| 16             | 120.20                                                           | 183.75                   | 73.00   | 114.00               | 55.20   | 36.00   | 52.80                    | 48.00   | 234.00  | 234.00  | 178.50  | 211.20  |          |        |
| 17             | 196.00                                                           | 171.50                   | 80.80   | 91.60                | 83.40   | 57.60   | 52.80                    | 24.00   | 218.80  | 129.50  | 222.60  | 192.50  |          |        |
| 18             | 196.00                                                           | 141.90                   | 100.00  | 97.20                | 45.60   | 57.60   | 24.00                    | 60.00   | 220.70  | 207.40  | 135.70  | 251.60  |          |        |
| 19             | 171.50                                                           | 247.20                   | 97.20   | 88.80                | 114.00  | 52.80   | 24.00                    | 52.80   | 218.80  | 226.40  | 242.80  | 148.20  |          |        |
| 20             | 146.60                                                           | 265.20                   | 100.00  | 100.00               | 75.60   | 57.60   | 24.00                    | 48.00   | 343.20  | 230.20  | 222.60  | 215.00  |          |        |
| 21             | 108.40                                                           | 279.00                   | 78.20   | 73.00                | 65.20   | 62.60   | 24.00                    | 129.50  | 185.50  | 247.20  | 309.60  | 203.60  |          |        |
| 22             | 129.50                                                           | 274.40                   | 67.80   | 100.00               | 67.80   | 55.20   | 24.00                    | 50.40   | 182.00  | 218.80  | 238.40  | 157.80  |          |        |
| 23             | 157.80                                                           | 294.00                   | 24.00   | 123.30               | 45.60   | 60.00   | 24.00                    | 24.00   | 234.00  | 279.00  | 192.50  | 117.10  |          |        |
| 24             | 148.20                                                           | 284.00                   | 78.20   | 114.00               | 57.60   | 57.60   | 24.00                    | 24.00   | 209.30  | 269.80  | 215.00  | 218.80  |          |        |
| 25             | 168.00                                                           | 284.00                   | 135.70  | 126.40               | 55.20   | 55.20   | 24.00                    | 73.00   | 207.40  | 171.50  | 256.00  | 178.50  |          |        |
| 26             | 157.80                                                           | 354.40                   | 135.70  | 97.20                | 67.80   | 55.20   | 24.00                    | 80.80   | 245.00  | 256.00  | 230.20  | 175.00  |          |        |
| 27             | 88.80                                                            | 320.80                   | 123.30  | 105.60               | 70.40   | 57.60   | 24.00                    | 100.00  | 215.00  | 269.80  | 215.00  | 189.00  |          |        |
| 28             | 50.40                                                            | 256.00                   | 123.30  | 45.60                | 88.80   | 52.80   | 24.00                    | 100.00  | 247.20  | 309.60  | 185.50  | 196.00  |          |        |
| 29             | 87.40                                                            | 213.10                   | 105.60  | 83.40                | 97.20   | 45.60   | 24.00                    | 73.00   | 157.80  | 238.40  |         | 171.50  |          |        |
| 30             | 131.05                                                           | 309.60                   | 91.60   | 74.30                | 102.80  | 45.60   | 24.00                    | 24.00   | 166.25  | 337.60  |         | 148.20  |          |        |
| 31             |                                                                  | 320.80                   |         | 70.40                | 114.00  |         | 24.00                    |         | 182.00  | 320.80  |         | 161.00  |          |        |
| Total          | 4118.60                                                          | 7595.10                  | 4284.50 | 3564.40              | 2468.20 | 2064.20 | 1140.00                  | 1550.90 | 6359.85 | 6573.70 | 6938.70 | 6056.90 | 52715.05 | CMSDAY |
| Mean           | 137.29                                                           | 245.00                   | 142.82  | 114.98               | 79.62   | 68.81   | 36.77                    | 51.70   | 205.16  | 212.05  | 247.81  | 195.38  | 144.42   | CMS    |
| Max            | 196.00                                                           | 354.40                   | 274.40  | 199.80               | 129.50  | 114.00  | 57.60                    | 129.50  | 414.80  | 337.60  | 396.20  | 256.00  | 414.80   | CMS    |
| Min            | 50.40                                                            | 73.00                    | 24.00   | 45.60                | 24.00   | 36.00   | 24.00                    | 24.00   | 24.00   | 129.50  | 135.70  | 117.10  | 24.00    | CMS    |
| Runoff         | 355.85                                                           | 656.22                   | 370.18  | 307.96               | 213.25  | 178.35  | 98.50                    | 134.00  | 549.49  | 567.97  | 599.50  | 523.32  | 4554.58  | MCM    |
| Momentary Peak | 688.00 CMS. at 132.00 m. (MSL.) at 15.00 Hours , on May 6 , 2013 |                          |         |                      |         |         |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 5.50                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 26.219  | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

### Ping River at Wat Sri Phirom , Kamphaeng Phet (P.15)

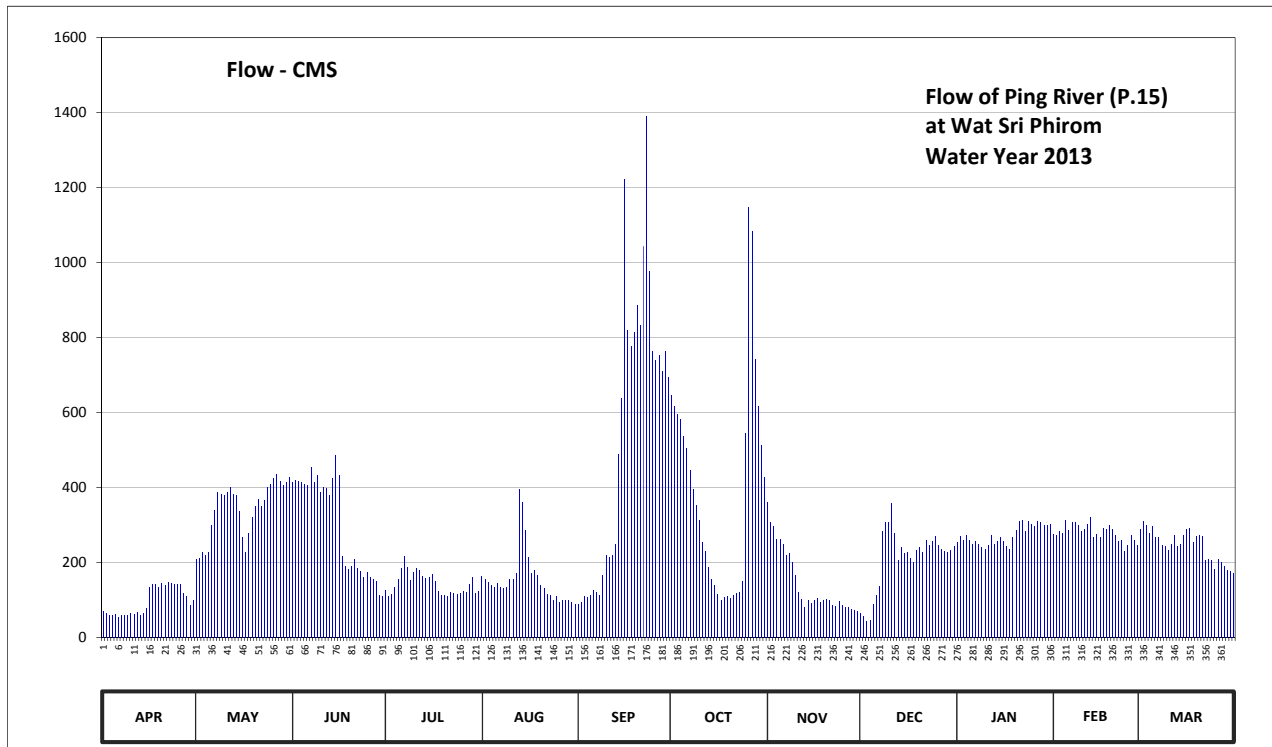
Lat 16 - 12 - 52 N    Long 99 - 43 - 24 W

**Location : on right bank in front of Amphoe Khlong Khlung Office**

|                                         |                                                                                           |               |               |               |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|---------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Wat Sri Phiom | <b>Amphoe</b> | Khlong Khlung | <b>Changwat</b>  | Kamphaeng Phet    |
| <b>Drainage Area</b>                    | 44,461                                                                                    | sq.km.        |               |               |                  |                   |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |               |               |               |                  |                   |
| <b>Zero Gage at Bottom</b>              | +51.555                                                                                   | m. (MSL.)     |               |               |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |               |               |                  |                   |
| <b>Location BM</b>                      | On right bank about 30 meters from the south of Wat Sri Phiom.                            |               |               |               | <b>Elevation</b> | +56.617 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |               |               |               |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |               |               |               |                  |                   |
| <b>Period of Available Gage Records</b> | 1954 to date                                                                              |               |               |               |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |               |               |               |                  |                   |
| <b>Period of Rating</b>                 | 1964 - 1974 , 1997 to date                                                                |               |               |               |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |               |                  |                   |
| <b>Rated by Current Meter</b>           | 1964 - 1974 , 1997 to date                                                                |               |               |               |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |               |               |               |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |               |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 34 discharge measurements made in 2013. |               |               |               |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 52.40 | 52.97 | 53.57       | 52.66 | 52.81                             | 52.50 | 54.13             | 53.43 | 52.38 | 53.11 | 53.18 | 53.22 |        |
| 2                                | 52.37 | 52.98 | 53.59       | 52.59 | 52.78                             | 52.52 | 54.07             | 53.27 | 52.33 | 53.16 | 53.17 | 53.28 |        |
| 3                                | 52.35 | 53.03 | 53.58       | 52.62 | 52.75                             | 52.59 | 54.02             | 53.24 | 52.26 | 53.13 | 53.20 | 53.25 |        |
| 4                                | 52.34 | 53.01 | 53.57       | 52.69 | 52.71                             | 52.58 | 53.99             | 53.14 | 52.27 | 53.17 | 53.19 | 53.19 |        |
| 5                                | 52.36 | 53.03 | 53.56       | 52.78 | 52.69                             | 52.61 | 53.89             | 53.14 | 52.50 | 53.13 | 53.29 | 53.24 |        |
| 6                                | 52.31 | 53.25 | 53.55       | 52.89 | 52.74                             | 52.66 | 53.81             | 53.10 | 52.60 | 53.10 | 53.21 | 53.15 |        |
| 7                                | 52.35 | 53.37 | 53.68       | 53.00 | 52.69                             | 52.64 | 53.66             | 53.01 | 52.70 | 53.12 | 53.27 | 53.15 |        |
| 8                                | 52.35 | 53.50 | 53.57       | 52.90 | 52.68                             | 52.61 | 53.52             | 53.02 | 53.20 | 53.10 | 53.27 | 53.09 |        |
| 9                                | 52.35 | 53.49 | 53.62       | 52.77 | 52.69                             | 52.82 | 53.41             | 52.94 | 53.27 | 53.07 | 53.25 | 53.08 |        |
| 10                               | 52.38 | 53.48 | 53.50       | 52.85 | 52.78                             | 53.01 | 53.29             | 52.82 | 53.27 | 53.06 | 53.20 | 53.05 |        |
| 11                               | 52.36 | 53.50 | 53.54       | 52.89 | 52.78                             | 52.99 | 53.11             | 52.64 | 53.42 | 53.09 | 53.22 | 53.10 |        |
| 12                               | 52.39 | 53.54 | 53.53       | 52.87 | 52.84                             | 53.01 | 53.04             | 52.56 | 53.19 | 53.17 | 53.26 | 53.17 |        |
| 13                               | 52.35 | 53.49 | 53.48       | 52.81 | 53.52                             | 53.10 | 52.90             | 52.46 | 52.96 | 53.10 | 53.31 | 53.08 |        |
| 14                               | 52.38 | 53.48 | 53.60       | 52.79 | 53.43                             | 53.77 | 52.78             | 52.54 | 53.07 | 53.12 | 53.15 | 53.10 |        |
| 15                               | 52.44 | 53.36 | 53.76       | 52.80 | 53.21                             | 54.11 | 52.71             | 52.51 | 53.02 | 53.15 | 53.18 | 53.17 |        |
| 16                               | 52.69 | 53.15 | 53.62       | 52.83 | 52.99                             | 54.85 | 52.62             | 52.54 | 53.03 | 53.12 | 53.15 | 53.22 |        |
| 17                               | 52.73 | 53.03 | 53.00       | 52.76 | 52.84                             | 54.47 | 52.55             | 52.57 | 52.98 | 53.08 | 53.23 | 53.23 |        |
| 18                               | 52.73 | 53.19 | 52.91       | 52.65 | 52.87                             | 54.40 | 52.58             | 52.52 | 52.94 | 53.06 | 53.22 | 53.11 |        |
| 19                               | 52.69 | 53.31 | 52.88       | 52.60 | 52.82                             | 54.46 | 52.59             | 52.55 | 53.05 | 53.15 | 53.25 | 53.16 |        |
| 20                               | 52.74 | 53.40 | 52.91       | 52.60 | 52.71                             | 54.56 | 52.57             | 52.56 | 53.07 | 53.21 | 53.22 | 53.17 |        |
| 21                               | 52.72 | 53.45 | 52.97       | 52.59 | 52.68                             | 54.49 | 52.60             | 52.54 | 53.03 | 53.28 | 53.17 | 53.16 |        |
| 22                               | 52.75 | 53.40 | 52.89       | 52.64 | 52.62                             | 54.72 | 52.63             | 52.49 | 53.13 | 53.29 | 53.12 | 52.96 |        |
| 23                               | 52.74 | 53.44 | 52.86       | 52.63 | 52.61                             | 54.95 | 52.64             | 52.47 | 53.09 | 53.20 | 53.13 | 52.97 |        |
| 24                               | 52.73 | 53.54 | 52.80       | 52.62 | 52.55                             | 54.66 | 52.76             | 52.53 | 53.12 | 53.28 | 53.04 | 52.96 |        |
| 25                               | 52.73 | 53.56 | 52.85       | 52.63 | 52.59                             | 54.37 | 53.91             | 52.48 | 53.16 | 53.26 | 53.09 | 52.88 |        |
| 26                               | 52.73 | 53.60 | 52.80       | 52.65 | 52.52                             | 54.32 | 54.80             | 52.46 | 53.09 | 53.24 | 53.17 | 52.97 |        |
| 27                               | 52.63 | 53.63 | 52.78       | 52.64 | 52.54                             | 54.35 | 54.75             | 52.46 | 53.06 | 53.28 | 53.13 | 52.94 |        |
| 28                               | 52.59 | 53.58 | 52.76       | 52.73 | 52.54                             | 54.26 | 54.33             | 52.43 | 53.04 | 53.27 | 53.09 | 52.91 |        |
| 29                               | 52.48 | 53.55 | 52.60       | 52.80 | 52.54                             | 54.37 | 54.07             | 52.41 | 53.03 | 53.25 |       | 52.87 |        |
| 30                               | 52.54 | 53.57 | 52.59       | 52.63 | 52.52                             | 54.23 | 53.83             | 52.40 | 53.05 | 53.25 |       | 52.86 |        |
| 31                               |       | 53.61 |             | 52.65 | 52.50                             |       | 53.61             |       | 53.08 | 53.26 |       | 52.84 |        |
| Mean                             | 52.52 | 53.37 | 53.23       | 52.73 | 52.76                             | 53.70 | 53.39             | 52.71 | 52.95 | 53.17 | 53.19 | 53.08 |        |
| Max                              | 52.75 | 53.63 | 53.76       | 53.00 | 53.52                             | 54.95 | 54.80             | 53.43 | 53.42 | 53.29 | 53.31 | 53.28 | 54.95  |
| Min                              | 52.31 | 52.97 | 52.59       | 52.59 | 52.50                             | 52.50 | 52.55             | 52.40 | 52.26 | 53.06 | 53.04 | 52.84 | 52.26  |
| Annual Max Momentary Gage Height |       | 55.01 | m. (MSL.) , |       | at 18.00 Hours , on Sep 23 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 51.56 | m. (MSL.) , |       | River Bed                         | 49.65 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 57.41 | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 57.49 | m. (MSL.) , |       | Drainage Area                     | 44461 | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 70.00                                                             | 209.00                   | 413.60  | 126.40               | 163.70  | 90.00    | 646.40                   | 361.80  | 66.40   | 253.30  | 276.40  | 289.80  |          |        |
| 2              | 64.60                                                             | 212.00                   | 421.20  | 109.80               | 156.00  | 94.40    | 618.20                   | 306.80  | 57.40   | 269.80  | 273.10  | 310.20  |          |        |
| 3              | 61.00                                                             | 227.60                   | 417.40  | 116.80               | 148.50  | 109.80   | 595.20                   | 296.60  | 45.20   | 259.90  | 283.00  | 300.00  |          |        |
| 4              | 59.20                                                             | 221.20                   | 413.60  | 133.60               | 138.50  | 107.60   | 581.60                   | 263.20  | 46.90   | 273.10  | 279.70  | 279.70  |          |        |
| 5              | 62.80                                                             | 227.60                   | 409.80  | 156.00               | 133.60  | 114.40   | 537.90                   | 263.20  | 90.00   | 259.90  | 313.60  | 296.60  |          |        |
| 6              | 53.80                                                             | 300.00                   | 406.00  | 185.30               | 146.00  | 126.40   | 505.10                   | 250.00  | 112.00  | 250.00  | 286.40  | 266.50  |          |        |
| 7              | 61.00                                                             | 340.80                   | 455.40  | 218.00               | 133.60  | 121.60   | 447.80                   | 221.20  | 136.00  | 256.60  | 306.80  | 266.50  |          |        |
| 8              | 61.00                                                             | 387.00                   | 413.60  | 188.00               | 131.20  | 114.40   | 394.60                   | 224.40  | 283.00  | 250.00  | 306.80  | 246.80  |          |        |
| 9              | 61.00                                                             | 383.40                   | 432.60  | 153.50               | 133.60  | 166.40   | 354.60                   | 200.00  | 306.80  | 240.40  | 300.00  | 243.60  |          |        |
| 10             | 66.40                                                             | 379.80                   | 387.00  | 174.50               | 156.00  | 221.20   | 313.60                   | 166.40  | 306.80  | 237.20  | 283.00  | 234.00  |          |        |
| 11             | 62.80                                                             | 387.00                   | 402.20  | 185.30               | 156.00  | 215.00   | 253.30                   | 121.60  | 358.20  | 246.80  | 289.80  | 250.00  |          |        |
| 12             | 68.20                                                             | 402.20                   | 398.40  | 179.90               | 171.80  | 221.20   | 230.80                   | 103.20  | 279.70  | 273.10  | 303.40  | 273.10  |          |        |
| 13             | 61.00                                                             | 383.40                   | 379.80  | 163.70               | 394.60  | 250.00   | 188.00                   | 82.00   | 206.00  | 250.00  | 320.40  | 243.60  |          |        |
| 14             | 66.40                                                             | 379.80                   | 425.00  | 158.50               | 361.80  | 489.60   | 156.00                   | 98.80   | 240.40  | 256.60  | 266.50  | 250.00  |          |        |
| 15             | 78.00                                                             | 337.40                   | 485.80  | 161.00               | 286.40  | 636.80   | 138.50                   | 92.20   | 224.40  | 266.50  | 276.40  | 273.10  |          |        |
| 16             | 133.60                                                            | 266.50                   | 432.60  | 169.10               | 215.00  | 1223.00  | 116.80                   | 98.80   | 227.60  | 256.60  | 266.50  | 289.80  |          |        |
| 17             | 143.50                                                            | 227.60                   | 218.00  | 151.00               | 171.80  | 819.70   | 101.00                   | 105.40  | 212.00  | 243.60  | 293.20  | 293.20  |          |        |
| 18             | 143.50                                                            | 279.70                   | 191.00  | 124.00               | 179.90  | 777.00   | 107.60                   | 94.40   | 200.00  | 237.20  | 289.80  | 253.30  |          |        |
| 19             | 133.60                                                            | 320.40                   | 182.60  | 112.00               | 166.40  | 813.60   | 109.80                   | 101.00  | 234.00  | 266.50  | 300.00  | 269.80  |          |        |
| 20             | 146.00                                                            | 351.00                   | 191.00  | 112.00               | 138.50  | 885.40   | 105.40                   | 103.20  | 240.40  | 286.40  | 289.80  | 273.10  |          |        |
| 21             | 141.00                                                            | 369.00                   | 209.00  | 109.80               | 131.20  | 831.90   | 112.00                   | 98.80   | 227.60  | 310.20  | 273.10  | 269.80  |          |        |
| 22             | 148.50                                                            | 351.00                   | 185.30  | 121.60               | 116.80  | 1043.60  | 119.20                   | 88.00   | 259.90  | 313.60  | 256.60  | 206.00  |          |        |
| 23             | 146.00                                                            | 365.40                   | 177.20  | 119.20               | 114.40  | 1389.00  | 121.60                   | 84.00   | 246.80  | 283.00  | 259.90  | 209.00  |          |        |
| 24             | 143.50                                                            | 402.20                   | 161.00  | 116.80               | 101.00  | 977.60   | 151.00                   | 96.60   | 256.60  | 310.20  | 230.80  | 206.00  |          |        |
| 25             | 143.50                                                            | 409.80                   | 174.50  | 119.20               | 109.80  | 762.30   | 546.40                   | 86.00   | 269.80  | 303.40  | 246.80  | 182.60  |          |        |
| 26             | 143.50                                                            | 425.00                   | 161.00  | 124.00               | 94.40   | 737.80   | 1146.00                  | 82.00   | 246.80  | 296.60  | 273.10  | 209.00  |          |        |
| 27             | 119.20                                                            | 436.40                   | 156.00  | 121.60               | 98.80   | 752.50   | 1082.00                  | 82.00   | 237.20  | 310.20  | 259.90  | 200.00  |          |        |
| 28             | 109.80                                                            | 417.40                   | 151.00  | 143.50               | 98.80   | 708.80   | 742.70                   | 76.00   | 230.80  | 306.80  | 246.80  | 191.00  |          |        |
| 29             | 86.00                                                             | 406.00                   | 112.00  | 161.00               | 98.80   | 762.30   | 618.20                   | 72.00   | 227.60  | 300.00  |         | 179.90  |          |        |
| 30             | 98.80                                                             | 413.60                   | 109.80  | 119.20               | 94.40   | 694.40   | 513.30                   | 70.00   | 234.00  | 300.00  |         | 177.20  |          |        |
| 31             |                                                                   | 428.80                   |         | 124.00               | 90.00   |          | 428.80                   |         | 243.60  | 303.40  |         | 171.80  |          |        |
| Total          | 2937.20                                                           | 10648.00                 | 9073.40 | 4458.30              | 4831.30 | 16257.70 | 12083.40                 | 4389.60 | 6553.90 | 8470.90 | 7851.60 | 7605.00 | 95160.30 | CMSDAY |
| Mean           | 97.90                                                             | 343.50                   | 302.40  | 143.80               | 155.80  | 541.90   | 389.80                   | 146.30  | 211.40  | 273.30  | 280.40  | 245.30  | 260.70   | CMS    |
| Max            | 148.50                                                            | 436.40                   | 485.80  | 218.00               | 394.60  | 1389.00  | 1146.00                  | 361.80  | 358.20  | 313.60  | 320.40  | 310.20  | 1389.00  | CMS    |
| Min            | 53.80                                                             | 209.00                   | 109.80  | 109.80               | 90.00   | 90.00    | 101.00                   | 70.00   | 45.20   | 237.20  | 230.80  | 171.80  | 45.20    | CMS    |
| Runoff         | 253.77                                                            | 919.99                   | 783.94  | 385.20               | 417.42  | 1404.67  | 1044.01                  | 379.26  | 566.26  | 731.89  | 678.38  | 657.07  | 8221.85  | MCM    |
| Momentary Peak | 1500.20 CMS. at 55.01 m. (MSL.) at 18.00 Hours , on Sep 23 , 2013 |                          |         |                      |         |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 5.86                                                              | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 33.742   | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

### Ping River at Ban San Tor , Kamphaeng Phet (P.16)

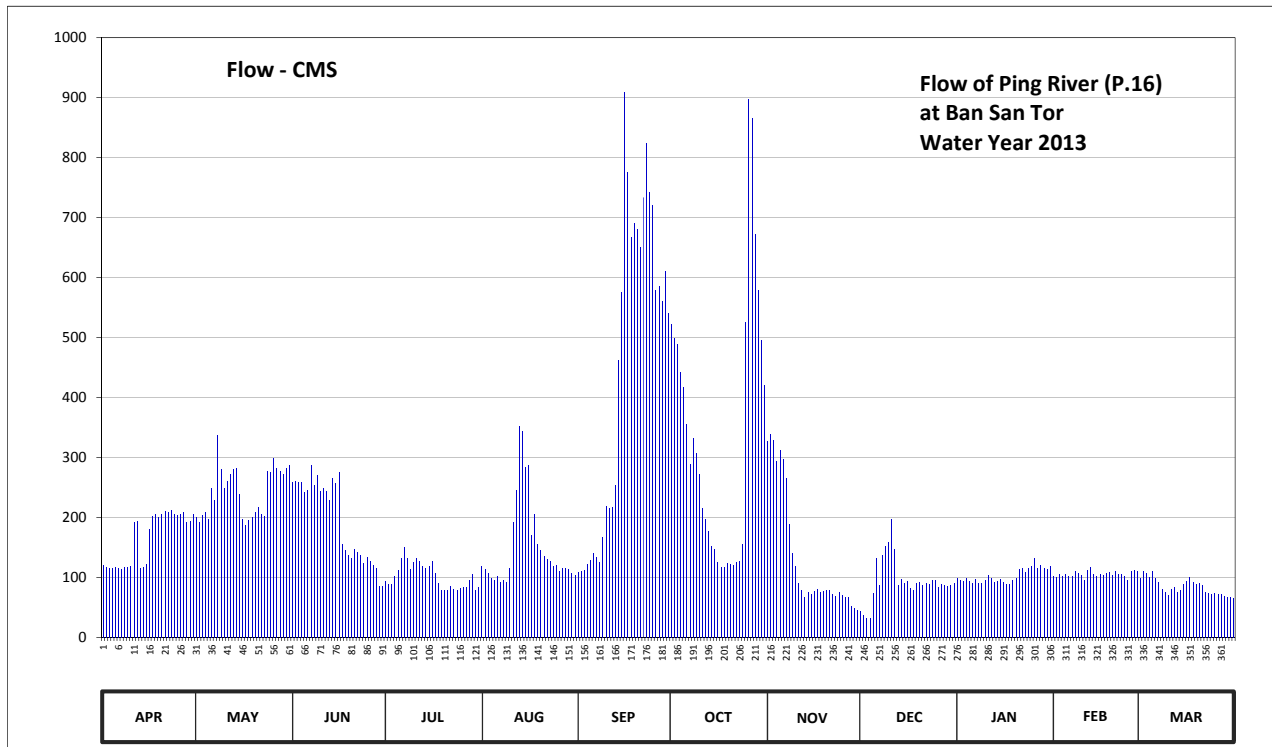
Lat 16 - 03 - 45 N    Long 99 - 51 - 48 E

**Location : on right bank behind the Post Office**

|                                         |                                                                                           |           |               |                     |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | San Tor   | <b>Amphoe</b> | Khanu Worakabsaburi | <b>Changwat</b>  | Kamphaeng Phet    |
| <b>Drainage Area</b>                    | 45,076                                                                                    | sq.km.    |               |                     |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |                     |                  |                   |
| <b>Zero Gage at Bottom</b>              | +41.780                                                                                   | m. (MSL.) |               |                     |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |                     |                  |                   |
| <b>Location BM</b>                      | On right bank near the automatic gage building.                                           |           |               |                     | <b>Elevation</b> | +46.604 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |                     |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |                     |                  |                   |
| <b>Period of Available Gage Records</b> | 1954 to date                                                                              |           |               |                     |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |                     |                  |                   |
| <b>Period of Rating</b>                 | 1960 , 1967 - 1974 , 1990 to date                                                         |           |               |                     |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |                     |                  |                   |
| <b>Rated by Current Meter</b>           | 1960 , 1964 - 1975 , 1979 , 1990 to date                                                  |           |               |                     |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |                     |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |                     |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 33 discharge measurements made in 2013. |           |               |                     |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 40.56 | 40.99 | 41.26                                             | 40.39 | 40.55 | 40.49 | 42.24 | 41.54 | 40.01 | 40.42 | 40.44 | 40.42 |        |
| 2                                | 40.54 | 40.95 | 41.27                                             | 40.35 | 40.52 | 40.50 | 42.16 | 41.59 | 39.96 | 40.40 | 40.43 | 40.50 |        |
| 3                                | 40.53 | 41.01 | 41.26                                             | 40.35 | 40.48 | 40.51 | 42.13 | 41.55 | 39.90 | 40.39 | 40.46 | 40.48 |        |
| 4                                | 40.53 | 41.03 | 41.26                                             | 40.44 | 40.42 | 40.57 | 41.97 | 41.41 | 39.91 | 40.42 | 40.44 | 40.43 |        |
| 5                                | 40.54 | 40.98 | 41.18                                             | 40.51 | 40.40 | 40.61 | 41.88 | 41.48 | 40.25 | 40.39 | 40.46 | 40.50 |        |
| 6                                | 40.53 | 41.21 | 41.20                                             | 40.63 | 40.44 | 40.68 | 41.65 | 41.42 | 40.63 | 40.37 | 40.44 | 40.42 |        |
| 7                                | 40.52 | 41.12 | 41.38                                             | 40.73 | 40.38 | 40.64 | 41.39 | 41.29 | 40.34 | 40.41 | 40.44 | 40.38 |        |
| 8                                | 40.54 | 41.58 | 41.24                                             | 40.63 | 40.40 | 40.59 | 41.56 | 40.93 | 40.66 | 40.36 | 40.50 | 40.30 |        |
| 9                                | 40.54 | 41.35 | 41.31                                             | 40.52 | 40.38 | 40.82 | 41.46 | 40.67 | 40.74 | 40.37 | 40.48 | 40.26 |        |
| 10                               | 40.55 | 41.21 | 41.19                                             | 40.59 | 40.53 | 41.08 | 41.32 | 40.55 | 40.77 | 40.40 | 40.45 | 40.22 |        |
| 11                               | 40.95 | 41.27 | 41.21                                             | 40.63 | 40.95 | 41.06 | 41.06 | 40.37 | 40.98 | 40.45 | 40.40 | 40.30 |        |
| 12                               | 40.96 | 41.32 | 41.19                                             | 40.60 | 41.20 | 41.07 | 40.98 | 40.29 | 40.71 | 40.42 | 40.51 | 40.32 |        |
| 13                               | 40.53 | 41.35 | 41.12                                             | 40.55 | 41.64 | 41.24 | 40.87 | 40.20 | 40.34 | 40.38 | 40.54 | 40.26 |        |
| 14                               | 40.54 | 41.36 | 41.29                                             | 40.53 | 41.61 | 42.04 | 40.74 | 40.26 | 40.41 | 40.39 | 40.47 | 40.29 |        |
| 15                               | 40.57 | 41.17 | 41.25                                             | 40.55 | 41.37 | 42.40 | 40.71 | 40.23 | 40.37 | 40.41 | 40.44 | 40.35 |        |
| 16                               | 40.89 | 40.98 | 41.33                                             | 40.60 | 41.38 | 43.14 | 40.59 | 40.27 | 40.39 | 40.38 | 40.47 | 40.39 |        |
| 17                               | 41.00 | 40.92 | 40.76                                             | 40.48 | 40.84 | 42.88 | 40.54 | 40.30 | 40.31 | 40.35 | 40.45 | 40.43 |        |
| 18                               | 41.02 | 40.97 | 40.70                                             | 40.37 | 41.02 | 42.64 | 40.54 | 40.26 | 40.28 | 40.35 | 40.48 | 40.38 |        |
| 19                               | 40.99 | 40.99 | 40.66                                             | 40.29 | 40.76 | 42.69 | 40.58 | 40.27 | 40.37 | 40.40 | 40.49 | 40.35 |        |
| 20                               | 41.02 | 41.03 | 40.63                                             | 40.29 | 40.70 | 42.67 | 40.57 | 40.29 | 40.38 | 40.42 | 40.45 | 40.37 |        |
| 21                               | 41.04 | 41.07 | 40.71                                             | 40.29 | 40.65 | 42.60 | 40.56 | 40.28 | 40.34 | 40.52 | 40.50 | 40.34 |        |
| 22                               | 41.03 | 41.02 | 40.69                                             | 40.33 | 40.62 | 42.79 | 40.59 | 40.23 | 40.37 | 40.53 | 40.47 | 40.26 |        |
| 23                               | 41.05 | 41.00 | 40.66                                             | 40.30 | 40.60 | 42.98 | 40.60 | 40.21 | 40.35 | 40.49 | 40.47 | 40.24 |        |
| 24                               | 41.02 | 41.34 | 40.58                                             | 40.29 | 40.55 | 42.81 | 40.76 | 40.26 | 40.40 | 40.53 | 40.44 | 40.23 |        |
| 25                               | 41.01 | 41.33 | 40.64                                             | 40.31 | 40.56 | 42.76 | 42.25 | 40.22 | 40.40 | 40.55 | 40.40 | 40.24 |        |
| 26                               | 41.02 | 41.43 | 40.60                                             | 40.32 | 40.50 | 42.41 | 43.12 | 40.19 | 40.32 | 40.63 | 40.50 | 40.23 |        |
| 27                               | 41.03 | 41.36 | 40.56                                             | 40.32 | 40.53 | 42.43 | 43.06 | 40.19 | 40.35 | 40.53 | 40.51 | 40.23 |        |
| 28                               | 40.95 | 41.34 | 40.53                                             | 40.40 | 40.53 | 42.36 | 42.65 | 40.08 | 40.34 | 40.56 | 40.50 | 40.21 |        |
| 29                               | 40.96 | 41.32 | 40.33                                             | 40.47 | 40.52 | 42.50 | 42.41 | 40.05 | 40.33 | 40.53 |       | 40.20 |        |
| 30                               | 41.02 | 41.36 | 40.33                                             | 40.29 | 40.48 | 42.30 | 42.15 | 40.03 | 40.34 | 40.52 |       | 40.19 |        |
| 31                               |       | 41.38 |                                                   | 40.32 | 40.45 |       | 41.89 |       | 40.36 | 40.55 |       | 40.18 |        |
| Mean                             | 40.80 | 41.19 | 40.94                                             | 40.44 | 40.71 | 41.81 | 41.45 | 40.56 | 40.37 | 40.45 | 40.47 | 40.32 |        |
| Max                              | 41.05 | 41.58 | 41.38                                             | 40.73 | 41.64 | 43.14 | 43.12 | 41.59 | 40.98 | 40.63 | 40.54 | 40.50 | 43.14  |
| Min                              | 40.52 | 40.92 | 40.33                                             | 40.29 | 40.38 | 40.49 | 40.54 | 40.03 | 39.90 | 40.35 | 40.40 | 40.18 | 39.90  |
| Annual Max Momentary Gage Height |       | 43.28 | m. (MSL.) , at 18.00 Hours , on Oct 26 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 41.78 | m. (MSL.) , River Bed 38.10 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 45.08 | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 45.59 | m. (MSL.) , Drainage Area 45076 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 121.20                                                           | 200.10                   | 259.20  | 94.50                | 119.50  | 109.50   | 522.00                   | 327.00  | 43.30   | 99.00   | 102.00  | 99.00   |          |        |
| 2              | 117.80                                                           | 192.50                   | 261.40  | 88.50                | 114.40  | 111.00   | 498.00                   | 339.50  | 38.00   | 96.00   | 100.50  | 111.00  |          |        |
| 3              | 116.10                                                           | 204.20                   | 259.20  | 88.50                | 108.00  | 112.70   | 489.00                   | 329.50  | 32.00   | 94.50   | 105.00  | 108.00  |          |        |
| 4              | 116.10                                                           | 208.60                   | 259.20  | 102.00               | 99.00   | 122.90   | 442.60                   | 294.50  | 33.00   | 99.00   | 102.00  | 100.50  |          |        |
| 5              | 117.80                                                           | 198.20                   | 241.60  | 112.70               | 96.00   | 129.70   | 417.60                   | 312.00  | 74.50   | 94.50   | 105.00  | 111.00  |          |        |
| 6              | 116.10                                                           | 248.20                   | 246.00  | 133.10               | 102.00  | 141.60   | 355.50                   | 297.00  | 133.10  | 91.50   | 102.00  | 99.00   |          |        |
| 7              | 114.40                                                           | 228.40                   | 287.20  | 150.70               | 93.00   | 134.80   | 289.60                   | 265.80  | 87.00   | 97.50   | 102.00  | 93.00   |          |        |
| 8              | 117.80                                                           | 337.00                   | 254.80  | 133.10               | 96.00   | 126.30   | 332.00                   | 188.70  | 138.20  | 90.00   | 111.00  | 81.00   |          |        |
| 9              | 117.80                                                           | 280.00                   | 270.40  | 114.40               | 93.00   | 167.80   | 307.00                   | 139.90  | 152.60  | 91.50   | 108.00  | 75.80   |          |        |
| 10             | 119.50                                                           | 248.20                   | 243.80  | 126.30               | 116.10  | 219.60   | 272.80                   | 119.50  | 158.30  | 96.00   | 103.50  | 70.60   |          |        |
| 11             | 192.50                                                           | 261.40                   | 248.20  | 133.10               | 192.50  | 215.20   | 215.20                   | 91.50   | 198.20  | 103.50  | 96.00   | 81.00   |          |        |
| 12             | 194.40                                                           | 272.80                   | 243.80  | 128.00               | 246.00  | 217.40   | 198.20                   | 79.70   | 146.90  | 99.00   | 112.70  | 84.00   |          |        |
| 13             | 116.10                                                           | 280.00                   | 228.40  | 119.50               | 352.80  | 254.80   | 177.30                   | 68.00   | 87.00   | 93.00   | 117.80  | 75.80   |          |        |
| 14             | 117.80                                                           | 282.40                   | 265.80  | 116.10               | 344.70  | 462.60   | 152.60                   | 75.80   | 97.50   | 94.50   | 106.50  | 79.70   |          |        |
| 15             | 122.90                                                           | 239.40                   | 257.00  | 119.50               | 284.80  | 575.00   | 146.90                   | 71.90   | 91.50   | 97.50   | 102.00  | 88.50   |          |        |
| 16             | 181.10                                                           | 198.20                   | 275.20  | 128.00               | 287.20  | 908.20   | 126.30                   | 77.10   | 94.50   | 93.00   | 106.50  | 94.50   |          |        |
| 17             | 202.00                                                           | 186.80                   | 156.40  | 108.00               | 171.60  | 775.60   | 117.80                   | 81.00   | 82.50   | 88.50   | 103.50  | 100.50  |          |        |
| 18             | 206.40                                                           | 196.30                   | 145.00  | 91.50                | 206.40  | 667.60   | 117.80                   | 75.80   | 78.40   | 88.50   | 108.00  | 93.00   |          |        |
| 19             | 200.10                                                           | 200.10                   | 138.20  | 79.70                | 156.40  | 689.60   | 124.60                   | 77.10   | 91.50   | 96.00   | 109.50  | 88.50   |          |        |
| 20             | 206.40                                                           | 208.60                   | 133.10  | 79.70                | 145.00  | 680.80   | 122.90                   | 79.70   | 93.00   | 99.00   | 103.50  | 91.50   |          |        |
| 21             | 210.80                                                           | 217.40                   | 146.90  | 79.70                | 136.50  | 650.00   | 121.20                   | 78.40   | 87.00   | 114.40  | 111.00  | 87.00   |          |        |
| 22             | 208.60                                                           | 206.40                   | 143.30  | 85.50                | 131.40  | 733.60   | 126.30                   | 71.90   | 91.50   | 116.10  | 106.50  | 75.80   |          |        |
| 23             | 213.00                                                           | 202.00                   | 138.20  | 81.00                | 128.00  | 824.20   | 128.00                   | 69.30   | 88.50   | 109.50  | 106.50  | 73.20   |          |        |
| 24             | 206.40                                                           | 277.60                   | 124.60  | 79.70                | 119.50  | 742.70   | 156.40                   | 75.80   | 96.00   | 116.10  | 102.00  | 71.90   |          |        |
| 25             | 204.20                                                           | 275.20                   | 134.80  | 82.50                | 121.20  | 720.40   | 525.00                   | 70.60   | 96.00   | 119.50  | 96.00   | 73.20   |          |        |
| 26             | 206.40                                                           | 299.50                   | 128.00  | 84.00                | 111.00  | 578.50   | 897.60                   | 66.70   | 84.00   | 133.10  | 111.00  | 71.90   |          |        |
| 27             | 208.60                                                           | 282.40                   | 121.20  | 84.00                | 116.10  | 585.50   | 865.80                   | 66.70   | 88.50   | 116.10  | 112.70  | 71.90   |          |        |
| 28             | 192.50                                                           | 277.60                   | 116.10  | 96.00                | 116.10  | 561.00   | 672.00                   | 52.40   | 87.00   | 121.20  | 111.00  | 69.30   |          |        |
| 29             | 194.40                                                           | 272.80                   | 85.50   | 106.50               | 114.40  | 610.00   | 578.50                   | 48.50   | 85.50   | 116.10  |         | 68.00   |          |        |
| 30             | 206.40                                                           | 282.40                   | 85.50   | 79.70                | 108.00  | 540.00   | 495.00                   | 45.90   | 87.00   | 114.40  |         | 66.70   |          |        |
| 31             |                                                                  | 287.20                   |         | 84.00                | 103.50  |          | 420.30                   |         | 90.00   | 119.50  |         | 65.40   |          |        |
| Total          | 4965.60                                                          | 7551.90                  | 5898.00 | 3189.50              | 4730.10 | 13368.60 | 10411.80                 | 4037.20 | 2932.00 | 3198.00 | 2963.70 | 2620.20 | 65866.60 | CMSDAY |
| Mean           | 165.52                                                           | 243.61                   | 196.60  | 102.89               | 152.58  | 445.62   | 335.86                   | 134.57  | 94.58   | 103.16  | 105.85  | 84.52   | 180.46   | CMS    |
| Max            | 213.00                                                           | 337.00                   | 287.20  | 150.70               | 352.80  | 908.20   | 897.60                   | 339.50  | 198.20  | 133.10  | 117.80  | 111.00  | 908.20   | CMS    |
| Min            | 114.40                                                           | 186.80                   | 85.50   | 79.70                | 93.00   | 109.50   | 117.80                   | 45.90   | 32.00   | 88.50   | 96.00   | 65.40   | 32.00    | CMS    |
| Runoff         | 429.03                                                           | 652.48                   | 509.59  | 275.57               | 408.68  | 1155.05  | 899.58                   | 348.81  | 253.33  | 276.31  | 256.06  | 226.39  | 5690.88  | MCM    |
| Momentary Peak | 985.60 CMS. at 43.28 m. (MSL.) at 18.00 Hours , on Oct 26 , 2013 |                          |         |                      |         |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 4.00                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 21.865   | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

### Ping River at Ban Tha Ngiu, Nakhon Sawan (P.17)

Lat 15 - 56 - 02 N Long 99 - 58 - 50 E

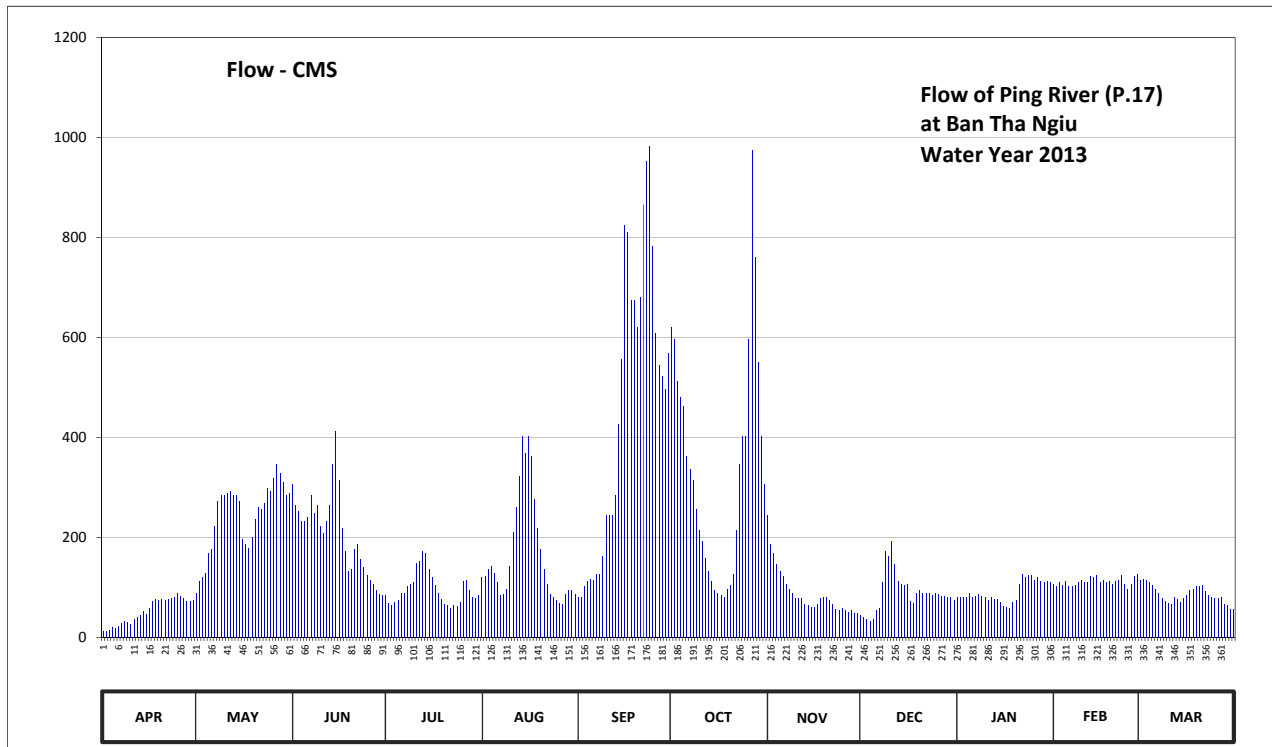
**Location : on right bank at Som Sieo Marke**

|                                         |                                                                             |           |               |                |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Tha Ngiu  | <b>Amphoe</b> | Banphot Phisai | <b>Changwat</b>  | Nakhon Sawan      |
| <b>Drainage Area</b>                    | 45,297                                                                      | sq.km.    |               |                |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                      | m. (MSL.) |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |                |                  |                   |
| <b>Location BM</b>                      | On right bank about 5.00 meters from the top staff gage                     |           |               |                | <b>Elevation</b> | +37.900 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 1954 to date                                                                |           |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |           |               |                |                  |                   |
| <b>Period of Rating</b>                 | 1960, 1967 - 1974, 1990 to date                                             |           |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 1954 - 1979, 1990 to date                                                   |           |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |           |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |                |                  |                   |
| <b>General Description</b>              | Records good. Flow effected by Phumiphol Dam.                               |           |               |                |                  |                   |
|                                         | Stage-discharge relation defined by 42 discharge measurements made in 2013. |           |               |                |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 34.06 | 34.79 | 35.45                                             | 34.77 | 34.92 | 34.75 | 36.06 | 35.30 | 34.50 | 34.74 | 34.87 | 34.90 |        |
| 2                                | 34.04 | 34.89 | 35.35                                             | 34.67 | 34.93 | 34.75 | 36.02 | 35.14 | 34.45 | 34.74 | 34.85 | 34.91 |        |
| 3                                | 34.09 | 34.92 | 35.32                                             | 34.65 | 34.99 | 34.85 | 35.87 | 35.09 | 34.42 | 34.74 | 34.88 | 34.90 |        |
| 4                                | 34.21 | 34.96 | 35.27                                             | 34.68 | 35.01 | 34.89 | 35.81 | 35.02 | 34.38 | 34.75 | 34.86 | 34.88 |        |
| 5                                | 34.19 | 35.09 | 35.27                                             | 34.71 | 34.96 | 34.91 | 35.78 | 34.97 | 34.42 | 34.80 | 34.89 | 34.86 |        |
| 6                                | 34.25 | 35.11 | 35.29                                             | 34.80 | 34.88 | 34.90 | 35.58 | 34.93 | 34.58 | 34.75 | 34.85 | 34.83 |        |
| 7                                | 34.33 | 35.24 | 35.40                                             | 34.79 | 34.77 | 34.95 | 35.52 | 34.87 | 34.61 | 34.76 | 34.85 | 34.80 |        |
| 8                                | 34.37 | 35.37 | 35.31                                             | 34.85 | 34.78 | 34.95 | 35.47 | 34.83 | 34.88 | 34.78 | 34.86 | 34.73 |        |
| 9                                | 34.34 | 35.40 | 35.35                                             | 34.87 | 34.83 | 35.07 | 35.33 | 34.79 | 35.10 | 34.76 | 34.88 | 34.70 |        |
| 10                               | 34.29 | 35.40 | 35.24                                             | 34.88 | 35.01 | 35.30 | 35.22 | 34.73 | 35.07 | 34.74 | 34.90 | 34.67 |        |
| 11                               | 34.42 | 35.41 | 35.20                                             | 35.03 | 35.21 | 35.30 | 35.16 | 34.73 | 35.16 | 34.71 | 34.88 | 34.66 |        |
| 12                               | 34.45 | 35.42 | 35.27                                             | 35.04 | 35.34 | 35.30 | 35.06 | 34.73 | 35.02 | 34.75 | 34.88 | 34.74 |        |
| 13                               | 34.49 | 35.40 | 35.35                                             | 35.10 | 35.49 | 35.40 | 34.97 | 34.66 | 34.89 | 34.72 | 34.93 | 34.72 |        |
| 14                               | 34.56 | 35.40 | 35.54                                             | 35.09 | 35.66 | 35.71 | 34.89 | 34.64 | 34.87 | 34.72 | 34.92 | 34.69 |        |
| 15                               | 34.52 | 35.37 | 35.68                                             | 34.99 | 35.59 | 35.95 | 34.82 | 34.62 | 34.86 | 34.69 | 34.94 | 34.73 |        |
| 16                               | 34.61 | 35.17 | 35.47                                             | 34.92 | 35.66 | 36.37 | 34.79 | 34.62 | 34.87 | 34.63 | 34.88 | 34.77 |        |
| 17                               | 34.70 | 35.14 | 35.23                                             | 34.86 | 35.58 | 36.35 | 34.77 | 34.66 | 34.70 | 34.62 | 34.90 | 34.82 |        |
| 18                               | 34.72 | 35.12 | 35.10                                             | 34.80 | 35.38 | 36.15 | 34.74 | 34.73 | 34.67 | 34.61 | 34.88 | 34.83 |        |
| 19                               | 34.71 | 35.18 | 34.97                                             | 34.72 | 35.23 | 36.15 | 34.83 | 34.75 | 34.80 | 34.68 | 34.89 | 34.85 |        |
| 20                               | 34.72 | 35.28 | 34.99                                             | 34.66 | 35.11 | 36.06 | 34.86 | 34.74 | 34.82 | 34.71 | 34.87 | 34.85 |        |
| 21                               | 34.71 | 35.34 | 35.11                                             | 34.65 | 34.99 | 36.16 | 34.95 | 34.71 | 34.79 | 34.87 | 34.89 | 34.86 |        |
| 22                               | 34.72 | 35.33 | 35.14                                             | 34.61 | 34.87 | 36.43 | 35.22 | 34.66 | 34.80 | 34.95 | 34.90 | 34.81 |        |
| 23                               | 34.73 | 35.36 | 35.05                                             | 34.64 | 34.78 | 36.55 | 35.54 | 34.60 | 34.79 | 34.92 | 34.94 | 34.77 |        |
| 24                               | 34.75 | 35.43 | 35.00                                             | 34.63 | 34.75 | 36.59 | 35.66 | 34.57 | 34.77 | 34.94 | 34.87 | 34.75 |        |
| 25                               | 34.79 | 35.42 | 34.94                                             | 34.68 | 34.71 | 36.31 | 35.66 | 34.61 | 34.80 | 34.94 | 34.83 | 34.73 |        |
| 26                               | 34.76 | 35.48 | 34.90                                             | 34.89 | 34.67 | 36.04 | 36.02 | 34.58 | 34.78 | 34.90 | 34.87 | 34.73 |        |
| 27                               | 34.73 | 35.54 | 34.87                                             | 34.90 | 34.66 | 35.93 | 36.58 | 34.54 | 34.76 | 34.92 | 34.93 | 34.75 |        |
| 28                               | 34.70 | 35.50 | 34.82                                             | 34.82 | 34.78 | 35.89 | 36.28 | 34.57 | 34.76 | 34.89 | 34.95 | 34.66 |        |
| 29                               | 34.70 | 35.46 | 34.78                                             | 34.75 | 34.82 | 35.84 | 35.94 | 34.53 | 34.74 | 34.88 |       | 34.65 |        |
| 30                               | 34.71 | 35.40 | 34.77                                             | 34.73 | 34.82 | 35.97 | 35.66 | 34.53 | 34.74 | 34.89 |       | 34.60 |        |
| 31                               |       | 35.41 |                                                   | 34.77 | 34.78 |       | 35.45 |       | 34.71 | 34.88 |       | 34.60 |        |
| Mean                             | 34.51 | 35.28 | 35.18                                             | 34.80 | 35.03 | 35.66 | 35.44 | 34.75 | 34.76 | 34.79 | 34.89 | 34.77 |        |
| Max                              | 34.79 | 35.54 | 35.68                                             | 35.10 | 35.66 | 36.59 | 36.58 | 35.30 | 35.16 | 34.95 | 34.95 | 34.91 | 36.5   |
| Min                              | 34.04 | 34.79 | 34.77                                             | 34.61 | 34.66 | 34.75 | 34.74 | 34.53 | 34.38 | 34.61 | 34.83 | 34.60 | 34.0   |
| Annual Max Momentary Gage Height |       | 36.68 | m. (MSL.) , at 01.00 Hours , on Sep 24 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 31.31 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 38.81 | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 38.64 | m. (MSL.) , Drainage Area 45297 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 13.00                                                            | 88.30                    | 306.50  | 84.90                | 120.00  | 81.50    | 621.00                   | 245.00  | 45.00   | 79.80   | 107.50  | 115.00  |          |        |
| 2              | 12.00                                                            | 112.50                   | 265.00  | 68.50                | 122.50  | 81.50    | 597.00                   | 187.00  | 40.00   | 79.80   | 102.50  | 117.50  |          |        |
| 3              | 14.50                                                            | 120.00                   | 253.00  | 65.50                | 137.50  | 102.50   | 511.80                   | 169.70  | 37.00   | 79.80   | 110.00  | 115.00  |          |        |
| 4              | 20.70                                                            | 130.00                   | 233.90  | 70.00                | 143.30  | 112.50   | 479.40                   | 146.60  | 33.40   | 81.50   | 105.00  | 110.00  |          |        |
| 5              | 19.50                                                            | 169.70                   | 233.90  | 74.70                | 130.00  | 117.50   | 463.60                   | 132.50  | 37.00   | 90.00   | 112.50  | 105.00  |          |        |
| 6              | 23.50                                                            | 176.50                   | 241.30  | 90.00                | 110.00  | 115.00   | 364.00                   | 122.50  | 55.40   | 81.50   | 102.50  | 97.50   |          |        |
| 7              | 29.40                                                            | 222.80                   | 285.00  | 88.30                | 84.90   | 127.50   | 337.00                   | 107.50  | 59.50   | 83.20   | 102.50  | 90.00   |          |        |
| 8              | 32.60                                                            | 273.00                   | 249.00  | 102.50               | 86.60   | 127.50   | 315.10                   | 97.50   | 110.00  | 86.60   | 105.00  | 78.10   |          |        |
| 9              | 30.20                                                            | 285.00                   | 265.00  | 107.50               | 97.50   | 163.10   | 257.00                   | 88.30   | 173.00  | 83.20   | 110.00  | 73.00   |          |        |
| 10             | 26.30                                                            | 285.00                   | 222.80  | 110.00               | 143.30  | 245.00   | 215.40                   | 78.10   | 163.10  | 79.80   | 115.00  | 68.50   |          |        |
| 11             | 37.00                                                            | 289.30                   | 208.00  | 149.90               | 211.70  | 245.00   | 194.00                   | 78.10   | 194.00  | 74.70   | 110.00  | 67.00   |          |        |
| 12             | 40.00                                                            | 293.60                   | 233.90  | 153.20               | 261.00  | 245.00   | 159.80                   | 78.10   | 146.60  | 81.50   | 110.00  | 79.80   |          |        |
| 13             | 44.00                                                            | 285.00                   | 265.00  | 173.00               | 323.70  | 285.00   | 132.50                   | 67.00   | 112.50  | 76.40   | 122.50  | 76.40   |          |        |
| 14             | 52.80                                                            | 285.00                   | 346.00  | 169.70               | 402.40  | 427.20   | 112.50                   | 64.00   | 107.50  | 76.40   | 120.00  | 71.50   |          |        |
| 15             | 47.60                                                            | 273.00                   | 412.20  | 137.50               | 368.50  | 556.50   | 95.00                    | 61.00   | 105.00  | 71.50   | 125.00  | 78.10   |          |        |
| 16             | 59.50                                                            | 197.50                   | 315.10  | 120.00               | 402.40  | 824.00   | 88.30                    | 61.00   | 107.50  | 62.50   | 110.00  | 84.90   |          |        |
| 17             | 73.00                                                            | 187.00                   | 219.10  | 105.00               | 364.00  | 810.00   | 84.90                    | 67.00   | 73.00   | 61.00   | 115.00  | 95.00   |          |        |
| 18             | 76.40                                                            | 180.00                   | 173.00  | 90.00                | 277.00  | 675.00   | 79.80                    | 78.10   | 68.50   | 59.50   | 110.00  | 97.50   |          |        |
| 19             | 74.70                                                            | 201.00                   | 132.50  | 76.40                | 219.10  | 675.00   | 97.50                    | 81.50   | 90.00   | 70.00   | 112.50  | 102.50  |          |        |
| 20             | 76.40                                                            | 237.60                   | 137.50  | 67.00                | 176.50  | 621.00   | 105.00                   | 79.80   | 95.00   | 74.70   | 107.50  | 102.50  |          |        |
| 21             | 74.70                                                            | 261.00                   | 176.50  | 65.50                | 137.50  | 681.00   | 127.50                   | 74.70   | 88.30   | 107.50  | 112.50  | 105.00  |          |        |
| 22             | 76.40                                                            | 257.00                   | 187.00  | 59.50                | 107.50  | 866.00   | 215.40                   | 67.00   | 90.00   | 127.50  | 115.00  | 92.50   |          |        |
| 23             | 78.10                                                            | 269.00                   | 156.50  | 64.00                | 86.60   | 952.50   | 346.00                   | 58.00   | 88.30   | 120.00  | 125.00  | 84.90   |          |        |
| 24             | 81.50                                                            | 297.90                   | 140.00  | 62.50                | 81.50   | 982.50   | 402.40                   | 54.10   | 84.90   | 125.00  | 107.50  | 81.50   |          |        |
| 25             | 88.30                                                            | 293.60                   | 125.00  | 70.00                | 74.70   | 782.00   | 402.40                   | 59.50   | 90.00   | 125.00  | 97.50   | 78.10   |          |        |
| 26             | 83.20                                                            | 319.40                   | 115.00  | 112.50               | 68.50   | 609.00   | 597.00                   | 55.40   | 86.60   | 115.00  | 107.50  | 78.10   |          |        |
| 27             | 78.10                                                            | 346.00                   | 107.50  | 115.00               | 67.00   | 545.10   | 975.00                   | 50.20   | 83.20   | 120.00  | 122.50  | 81.50   |          |        |
| 28             | 73.00                                                            | 328.00                   | 95.00   | 95.00                | 86.60   | 522.60   | 761.00                   | 54.10   | 83.20   | 112.50  | 127.50  | 67.00   |          |        |
| 29             | 73.00                                                            | 310.80                   | 86.60   | 81.50                | 95.00   | 495.60   | 550.80                   | 48.90   | 79.80   | 110.00  |         | 65.50   |          |        |
| 30             | 74.70                                                            | 285.00                   | 84.90   | 78.10                | 95.00   | 567.90   | 402.40                   | 48.90   | 79.80   | 112.50  |         | 58.00   |          |        |
| 31             |                                                                  | 289.30                   |         | 84.90                | 86.60   |          | 306.50                   |         | 74.70   | 110.00  |         | 58.00   |          |        |
| Total          | 1584.10                                                          | 7548.80                  | 6271.70 | 2992.10              | 5168.40 | 13641.50 | 10397.00                 | 2661.10 | 2781.80 | 2818.40 | 3130.00 | 2674.90 | 61669.80 | CMSDAY |
| Mean           | 52.80                                                            | 243.51                   | 209.06  | 96.52                | 166.72  | 454.72   | 335.39                   | 88.70   | 89.74   | 90.92   | 111.79  | 86.29   | 168.96   | CMS    |
| Max            | 88.30                                                            | 346.00                   | 412.20  | 173.00               | 402.40  | 982.50   | 975.00                   | 245.00  | 194.00  | 127.50  | 127.50  | 117.50  | 982.50   | CMS    |
| Min            | 12.00                                                            | 88.30                    | 84.90   | 59.50                | 67.00   | 81.50    | 79.80                    | 48.90   | 33.40   | 59.50   | 97.50   | 58.00   | 12.00    | CMS    |
| Runoff         | 136.87                                                           | 652.22                   | 541.88  | 258.52               | 446.55  | 1178.63  | 898.30                   | 229.92  | 240.35  | 243.51  | 270.43  | 231.11  | 5328.27  | MCM    |
| Momentary Peak | 1054.00 CMS. at 36.68 m. (MSL.) at 01.00 Hours , on Sep 24, 2013 |                          |         |                      |         |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 3.73                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 23.269   | Liters/Second/Square KM. |         |         |         |         |         |          |        |

## WATER YEAR : 2013

## PING RIVER BASIN

**Ping River at Ban Chiang Dao , Chiang Mai (P.20)**

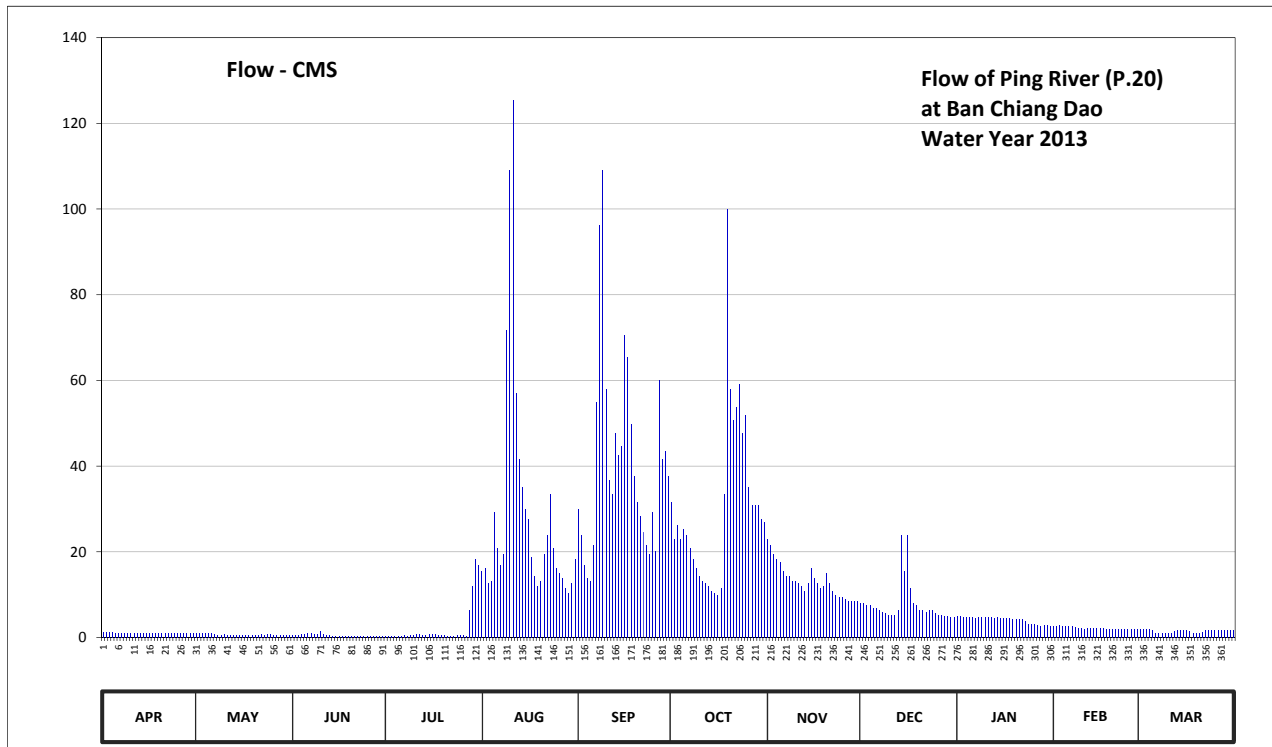
Lat 19 - 21 - 58 N    Long 98 - 58 - 21 E

**Location : on right bank near War Inthra Ram.**

|                                         |                                                                                               |                                      |               |            |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------|---------------|------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                    | Chiang Dao                           | <b>Amphoe</b> | Chiang Dao | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 1,345                                                                                         | sq.km.                               |               |            |                  |                    |
| <b>Type of Gage</b>                     | Water                                                                                         | - stage recorder.                    |               |            |                  |                    |
| <b>Zero Gage at Bottom</b>              | +379.900                                                                                      | m. (MSL.)                            |               |            |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                     |                                      |               |            |                  |                    |
| <b>Location BM</b>                      | About 2 meters from automatic gage building.                                                  |                                      |               |            | <b>Elevation</b> | +384.033 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                     |                                      |               |            |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                |                                      |               |            |                  |                    |
| <b>Period of Available Gage Records</b> | 1954 to date                                                                                  |                                      |               |            |                  |                    |
| <b>Rating Operation</b>                 |                                                                                               |                                      |               |            |                  |                    |
| <b>Period of Rating</b>                 | 1979 - 1982 , 1989 to date                                                                    |                                      |               |            |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                             |                                      |               |            |                  |                    |
| <b>Rated by Current Meter</b>           | 1979 - 1982 , 1989 to date                                                                    |                                      |               |            |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                    |                                      |               |            |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                             |                                      |               |            |                  |                    |
| <b>General Description</b>              | Records fair. Flow effected by the local weir about 300 meters downstream from the gage site. |                                      |               |            |                  |                    |
|                                         | Stage-discharge relation defined by 38                                                        | discharge measurements made in 2013. |               |            |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 380.35 | 380.31 | 380.19      | 380.04 | 380.30                            | 380.50 | 380.52            | 380.41    | 380.16 | 380.08 | 379.99 | 379.94 |        |
| 2                                | 380.35 | 380.32 | 380.21      | 380.04 | 380.31                            | 380.42 | 380.41            | 380.39    | 380.16 | 380.08 | 379.99 | 379.94 |        |
| 3                                | 380.35 | 380.31 | 380.22      | 380.04 | 380.25                            | 380.32 | 380.45            | 380.36    | 380.15 | 380.07 | 380.00 | 379.94 |        |
| 4                                | 380.35 | 380.32 | 380.25      | 380.05 | 380.26                            | 380.27 | 380.41            | 380.34    | 380.15 | 380.07 | 379.99 | 379.95 |        |
| 5                                | 380.34 | 380.34 | 380.26      | 380.06 | 380.49                            | 380.26 | 380.44            | 380.33    | 380.13 | 380.07 | 379.99 | 379.93 |        |
| 6                                | 380.33 | 380.29 | 380.29      | 380.08 | 380.38                            | 380.39 | 380.42            | 380.30    | 380.13 | 380.07 | 379.99 | 379.88 |        |
| 7                                | 380.32 | 380.24 | 380.30      | 380.19 | 380.32                            | 380.76 | 380.38            | 380.28    | 380.12 | 380.06 | 379.99 | 379.88 |        |
| 8                                | 380.32 | 380.22 | 380.23      | 380.11 | 380.36                            | 381.13 | 380.34            | 380.28    | 380.11 | 380.07 | 379.98 | 379.88 |        |
| 9                                | 380.32 | 380.22 | 380.25      | 380.13 | 380.92                            | 381.23 | 380.31            | 380.26    | 380.10 | 380.07 | 379.96 | 379.88 |        |
| 10                               | 380.32 | 380.24 | 380.41      | 380.21 | 381.23                            | 380.79 | 380.28            | 380.26    | 380.09 | 380.07 | 379.96 | 379.87 |        |
| 11                               | 380.32 | 380.22 | 380.27      | 380.23 | 381.35                            | 380.58 | 380.26            | 380.25    | 380.09 | 380.07 | 379.95 | 379.88 |        |
| 12                               | 380.32 | 380.21 | 380.18      | 380.26 | 380.78                            | 380.54 | 380.25            | 380.24    | 380.09 | 380.07 | 379.96 | 379.91 |        |
| 13                               | 380.32 | 380.19 | 380.15      | 380.20 | 380.63                            | 380.69 | 380.24            | 380.22    | 380.12 | 380.06 | 379.96 | 379.92 |        |
| 14                               | 380.32 | 380.18 | 380.10      | 380.16 | 380.56                            | 380.64 | 380.22            | 380.25    | 380.42 | 380.07 | 379.96 | 379.92 |        |
| 15                               | 380.32 | 380.16 | 380.09      | 380.23 | 380.50                            | 380.66 | 380.21            | 380.31    | 380.30 | 380.06 | 379.96 | 379.92 |        |
| 16                               | 380.32 | 380.17 | 380.09      | 380.26 | 380.47                            | 380.91 | 380.20            | 380.27    | 380.42 | 380.06 | 379.96 | 379.92 |        |
| 17                               | 380.32 | 380.17 | 380.08      | 380.25 | 380.35                            | 380.86 | 380.23            | 380.25    | 380.23 | 380.06 | 379.96 | 379.91 |        |
| 18                               | 380.32 | 380.15 | 380.06      | 380.15 | 380.28                            | 380.71 | 380.54            | 380.23    | 380.16 | 380.06 | 379.95 | 379.88 |        |
| 19                               | 380.32 | 380.14 | 380.04      | 380.15 | 380.24                            | 380.59 | 381.16            | 380.24    | 380.15 | 380.05 | 379.95 | 379.88 |        |
| 20                               | 380.31 | 380.14 | 380.06      | 380.13 | 380.26                            | 380.52 | 380.79            | 380.29    | 380.12 | 380.05 | 379.95 | 379.88 |        |
| 21                               | 380.31 | 380.15 | 380.06      | 380.11 | 380.36                            | 380.48 | 380.72            | 380.25    | 380.12 | 380.05 | 379.95 | 379.89 |        |
| 22                               | 380.31 | 380.25 | 380.07      | 380.11 | 380.42                            | 380.43 | 380.75            | 380.22    | 380.11 | 380.05 | 379.95 | 379.92 |        |
| 23                               | 380.31 | 380.19 | 380.08      | 380.11 | 380.54                            | 380.39 | 380.80            | 380.20    | 380.12 | 380.04 | 379.95 | 379.92 |        |
| 24                               | 380.30 | 380.25 | 380.06      | 380.14 | 380.38                            | 380.36 | 380.69            | 380.19    | 380.12 | 380.01 | 379.95 | 379.92 |        |
| 25                               | 380.31 | 380.24 | 380.08      | 380.21 | 380.31                            | 380.49 | 380.73            | 380.19    | 380.10 | 380.01 | 379.95 | 379.92 |        |
| 26                               | 380.33 | 380.22 | 380.06      | 380.15 | 380.29                            | 380.37 | 380.56            | 380.18    | 380.09 | 380.01 | 379.95 | 379.92 |        |
| 27                               | 380.32 | 380.20 | 380.05      | 380.12 | 380.27                            | 380.81 | 380.51            | 380.17    | 380.09 | 380.00 | 379.94 | 379.92 |        |
| 28                               | 380.31 | 380.20 | 380.04      | 380.12 | 380.23                            | 380.63 | 380.51            | 380.17    | 380.08 | 379.99 | 379.94 | 379.92 |        |
| 29                               | 380.30 | 380.20 | 380.03      | 380.24 | 380.21                            | 380.65 | 380.51            | 380.17    | 380.08 | 380.00 |        | 379.92 |        |
| 30                               | 380.29 | 380.19 | 380.03      | 380.34 | 380.25                            | 380.59 | 380.47            | 380.17    | 380.07 | 380.00 |        | 379.92 |        |
| 31                               |        | 380.19 |             | 380.32 | 380.34                            |        | 380.46            |           | 380.07 | 379.99 |        | 379.92 |        |
| Mean                             | 380.32 | 380.22 | 380.14      | 380.16 | 380.45                            | 380.60 | 380.48            | 380.26    | 380.14 | 380.05 | 379.96 | 379.91 |        |
| Max                              | 380.35 | 380.34 | 380.41      | 380.34 | 381.35                            | 381.23 | 381.16            | 380.41    | 380.42 | 380.08 | 380.00 | 379.95 | 381.35 |
| Min                              | 380.29 | 380.14 | 380.03      | 380.04 | 380.21                            | 380.26 | 380.20            | 380.17    | 380.07 | 379.99 | 379.94 | 379.87 | 379.87 |
| Annual Max Momentary Gage Height | 381.84 |        | m. (MSL.) , |        | at 01.00 Hours , on Aug 10 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 379.90 |        | m. (MSL.) , |        | River Bed                         | 379.06 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 385.62 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 386.72 |        | m. (MSL.) , |        | Drainage Area                     | 1345   | Square Kilometers |           |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------|--------------------------|--------|--------|-------|-------|----------------|
| 1              | 1.20                                                              | 1.04                     | 0.58  | 0.28                 | 15.50  | 30.00   | 31.70  | 23.07                    | 8.12   | 5.04   | 2.66  | 1.96  |                |
| 2              | 1.20                                                              | 1.08                     | 0.64  | 0.28                 | 16.18  | 23.84   | 23.07  | 21.62                    | 8.12   | 5.04   | 2.66  | 1.96  |                |
| 3              | 1.20                                                              | 1.04                     | 0.68  | 0.28                 | 12.65  | 16.86   | 26.15  | 19.58                    | 7.70   | 4.76   | 2.80  | 1.96  |                |
| 4              | 1.20                                                              | 1.08                     | 0.80  | 0.30                 | 13.22  | 13.79   | 23.07  | 18.22                    | 7.70   | 4.76   | 2.66  | 2.10  |                |
| 5              | 1.16                                                              | 1.16                     | 0.84  | 0.32                 | 29.23  | 13.22   | 25.38  | 17.54                    | 6.86   | 4.76   | 2.66  | 1.82  |                |
| 6              | 1.12                                                              | 0.96                     | 0.96  | 0.36                 | 20.94  | 21.62   | 23.84  | 15.50                    | 6.86   | 4.76   | 2.66  | 1.12  |                |
| 7              | 1.08                                                              | 0.76                     | 1.00  | 0.58                 | 16.86  | 54.90   | 20.94  | 14.36                    | 6.44   | 4.48   | 2.66  | 1.12  |                |
| 8              | 1.08                                                              | 0.68                     | 0.72  | 0.42                 | 19.58  | 96.25   | 18.22  | 14.36                    | 6.02   | 4.76   | 2.52  | 1.12  |                |
| 9              | 1.08                                                              | 0.68                     | 0.80  | 0.46                 | 71.60  | 109.05  | 16.18  | 13.22                    | 5.60   | 4.76   | 2.24  | 1.12  |                |
| 10             | 1.08                                                              | 0.76                     | 1.44  | 0.64                 | 109.05 | 57.98   | 14.36  | 13.22                    | 5.32   | 4.76   | 2.24  | 0.98  |                |
| 11             | 1.08                                                              | 0.68                     | 0.88  | 0.72                 | 125.25 | 36.80   | 13.22  | 12.65                    | 5.32   | 4.76   | 2.10  | 1.12  |                |
| 12             | 1.08                                                              | 0.64                     | 0.56  | 0.84                 | 56.95  | 33.40   | 12.65  | 12.08                    | 5.32   | 4.76   | 2.24  | 1.54  |                |
| 13             | 1.08                                                              | 0.58                     | 0.50  | 0.60                 | 41.58  | 47.73   | 12.08  | 10.94                    | 6.44   | 4.48   | 2.24  | 1.68  |                |
| 14             | 1.08                                                              | 0.56                     | 0.40  | 0.52                 | 35.10  | 42.60   | 10.94  | 12.65                    | 23.84  | 4.76   | 2.24  | 1.68  |                |
| 15             | 1.08                                                              | 0.52                     | 0.38  | 0.72                 | 30.00  | 44.65   | 10.37  | 16.18                    | 15.50  | 4.48   | 2.24  | 1.68  |                |
| 16             | 1.08                                                              | 0.54                     | 0.38  | 0.84                 | 27.69  | 70.55   | 9.80   | 13.79                    | 23.84  | 4.48   | 2.24  | 1.68  |                |
| 17             | 1.08                                                              | 0.54                     | 0.36  | 0.80                 | 18.90  | 65.30   | 11.51  | 12.65                    | 11.51  | 4.48   | 2.24  | 1.54  |                |
| 18             | 1.08                                                              | 0.50                     | 0.32  | 0.50                 | 14.36  | 49.77   | 33.40  | 11.51                    | 8.12   | 4.48   | 2.10  | 1.12  |                |
| 19             | 1.08                                                              | 0.48                     | 0.28  | 0.50                 | 12.08  | 37.65   | 100.00 | 12.08                    | 7.70   | 4.20   | 2.10  | 1.12  |                |
| 20             | 1.04                                                              | 0.48                     | 0.32  | 0.46                 | 13.22  | 31.70   | 57.98  | 14.93                    | 6.44   | 4.20   | 2.10  | 1.12  |                |
| 21             | 1.04                                                              | 0.50                     | 0.32  | 0.42                 | 19.58  | 28.46   | 50.80  | 12.65                    | 6.44   | 4.20   | 2.10  | 1.26  |                |
| 22             | 1.04                                                              | 0.80                     | 0.34  | 0.42                 | 23.84  | 24.61   | 53.88  | 10.94                    | 6.02   | 4.20   | 2.10  | 1.68  |                |
| 23             | 1.04                                                              | 0.58                     | 0.36  | 0.42                 | 33.40  | 21.62   | 59.00  | 9.80                     | 6.44   | 3.92   | 2.10  | 1.68  |                |
| 24             | 1.00                                                              | 0.80                     | 0.32  | 0.48                 | 20.94  | 19.58   | 47.73  | 9.38                     | 6.44   | 3.08   | 2.10  | 1.68  |                |
| 25             | 1.04                                                              | 0.76                     | 0.36  | 0.64                 | 16.18  | 29.23   | 51.83  | 9.38                     | 5.60   | 3.08   | 2.10  | 1.68  |                |
| 26             | 1.12                                                              | 0.68                     | 0.32  | 0.50                 | 14.93  | 20.26   | 35.10  | 8.96                     | 5.32   | 3.08   | 2.10  | 1.68  |                |
| 27             | 1.08                                                              | 0.60                     | 0.30  | 0.44                 | 13.79  | 60.05   | 30.85  | 8.54                     | 5.32   | 2.80   | 1.96  | 1.68  |                |
| 28             | 1.04                                                              | 0.60                     | 0.28  | 6.44                 | 11.51  | 41.58   | 30.85  | 8.54                     | 5.04   | 2.66   | 1.96  | 1.68  |                |
| 29             | 1.00                                                              | 0.60                     | 0.26  | 12.08                | 10.37  | 43.62   | 30.85  | 8.54                     | 5.04   | 2.80   |       | 1.68  |                |
| 30             | 0.96                                                              | 0.58                     | 0.26  | 18.22                | 12.65  | 37.65   | 27.69  | 8.54                     | 4.76   | 2.80   |       | 1.68  |                |
| 31             |                                                                   | 0.58                     |       | 16.86                | 18.22  |         | 26.92  |                          | 4.76   | 2.66   |       | 1.68  |                |
| Total          | 32.52                                                             | 21.84                    | 15.96 | 67.34                | 895.35 | 1224.32 | 940.36 | 395.42                   | 243.95 | 128.24 | 64.12 | 47.60 | 4077.02 CMSDAY |
| Mean           | 1.08                                                              | 0.70                     | 0.53  | 2.17                 | 28.88  | 40.81   | 30.33  | 13.18                    | 7.87   | 4.14   | 2.29  | 1.54  | 11.17 CMS      |
| Max            | 1.20                                                              | 1.16                     | 1.44  | 18.22                | 125.25 | 109.05  | 100.00 | 23.07                    | 23.84  | 5.04   | 2.80  | 2.10  | 125.25 CMS     |
| Min            | 0.96                                                              | 0.48                     | 0.26  | 0.28                 | 10.37  | 13.22   | 9.80   | 8.54                     | 4.76   | 2.66   | 1.96  | 0.98  | 0.26 CMS       |
| Runoff         | 2.81                                                              | 1.89                     | 1.38  | 5.82                 | 77.36  | 105.78  | 81.25  | 34.16                    | 21.08  | 11.08  | 5.54  | 4.11  | 352.25 MCM     |
| Momentary Peak | 201.60 CMS. at 381.84 m. (MSL.) at 01.00 Hours , on Aug 10 , 2013 |                          |       |                      |        |         |        |                          |        |        |       |       |                |
| Runoff Yield   | 8.30                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 149.888 |        | Liters/Second/Square KM. |        |        |       |       |                |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae Rim at Ban Mae Rim Tai , Chiang Mai (P.21**

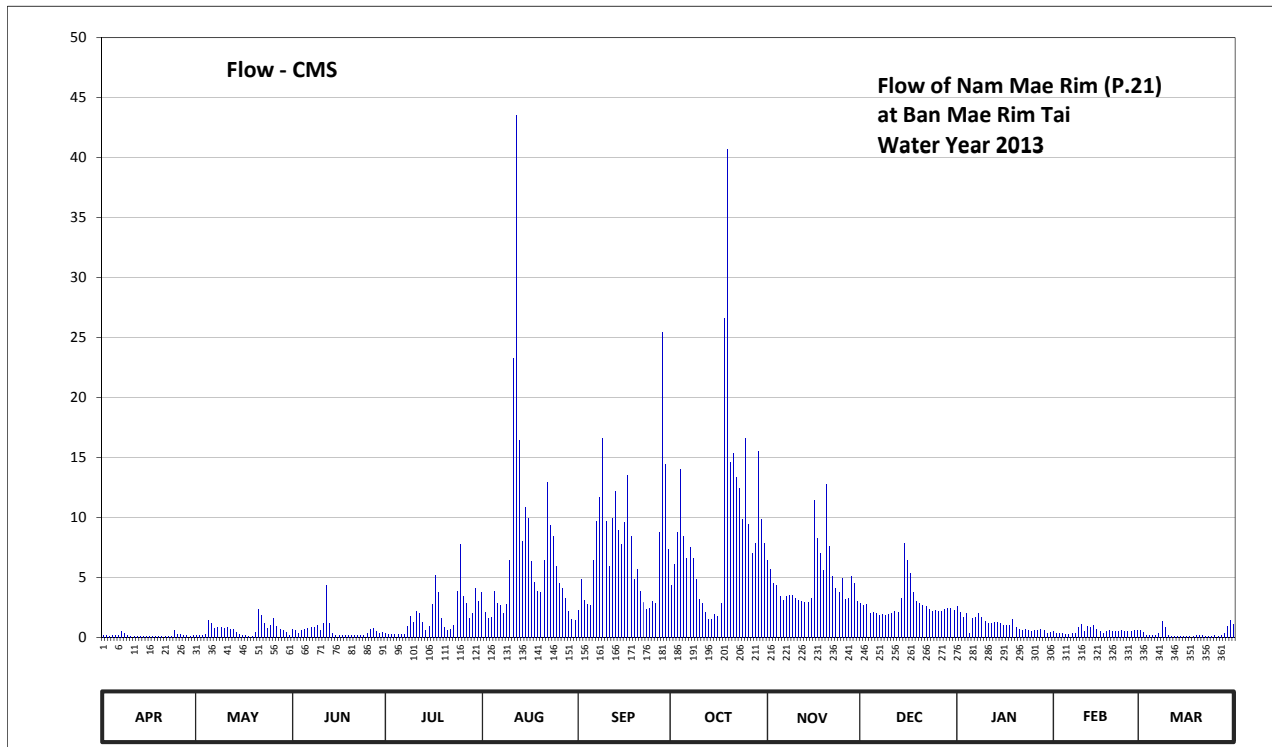
Lat 18 - 55 - 45 N      Long 98 - 56 - 40 W

**Location : on left bank about 100 meters downstream from the bridge of Chiang Mai - Fang Highway**

|                                         |                                                                                           |             |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Mae Rim Tai | <b>Amphoe</b> | Mae Rim | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 452                                                                                       | sq.km.      |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |             |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +319.700                                                                                  | m. (MSL.)   |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |         |                  |                    |
| <b>Location BM</b>                      | In the vicinity of gage observer's house.                                                 |             |               |         | <b>Elevation</b> | +325.270 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |             |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |             |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1954 to date                                                                              |             |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |             |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1954 - 1960 , 1977 to date                                                                |             |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1954 - 1960 , 1977 to date                                                                |             |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |             |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |         |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2013. |             |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 320.17 | 320.18 | 320.34                                          | 320.27 | 320.74 | 320.59 | 320.79 | 320.96 | 320.65 | 320.62 | 320.30 | 320.33 |        |
|                                  | 2  | 320.17 | 320.18 | 320.32                                          | 320.23 | 320.57 | 320.83 | 320.93 | 320.90 | 320.63 | 320.57 | 320.25 | 320.28 |        |
|                                  | 3  | 320.15 | 320.18 | 320.27                                          | 320.22 | 320.50 | 320.68 | 321.14 | 320.80 | 320.64 | 320.51 | 320.26 | 320.21 |        |
|                                  | 4  | 320.18 | 320.23 | 320.32                                          | 320.23 | 320.51 | 320.64 | 321.52 | 320.79 | 320.56 | 320.55 | 320.25 | 320.21 |        |
|                                  | 5  | 320.18 | 320.47 | 320.35                                          | 320.22 | 320.75 | 320.63 | 321.11 | 320.71 | 320.57 | 320.27 | 320.24 | 320.20 |        |
|                                  | 6  | 320.19 | 320.44 | 320.36                                          | 320.23 | 320.65 | 320.96 | 320.97 | 320.68 | 320.56 | 320.50 | 320.23 | 320.19 |        |
|                                  | 7  | 320.31 | 320.36 | 320.38                                          | 320.22 | 320.63 | 321.21 | 321.04 | 320.71 | 320.53 | 320.51 | 320.25 | 320.25 |        |
|                                  | 8  | 320.25 | 320.38 | 320.38                                          | 320.39 | 320.56 | 321.36 | 320.97 | 320.72 | 320.54 | 320.56 | 320.26 | 320.46 |        |
|                                  | 9  | 320.19 | 320.37 | 320.40                                          | 320.52 | 320.64 | 321.68 | 320.83 | 320.72 | 320.53 | 320.51 | 320.37 | 320.38 |        |
|                                  | 10 | 320.15 | 320.36 | 320.32                                          | 320.45 | 320.96 | 321.21 | 320.69 | 320.70 | 320.54 | 320.46 | 320.42 | 320.21 |        |
|                                  | 11 | 320.14 | 320.38 | 320.44                                          | 320.58 | 322.03 | 320.92 | 320.65 | 320.68 | 320.56 | 320.44 | 320.31 | 320.16 |        |
|                                  | 12 | 320.12 | 320.34 | 320.79                                          | 320.56 | 322.78 | 321.23 | 320.57 | 320.67 | 320.58 | 320.43 | 320.39 | 320.16 |        |
|                                  | 13 | 320.12 | 320.35 | 320.43                                          | 320.45 | 321.67 | 321.40 | 320.49 | 320.66 | 320.57 | 320.45 | 320.38 | 320.16 |        |
|                                  | 14 | 320.12 | 320.28 | 320.25                                          | 320.32 | 321.08 | 321.15 | 320.49 | 320.66 | 320.70 | 320.45 | 320.40 | 320.16 |        |
|                                  | 15 | 320.12 | 320.23 | 320.21                                          | 320.39 | 321.30 | 321.06 | 320.54 | 320.70 | 321.07 | 320.43 | 320.34 | 320.16 |        |
|                                  | 16 | 320.12 | 320.18 | 320.20                                          | 320.64 | 321.23 | 321.20 | 320.52 | 321.34 | 320.96 | 320.40 | 320.30 | 320.16 |        |
|                                  | 17 | 320.12 | 320.17 | 320.19                                          | 320.86 | 320.95 | 321.49 | 320.65 | 321.10 | 320.87 | 320.40 | 320.27 | 320.16 |        |
|                                  | 18 | 320.12 | 320.14 | 320.20                                          | 320.74 | 320.81 | 321.11 | 322.18 | 321.00 | 320.74 | 320.40 | 320.31 | 320.16 |        |
|                                  | 19 | 320.12 | 320.13 | 320.18                                          | 320.50 | 320.75 | 320.83 | 322.69 | 320.89 | 320.67 | 320.49 | 320.32 | 320.17 |        |
|                                  | 20 | 320.11 | 320.28 | 320.18                                          | 320.37 | 320.74 | 320.90 | 321.56 | 321.44 | 320.65 | 320.37 | 320.30 | 320.18 |        |
|                                  | 21 | 320.10 | 320.60 | 320.19                                          | 320.32 | 320.96 | 320.75 | 321.61 | 321.05 | 320.63 | 320.35 | 320.30 | 320.17 |        |
|                                  | 22 | 320.10 | 320.53 | 320.19                                          | 320.34 | 321.45 | 320.66 | 321.48 | 320.85 | 320.62 | 320.33 | 320.30 | 320.15 |        |
|                                  | 23 | 320.10 | 320.44 | 320.17                                          | 320.41 | 321.18 | 320.60 | 321.42 | 320.77 | 320.60 | 320.34 | 320.33 | 320.16 |        |
|                                  | 24 | 320.32 | 320.36 | 320.19                                          | 320.75 | 321.11 | 320.61 | 321.22 | 320.74 | 320.58 | 320.33 | 320.31 | 320.16 |        |
|                                  | 25 | 320.23 | 320.40 | 320.27                                          | 321.06 | 320.92 | 320.67 | 321.68 | 320.84 | 320.59 | 320.30 | 320.30 | 320.19 |        |
|                                  | 26 | 320.22 | 320.50 | 320.34                                          | 320.71 | 320.80 | 320.65 | 321.19 | 320.69 | 320.58 | 320.33 | 320.30 | 320.15 |        |
|                                  | 27 | 320.21 | 320.39 | 320.36                                          | 320.65 | 320.77 | 321.14 | 321.00 | 320.70 | 320.58 | 320.33 | 320.32 | 320.17 |        |
|                                  | 28 | 320.19 | 320.35 | 320.30                                          | 320.50 | 320.70 | 322.13 | 321.07 | 320.85 | 320.60 | 320.34 | 320.33 | 320.27 |        |
|                                  | 29 | 320.13 | 320.33 | 320.27                                          | 320.55 | 320.58 | 321.55 | 321.62 | 320.80 | 320.61 | 320.32 |        | 320.39 |        |
|                                  | 30 | 320.18 | 320.29 | 320.28                                          | 320.77 | 320.49 | 321.03 | 321.22 | 320.67 | 320.61 | 320.27 |        | 320.47 |        |
|                                  | 31 |        | 320.18 |                                                 | 320.67 | 320.47 |        | 321.07 |        | 320.59 | 320.29 |        | 320.42 |        |
| Mean                             |    | 320.16 | 320.32 | 320.30                                          | 320.49 | 320.94 | 321.03 | 321.13 | 320.83 | 320.64 | 320.41 | 320.31 | 320.23 |        |
| Max                              |    | 320.32 | 320.60 | 320.79                                          | 321.06 | 322.78 | 322.13 | 322.69 | 321.44 | 321.07 | 320.62 | 320.42 | 320.47 | 322.78 |
| Min                              |    | 320.10 | 320.13 | 320.17                                          | 320.22 | 320.47 | 320.59 | 320.49 | 320.66 | 320.53 | 320.27 | 320.23 | 320.15 | 320.10 |
| Annual Max Momentary Gage Height |    |        | 323.28 | m. (MSL.) , at 01.00 Hours , on Oct 19 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 319.70 | m. (MSL.) , River Bed 319.60 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 325.17 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 325.21 | m. (MSL.) , Drainage Area 452 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------|--------------------------|-------|-------|-------|-------|----------------|
| 1              | 0.17                                                             | 0.18                     | 0.70  | 0.41                 | 3.78   | 2.32    | 4.38   | 6.48                     | 2.85  | 2.58  | 0.50  | 0.65  |                |
| 2              | 0.17                                                             | 0.18                     | 0.60  | 0.29                 | 2.16   | 4.86    | 6.09   | 5.70                     | 2.67  | 2.16  | 0.35  | 0.44  |                |
| 3              | 0.15                                                             | 0.18                     | 0.41  | 0.26                 | 1.60   | 3.12    | 8.82   | 4.50                     | 2.76  | 1.68  | 0.38  | 0.23  |                |
| 4              | 0.18                                                             | 0.29                     | 0.60  | 0.29                 | 1.68   | 2.76    | 14.00  | 4.38                     | 2.08  | 2.00  | 0.35  | 0.23  |                |
| 5              | 0.18                                                             | 1.42                     | 0.75  | 0.26                 | 3.90   | 2.67    | 8.43   | 3.42                     | 2.16  | 0.41  | 0.32  | 0.20  |                |
| 6              | 0.19                                                             | 1.24                     | 0.80  | 0.29                 | 2.85   | 6.48    | 6.61   | 3.12                     | 2.08  | 1.60  | 0.29  | 0.19  |                |
| 7              | 0.55                                                             | 0.80                     | 0.90  | 0.26                 | 2.67   | 9.73    | 7.52   | 3.42                     | 1.84  | 1.68  | 0.35  | 0.35  |                |
| 8              | 0.35                                                             | 0.90                     | 0.90  | 0.95                 | 2.08   | 11.68   | 6.61   | 3.54                     | 1.92  | 2.08  | 0.38  | 1.36  |                |
| 9              | 0.19                                                             | 0.85                     | 1.00  | 1.76                 | 2.76   | 16.60   | 4.86   | 3.54                     | 1.84  | 1.68  | 0.85  | 0.90  |                |
| 10             | 0.15                                                             | 0.80                     | 0.60  | 1.30                 | 6.48   | 9.73    | 3.21   | 3.30                     | 1.92  | 1.36  | 1.12  | 0.23  |                |
| 11             | 0.14                                                             | 0.90                     | 1.24  | 2.24                 | 23.26  | 5.96    | 2.85   | 3.12                     | 2.08  | 1.24  | 0.55  | 0.16  |                |
| 12             | 0.12                                                             | 0.70                     | 4.38  | 2.08                 | 43.56  | 9.99    | 2.16   | 3.03                     | 2.24  | 1.18  | 0.95  | 0.16  |                |
| 13             | 0.12                                                             | 0.75                     | 1.18  | 1.30                 | 16.43  | 12.20   | 1.54   | 2.94                     | 2.16  | 1.30  | 0.90  | 0.16  |                |
| 14             | 0.12                                                             | 0.44                     | 0.35  | 0.60                 | 8.04   | 8.95    | 1.54   | 2.94                     | 3.30  | 1.30  | 1.00  | 0.16  |                |
| 15             | 0.12                                                             | 0.29                     | 0.23  | 0.95                 | 10.90  | 7.78    | 1.92   | 3.30                     | 7.91  | 1.18  | 0.70  | 0.16  |                |
| 16             | 0.12                                                             | 0.18                     | 0.20  | 2.76                 | 9.99   | 9.60    | 1.76   | 11.42                    | 6.48  | 1.00  | 0.50  | 0.16  |                |
| 17             | 0.12                                                             | 0.17                     | 0.19  | 5.22                 | 6.35   | 13.55   | 2.85   | 8.30                     | 5.34  | 1.00  | 0.41  | 0.16  |                |
| 18             | 0.12                                                             | 0.14                     | 0.20  | 3.78                 | 4.62   | 8.43    | 26.56  | 7.00                     | 3.78  | 1.00  | 0.55  | 0.16  |                |
| 19             | 0.12                                                             | 0.13                     | 0.18  | 1.60                 | 3.90   | 4.86    | 40.68  | 5.58                     | 3.03  | 1.54  | 0.60  | 0.17  |                |
| 20             | 0.11                                                             | 0.44                     | 0.18  | 0.85                 | 3.78   | 5.70    | 14.60  | 12.80                    | 2.85  | 0.85  | 0.50  | 0.18  |                |
| 21             | 0.10                                                             | 2.40                     | 0.19  | 0.60                 | 6.48   | 3.90    | 15.37  | 7.65                     | 2.67  | 0.75  | 0.50  | 0.17  |                |
| 22             | 0.10                                                             | 1.84                     | 0.19  | 0.70                 | 12.95  | 2.94    | 13.40  | 5.10                     | 2.58  | 0.65  | 0.50  | 0.15  |                |
| 23             | 0.10                                                             | 1.24                     | 0.17  | 1.06                 | 9.34   | 2.40    | 12.50  | 4.14                     | 2.40  | 0.70  | 0.65  | 0.16  |                |
| 24             | 0.60                                                             | 0.80                     | 0.19  | 3.90                 | 8.43   | 2.49    | 9.86   | 3.78                     | 2.24  | 0.65  | 0.55  | 0.16  |                |
| 25             | 0.29                                                             | 1.00                     | 0.41  | 7.78                 | 5.96   | 3.03    | 16.60  | 4.98                     | 2.32  | 0.50  | 0.50  | 0.19  |                |
| 26             | 0.26                                                             | 1.60                     | 0.70  | 3.42                 | 4.50   | 2.85    | 9.47   | 3.21                     | 2.24  | 0.65  | 0.50  | 0.15  |                |
| 27             | 0.23                                                             | 0.95                     | 0.80  | 2.85                 | 4.14   | 8.82    | 7.00   | 3.30                     | 2.24  | 0.65  | 0.60  | 0.17  |                |
| 28             | 0.19                                                             | 0.75                     | 0.50  | 1.60                 | 3.30   | 25.46   | 7.91   | 5.10                     | 2.40  | 0.70  | 0.65  | 0.41  |                |
| 29             | 0.13                                                             | 0.65                     | 0.41  | 2.00                 | 2.24   | 14.45   | 15.55  | 4.50                     | 2.49  | 0.60  |       | 0.95  |                |
| 30             | 0.18                                                             | 0.47                     | 0.44  | 4.14                 | 1.54   | 7.39    | 9.86   | 3.03                     | 2.49  | 0.41  |       | 1.42  |                |
| 31             |                                                                  | 0.18                     |       | 3.03                 | 1.42   |         | 7.91   |                          | 2.32  | 0.47  |       | 1.12  |                |
| Total          | 5.67                                                             | 22.86                    | 19.59 | 58.53                | 221.09 | 230.70  | 292.42 | 146.62                   | 87.68 | 35.55 | 16.00 | 11.46 | 1148.17 CMSDAY |
| Mean           | 0.19                                                             | 0.74                     | 0.65  | 1.89                 | 7.13   | 7.69    | 9.43   | 4.89                     | 2.83  | 1.15  | 0.57  | 0.37  | 3.15 CMS       |
| Max            | 0.60                                                             | 2.40                     | 4.38  | 7.78                 | 43.56  | 25.46   | 40.68  | 12.80                    | 7.91  | 2.58  | 1.12  | 1.42  | 43.56 CMS      |
| Min            | 0.10                                                             | 0.13                     | 0.17  | 0.26                 | 1.42   | 2.32    | 1.54   | 2.94                     | 1.84  | 0.41  | 0.29  | 0.15  | 0.10 CMS       |
| Runoff         | 0.49                                                             | 1.98                     | 1.69  | 5.06                 | 19.10  | 19.93   | 25.27  | 12.67                    | 7.58  | 3.07  | 1.38  | 0.99  | 99.20 MCM      |
| Momentary Peak | 61.44 CMS. at 323.28 m. (MSL.) at 01.00 Hours , on Oct 19 , 2013 |                          |       |                      |        |         |        |                          |       |       |       |       |                |
| Runoff Yield   | 6.96                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 135.929 |        | Liters/Second/Square KM. |       |       |       |       |                |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Klang at Pracha Uthit Bridge , Chiang Mai (P.24A)**

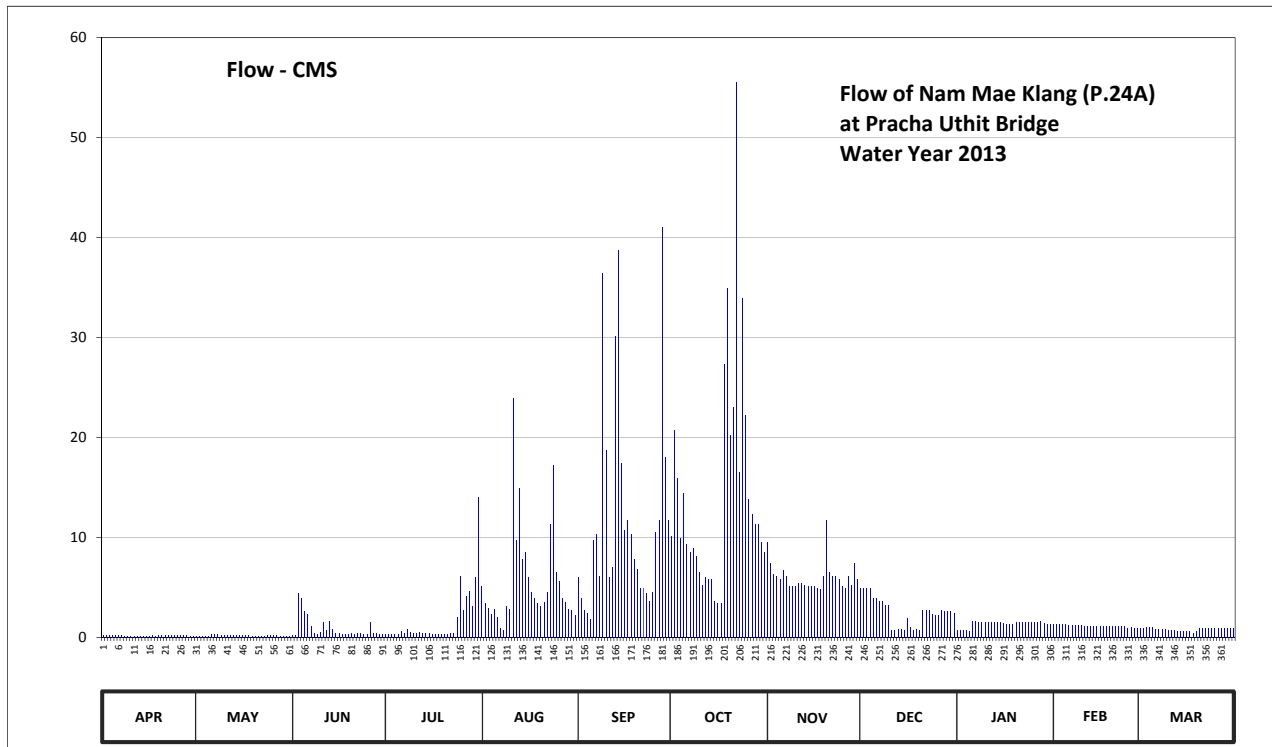
Lat 18 - 25 - 02 N Long 98 - 40 - 29 E

**Location : on left bank at Pracha Uthit Bridge.**

|                                         |                                                                                           |                     |               |            |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------------|---------------|------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pracha Uthit Bridge | <b>Amphoe</b> | Chom Thong | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 452                                                                                       | sq.km.              |               |            |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                     |               |            |                  |                    |
| <b>Zero Gage at Bottom</b>              | +275.000                                                                                  | m. (MSL.)           |               |            |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                     |               |            |                  |                    |
| <b>Location BM</b>                      | near the gage observer's house.                                                           |                     |               |            | <b>Elevation</b> | +277.954 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily reading at 06.00, 12.00 and 18.00 hours.                                     |                     |               |            |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                     |               |            |                  |                    |
| <b>Period of Available Gage Records</b> | 1973 to date                                                                              |                     |               |            |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                     |               |            |                  |                    |
| <b>Period of Rating</b>                 | 1973 to date                                                                              |                     |               |            |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                     |               |            |                  |                    |
| <b>Rated by Current Meter</b>           | 1973 to date                                                                              |                     |               |            |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                     |               |            |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                     |               |            |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2013. |                     |               |            |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep                               | Oct    | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|-----------------------------------|--------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 275.21 | 275.15 | 275.22      | 275.26 | 275.80 | 275.85                            | 276.07 | 276.04 | 275.79            | 275.40 | 275.48 | 275.43 |        |
| 2                                | 275.22 | 275.15 | 275.21      | 275.26 | 275.68 | 275.72                            | 276.55 | 275.93 | 275.79            | 275.40 | 275.48 | 275.43 |        |
| 3                                | 275.22 | 275.15 | 275.75      | 275.25 | 275.64 | 275.62                            | 276.35 | 275.87 | 275.79            | 275.40 | 275.48 | 275.44 |        |
| 4                                | 275.22 | 275.16 | 275.72      | 275.25 | 275.58 | 275.59                            | 276.06 | 275.86 | 275.79            | 275.40 | 275.48 | 275.44 |        |
| 5                                | 275.21 | 275.16 | 275.61      | 275.25 | 275.63 | 275.53                            | 276.28 | 275.84 | 275.72            | 275.38 | 275.48 | 275.44 |        |
| 6                                | 275.20 | 275.26 | 275.58      | 275.37 | 275.55 | 276.05                            | 276.03 | 275.89 | 275.72            | 275.51 | 275.47 | 275.42 |        |
| 7                                | 275.20 | 275.29 | 275.45      | 275.33 | 275.43 | 276.08                            | 275.99 | 275.86 | 275.70            | 275.51 | 275.47 | 275.42 |        |
| 8                                | 275.16 | 275.26 | 275.31      | 275.42 | 275.40 | 275.86                            | 276.01 | 275.80 | 275.70            | 275.50 | 275.47 | 275.42 |        |
| 9                                | 275.16 | 275.23 | 275.28      | 275.34 | 275.65 | 277.11                            | 275.97 | 275.80 | 275.66            | 275.50 | 275.47 | 275.42 |        |
| 10                               | 275.15 | 275.22 | 275.34      | 275.31 | 275.63 | 276.47                            | 275.88 | 275.80 | 275.66            | 275.50 | 275.47 | 275.40 |        |
| 11                               | 275.16 | 275.22 | 275.50      | 275.30 | 276.67 | 275.85                            | 275.81 | 275.82 | 275.41            | 275.50 | 275.46 | 275.40 |        |
| 12                               | 275.17 | 275.22 | 275.41      | 275.35 | 276.05 | 275.91                            | 275.85 | 275.82 | 275.41            | 275.50 | 275.46 | 275.40 |        |
| 13                               | 275.16 | 275.22 | 275.52      | 275.32 | 276.30 | 276.90                            | 275.84 | 275.81 | 275.42            | 275.50 | 275.46 | 275.39 |        |
| 14                               | 275.15 | 275.20 | 275.42      | 275.30 | 275.95 | 277.18                            | 275.84 | 275.80 | 275.42            | 275.50 | 275.46 | 275.39 |        |
| 15                               | 275.19 | 275.20 | 275.33      | 275.30 | 275.99 | 276.42                            | 275.70 | 275.80 | 275.41            | 275.50 | 275.46 | 275.39 |        |
| 16                               | 275.19 | 275.20 | 275.30      | 275.29 | 275.85 | 276.10                            | 275.68 | 275.80 | 275.54            | 275.49 | 275.46 | 275.39 |        |
| 17                               | 275.21 | 275.20 | 275.27      | 275.29 | 275.76 | 276.15                            | 275.68 | 275.79 | 275.44            | 275.48 | 275.46 | 275.37 |        |
| 18                               | 275.19 | 275.20 | 275.26      | 275.29 | 275.72 | 276.08                            | 276.80 | 275.78 | 275.41            | 275.48 | 275.45 | 275.33 |        |
| 19                               | 275.20 | 275.18 | 275.25      | 275.28 | 275.68 | 275.95                            | 277.06 | 275.86 | 275.42            | 275.48 | 275.45 | 275.39 |        |
| 20                               | 275.20 | 275.17 | 275.31      | 275.28 | 275.65 | 275.90                            | 276.53 | 276.15 | 275.41            | 275.50 | 275.45 | 275.43 |        |
| 21                               | 275.21 | 275.18 | 275.28      | 275.29 | 275.69 | 275.79                            | 276.64 | 275.88 | 275.62            | 275.50 | 275.45 | 275.43 |        |
| 22                               | 275.21 | 275.18 | 275.30      | 275.32 | 275.76 | 275.79                            | 277.66 | 275.86 | 275.62            | 275.50 | 275.45 | 275.43 |        |
| 23                               | 275.24 | 275.18 | 275.30      | 275.33 | 276.13 | 275.75                            | 276.38 | 275.86 | 275.62            | 275.50 | 275.45 | 275.43 |        |
| 24                               | 275.24 | 275.22 | 275.26      | 275.56 | 276.41 | 275.70                            | 277.03 | 275.84 | 275.58            | 275.50 | 275.45 | 275.43 |        |
| 25                               | 275.23 | 275.22 | 275.25      | 275.86 | 275.88 | 275.76                            | 276.61 | 275.80 | 275.57            | 275.50 | 275.43 | 275.43 |        |
| 26                               | 275.22 | 275.22 | 275.50      | 275.62 | 275.83 | 276.09                            | 276.25 | 275.79 | 275.57            | 275.50 | 275.44 | 275.43 |        |
| 27                               | 275.21 | 275.21 | 275.31      | 275.73 | 275.72 | 276.15                            | 276.18 | 275.86 | 275.62            | 275.50 | 275.43 | 275.43 |        |
| 28                               | 275.21 | 275.19 | 275.30      | 275.77 | 275.69 | 277.25                            | 276.13 | 275.81 | 275.61            | 275.51 | 275.43 | 275.43 |        |
| 29                               | 275.19 | 275.18 | 275.27      | 275.65 | 275.63 | 276.44                            | 276.13 | 275.93 | 275.61            | 275.49 |        | 275.43 |        |
| 30                               | 275.18 | 275.18 | 275.26      | 275.85 | 275.62 | 276.15                            | 276.04 | 275.84 | 275.61            | 275.48 |        | 275.43 |        |
| 31                               |        | 275.19 |             | 276.26 | 275.57 |                                   | 275.99 |        | 275.60            | 275.48 |        | 275.43 |        |
| Mean                             | 275.20 | 275.20 | 275.37      | 275.43 | 275.79 | 276.11                            | 276.23 | 275.85 | 275.59            | 275.48 | 275.46 | 275.42 |        |
| Max                              | 275.24 | 275.29 | 275.75      | 276.26 | 276.67 | 277.25                            | 277.66 | 276.15 | 275.79            | 275.51 | 275.48 | 275.44 | 277.66 |
| Min                              | 275.15 | 275.15 | 275.21      | 275.25 | 275.40 | 275.53                            | 275.68 | 275.78 | 275.41            | 275.38 | 275.43 | 275.33 | 275.15 |
| Annual Max Momentary Gage Height | 278.32 |        | m. (MSL.) , |        |        | at 08.00 Hours , on Oct 22 , 2013 |        |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 275.00 |        | m. (MSL.) , |        |        | River Bed                         | 274.45 |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 280.19 |        | m. (MSL.) , |        |        |                                   |        |        |                   |        |        |        |        |
| Right Bank Elevation             | 280.98 |        | m. (MSL.) , |        |        | Drainage Area                     | 452    |        | Square Kilometers |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.22                                                             | 0.15                     | 0.24  | 0.32                 | 5.10   | 6.00    | 10.14                    | 9.52   | 4.96  | 0.70  | 1.34  | 0.94  |                |
| 2              | 0.24                                                             | 0.15                     | 0.22  | 0.32                 | 3.46   | 3.98    | 20.75                    | 7.44   | 4.96  | 0.70  | 1.34  | 0.94  |                |
| 3              | 0.24                                                             | 0.15                     | 4.40  | 0.30                 | 2.98   | 2.74    | 15.95                    | 6.36   | 4.96  | 0.70  | 1.34  | 1.02  |                |
| 4              | 0.24                                                             | 0.16                     | 3.98  | 0.30                 | 2.30   | 2.40    | 9.93                     | 6.18   | 4.96  | 0.70  | 1.34  | 1.02  |                |
| 5              | 0.22                                                             | 0.16                     | 2.62  | 0.30                 | 2.86   | 1.80    | 14.48                    | 5.82   | 3.98  | 0.64  | 1.34  | 1.02  |                |
| 6              | 0.20                                                             | 0.32                     | 2.30  | 0.61                 | 2.00   | 9.72    | 9.31                     | 6.72   | 3.98  | 1.60  | 1.26  | 0.86  |                |
| 7              | 0.20                                                             | 0.38                     | 1.10  | 0.49                 | 0.94   | 10.34   | 8.52                     | 6.18   | 3.70  | 1.60  | 1.26  | 0.86  |                |
| 8              | 0.16                                                             | 0.32                     | 0.43  | 0.86                 | 0.70   | 6.18    | 8.91                     | 5.10   | 3.70  | 1.50  | 1.26  | 0.86  |                |
| 9              | 0.16                                                             | 0.26                     | 0.36  | 0.52                 | 3.10   | 36.46   | 8.16                     | 5.10   | 3.22  | 1.50  | 1.26  | 0.86  |                |
| 10             | 0.15                                                             | 0.24                     | 0.52  | 0.43                 | 2.86   | 18.75   | 6.54                     | 5.10   | 3.22  | 1.50  | 1.26  | 0.70  |                |
| 11             | 0.16                                                             | 0.24                     | 1.50  | 0.40                 | 23.86  | 6.00    | 5.28                     | 5.46   | 0.78  | 1.50  | 1.18  | 0.70  |                |
| 12             | 0.17                                                             | 0.24                     | 0.78  | 0.55                 | 9.72   | 7.08    | 6.00                     | 5.46   | 0.78  | 1.50  | 1.18  | 0.70  |                |
| 13             | 0.16                                                             | 0.24                     | 1.70  | 0.46                 | 14.90  | 30.15   | 5.82                     | 5.28   | 0.86  | 1.50  | 1.18  | 0.67  |                |
| 14             | 0.15                                                             | 0.20                     | 0.86  | 0.40                 | 7.80   | 38.67   | 5.82                     | 5.10   | 0.86  | 1.50  | 1.18  | 0.67  |                |
| 15             | 0.19                                                             | 0.20                     | 0.49  | 0.40                 | 8.52   | 17.50   | 3.70                     | 5.10   | 0.78  | 1.50  | 1.18  | 0.67  |                |
| 16             | 0.19                                                             | 0.20                     | 0.40  | 0.38                 | 6.00   | 10.75   | 3.46                     | 5.10   | 1.90  | 1.42  | 1.18  | 0.67  |                |
| 17             | 0.22                                                             | 0.20                     | 0.34  | 0.38                 | 4.54   | 11.77   | 3.46                     | 4.96   | 1.02  | 1.34  | 1.18  | 0.61  |                |
| 18             | 0.19                                                             | 0.20                     | 0.32  | 0.38                 | 3.98   | 10.34   | 27.30                    | 4.82   | 0.78  | 1.34  | 1.10  | 0.49  |                |
| 19             | 0.20                                                             | 0.18                     | 0.30  | 0.36                 | 3.46   | 7.80    | 34.89                    | 6.18   | 0.86  | 1.34  | 1.10  | 0.67  |                |
| 20             | 0.20                                                             | 0.17                     | 0.43  | 0.36                 | 3.10   | 6.90    | 20.25                    | 11.77  | 0.78  | 1.50  | 1.10  | 0.94  |                |
| 21             | 0.22                                                             | 0.18                     | 0.36  | 0.38                 | 3.58   | 4.96    | 23.06                    | 6.54   | 2.74  | 1.50  | 1.10  | 0.94  |                |
| 22             | 0.22                                                             | 0.18                     | 0.40  | 0.46                 | 4.54   | 4.96    | 55.52                    | 6.18   | 2.74  | 1.50  | 1.10  | 0.94  |                |
| 23             | 0.28                                                             | 0.18                     | 0.40  | 0.49                 | 11.36  | 4.40    | 16.58                    | 6.18   | 2.74  | 1.50  | 1.10  | 0.94  |                |
| 24             | 0.28                                                             | 0.24                     | 0.32  | 2.10                 | 17.25  | 3.70    | 33.94                    | 5.82   | 2.30  | 1.50  | 1.10  | 0.94  |                |
| 25             | 0.26                                                             | 0.24                     | 0.30  | 6.18                 | 6.54   | 4.54    | 22.26                    | 5.10   | 2.20  | 1.50  | 0.94  | 0.94  |                |
| 26             | 0.24                                                             | 0.24                     | 1.50  | 2.74                 | 5.64   | 10.54   | 13.85                    | 4.96   | 2.20  | 1.50  | 1.02  | 0.94  |                |
| 27             | 0.22                                                             | 0.22                     | 0.43  | 4.12                 | 3.98   | 11.77   | 12.39                    | 6.18   | 2.74  | 1.50  | 0.94  | 0.94  |                |
| 28             | 0.22                                                             | 0.19                     | 0.40  | 4.68                 | 3.58   | 40.97   | 11.36                    | 5.28   | 2.62  | 1.60  | 0.94  | 0.94  |                |
| 29             | 0.19                                                             | 0.18                     | 0.34  | 3.10                 | 2.86   | 18.00   | 11.36                    | 7.44   | 2.62  | 1.42  |       | 0.94  |                |
| 30             | 0.18                                                             | 0.18                     | 0.32  | 6.00                 | 2.74   | 11.77   | 9.52                     | 5.82   | 2.62  | 1.34  |       | 0.94  |                |
| 31             |                                                                  | 0.19                     |       | 14.06                | 2.20   |         | 8.52                     |        | 2.50  | 1.34  |       | 0.94  |                |
| Total          | 6.17                                                             | 6.58                     | 28.06 | 52.83                | 176.45 | 360.94  | 447.03                   | 182.25 | 79.06 | 41.78 | 32.80 | 26.21 | 1440.16 CMSDAY |
| Mean           | 0.21                                                             | 0.21                     | 0.94  | 1.70                 | 5.69   | 12.03   | 14.42                    | 6.07   | 2.55  | 1.35  | 1.17  | 0.85  | 3.95 CMS       |
| Max            | 0.28                                                             | 0.38                     | 4.40  | 14.06                | 23.86  | 40.97   | 55.52                    | 11.77  | 4.96  | 1.60  | 1.34  | 1.02  | 55.52 CMS      |
| Min            | 0.15                                                             | 0.15                     | 0.22  | 0.30                 | 0.70   | 1.80    | 3.46                     | 4.82   | 0.78  | 0.64  | 0.94  | 0.49  | 0.15 CMS       |
| Runoff         | 0.53                                                             | 0.57                     | 2.42  | 4.57                 | 15.25  | 31.19   | 38.62                    | 15.75  | 6.83  | 3.61  | 2.83  | 2.27  | 124.43 MCM     |
| Momentary Peak | 80.26 CMS. at 278.32 m. (MSL.) at 08.00 Hours , on Oct 22 , 2013 |                          |       |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 8.73                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 177.566 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013**

## PING RIVER BASIN

### Khlong Suan Mak at Ban Mai , Kamphaeng Phet (P.26A)

Lat 16 - 26 - 55 N    Long 99 - 26 - 28 E

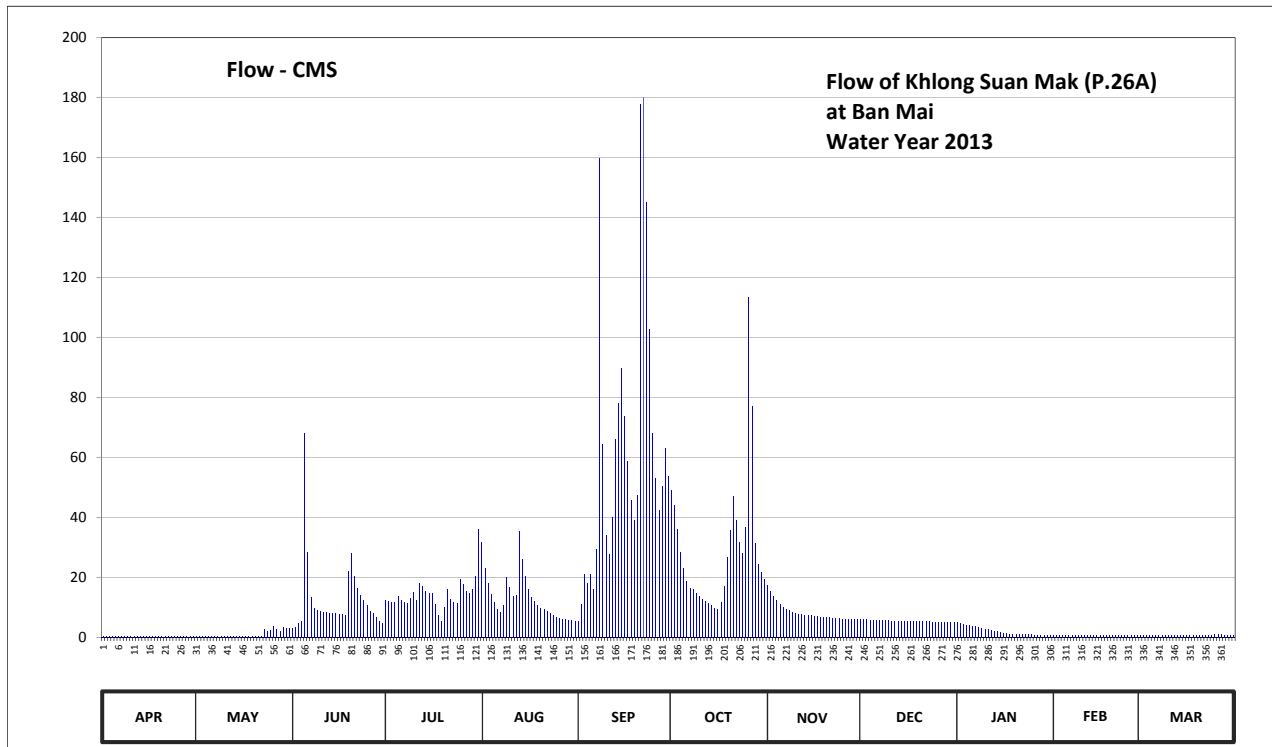
**Location : on right bank about 615 meters downstream from the Kradan Wair**

|                                         |                                                                                      |            |               |        |                  |                   |
|-----------------------------------------|--------------------------------------------------------------------------------------|------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                           | <b>Mai</b> | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Kamphaeng Phet    |
| <b>Drainage Area</b>                    | 974                                                                                  | sq.km.     |               |        |                  |                   |
| <b>Type of Gage</b>                     | Staff gage.                                                                          |            |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +84.110                                                                              | m. (MSL.)  |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                            |            |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank about 30 meters from the south of Wat Sri Phirom.                      |            |               |        | <b>Elevation</b> | +89.637 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                 |            |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                        |            |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1971 to date                                                                         |            |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                      |            |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1972 - 1974 , 1980 to date                                                           |            |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                    |            |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1972 - 1974 , 1980 to date                                                           |            |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                              |            |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                    |            |               |        |                  |                   |
| <b>General Description</b>              | Records good. Flow effected by Tha Kradan weir about 3.5 kilometers above gage site. |            |               |        |                  |                   |
|                                         | Stage-discharge relation defined by 25 discharge measurements made in 1913.          |            |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 83.33 | 83.32 | 83.63       | 84.40 | 85.09                            | 83.85 | 85.45             | 84.64 | 83.90 | 83.80 | 83.37 | 83.35 |        |
| 2                                | 83.33 | 83.32 | 83.65       | 84.37 | 84.85                            | 84.31 | 85.35             | 84.56 | 83.90 | 83.77 | 83.37 | 83.35 |        |
| 3                                | 83.33 | 83.32 | 83.77       | 84.36 | 84.67                            | 84.78 | 85.19             | 84.48 | 83.90 | 83.75 | 83.37 | 83.35 |        |
| 4                                | 83.33 | 83.32 | 83.86       | 84.35 | 84.51                            | 84.66 | 85.01             | 84.40 | 83.89 | 83.73 | 83.37 | 83.35 |        |
| 5                                | 83.33 | 83.32 | 85.77       | 84.48 | 84.35                            | 84.78 | 84.85             | 84.32 | 83.89 | 83.70 | 83.37 | 83.35 |        |
| 6                                | 83.33 | 83.32 | 85.01       | 84.40 | 84.19                            | 84.59 | 84.69             | 84.24 | 83.89 | 83.69 | 83.37 | 83.35 |        |
| 7                                | 83.33 | 83.32 | 84.46       | 84.35 | 84.13                            | 85.03 | 84.60             | 84.20 | 83.88 | 83.67 | 83.37 | 83.35 |        |
| 8                                | 83.33 | 83.32 | 84.22       | 84.34 | 84.30                            | 86.86 | 84.58             | 84.17 | 83.88 | 83.65 | 83.37 | 83.35 |        |
| 9                                | 83.33 | 83.32 | 84.17       | 84.43 | 84.74                            | 85.71 | 84.53             | 84.13 | 83.87 | 83.62 | 83.37 | 83.35 |        |
| 10                               | 83.33 | 83.32 | 84.14       | 84.54 | 84.61                            | 85.14 | 84.47             | 84.09 | 83.87 | 83.59 | 83.37 | 83.35 |        |
| 11                               | 83.32 | 83.32 | 84.12       | 84.40 | 84.48                            | 84.99 | 84.41             | 84.07 | 83.86 | 83.57 | 83.36 | 83.35 |        |
| 12                               | 83.32 | 83.32 | 84.11       | 84.66 | 84.49                            | 85.27 | 84.37             | 84.06 | 83.86 | 83.55 | 83.36 | 83.35 |        |
| 13                               | 83.32 | 83.32 | 84.10       | 84.63 | 85.17                            | 85.74 | 84.33             | 84.05 | 83.86 | 83.53 | 83.36 | 83.35 |        |
| 14                               | 83.32 | 83.32 | 84.09       | 84.56 | 84.94                            | 85.92 | 84.28             | 84.04 | 83.85 | 83.51 | 83.36 | 83.35 |        |
| 15                               | 83.32 | 83.32 | 84.08       | 84.53 | 84.75                            | 86.09 | 84.22             | 84.03 | 83.85 | 83.48 | 83.36 | 83.35 |        |
| 16                               | 83.32 | 83.32 | 84.07       | 84.53 | 84.59                            | 85.86 | 84.20             | 84.02 | 83.85 | 83.46 | 83.36 | 83.35 |        |
| 17                               | 83.32 | 83.32 | 84.06       | 84.32 | 84.45                            | 85.62 | 84.35             | 84.01 | 83.84 | 83.43 | 83.36 | 83.35 |        |
| 18                               | 83.32 | 83.32 | 84.05       | 84.03 | 84.38                            | 85.39 | 84.62             | 84.00 | 83.84 | 83.41 | 83.36 | 83.35 |        |
| 19                               | 83.32 | 83.32 | 84.81       | 83.86 | 84.29                            | 85.25 | 84.96             | 83.99 | 83.84 | 83.41 | 83.35 | 83.35 |        |
| 20                               | 83.32 | 83.32 | 85.00       | 84.24 | 84.23                            | 85.42 | 85.18             | 83.98 | 83.83 | 83.41 | 83.35 | 83.35 |        |
| 21                               | 83.32 | 83.32 | 84.75       | 84.58 | 84.19                            | 87.02 | 85.41             | 83.97 | 83.83 | 83.41 | 83.35 | 83.35 |        |
| 22                               | 83.32 | 83.32 | 84.60       | 84.42 | 84.14                            | 87.04 | 85.25             | 83.96 | 83.83 | 83.40 | 83.35 | 83.35 |        |
| 23                               | 83.32 | 83.57 | 84.50       | 84.35 | 84.10                            | 86.72 | 85.09             | 83.95 | 83.83 | 83.40 | 83.35 | 83.35 |        |
| 24                               | 83.32 | 83.53 | 84.39       | 84.33 | 84.05                            | 86.26 | 85.00             | 83.94 | 83.82 | 83.40 | 83.35 | 83.36 |        |
| 25                               | 83.32 | 83.54 | 84.28       | 84.72 | 84.00                            | 85.77 | 85.20             | 83.93 | 83.82 | 83.40 | 83.35 | 83.42 |        |
| 26                               | 83.32 | 83.68 | 84.15       | 84.65 | 83.96                            | 85.52 | 86.39             | 83.92 | 83.82 | 83.39 | 83.35 | 83.40 |        |
| 27                               | 83.32 | 83.59 | 84.08       | 84.55 | 83.92                            | 85.32 | 85.91             | 83.92 | 83.82 | 83.39 | 83.35 | 83.40 |        |
| 28                               | 83.32 | 83.53 | 84.00       | 84.52 | 83.90                            | 85.47 | 85.08             | 83.91 | 83.81 | 83.39 | 83.35 | 83.39 |        |
| 29                               | 83.32 | 83.66 | 83.84       | 84.59 | 83.89                            | 85.69 | 84.89             | 83.91 | 83.81 | 83.39 | 83.39 | 83.39 |        |
| 30                               | 83.32 | 83.63 | 83.79       | 84.76 | 83.87                            | 85.53 | 84.80             | 83.91 | 83.81 | 83.38 | 83.35 | 83.39 |        |
| 31                               |       | 83.61 |             | 85.19 | 83.86                            |       | 84.72             |       | 83.81 | 83.38 |       | 83.38 |        |
| Mean                             | 83.32 | 83.40 | 84.25       | 84.47 | 84.36                            | 85.52 | 84.88             | 84.09 | 83.85 | 83.52 | 83.36 | 83.36 |        |
| Max                              | 83.33 | 83.68 | 85.77       | 85.19 | 85.17                            | 87.04 | 86.39             | 84.64 | 83.90 | 83.80 | 83.37 | 83.42 | 87.04  |
| Min                              | 83.32 | 83.32 | 83.63       | 83.86 | 83.86                            | 83.85 | 84.20             | 83.91 | 83.81 | 83.38 | 83.35 | 83.35 | 83.32  |
| Annual Max Momentary Gage Height |       | 87.11 | m. (MSL.) , |       | at 15.00 Hours , on Sep 8 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 84.11 | m. (MSL.) , |       | River Bed                        | 82.96 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 88.60 | m. (MSL.) , |       |                                  |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 89.13 | m. (MSL.) , |       | Drainage Area                    | 974   | Square Kilometers |       |       |       |       |       |        |

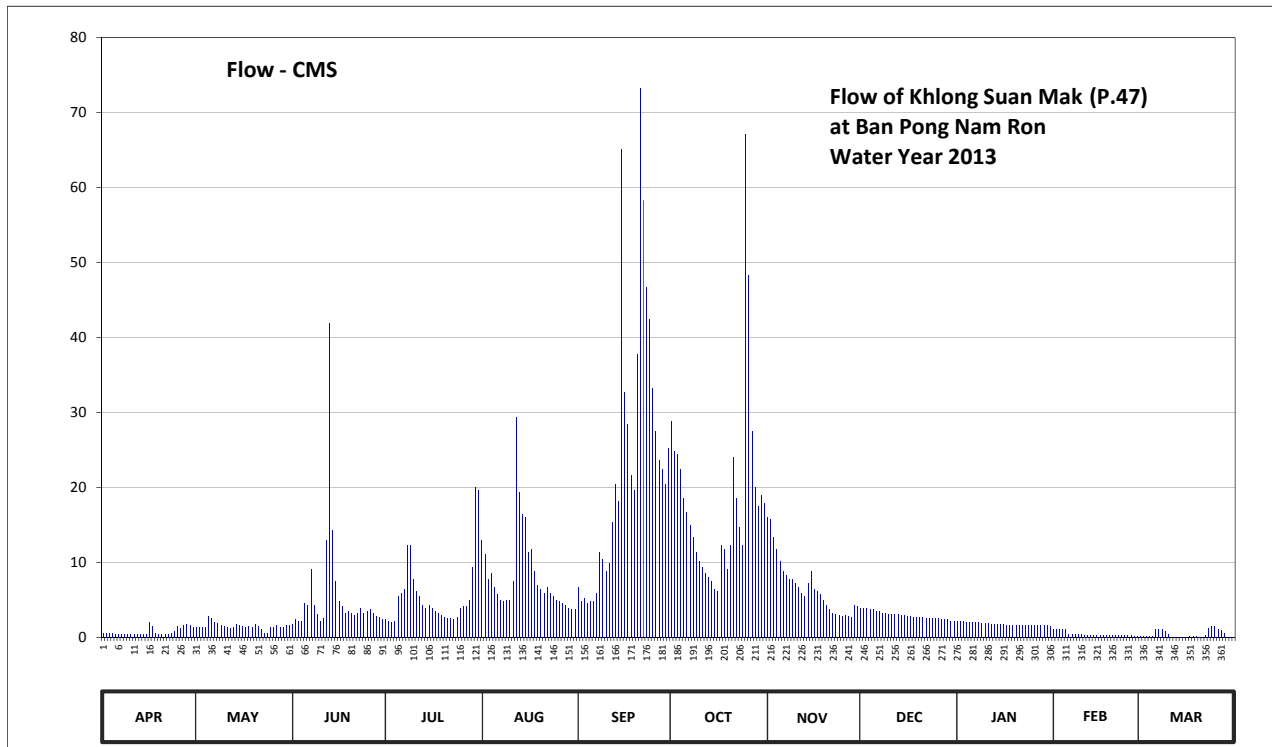




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 0.65                                                            | 0.60                     | 3.30   | 12.50                | 31.85  | 5.50    | 49.25                    | 17.50  | 6.00   | 5.00  | 0.85  | 0.75  |                |
| 2              | 0.65                                                            | 0.60                     | 3.50   | 12.05                | 23.25  | 11.15   | 44.00                    | 15.60  | 6.00   | 4.70  | 0.85  | 0.75  |                |
| 3              | 0.65                                                            | 0.60                     | 4.70   | 11.90                | 18.25  | 21.20   | 36.30                    | 13.90  | 6.00   | 4.50  | 0.85  | 0.75  |                |
| 4              | 0.65                                                            | 0.60                     | 5.60   | 11.75                | 14.48  | 18.00   | 28.65                    | 12.50  | 5.90   | 4.30  | 0.85  | 0.75  |                |
| 5              | 0.65                                                            | 0.60                     | 68.12  | 13.90                | 11.75  | 21.20   | 23.25                    | 11.30  | 5.90   | 4.00  | 0.85  | 0.75  |                |
| 6              | 0.65                                                            | 0.60                     | 28.65  | 12.50                | 9.38   | 16.27   | 18.75                    | 10.10  | 5.90   | 3.90  | 0.85  | 0.75  |                |
| 7              | 0.65                                                            | 0.60                     | 13.55  | 11.75                | 8.62   | 29.45   | 16.50                    | 9.50   | 5.80   | 3.70  | 0.85  | 0.75  |                |
| 8              | 0.65                                                            | 0.60                     | 9.80   | 11.60                | 11.00  | 159.80  | 16.05                    | 9.13   | 5.80   | 3.50  | 0.85  | 0.75  |                |
| 9              | 0.65                                                            | 0.60                     | 9.13   | 13.02                | 20.10  | 64.37   | 14.92                    | 8.62   | 5.70   | 3.20  | 0.85  | 0.75  |                |
| 10             | 0.65                                                            | 0.60                     | 8.75   | 15.15                | 16.75  | 34.05   | 13.73                    | 8.12   | 5.70   | 2.90  | 0.85  | 0.75  |                |
| 11             | 0.60                                                            | 0.60                     | 8.50   | 12.50                | 13.90  | 27.90   | 12.68                    | 7.88   | 5.60   | 2.70  | 0.80  | 0.75  |                |
| 12             | 0.60                                                            | 0.60                     | 8.38   | 18.00                | 14.07  | 40.07   | 12.05                    | 7.75   | 5.60   | 2.50  | 0.80  | 0.75  |                |
| 13             | 0.60                                                            | 0.60                     | 8.25   | 17.25                | 35.40  | 66.25   | 11.45                    | 7.63   | 5.60   | 2.30  | 0.80  | 0.75  |                |
| 14             | 0.60                                                            | 0.60                     | 8.12   | 15.60                | 26.15  | 77.90   | 10.70                    | 7.50   | 5.50   | 2.10  | 0.80  | 0.75  |                |
| 15             | 0.60                                                            | 0.60                     | 8.00   | 14.92                | 20.37  | 89.80   | 9.80                     | 7.37   | 5.50   | 1.80  | 0.80  | 0.75  |                |
| 16             | 0.60                                                            | 0.60                     | 7.88   | 14.92                | 16.27  | 73.90   | 9.50                     | 7.25   | 5.50   | 1.60  | 0.80  | 0.75  |                |
| 17             | 0.60                                                            | 0.60                     | 7.75   | 11.30                | 13.37  | 58.75   | 11.75                    | 7.13   | 5.40   | 1.30  | 0.80  | 0.75  |                |
| 18             | 0.60                                                            | 0.60                     | 7.63   | 7.37                 | 12.20  | 46.00   | 17.00                    | 7.00   | 5.40   | 1.10  | 0.80  | 0.75  |                |
| 19             | 0.60                                                            | 0.60                     | 22.05  | 5.60                 | 10.85  | 39.13   | 26.85                    | 6.90   | 5.40   | 1.10  | 0.75  | 0.75  |                |
| 20             | 0.60                                                            | 0.60                     | 28.25  | 10.10                | 9.95   | 47.60   | 35.85                    | 6.80   | 5.30   | 1.10  | 0.75  | 0.75  |                |
| 21             | 0.60                                                            | 0.60                     | 20.37  | 16.05                | 9.38   | 177.80  | 47.05                    | 6.70   | 5.30   | 1.10  | 0.75  | 0.75  |                |
| 22             | 0.60                                                            | 0.60                     | 16.50  | 12.85                | 8.75   | 180.10  | 39.13                    | 6.60   | 5.30   | 1.00  | 0.75  | 0.75  |                |
| 23             | 0.60                                                            | 2.70                     | 14.25  | 11.75                | 8.25   | 145.10  | 31.85                    | 6.50   | 5.30   | 1.00  | 0.75  | 0.75  |                |
| 24             | 0.60                                                            | 2.30                     | 12.35  | 11.45                | 7.63   | 102.80  | 28.25                    | 6.40   | 5.20   | 1.00  | 0.75  | 0.80  |                |
| 25             | 0.60                                                            | 2.40                     | 10.70  | 19.55                | 7.00   | 68.12   | 36.75                    | 6.30   | 5.20   | 1.00  | 0.75  | 1.20  |                |
| 26             | 0.60                                                            | 3.80                     | 8.88   | 17.75                | 6.60   | 53.10   | 113.42                   | 6.20   | 5.20   | 0.95  | 0.75  | 1.00  |                |
| 27             | 0.60                                                            | 2.90                     | 8.00   | 15.38                | 6.20   | 42.50   | 77.20                    | 6.20   | 5.20   | 0.95  | 0.75  | 1.00  |                |
| 28             | 0.60                                                            | 2.30                     | 7.00   | 14.70                | 6.00   | 50.35   | 31.45                    | 6.10   | 5.10   | 0.95  | 0.75  | 0.95  |                |
| 29             | 0.60                                                            | 3.60                     | 5.40   | 16.27                | 5.90   | 63.13   | 24.45                    | 6.10   | 5.10   | 0.95  |       | 0.95  |                |
| 30             | 0.60                                                            | 3.30                     | 4.90   | 20.65                | 5.70   | 53.65   | 21.75                    | 6.10   | 5.10   | 0.90  |       | 0.95  |                |
| 31             |                                                                 | 3.10                     |        | 36.30                | 5.60   |         | 19.55                    |        | 5.10   | 0.90  |       | 0.90  |                |
| Total          | 18.50                                                           | 39.60                    | 378.26 | 446.38               | 414.97 | 1884.94 | 889.88                   | 252.68 | 170.60 | 68.00 | 22.40 | 25.00 | 4611.21 CMSDAY |
| Mean           | 0.62                                                            | 1.28                     | 12.61  | 14.40                | 13.39  | 62.83   | 28.71                    | 8.42   | 5.50   | 2.19  | 0.80  | 0.81  | 12.63 CMS      |
| Max            | 0.65                                                            | 3.80                     | 68.12  | 36.30                | 35.40  | 180.10  | 113.42                   | 17.50  | 6.00   | 5.00  | 0.85  | 1.20  | 180.10 CMS     |
| Min            | 0.60                                                            | 0.60                     | 3.30   | 5.60                 | 5.60   | 5.50    | 9.50                     | 6.10   | 5.10   | 0.90  | 0.75  | 0.75  | 0.60 CMS       |
| Runoff         | 1.60                                                            | 3.42                     | 32.68  | 38.57                | 35.85  | 162.86  | 76.89                    | 21.83  | 14.74  | 5.88  | 1.94  | 2.16  | 398.41 MCM     |
| Momentary Peak | 188.30 CMS. at 87.11 m. (MSL.) at 15.00 Hours , on Sep 8 , 2013 |                          |        |                      |        |         |                          |        |        |       |       |       |                |
| Runoff Yield   | 12.97                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 193.326 | Liters/Second/Square KM. |        |        |       |       |       |                |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 144.03 | 144.16 | 144.20      | 144.24 | 144.67                            | 144.45 | 145.08            | 144.76    | 144.33 | 144.23 | 144.14 | 143.96 |        |
| 2                                | 144.03 | 144.16 | 144.24      | 144.23 | 144.61                            | 144.37 | 144.99            | 144.75    | 144.33 | 144.23 | 144.14 | 143.96 |        |
| 3                                | 144.03 | 144.16 | 144.23      | 144.22 | 144.49                            | 144.39 | 144.98            | 144.68    | 144.33 | 144.23 | 144.14 | 143.96 |        |
| 4                                | 144.03 | 144.16 | 144.23      | 144.23 | 144.52                            | 144.36 | 144.93            | 144.63    | 144.32 | 144.22 | 144.14 | 143.95 |        |
| 5                                | 144.02 | 144.27 | 144.36      | 144.40 | 144.45                            | 144.37 | 144.83            | 144.58    | 144.32 | 144.22 | 144.14 | 143.95 |        |
| 6                                | 144.02 | 144.25 | 144.35      | 144.42 | 144.41                            | 144.37 | 144.78            | 144.53    | 144.31 | 144.22 | 144.02 | 144.14 |        |
| 7                                | 144.02 | 144.22 | 144.54      | 144.44 | 144.38                            | 144.42 | 144.73            | 144.51    | 144.31 | 144.22 | 144.02 | 144.14 |        |
| 8                                | 144.02 | 144.21 | 144.35      | 144.65 | 144.37                            | 144.62 | 144.68            | 144.49    | 144.30 | 144.22 | 144.01 | 144.14 |        |
| 9                                | 144.01 | 144.19 | 144.29      | 144.65 | 144.38                            | 144.59 | 144.62            | 144.49    | 144.30 | 144.21 | 144.00 | 144.11 |        |
| 10                               | 144.01 | 144.17 | 144.23      | 144.49 | 144.38                            | 144.53 | 144.58            | 144.47    | 144.29 | 144.21 | 144.00 | 144.02 |        |
| 11                               | 144.01 | 144.16 | 144.25      | 144.43 | 144.48                            | 144.57 | 144.55            | 144.45    | 144.29 | 144.21 | 143.99 | 143.93 |        |
| 12                               | 144.01 | 144.15 | 144.67      | 144.40 | 145.09                            | 144.74 | 144.52            | 144.42    | 144.29 | 144.20 | 143.99 | 143.93 |        |
| 13                               | 144.01 | 144.16 | 145.34      | 144.35 | 144.85                            | 144.88 | 144.50            | 144.40    | 144.29 | 144.20 | 143.99 | 143.93 |        |
| 14                               | 144.00 | 144.20 | 144.71      | 144.33 | 144.77                            | 144.82 | 144.48            | 144.47    | 144.28 | 144.20 | 143.99 | 143.92 |        |
| 15                               | 144.00 | 144.18 | 144.48      | 144.35 | 144.76                            | 145.74 | 144.44            | 144.53    | 144.28 | 144.20 | 143.99 | 143.92 |        |
| 16                               | 144.22 | 144.17 | 144.37      | 144.33 | 144.62                            | 145.16 | 144.43            | 144.44    | 144.27 | 144.20 | 143.99 | 143.93 |        |
| 17                               | 144.17 | 144.16 | 144.34      | 144.31 | 144.63                            | 145.07 | 144.65            | 144.43    | 144.27 | 144.19 | 143.98 | 143.96 |        |
| 18                               | 144.06 | 144.17 | 144.30      | 144.30 | 144.53                            | 144.91 | 144.63            | 144.41    | 144.26 | 144.19 | 143.98 | 143.95 |        |
| 19                               | 144.00 | 144.16 | 144.31      | 144.28 | 144.46                            | 144.86 | 144.54            | 144.38    | 144.26 | 144.19 | 143.98 | 143.94 |        |
| 20                               | 144.00 | 144.20 | 144.30      | 144.26 | 144.44                            | 145.26 | 144.65            | 144.35    | 144.26 | 144.19 | 143.98 | 143.93 |        |
| 21                               | 144.00 | 144.17 | 144.28      | 144.25 | 144.42                            | 145.86 | 144.97            | 144.32    | 144.26 | 144.18 | 143.97 | 143.92 |        |
| 22                               | 144.00 | 144.14 | 144.30      | 144.25 | 144.45                            | 145.63 | 144.83            | 144.30    | 144.25 | 144.18 | 143.97 | 143.98 |        |
| 23                               | 144.03 | 144.04 | 144.33      | 144.24 | 144.42                            | 145.43 | 144.72            | 144.29    | 144.25 | 144.18 | 143.97 | 144.15 |        |
| 24                               | 144.11 | 144.05 | 144.30      | 144.26 | 144.40                            | 145.35 | 144.65            | 144.28    | 144.25 | 144.18 | 143.97 | 144.17 |        |
| 25                               | 144.17 | 144.16 | 144.31      | 144.33 | 144.38                            | 145.17 | 145.77            | 144.27    | 144.25 | 144.18 | 143.97 | 144.17 |        |
| 26                               | 144.15 | 144.16 | 144.32      | 144.34 | 144.37                            | 145.05 | 145.46            | 144.28    | 144.25 | 144.18 | 143.97 | 144.14 |        |
| 27                               | 144.18 | 144.18 | 144.30      | 144.34 | 144.36                            | 144.96 | 145.05            | 144.27    | 144.24 | 144.18 | 143.96 | 144.12 |        |
| 28                               | 144.20 | 144.16 | 144.27      | 144.38 | 144.35                            | 144.93 | 144.87            | 144.26    | 144.24 | 144.18 | 143.96 | 144.06 |        |
| 29                               | 144.19 | 144.16 | 144.26      | 144.55 | 144.33                            | 144.88 | 144.80            | 144.35    | 144.24 | 144.18 |        | 143.93 |        |
| 30                               | 144.16 | 144.18 | 144.24      | 144.87 | 144.32                            | 145.00 | 144.84            | 144.34    | 144.23 | 144.18 |        | 143.92 |        |
| 31                               |        | 144.19 |             | 144.86 | 144.32                            |        | 144.81            |           | 144.23 | 144.17 |        | 143.92 |        |
| Mean                             | 144.06 | 144.17 | 144.37      | 144.39 | 144.50                            | 144.89 | 144.79            | 144.44    | 144.28 | 144.20 | 144.01 | 144.00 |        |
| Max                              | 144.22 | 144.27 | 145.34      | 144.87 | 145.09                            | 145.86 | 145.77            | 144.76    | 144.33 | 144.23 | 144.14 | 144.17 | 145.86 |
| Min                              | 144.00 | 144.04 | 144.20      | 144.22 | 144.32                            | 144.36 | 144.43            | 144.26    | 144.23 | 144.17 | 143.96 | 143.92 | 143.92 |
| Annual Max Momentary Gage Height | 146.27 |        | m. (MSL.) , |        | at 06.00 Hours , on Sep 15 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 143.77 |        | m. (MSL.) , |        | River Bed                         | 143.74 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 147.09 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 149.45 |        | m. (MSL.) , |        | Drainage Area                     | 529    | Square Kilometers |           |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.52                                                              | 1.40                     | 1.80   | 2.40                 | 13.04  | 6.75    | 28.90                    | 16.10  | 3.96  | 2.25  | 1.20  | 0.24  |                |
| 2              | 0.52                                                              | 1.40                     | 2.40   | 2.25                 | 11.12  | 4.84    | 24.89                    | 15.75  | 3.96  | 2.25  | 1.20  | 0.24  |                |
| 3              | 0.52                                                              | 1.40                     | 2.25   | 2.10                 | 7.75   | 5.28    | 24.48                    | 13.36  | 3.96  | 2.25  | 1.20  | 0.24  |                |
| 4              | 0.52                                                              | 1.40                     | 2.25   | 2.25                 | 8.56   | 4.62    | 22.43                    | 11.76  | 3.74  | 2.10  | 1.20  | 0.20  |                |
| 5              | 0.48                                                              | 2.85                     | 4.62   | 5.50                 | 6.75   | 4.84    | 18.61                    | 10.24  | 3.74  | 2.10  | 1.20  | 0.20  |                |
| 6              | 0.48                                                              | 2.55                     | 4.40   | 6.00                 | 5.75   | 4.84    | 16.80                    | 8.84   | 3.52  | 2.10  | 0.48  | 1.20  |                |
| 7              | 0.48                                                              | 2.10                     | 9.12   | 6.50                 | 5.06   | 6.00    | 15.05                    | 8.28   | 3.52  | 2.10  | 0.48  | 1.20  |                |
| 8              | 0.48                                                              | 1.95                     | 4.40   | 12.40                | 4.84   | 11.44   | 13.36                    | 7.75   | 3.30  | 2.10  | 0.44  | 1.20  |                |
| 9              | 0.44                                                              | 1.70                     | 3.15   | 12.40                | 5.06   | 10.52   | 11.44                    | 7.75   | 3.30  | 1.95  | 0.40  | 0.90  |                |
| 10             | 0.44                                                              | 1.50                     | 2.25   | 7.75                 | 5.06   | 8.84    | 10.24                    | 7.25   | 3.15  | 1.95  | 0.40  | 0.48  |                |
| 11             | 0.44                                                              | 1.40                     | 2.55   | 6.25                 | 7.50   | 9.96    | 9.40                     | 6.75   | 3.15  | 1.95  | 0.36  | 0.12  |                |
| 12             | 0.44                                                              | 1.30                     | 13.04  | 5.50                 | 29.35  | 15.40   | 8.56                     | 6.00   | 3.15  | 1.80  | 0.36  | 0.12  |                |
| 13             | 0.44                                                              | 1.40                     | 41.88  | 4.40                 | 19.35  | 20.46   | 8.00                     | 5.50   | 3.15  | 1.80  | 0.36  | 0.12  |                |
| 14             | 0.40                                                              | 1.80                     | 14.35  | 3.96                 | 16.45  | 18.24   | 7.50                     | 7.25   | 3.00  | 1.80  | 0.36  | 0.08  |                |
| 15             | 0.40                                                              | 1.60                     | 7.50   | 4.40                 | 16.10  | 65.10   | 6.50                     | 8.84   | 3.00  | 1.80  | 0.36  | 0.08  |                |
| 16             | 2.10                                                              | 1.50                     | 4.84   | 3.96                 | 11.44  | 32.68   | 6.25                     | 6.50   | 2.85  | 1.80  | 0.36  | 0.12  |                |
| 17             | 1.50                                                              | 1.40                     | 4.18   | 3.52                 | 11.76  | 28.45   | 12.40                    | 6.25   | 2.85  | 1.70  | 0.32  | 0.24  |                |
| 18             | 0.64                                                              | 1.50                     | 3.30   | 3.30                 | 8.84   | 21.61   | 11.76                    | 5.75   | 2.70  | 1.70  | 0.32  | 0.20  |                |
| 19             | 0.40                                                              | 1.40                     | 3.52   | 3.00                 | 7.00   | 19.72   | 9.12                     | 5.06   | 2.70  | 1.70  | 0.32  | 0.16  |                |
| 20             | 0.40                                                              | 1.80                     | 3.30   | 2.70                 | 6.50   | 37.72   | 12.40                    | 4.40   | 2.70  | 1.70  | 0.32  | 0.12  |                |
| 21             | 0.40                                                              | 1.50                     | 3.00   | 2.55                 | 6.00   | 73.20   | 24.07                    | 3.74   | 2.70  | 1.60  | 0.28  | 0.08  |                |
| 22             | 0.40                                                              | 1.20                     | 3.30   | 2.55                 | 6.75   | 58.30   | 18.61                    | 3.30   | 2.55  | 1.60  | 0.28  | 0.32  |                |
| 23             | 0.52                                                              | 0.56                     | 3.96   | 2.40                 | 6.00   | 46.65   | 14.70                    | 3.15   | 2.55  | 1.60  | 0.28  | 1.30  |                |
| 24             | 0.90                                                              | 0.60                     | 3.30   | 2.70                 | 5.50   | 42.40   | 12.40                    | 3.00   | 2.55  | 1.60  | 0.28  | 1.50  |                |
| 25             | 1.50                                                              | 1.40                     | 3.52   | 3.96                 | 5.06   | 33.16   | 67.05                    | 2.85   | 2.55  | 1.60  | 0.28  | 1.50  |                |
| 26             | 1.30                                                              | 1.40                     | 3.74   | 4.18                 | 4.84   | 27.55   | 48.30                    | 3.00   | 2.55  | 1.60  | 0.28  | 1.20  |                |
| 27             | 1.60                                                              | 1.60                     | 3.30   | 4.18                 | 4.62   | 23.66   | 27.55                    | 2.85   | 2.40  | 1.60  | 0.24  | 1.00  |                |
| 28             | 1.80                                                              | 1.40                     | 2.85   | 5.06                 | 4.40   | 22.43   | 20.09                    | 2.70   | 2.40  | 1.60  | 0.24  | 0.64  |                |
| 29             | 1.70                                                              | 1.40                     | 2.70   | 9.40                 | 3.96   | 20.46   | 17.50                    | 4.40   | 2.40  | 1.60  |       | 0.12  |                |
| 30             | 1.40                                                              | 1.60                     | 2.40   | 20.09                | 3.74   | 25.30   | 18.98                    | 4.18   | 2.25  | 1.60  |       | 0.08  |                |
| 31             |                                                                   | 1.70                     |        | 19.72                | 3.74   |         | 17.87                    |        | 2.25  | 1.50  |       | 0.08  |                |
| Total          | 23.56                                                             | 47.71                    | 167.17 | 177.33               | 261.89 | 710.42  | 565.21                   | 202.55 | 92.55 | 56.40 | 13.80 | 15.28 | 2333.87 CMSDAY |
| Mean           | 0.79                                                              | 1.54                     | 5.57   | 5.72                 | 8.45   | 23.68   | 18.23                    | 6.75   | 2.99  | 1.82  | 0.49  | 0.49  | 6.39 CMS       |
| Max            | 2.10                                                              | 2.85                     | 41.88  | 20.09                | 29.35  | 73.20   | 67.05                    | 16.10  | 3.96  | 2.25  | 1.20  | 1.50  | 73.20 CMS      |
| Min            | 0.40                                                              | 0.56                     | 1.80   | 2.10                 | 3.74   | 4.62    | 6.25                     | 2.70   | 2.25  | 1.50  | 0.24  | 0.08  | 0.08 CMS       |
| Runoff         | 2.04                                                              | 4.12                     | 14.44  | 15.32                | 22.63  | 61.38   | 48.83                    | 17.50  | 8.00  | 4.87  | 1.19  | 1.32  | 201.65 MCM     |
| Momentary Peak | 103.25 CMS. at 146.27 m. (MSL.) at 06.00 Hours , on Sep 15 , 2013 |                          |        |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 12.09                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 195.180 | Liters/Second/Square KM. |        |       |       |       |       |                |

## WATER YEAR : 2013

## PING RIVER BASIN

**Khlong Wang Chao at Ban Thai Tawee , Kamphaeng Phet (P.50A**

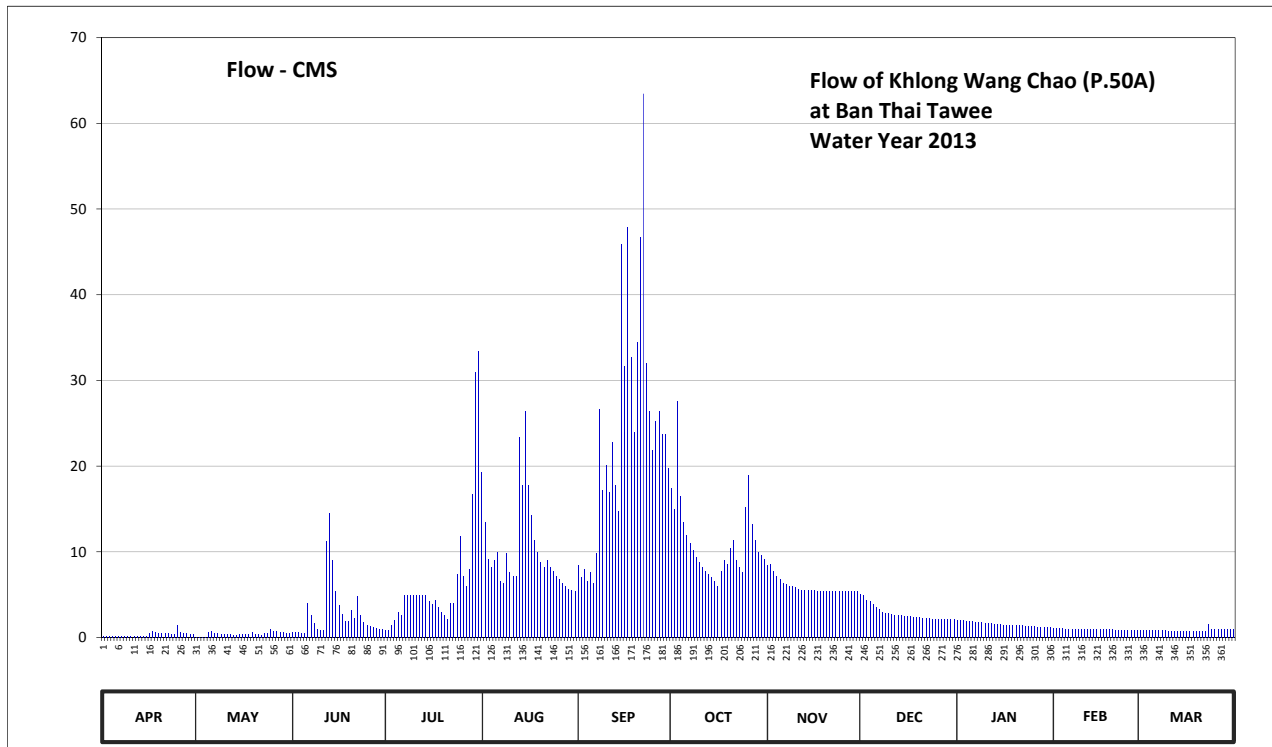
Lat 16 - 32 - 45 N    Long 99 - 14 - 57 E

**Location : on left bank at Ban Thai Tawee**

|                                         |                                                                                           |            |               |                 |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Thai Tawee | <b>Amphoe</b> | Kosumpee Nakhon | <b>Changwat</b>  | Kamphaeng Phet     |
| <b>Drainage Area</b>                    | 480                                                                                       | sq.km.     |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +104.360                                                                                  | m. (MSL.)  |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |                 |                  |                    |
| <b>Location BM</b>                      | On left bank about 10 meters from the top staff gage.                                     |            |               |                 | <b>Elevation</b> | +109.825 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                       |            |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |            |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |            |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |            |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |            |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |            |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable by some scouring.                                                           |            |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |                 |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 29 discharge measurements made in 2013. |            |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

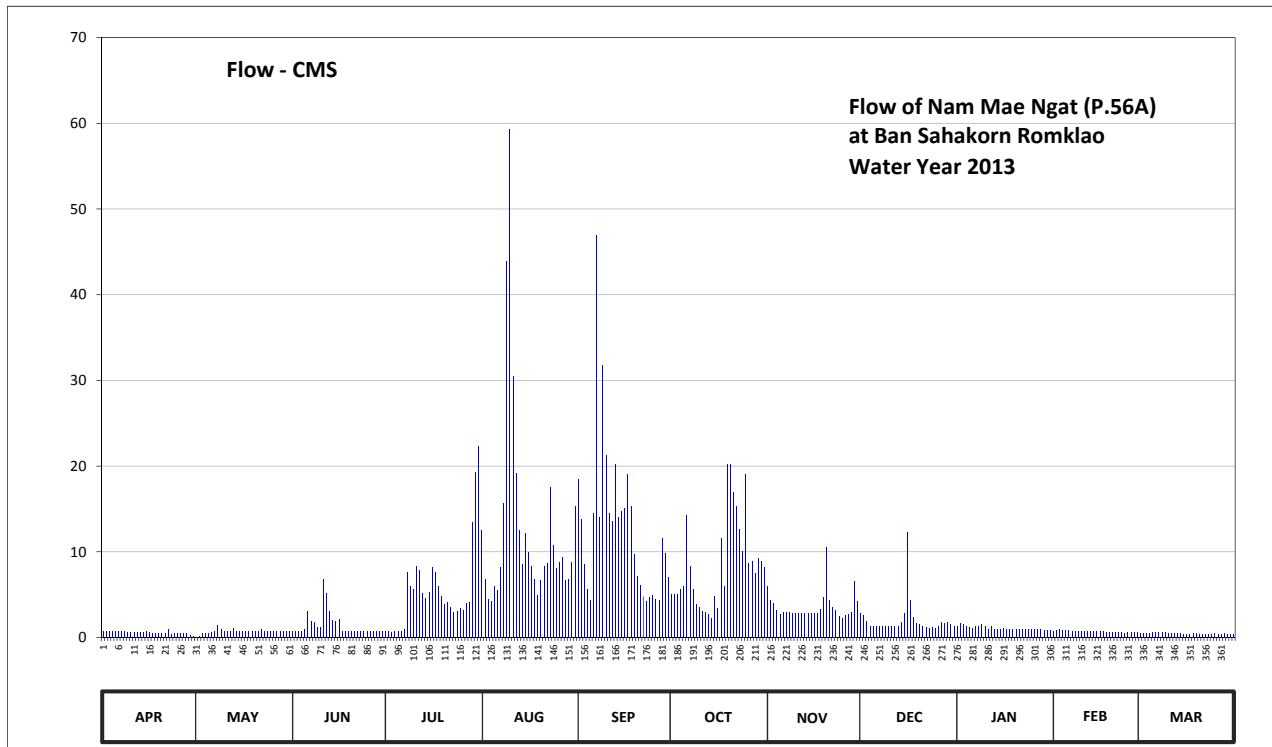
| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 104.46 | 104.44 | 104.66                                          | 104.75 | 105.79 | 105.32 | 105.72 | 105.32 | 105.14 | 104.90 | 104.81 | 104.74 |        |
| 2                                | 104.46 | 104.44 | 104.65                                          | 104.74 | 105.56 | 105.25 | 105.62 | 105.33 | 105.13 | 104.90 | 104.81 | 104.74 |        |
| 3                                | 104.46 | 104.44 | 104.64                                          | 104.84 | 105.36 | 105.30 | 106.07 | 105.29 | 105.09 | 104.90 | 104.81 | 104.74 |        |
| 4                                | 104.46 | 104.44 | 104.63                                          | 104.90 | 105.31 | 105.23 | 105.68 | 105.26 | 105.08 | 104.89 | 104.81 | 104.73 |        |
| 5                                | 104.46 | 104.66 | 104.62                                          | 105.00 | 105.35 | 105.28 | 105.56 | 105.24 | 105.06 | 104.89 | 104.80 | 104.73 |        |
| 6                                | 104.46 | 104.69 | 105.07                                          | 104.96 | 105.40 | 105.22 | 105.50 | 105.22 | 105.04 | 104.89 | 104.80 | 104.73 |        |
| 7                                | 104.46 | 104.61 | 104.96                                          | 105.13 | 105.23 | 105.39 | 105.45 | 105.21 | 105.02 | 104.88 | 104.80 | 104.73 |        |
| 8                                | 104.46 | 104.59 | 104.87                                          | 105.13 | 105.22 | 106.04 | 105.41 | 105.20 | 105.00 | 104.88 | 104.80 | 104.73 |        |
| 9                                | 104.46 | 104.57 | 104.80                                          | 105.13 | 105.39 | 105.71 | 105.37 | 105.20 | 104.99 | 104.88 | 104.79 | 104.73 |        |
| 10                               | 104.46 | 104.56 | 104.76                                          | 105.13 | 105.28 | 105.82 | 105.34 | 105.19 | 104.98 | 104.87 | 104.79 | 104.72 |        |
| 11                               | 104.46 | 104.55 | 104.76                                          | 105.13 | 105.26 | 105.70 | 105.31 | 105.18 | 104.97 | 104.87 | 104.79 | 104.72 |        |
| 12                               | 104.46 | 104.54 | 105.46                                          | 105.13 | 105.26 | 105.91 | 105.29 | 105.17 | 104.96 | 104.87 | 104.79 | 104.72 |        |
| 13                               | 104.46 | 104.53 | 105.60                                          | 105.13 | 105.93 | 105.73 | 105.27 | 105.17 | 104.96 | 104.86 | 104.78 | 104.72 |        |
| 14                               | 104.46 | 104.52 | 105.35                                          | 105.13 | 105.73 | 105.61 | 105.25 | 105.17 | 104.96 | 104.86 | 104.78 | 104.72 |        |
| 15                               | 104.46 | 104.56 | 105.16                                          | 105.08 | 106.03 | 106.59 | 105.23 | 105.17 | 104.95 | 104.86 | 104.78 | 104.72 |        |
| 16                               | 104.59 | 104.54 | 105.05                                          | 105.06 | 105.73 | 106.19 | 105.20 | 105.17 | 104.95 | 104.85 | 104.78 | 104.72 |        |
| 17                               | 104.68 | 104.57 | 104.97                                          | 105.09 | 105.59 | 106.64 | 105.29 | 105.16 | 104.95 | 104.85 | 104.77 | 104.72 |        |
| 18                               | 104.64 | 104.55 | 104.89                                          | 105.04 | 105.47 | 106.22 | 105.35 | 105.16 | 104.94 | 104.85 | 104.77 | 104.71 |        |
| 19                               | 104.62 | 104.64 | 104.89                                          | 105.00 | 105.40 | 105.95 | 105.33 | 105.16 | 104.94 | 104.84 | 104.77 | 104.71 |        |
| 20                               | 104.61 | 104.57 | 105.01                                          | 104.96 | 105.34 | 106.27 | 105.42 | 105.16 | 104.94 | 104.84 | 104.77 | 104.71 |        |
| 21                               | 104.60 | 104.54 | 104.93                                          | 104.91 | 105.31 | 106.61 | 105.47 | 105.16 | 104.93 | 104.84 | 104.76 | 104.71 |        |
| 22                               | 104.59 | 104.53 | 105.12                                          | 105.07 | 105.35 | 107.01 | 105.35 | 105.16 | 104.93 | 104.84 | 104.76 | 104.72 |        |
| 23                               | 104.58 | 104.61 | 104.96                                          | 105.07 | 105.31 | 106.20 | 105.31 | 105.16 | 104.93 | 104.83 | 104.76 | 104.86 |        |
| 24                               | 104.57 | 104.62 | 104.88                                          | 105.27 | 105.29 | 106.03 | 105.28 | 105.16 | 104.92 | 104.83 | 104.76 | 104.79 |        |
| 25                               | 104.85 | 104.77 | 104.84                                          | 105.49 | 105.26 | 105.88 | 105.63 | 105.16 | 104.92 | 104.83 | 104.75 | 104.79 |        |
| 26                               | 104.65 | 104.72 | 104.83                                          | 105.26 | 105.24 | 105.99 | 105.78 | 105.16 | 104.92 | 104.83 | 104.75 | 104.78 |        |
| 27                               | 104.61 | 104.69 | 104.82                                          | 105.20 | 105.22 | 106.03 | 105.55 | 105.16 | 104.92 | 104.82 | 104.75 | 104.78 |        |
| 28                               | 104.59 | 104.66 | 104.81                                          | 105.30 | 105.20 | 105.94 | 105.47 | 105.16 | 104.91 | 104.82 | 104.75 | 104.78 |        |
| 29                               | 104.58 | 104.64 | 104.80                                          | 105.69 | 105.18 | 105.94 | 105.40 | 105.16 | 104.91 | 104.82 |        | 104.77 |        |
| 30                               | 104.57 | 104.60 | 104.80                                          | 106.17 | 105.17 | 105.81 | 105.38 | 105.16 | 104.91 | 104.82 |        | 104.77 |        |
| 31                               |        | 104.63 |                                                 | 106.24 | 105.16 |        | 105.36 |        | 104.91 | 104.82 |        | 104.77 |        |
| Mean                             | 104.54 | 104.58 | 104.92                                          | 105.17 | 105.40 | 105.89 | 105.44 | 105.19 | 104.97 | 104.86 | 104.78 | 104.74 |        |
| Max                              | 104.85 | 104.77 | 105.60                                          | 106.24 | 106.03 | 107.01 | 106.07 | 105.33 | 105.14 | 104.90 | 104.81 | 104.86 | 107.01 |
| Min                              | 104.46 | 104.44 | 104.62                                          | 104.74 | 105.16 | 105.22 | 105.20 | 105.16 | 104.91 | 104.82 | 104.75 | 104.71 | 104.46 |
| Annual Max Momentary Gage Height |        | 107.11 | m. (MSL.) , at 18.00 Hours , on Sep 22 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 104.36 | m. (MSL.) , River Bed 103.09 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 109.92 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 109.96 | m. (MSL.) , Drainage Area 480 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.15                                                             | 0.10                     | 0.65  | 0.87                 | 19.25  | 8.40    | 17.50                    | 8.40   | 5.10  | 2.00  | 1.10  | 0.85  |                |
| 2              | 0.15                                                             | 0.10                     | 0.62  | 0.85                 | 13.50  | 7.00    | 15.00                    | 8.60   | 4.95  | 2.00  | 1.10  | 0.85  |                |
| 3              | 0.15                                                             | 0.10                     | 0.60  | 1.40                 | 9.20   | 8.00    | 27.60                    | 7.80   | 4.35  | 2.00  | 1.10  | 0.85  |                |
| 4              | 0.15                                                             | 0.10                     | 0.57  | 2.00                 | 8.20   | 6.60    | 16.50                    | 7.20   | 4.20  | 1.90  | 1.10  | 0.83  |                |
| 5              | 0.15                                                             | 0.65                     | 0.55  | 3.00                 | 9.00   | 7.60    | 13.50                    | 6.80   | 3.90  | 1.90  | 1.00  | 0.83  |                |
| 6              | 0.15                                                             | 0.72                     | 4.05  | 2.60                 | 10.00  | 6.40    | 12.00                    | 6.40   | 3.60  | 1.90  | 1.00  | 0.83  |                |
| 7              | 0.15                                                             | 0.52                     | 2.60  | 4.95                 | 6.60   | 9.80    | 11.00                    | 6.20   | 3.30  | 1.80  | 1.00  | 0.83  |                |
| 8              | 0.15                                                             | 0.47                     | 1.70  | 4.95                 | 6.40   | 26.70   | 10.20                    | 6.00   | 3.00  | 1.80  | 1.00  | 0.83  |                |
| 9              | 0.15                                                             | 0.42                     | 1.00  | 4.95                 | 9.80   | 17.25   | 9.40                     | 6.00   | 2.90  | 1.80  | 0.97  | 0.83  |                |
| 10             | 0.15                                                             | 0.40                     | 0.90  | 4.95                 | 7.60   | 20.10   | 8.80                     | 5.85   | 2.80  | 1.70  | 0.97  | 0.80  |                |
| 11             | 0.15                                                             | 0.38                     | 0.90  | 4.95                 | 7.20   | 17.00   | 8.20                     | 5.70   | 2.70  | 1.70  | 0.97  | 0.80  |                |
| 12             | 0.15                                                             | 0.35                     | 11.20 | 4.95                 | 7.20   | 22.80   | 7.80                     | 5.55   | 2.60  | 1.70  | 0.97  | 0.80  |                |
| 13             | 0.15                                                             | 0.32                     | 14.50 | 4.95                 | 23.40  | 17.75   | 7.40                     | 5.55   | 2.60  | 1.60  | 0.95  | 0.80  |                |
| 14             | 0.15                                                             | 0.30                     | 9.00  | 4.95                 | 17.75  | 14.75   | 7.00                     | 5.55   | 2.60  | 1.60  | 0.95  | 0.80  |                |
| 15             | 0.15                                                             | 0.40                     | 5.40  | 4.20                 | 26.40  | 45.87   | 6.60                     | 5.55   | 2.50  | 1.60  | 0.95  | 0.80  |                |
| 16             | 0.47                                                             | 0.35                     | 3.75  | 3.90                 | 17.75  | 31.65   | 6.00                     | 5.55   | 2.50  | 1.50  | 0.95  | 0.80  |                |
| 17             | 0.70                                                             | 0.42                     | 2.70  | 4.35                 | 14.25  | 47.85   | 7.80                     | 5.40   | 2.50  | 1.50  | 0.92  | 0.80  |                |
| 18             | 0.60                                                             | 0.38                     | 1.90  | 3.60                 | 11.40  | 32.70   | 9.00                     | 5.40   | 2.40  | 1.50  | 0.92  | 0.77  |                |
| 19             | 0.55                                                             | 0.60                     | 1.90  | 3.00                 | 10.00  | 24.00   | 8.60                     | 5.40   | 2.40  | 1.40  | 0.92  | 0.77  |                |
| 20             | 0.52                                                             | 0.42                     | 3.15  | 2.60                 | 8.80   | 34.45   | 10.40                    | 5.40   | 2.40  | 1.40  | 0.92  | 0.77  |                |
| 21             | 0.50                                                             | 0.35                     | 2.30  | 2.10                 | 8.20   | 46.65   | 11.40                    | 5.40   | 2.30  | 1.40  | 0.90  | 0.77  |                |
| 22             | 0.47                                                             | 0.32                     | 4.80  | 4.05                 | 9.00   | 63.45   | 9.00                     | 5.40   | 2.30  | 1.40  | 0.90  | 0.80  |                |
| 23             | 0.45                                                             | 0.52                     | 2.60  | 4.05                 | 8.20   | 32.00   | 8.20                     | 5.40   | 2.30  | 1.30  | 0.90  | 1.60  |                |
| 24             | 0.42                                                             | 0.55                     | 1.80  | 7.40                 | 7.80   | 26.40   | 7.60                     | 5.40   | 2.20  | 1.30  | 0.90  | 0.97  |                |
| 25             | 1.50                                                             | 0.92                     | 1.40  | 11.80                | 7.20   | 21.90   | 15.25                    | 5.40   | 2.20  | 1.30  | 0.87  | 0.97  |                |
| 26             | 0.62                                                             | 0.80                     | 1.30  | 7.20                 | 6.80   | 25.20   | 19.00                    | 5.40   | 2.20  | 1.30  | 0.87  | 0.95  |                |
| 27             | 0.52                                                             | 0.72                     | 1.20  | 6.00                 | 6.40   | 26.40   | 13.25                    | 5.40   | 2.20  | 1.20  | 0.87  | 0.95  |                |
| 28             | 0.47                                                             | 0.65                     | 1.10  | 8.00                 | 6.00   | 23.70   | 11.40                    | 5.40   | 2.10  | 1.20  | 0.87  | 0.95  |                |
| 29             | 0.45                                                             | 0.60                     | 1.00  | 16.75                | 5.70   | 23.70   | 10.00                    | 5.40   | 2.10  | 1.20  |       | 0.92  |                |
| 30             | 0.42                                                             | 0.50                     | 1.00  | 30.95                | 5.55   | 19.80   | 9.60                     | 5.40   | 2.10  | 1.20  |       | 0.92  |                |
| 31             |                                                                  | 0.57                     |       | 33.40                | 5.40   |         | 9.20                     |        | 2.10  | 1.20  |       | 0.92  |                |
| Total          | 10.91                                                            | 14.00                    | 86.14 | 203.67               | 319.95 | 715.87  | 344.20                   | 178.30 | 87.40 | 48.30 | 26.84 | 26.96 | 2062.54 CMSDAY |
| Mean           | 0.36                                                             | 0.45                     | 2.87  | 6.57                 | 10.32  | 23.86   | 11.10                    | 5.94   | 2.82  | 1.56  | 0.96  | 0.87  | 5.65 CMS       |
| Max            | 1.50                                                             | 0.92                     | 14.50 | 33.40                | 26.40  | 63.45   | 27.60                    | 8.60   | 5.10  | 2.00  | 1.10  | 1.60  | 63.45 CMS      |
| Min            | 0.15                                                             | 0.10                     | 0.55  | 0.85                 | 5.40   | 6.40    | 6.00                     | 5.40   | 2.10  | 1.20  | 0.87  | 0.77  | 0.10 CMS       |
| Runoff         | 0.94                                                             | 1.21                     | 7.44  | 17.60                | 27.64  | 61.85   | 29.74                    | 15.41  | 7.55  | 4.17  | 2.32  | 2.33  | 178.20 MCM     |
| Momentary Peak | 67.95 CMS. at 107.11 m. (MSL.) at 18.00 Hours , on Sep 22 , 2013 |                          |       |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 11.77                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 141.563 | Liters/Second/Square KM. |        |       |       |       |       |                |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                              | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 409.32 | 408.80 | 409.34      | 409.32 | 410.20                           | 410.57 | 409.61            | 409.68    | 409.38 | 409.21 | 409.09 | 409.03 |        |
| 2                                | 409.32 | 408.89 | 409.31      | 409.31 | 409.75                           | 410.28 | 409.61            | 409.54    | 409.36 | 409.25 | 409.12 | 409.02 |        |
| 3                                | 409.31 | 409.19 | 409.32      | 409.30 | 409.55                           | 409.90 | 409.61            | 409.50    | 409.27 | 409.24 | 409.13 | 409.03 |        |
| 4                                | 409.31 | 409.20 | 409.35      | 409.31 | 409.53                           | 409.65 | 409.65            | 409.42    | 409.20 | 409.20 | 409.12 | 409.03 |        |
| 5                                | 409.31 | 409.20 | 409.42      | 409.35 | 409.68                           | 409.54 | 409.68            | 409.37    | 409.20 | 409.19 | 409.12 | 409.05 |        |
| 6                                | 409.31 | 409.29 | 409.69      | 409.36 | 409.64                           | 410.33 | 410.31            | 409.40    | 409.20 | 409.16 | 409.12 | 409.06 |        |
| 7                                | 409.31 | 409.40 | 409.56      | 409.42 | 409.87                           | 411.89 | 409.88            | 409.40    | 409.20 | 409.21 | 409.10 | 409.06 |        |
| 8                                | 409.31 | 409.50 | 409.54      | 409.82 | 410.40                           | 410.30 | 409.65            | 409.40    | 409.20 | 409.21 | 409.10 | 409.06 |        |
| 9                                | 409.30 | 409.42 | 409.46      | 409.68 | 411.77                           | 411.27 | 409.49            | 409.39    | 409.20 | 409.23 | 409.10 | 409.05 |        |
| 10                               | 409.29 | 409.38 | 409.46      | 409.65 | 412.30                           | 410.73 | 409.45            | 409.38    | 409.20 | 409.20 | 409.10 | 409.03 |        |
| 11                               | 409.29 | 409.38 | 409.98      | 409.88 | 411.21                           | 410.33 | 409.41            | 409.38    | 409.20 | 409.13 | 409.10 | 409.03 |        |
| 12                               | 409.29 | 409.40 | 409.88      | 409.84 | 410.61                           | 410.27 | 409.40            | 409.38    | 409.20 | 409.20 | 409.09 | 409.03 |        |
| 13                               | 409.29 | 409.45 | 409.69      | 409.62 | 410.20                           | 410.67 | 409.37            | 409.38    | 409.21 | 409.15 | 409.10 | 409.02 |        |
| 14                               | 409.30 | 409.40 | 409.57      | 409.56 | 409.90                           | 410.30 | 409.32            | 409.38    | 409.26 | 409.15 | 409.10 | 409.02 |        |
| 15                               | 409.31 | 409.38 | 409.56      | 409.63 | 410.18                           | 410.34 | 409.58            | 409.38    | 409.38 | 409.15 | 409.10 | 409.01 |        |
| 16                               | 409.25 | 409.38 | 409.60      | 409.87 | 410.01                           | 410.36 | 409.44            | 409.38    | 410.19 | 409.16 | 409.10 | 409.01 |        |
| 17                               | 409.11 | 409.36 | 409.39      | 409.82 | 409.88                           | 410.91 | 410.13            | 409.39    | 409.54 | 409.15 | 409.08 | 409.01 |        |
| 18                               | 409.10 | 409.36 | 409.36      | 409.68 | 409.75                           | 410.38 | 409.68            | 409.43    | 409.33 | 409.15 | 409.06 | 409.02 |        |
| 19                               | 409.10 | 409.36 | 409.37      | 409.58 | 409.59                           | 409.99 | 410.67            | 409.57    | 409.25 | 409.14 | 409.06 | 409.02 |        |
| 20                               | 409.10 | 409.35 | 409.35      | 409.49 | 409.74                           | 409.78 | 410.67            | 410.06    | 409.24 | 409.14 | 409.06 | 409.00 |        |
| 21                               | 409.19 | 409.38 | 409.35      | 409.51 | 409.88                           | 409.69 | 410.48            | 409.54    | 409.20 | 409.13 | 409.06 | 409.00 |        |
| 22                               | 409.42 | 409.42 | 409.35      | 409.45 | 409.91                           | 409.58 | 410.38            | 409.45    | 409.19 | 409.14 | 409.05 | 409.00 |        |
| 23                               | 409.07 | 409.40 | 409.34      | 409.40 | 410.51                           | 409.53 | 410.21            | 409.42    | 409.16 | 409.14 | 409.05 | 409.00 |        |
| 24                               | 409.10 | 409.40 | 409.34      | 409.41 | 410.07                           | 409.57 | 410.02            | 409.35    | 409.19 | 409.14 | 409.04 | 409.00 |        |
| 25                               | 409.10 | 409.40 | 409.33      | 409.44 | 409.86                           | 409.60 | 410.91            | 409.32    | 409.17 | 409.14 | 409.05 | 409.02 |        |
| 26                               | 409.10 | 409.39 | 409.33      | 409.42 | 409.92                           | 409.55 | 409.91            | 409.36    | 409.21 | 409.14 | 409.05 | 409.00 |        |
| 27                               | 409.10 | 409.36 | 409.34      | 409.50 | 409.97                           | 409.54 | 409.93            | 409.37    | 409.26 | 409.13 | 409.06 | 409.01 |        |
| 28                               | 409.10 | 409.36 | 409.33      | 409.51 | 409.74                           | 410.13 | 409.81            | 409.40    | 409.25 | 409.13 | 409.06 | 409.03 |        |
| 29                               | 409.00 | 409.37 | 409.32      | 410.26 | 409.75                           | 410.00 | 409.96            | 409.73    | 409.26 | 409.12 |        | 409.00 |        |
| 30                               | 408.81 | 409.38 | 409.31      | 410.90 | 409.92                           | 409.77 | 409.93            | 409.52    | 409.24 | 409.12 |        | 409.00 |        |
| 31                               |        | 409.36 |             | 410.79 | 410.38                           |        | 409.87            |           | 409.20 | 409.12 |        | 408.99 |        |
| Mean                             | 409.21 | 409.33 | 409.45      | 409.65 | 410.12                           | 410.16 | 409.87            | 409.46    | 409.28 | 409.16 | 409.08 | 409.02 |        |
| Max                              | 409.42 | 409.50 | 409.98      | 410.90 | 412.30                           | 411.89 | 410.91            | 410.06    | 410.19 | 409.25 | 409.13 | 409.06 | 412.30 |
| Min                              | 408.81 | 408.80 | 409.31      | 409.30 | 409.53                           | 409.53 | 409.32            | 409.32    | 409.16 | 409.12 | 409.04 | 408.99 | 408.80 |
| Annual Max Momentary Gage Height | 413.32 |        | m. (MSL.) , |        | at 24.00 Hours , on Aug 9 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 408.30 |        | m. (MSL.) , |        | River Bed                        | 408.70 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 415.73 |        | m. (MSL.) , |        |                                  |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 415.78 |        | m. (MSL.) , |        | Drainage Area                    | 546    | Square Kilometers |           |        |        |        |        |        |

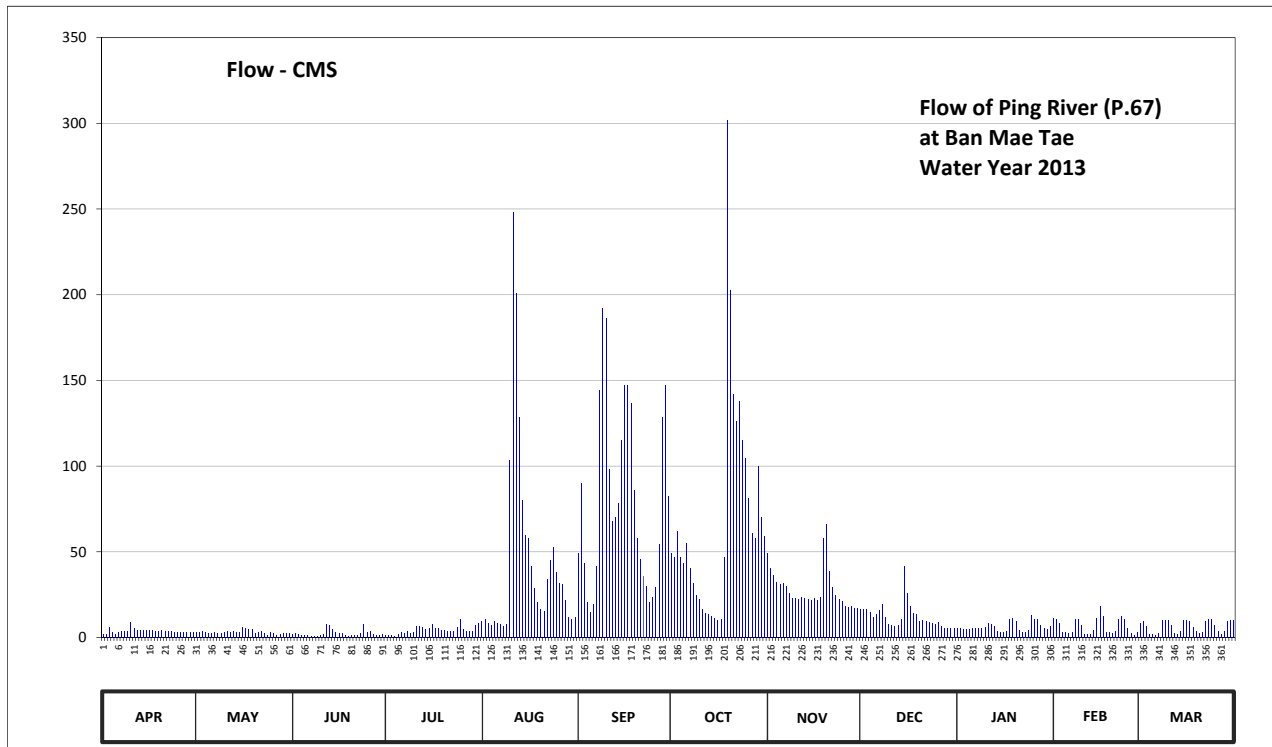


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.71                                                            | 0.11                     | 0.73  | 0.71                 | 12.50  | 18.51   | 5.12                     | 5.96   | 2.82  | 1.38  | 0.76  | 0.52  |                |
| 2              | 0.71                                                            | 0.22                     | 0.70  | 0.70                 | 6.80   | 13.78   | 5.12                     | 4.40   | 2.64  | 1.70  | 0.90  | 0.48  |                |
| 3              | 0.70                                                            | 0.56                     | 0.71  | 0.69                 | 4.50   | 8.60    | 5.12                     | 4.00   | 1.86  | 1.62  | 0.95  | 0.52  |                |
| 4              | 0.70                                                            | 0.57                     | 0.74  | 0.70                 | 4.30   | 5.60    | 5.60                     | 3.20   | 1.30  | 1.30  | 0.90  | 0.52  |                |
| 5              | 0.70                                                            | 0.57                     | 0.94  | 0.74                 | 5.96   | 4.40    | 5.96                     | 2.73   | 1.30  | 1.25  | 0.90  | 0.60  |                |
| 6              | 0.70                                                            | 0.67                     | 3.10  | 0.75                 | 5.48   | 14.58   | 14.26                    | 3.00   | 1.30  | 1.10  | 0.90  | 0.64  |                |
| 7              | 0.70                                                            | 0.80                     | 1.92  | 0.94                 | 8.24   | 46.94   | 8.36                     | 3.00   | 1.30  | 1.38  | 0.80  | 0.64  |                |
| 8              | 0.70                                                            | 1.50                     | 1.78  | 7.64                 | 15.70  | 14.10   | 5.60                     | 3.00   | 1.30  | 1.38  | 0.80  | 0.64  |                |
| 9              | 0.69                                                            | 0.94                     | 1.22  | 5.96                 | 43.83  | 31.74   | 3.90                     | 2.91   | 1.30  | 1.54  | 0.80  | 0.60  |                |
| 10             | 0.67                                                            | 0.78                     | 1.22  | 5.60                 | 59.35  | 21.28   | 3.50                     | 2.82   | 1.30  | 1.30  | 0.80  | 0.52  |                |
| 11             | 0.67                                                            | 0.78                     | 6.78  | 8.36                 | 30.42  | 14.58   | 3.10                     | 2.82   | 1.30  | 0.95  | 0.80  | 0.52  |                |
| 12             | 0.67                                                            | 0.80                     | 5.24  | 7.88                 | 19.17  | 13.62   | 3.00                     | 2.82   | 1.30  | 1.30  | 0.76  | 0.52  |                |
| 13             | 0.67                                                            | 1.15                     | 3.10  | 5.24                 | 12.50  | 20.23   | 2.73                     | 2.82   | 1.38  | 1.05  | 0.80  | 0.48  |                |
| 14             | 0.69                                                            | 0.80                     | 1.99  | 4.60                 | 8.60   | 14.10   | 2.28                     | 2.82   | 1.78  | 1.05  | 0.80  | 0.48  |                |
| 15             | 0.70                                                            | 0.78                     | 1.92  | 5.36                 | 12.23  | 14.74   | 4.80                     | 2.82   | 2.82  | 1.05  | 0.80  | 0.44  |                |
| 16             | 0.63                                                            | 0.78                     | 2.20  | 8.24                 | 9.94   | 15.06   | 3.40                     | 2.82   | 12.36 | 1.10  | 0.80  | 0.44  |                |
| 17             | 0.47                                                            | 0.75                     | 0.79  | 7.64                 | 8.36   | 19.03   | 11.55                    | 2.91   | 4.40  | 1.05  | 0.72  | 0.44  |                |
| 18             | 0.46                                                            | 0.75                     | 0.75  | 5.96                 | 6.80   | 15.38   | 5.96                     | 3.30   | 2.37  | 1.05  | 0.64  | 0.48  |                |
| 19             | 0.46                                                            | 0.75                     | 0.77  | 4.80                 | 4.90   | 9.68    | 20.23                    | 4.70   | 1.70  | 1.00  | 0.64  | 0.48  |                |
| 20             | 0.46                                                            | 0.74                     | 0.74  | 3.90                 | 6.68   | 7.16    | 20.23                    | 10.61  | 1.62  | 1.00  | 0.64  | 0.40  |                |
| 21             | 0.56                                                            | 0.78                     | 0.74  | 4.10                 | 8.36   | 6.08    | 17.02                    | 4.40   | 1.30  | 0.95  | 0.64  | 0.40  |                |
| 22             | 0.94                                                            | 0.94                     | 0.74  | 3.50                 | 8.72   | 4.80    | 15.38                    | 3.50   | 1.25  | 1.00  | 0.60  | 0.40  |                |
| 23             | 0.42                                                            | 0.80                     | 0.73  | 3.00                 | 17.52  | 4.30    | 12.66                    | 3.20   | 1.10  | 1.00  | 0.60  | 0.40  |                |
| 24             | 0.46                                                            | 0.80                     | 0.73  | 3.10                 | 10.75  | 4.70    | 10.07                    | 2.55   | 1.25  | 1.00  | 0.56  | 0.40  |                |
| 25             | 0.46                                                            | 0.80                     | 0.72  | 3.40                 | 8.12   | 5.00    | 19.03                    | 2.28   | 1.15  | 1.00  | 0.60  | 0.48  |                |
| 26             | 0.46                                                            | 0.79                     | 0.72  | 3.20                 | 8.84   | 4.50    | 8.72                     | 2.64   | 1.38  | 1.00  | 0.60  | 0.40  |                |
| 27             | 0.46                                                            | 0.75                     | 0.73  | 4.00                 | 9.44   | 4.40    | 8.96                     | 2.73   | 1.78  | 0.95  | 0.64  | 0.44  |                |
| 28             | 0.46                                                            | 0.75                     | 0.72  | 4.10                 | 6.68   | 11.55   | 7.52                     | 3.00   | 1.70  | 0.95  | 0.64  | 0.52  |                |
| 29             | 0.34                                                            | 0.77                     | 0.71  | 13.46                | 6.80   | 9.80    | 9.32                     | 6.56   | 1.78  | 0.90  |       | 0.40  |                |
| 30             | 0.13                                                            | 0.78                     | 0.70  | 19.35                | 8.84   | 7.04    | 8.96                     | 4.20   | 1.62  | 0.90  |       | 0.40  |                |
| 31             |                                                                 | 0.75                     |       | 22.33                | 15.38  |         | 8.24                     |        | 1.30  | 0.90  |       | 0.38  |                |
| Total          | 17.55                                                           | 23.51                    | 44.58 | 169.95               | 395.71 | 385.28  | 265.70                   | 108.52 | 63.06 | 35.10 | 20.79 | 14.98 | 1544.73 CMSDAY |
| Mean           | 0.58                                                            | 0.76                     | 1.49  | 5.48                 | 12.76  | 12.84   | 8.57                     | 3.62   | 2.03  | 1.13  | 0.74  | 0.48  | 4.23 CMS       |
| Max            | 0.94                                                            | 1.50                     | 6.78  | 22.33                | 59.35  | 46.94   | 20.23                    | 10.61  | 12.36 | 1.70  | 0.95  | 0.64  | 59.35 CMS      |
| Min            | 0.13                                                            | 0.11                     | 0.70  | 0.69                 | 4.30   | 4.30    | 2.28                     | 2.28   | 1.10  | 0.90  | 0.56  | 0.38  | 0.11 CMS       |
| Runoff         | 1.52                                                            | 2.03                     | 3.85  | 14.68                | 34.19  | 33.29   | 22.96                    | 9.38   | 5.45  | 3.03  | 1.80  | 1.29  | 133.47 MCM     |
| Momentary Peak | 98.72 CMS. at 413.32 m. (MSL.) at 24.00 Hours , on Aug 9 , 2013 |                          |       |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 7.75                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 180.806 | Liters/Second/Square KM. |        |       |       |       |       |                |







**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|--------|----------------|
| 1              | 2.00                                                              | 3.08                     | 2.00  | 1.52                 | 9.39    | 49.20   | 49.20                    | 49.20  | 16.82  | 5.56   | 11.34  | 8.70   |                |
| 2              | 2.18                                                              | 3.44                     | 2.90  | 1.28                 | 10.56   | 90.30   | 46.65                    | 40.70  | 16.33  | 5.34   | 10.95  | 9.78   |                |
| 3              | 6.00                                                              | 4.02                     | 1.76  | 1.16                 | 8.40    | 43.25   | 62.00                    | 36.60  | 16.33  | 5.12   | 8.40   | 6.90   |                |
| 4              | 3.08                                                              | 3.44                     | 1.40  | 1.04                 | 7.20    | 20.92   | 46.65                    | 32.60  | 14.86  | 4.90   | 3.26   | 2.18   |                |
| 5              | 1.76                                                              | 2.90                     | 1.28  | 1.88                 | 9.78    | 14.86   | 43.25                    | 31.00  | 12.12  | 4.90   | 3.08   | 1.88   |                |
| 6              | 3.44                                                              | 2.90                     | 1.16  | 3.08                 | 8.70    | 19.36   | 55.15                    | 31.80  | 13.88  | 5.34   | 2.72   | 1.16   |                |
| 7              | 4.02                                                              | 3.26                     | 1.04  | 2.72                 | 7.80    | 41.55   | 40.70                    | 30.20  | 15.84  | 5.34   | 3.44   | 2.54   |                |
| 8              | 3.80                                                              | 2.72                     | 1.04  | 4.02                 | 6.60    | 144.40  | 31.80                    | 26.20  | 19.36  | 5.34   | 10.95  | 10.17  |                |
| 9              | 3.80                                                              | 2.36                     | 1.04  | 2.90                 | 8.10    | 192.00  | 24.60                    | 23.00  | 12.12  | 5.34   | 10.95  | 10.17  |                |
| 10             | 9.00                                                              | 3.44                     | 1.16  | 3.08                 | 103.75  | 186.00  | 22.48                    | 23.00  | 8.10   | 6.00   | 7.20   | 10.17  |                |
| 11             | 5.34                                                              | 3.62                     | 2.00  | 6.90                 | 248.25  | 98.00   | 16.82                    | 22.48  | 7.50   | 8.40   | 2.18   | 7.50   |                |
| 12             | 4.46                                                              | 3.44                     | 7.80  | 6.60                 | 201.00  | 68.00   | 14.37                    | 23.80  | 6.90   | 7.80   | 1.76   | 2.36   |                |
| 13             | 4.46                                                              | 3.62                     | 7.20  | 6.30                 | 128.80  | 70.00   | 13.39                    | 23.00  | 7.20   | 6.90   | 1.88   | 1.76   |                |
| 14             | 4.46                                                              | 3.26                     | 4.68  | 4.90                 | 80.40   | 78.20   | 12.51                    | 22.48  | 10.95  | 4.02   | 4.24   | 4.02   |                |
| 15             | 4.46                                                              | 3.44                     | 3.44  | 5.34                 | 60.00   | 115.25  | 11.34                    | 21.96  | 41.55  | 3.08   | 11.34  | 10.17  |                |
| 16             | 4.46                                                              | 6.30                     | 2.90  | 7.80                 | 58.00   | 147.00  | 10.17                    | 23.00  | 26.20  | 3.08   | 18.32  | 10.17  |                |
| 17             | 4.46                                                              | 5.56                     | 2.36  | 5.34                 | 41.55   | 147.00  | 10.56                    | 21.96  | 18.32  | 4.02   | 12.51  | 9.39   |                |
| 18             | 3.80                                                              | 5.12                     | 1.16  | 5.34                 | 28.60   | 136.60  | 46.65                    | 23.80  | 14.37  | 10.95  | 3.44   | 6.30   |                |
| 19             | 3.62                                                              | 4.68                     | 0.72  | 4.46                 | 20.40   | 85.90   | 301.90                   | 58.00  | 13.88  | 11.34  | 3.26   | 3.80   |                |
| 20             | 4.46                                                              | 2.72                     | 1.28  | 4.24                 | 16.82   | 58.00   | 202.50                   | 66.00  | 9.39   | 9.78   | 2.54   | 2.54   |                |
| 21             | 4.02                                                              | 3.08                     | 1.52  | 4.02                 | 15.35   | 45.80   | 141.80                   | 39.00  | 10.17  | 4.46   | 3.80   | 3.44   |                |
| 22             | 3.80                                                              | 3.80                     | 1.52  | 4.02                 | 34.20   | 35.80   | 126.20                   | 29.40  | 9.39   | 3.44   | 10.95  | 9.78   |                |
| 23             | 3.80                                                              | 2.36                     | 2.72  | 3.62                 | 44.95   | 30.20   | 137.90                   | 24.60  | 9.00   | 3.26   | 12.51  | 10.56  |                |
| 24             | 3.44                                                              | 1.64                     | 8.10  | 6.30                 | 52.60   | 20.40   | 115.25                   | 22.48  | 8.70   | 4.24   | 10.56  | 10.56  |                |
| 25             | 3.44                                                              | 3.08                     | 3.08  | 10.95                | 38.20   | 23.80   | 104.90                   | 21.44  | 7.80   | 12.90  | 5.56   | 7.50   |                |
| 26             | 3.26                                                              | 2.90                     | 4.02  | 5.12                 | 31.80   | 29.40   | 81.50                    | 18.32  | 9.00   | 10.95  | 2.72   | 3.62   |                |
| 27             | 3.26                                                              | 1.64                     | 2.18  | 4.02                 | 31.00   | 54.30   | 61.00                    | 17.80  | 6.60   | 10.95  | 1.52   | 2.00   |                |
| 28             | 3.08                                                              | 2.18                     | 1.52  | 3.80                 | 21.96   | 128.80  | 58.00                    | 18.32  | 5.78   | 7.20   | 3.26   | 3.62   |                |
| 29             | 3.26                                                              | 2.36                     | 1.52  | 3.62                 | 11.73   | 147.00  | 100.30                   | 17.31  | 5.56   | 5.34   |        | 9.78   |                |
| 30             | 3.08                                                              | 2.36                     | 1.76  | 7.50                 | 10.95   | 82.60   | 70.00                    | 17.31  | 5.56   | 5.12   |        | 10.17  |                |
| 31             |                                                                   | 2.54                     |       | 8.40                 | 11.73   |         | 59.00                    |        | 5.56   | 6.90   |        | 10.17  |                |
| Total          | 117.50                                                            | 101.26                   | 76.26 | 141.27               | 1368.57 | 2403.89 | 2118.54                  | 856.76 | 385.14 | 197.31 | 184.64 | 202.86 | 8154.00 CMSDAY |
| Mean           | 3.92                                                              | 3.27                     | 2.54  | 4.56                 | 44.15   | 80.13   | 68.34                    | 28.56  | 12.42  | 6.36   | 6.59   | 6.54   | 22.34 CMS      |
| Max            | 9.00                                                              | 6.30                     | 8.10  | 10.95                | 248.25  | 192.00  | 301.90                   | 66.00  | 41.55  | 12.90  | 18.32  | 10.56  | 301.90 CMS     |
| Min            | 1.76                                                              | 1.64                     | 0.72  | 1.04                 | 6.60    | 14.86   | 10.17                    | 17.31  | 5.56   | 3.08   | 1.52   | 1.16   | 0.72 CMS       |
| Runoff         | 10.15                                                             | 8.75                     | 6.59  | 12.21                | 118.24  | 207.70  | 183.04                   | 74.02  | 33.28  | 17.05  | 15.95  | 17.53  | 704.51 MCM     |
| Momentary Peak | 322.30 CMS. at 318.09 m. (MSL.) at 14.00 Hours , on Oct 19 , 2013 |                          |       |                      |         |         |                          |        |        |        |        |        |                |
| Runoff Yield   | 4.20                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |         | 60.549  | Liters/Second/Square KM. |        |        |        |        |        |                |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae Khan at Ban Klang , Chiang Mai (P.71A**

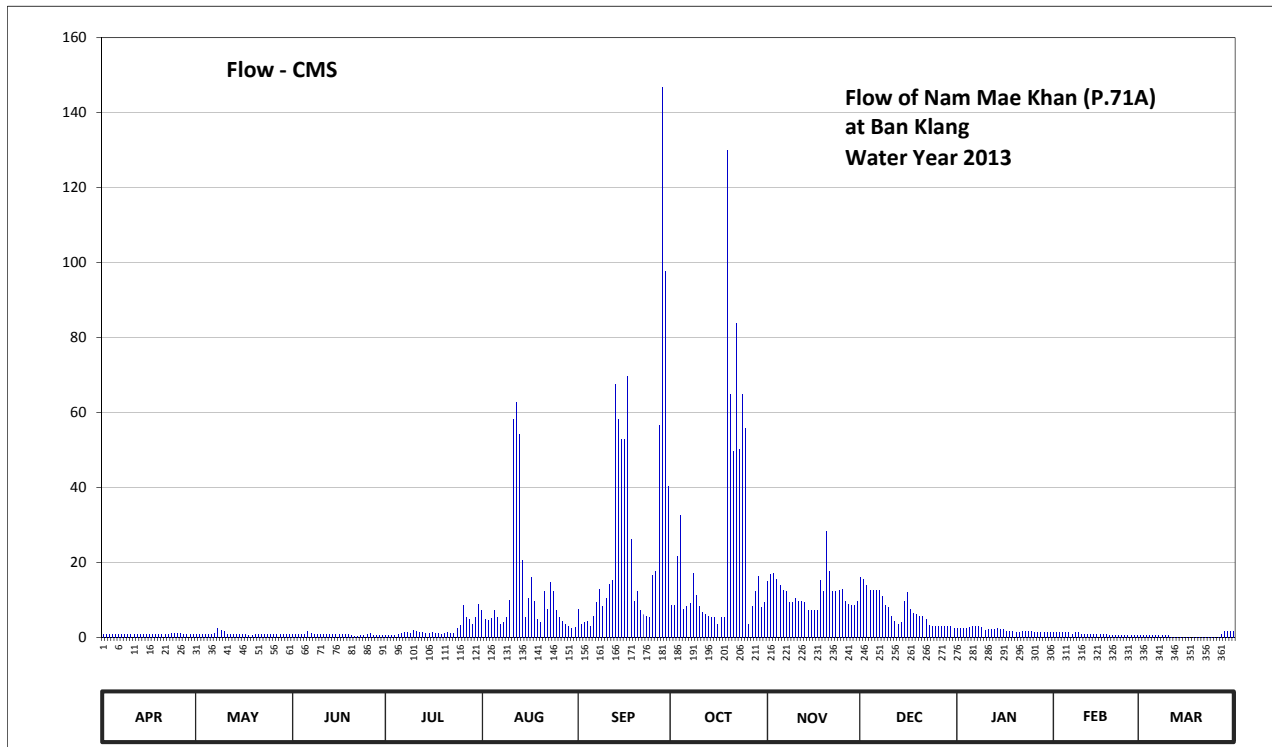
Lat 18 - 32 - 50 N    Long 98 - 51 - 44 W

**Location : on left bank at the bridge on highway**

|                                         |                                                                                                                                                                                                                      |           |               |             |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                                                                           | Klang     | <b>Amphoe</b> | San Pa Tong | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 1,634                                                                                                                                                                                                                | sq.km.    |               |             |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                                                                                                                               |           |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +283.285                                                                                                                                                                                                             | m. (MSL.) |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                                                                            |           |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank about 3 meters from the top staff gage.                                                                                                                                                                 |           |               |             | <b>Elevation</b> | +287.570 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                                                                            |           |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                                                                       |           |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                                                                                                                                                         |           |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                                                                      |           |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1996 to date                                                                                                                                                                                                         |           |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                                                                    |           |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                                                                                                                                                         |           |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stablebecause of backwater effect.                                                                                                                                                                            |           |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                                                                                                                                                                     |           |               |             |                  |                    |
| <b>General Description</b>              | Records fair. The concrete weir made by R.I.D. about 3 kilometers and the temporary weir about 300 meters downstream from the gage site. Stage-discharge relation defined by 44 discharge measurements made in 1913. |           |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
|                                  | 1  | 284.39 | 284.38 | 284.37      | 284.29 | 284.84                            | 284.85 | 285.45            | 285.28    | 285.14 | 284.54 | 284.45 | 284.28 |        |
|                                  | 2  | 284.39 | 284.36 | 284.37      | 284.29 | 284.71                            | 284.63 | 285.65            | 285.23    | 285.13 | 284.54 | 284.44 | 284.25 |        |
|                                  | 3  | 284.39 | 284.34 | 284.36      | 284.29 | 284.69                            | 284.66 | 285.77            | 285.18    | 285.08 | 284.54 | 284.44 | 284.25 |        |
|                                  | 4  | 284.39 | 284.34 | 284.34      | 284.29 | 284.72                            | 284.67 | 285.87            | 285.13    | 285.04 | 284.54 | 284.44 | 284.25 |        |
|                                  | 5  | 284.37 | 284.34 | 284.36      | 284.31 | 284.84                            | 284.59 | 285.64            | 285.08    | 285.04 | 284.56 | 284.44 | 284.25 |        |
|                                  | 6  | 284.37 | 284.35 | 284.47      | 284.41 | 284.73                            | 284.75 | 285.46            | 285.04    | 285.04 | 284.59 | 284.44 | 284.24 |        |
|                                  | 7  | 284.37 | 284.43 | 284.43      | 284.44 | 284.63                            | 284.92 | 285.44            | 285.03    | 285.04 | 284.59 | 284.39 | 284.24 |        |
|                                  | 8  | 284.37 | 284.54 | 284.39      | 284.44 | 284.66                            | 285.34 | 285.22            | 284.92    | 284.99 | 284.59 | 284.44 | 284.24 |        |
|                                  | 9  | 284.37 | 284.49 | 284.39      | 284.43 | 284.74                            | 285.46 | 285.00            | 284.92    | 284.89 | 284.56 | 284.44 | 284.24 |        |
|                                  | 10 | 284.36 | 284.46 | 284.37      | 284.50 | 284.95                            | 284.97 | 284.88            | 284.97    | 284.87 | 284.49 | 284.40 | 284.22 |        |
|                                  | 11 | 284.37 | 284.38 | 284.37      | 284.46 | 286.28                            | 285.30 | 284.81            | 284.93    | 284.76 | 284.53 | 284.34 | 284.09 |        |
|                                  | 12 | 284.36 | 284.34 | 284.37      | 284.44 | 286.39                            | 285.12 | 284.78            | 284.94    | 284.68 | 284.52 | 284.33 | 284.09 |        |
|                                  | 13 | 284.36 | 284.34 | 284.37      | 284.44 | 286.18                            | 286.50 | 284.76            | 284.92    | 284.63 | 284.53 | 284.32 | 284.09 |        |
|                                  | 14 | 284.36 | 284.34 | 284.37      | 284.43 | 285.76                            | 286.28 | 284.74            | 284.84    | 284.66 | 284.54 | 284.32 | 284.09 |        |
|                                  | 15 | 284.37 | 284.33 | 284.36      | 284.43 | 285.54                            | 286.15 | 284.73            | 284.83    | 284.94 | 284.52 | 284.32 | 284.09 |        |
|                                  | 16 | 284.37 | 284.32 | 284.35      | 284.44 | 285.40                            | 286.15 | 284.63            | 284.83    | 285.02 | 284.51 | 284.32 | 284.09 |        |
|                                  | 17 | 284.38 | 284.31 | 284.35      | 284.42 | 285.25                            | 286.55 | 284.73            | 284.84    | 284.85 | 284.46 | 284.32 | 284.09 |        |
|                                  | 18 | 284.39 | 284.29 | 284.35      | 284.41 | 284.94                            | 285.81 | 285.62            | 285.12    | 284.80 | 284.46 | 284.31 | 284.09 |        |
|                                  | 19 | 284.39 | 284.30 | 284.33      | 284.39 | 284.71                            | 285.42 | 287.80            | 285.35    | 284.78 | 284.46 | 284.29 | 284.09 |        |
|                                  | 20 | 284.39 | 284.32 | 284.27      | 284.41 | 284.65                            | 285.03 | 286.44            | 285.83    | 284.76 | 284.45 | 284.29 | 284.09 |        |
|                                  | 21 | 284.39 | 284.34 | 284.19      | 284.44 | 285.03                            | 284.83 | 286.07            | 285.21    | 284.75 | 284.44 | 284.29 | 284.09 |        |
|                                  | 22 | 284.40 | 284.34 | 284.19      | 284.42 | 284.85                            | 284.78 | 286.86            | 285.03    | 284.70 | 284.46 | 284.29 | 284.09 |        |
|                                  | 23 | 284.41 | 284.34 | 284.22      | 284.41 | 285.10                            | 284.75 | 286.08            | 285.03    | 284.60 | 284.46 | 284.29 | 284.09 |        |
|                                  | 24 | 284.41 | 284.35 | 284.29      | 284.54 | 285.03                            | 284.73 | 286.44            | 285.04    | 284.59 | 284.46 | 284.29 | 284.09 |        |
|                                  | 25 | 284.43 | 284.37 | 284.31      | 285.60 | 284.84                            | 285.16 | 286.22            | 285.05    | 284.59 | 284.46 | 284.29 | 284.09 |        |
|                                  | 26 | 284.43 | 284.37 | 284.41      | 284.90 | 284.74                            | 285.19 | 285.59            | 284.94    | 284.59 | 284.45 | 284.29 | 284.09 |        |
|                                  | 27 | 284.39 | 284.37 | 284.30      | 284.74 | 284.68                            | 286.24 | 285.46            | 284.91    | 284.59 | 284.45 | 284.29 | 284.32 |        |
|                                  | 28 | 284.39 | 284.36 | 284.25      | 284.71 | 284.63                            | 288.12 | 285.35            | 284.89    | 284.59 | 284.45 | 284.29 | 284.46 |        |
|                                  | 29 | 284.39 | 284.34 | 284.28      | 284.62 | 284.58                            | 287.16 | 285.72            | 284.89    | 284.59 | 284.45 |        | 284.46 |        |
|                                  | 30 | 284.38 | 284.34 | 284.29      | 284.74 | 284.54                            | 285.94 | 285.47            | 284.94    | 284.58 | 284.45 |        | 284.46 |        |
|                                  | 31 |        | 284.35 |             | 284.91 | 284.57                            |        | 285.43            |           | 284.54 | 284.45 |        | 284.46 |        |
| Mean                             |    | 284.38 | 284.36 | 284.34      | 284.52 | 285.01                            | 285.47 | 285.55            | 285.04    | 284.80 | 284.50 | 284.35 | 284.20 |        |
| Max                              |    | 284.43 | 284.54 | 284.47      | 285.60 | 286.39                            | 288.12 | 287.80            | 285.83    | 285.14 | 284.59 | 284.45 | 284.46 | 288.12 |
| Min                              |    | 284.36 | 284.29 | 284.19      | 284.29 | 284.54                            | 284.59 | 284.63            | 284.83    | 284.54 | 284.44 | 284.29 | 284.09 | 284.09 |
| Annual Max Momentary Gage Height |    | 288.40 |        | m. (MSL.) , |        | at 20.00 Hours , on Sep 28 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    | 283.29 |        | m. (MSL.) , |        | River Bed                         | 282.33 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              |    | 290.10 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             |    | 290.10 |        | m. (MSL.) , |        | Drainage Area                     | 1634   | Square Kilometers |           |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 0.98                                                              | 0.95                     | 0.93  | 0.73                 | 7.42   | 7.65   | 8.75                     | 15.04  | 16.02  | 2.48  | 1.50  | 0.70  |                |
| 2              | 0.98                                                              | 0.90                     | 0.93  | 0.73                 | 5.01   | 3.70   | 8.67                     | 16.89  | 15.69  | 2.48  | 1.40  | 0.63  |                |
| 3              | 0.98                                                              | 0.85                     | 0.90  | 0.73                 | 4.69   | 4.19   | 21.81                    | 17.34  | 14.04  | 2.48  | 1.40  | 0.63  |                |
| 4              | 0.98                                                              | 0.85                     | 0.85  | 0.73                 | 5.18   | 4.36   | 32.76                    | 15.69  | 12.72  | 2.48  | 1.40  | 0.63  |                |
| 5              | 0.93                                                              | 0.85                     | 0.90  | 0.78                 | 7.42   | 3.08   | 7.58                     | 14.04  | 12.72  | 2.72  | 1.40  | 0.63  |                |
| 6              | 0.93                                                              | 0.88                     | 1.70  | 1.10                 | 5.35   | 5.68   | 8.38                     | 12.72  | 12.72  | 3.08  | 1.40  | 0.60  |                |
| 7              | 0.93                                                              | 1.30                     | 1.30  | 1.40                 | 3.70   | 9.32   | 9.12                     | 12.39  | 12.72  | 3.08  | 0.98  | 0.60  |                |
| 8              | 0.93                                                              | 2.48                     | 0.98  | 1.40                 | 4.19   | 12.82  | 17.26                    | 9.32   | 11.14  | 3.08  | 1.40  | 0.60  |                |
| 9              | 0.93                                                              | 1.90                     | 0.98  | 1.30                 | 5.51   | 8.38   | 11.40                    | 9.32   | 8.57   | 2.72  | 1.40  | 0.60  |                |
| 10             | 0.90                                                              | 1.60                     | 0.93  | 2.00                 | 10.10  | 10.62  | 8.34                     | 10.62  | 8.11   | 1.90  | 1.00  | 0.55  |                |
| 11             | 0.93                                                              | 0.95                     | 0.93  | 1.60                 | 58.20  | 14.30  | 6.73                     | 9.58   | 5.84   | 2.36  | 0.85  | 0.22  |                |
| 12             | 0.90                                                              | 0.85                     | 0.93  | 1.40                 | 62.60  | 15.36  | 6.17                     | 9.84   | 4.52   | 2.24  | 0.82  | 0.22  |                |
| 13             | 0.90                                                              | 0.85                     | 0.93  | 1.40                 | 54.20  | 67.50  | 5.84                     | 9.32   | 3.70   | 2.36  | 0.80  | 0.22  |                |
| 14             | 0.90                                                              | 0.85                     | 0.93  | 1.30                 | 20.72  | 58.20  | 5.51                     | 7.42   | 4.19   | 2.48  | 0.80  | 0.22  |                |
| 15             | 0.93                                                              | 0.82                     | 0.90  | 1.30                 | 5.42   | 53.00  | 5.35                     | 7.19   | 9.84   | 2.24  | 0.80  | 0.22  |                |
| 16             | 0.93                                                              | 0.80                     | 0.88  | 1.40                 | 10.60  | 53.00  | 3.70                     | 7.19   | 12.06  | 2.12  | 0.80  | 0.22  |                |
| 17             | 0.95                                                              | 0.78                     | 0.88  | 1.20                 | 16.15  | 69.75  | 5.35                     | 7.42   | 7.65   | 1.60  | 0.80  | 0.22  |                |
| 18             | 0.98                                                              | 0.73                     | 0.88  | 1.10                 | 9.84   | 26.19  | 5.39                     | 15.36  | 6.50   | 1.60  | 0.78  | 0.22  |                |
| 19             | 0.98                                                              | 0.75                     | 0.82  | 0.98                 | 5.01   | 9.86   | 130.00                   | 12.45  | 6.17   | 1.60  | 0.73  | 0.22  |                |
| 20             | 0.98                                                              | 0.80                     | 0.67  | 1.10                 | 4.02   | 12.39  | 64.80                    | 28.38  | 5.84   | 1.50  | 0.73  | 0.22  |                |
| 21             | 0.98                                                              | 0.85                     | 0.48  | 1.40                 | 12.39  | 7.19   | 49.80                    | 17.63  | 5.68   | 1.40  | 0.73  | 0.22  |                |
| 22             | 1.00                                                              | 0.85                     | 0.48  | 1.20                 | 7.65   | 6.17   | 83.70                    | 12.39  | 4.85   | 1.60  | 0.73  | 0.22  |                |
| 23             | 1.10                                                              | 0.85                     | 0.55  | 1.10                 | 14.70  | 5.68   | 50.20                    | 12.39  | 3.20   | 1.60  | 0.73  | 0.22  |                |
| 24             | 1.10                                                              | 0.88                     | 0.73  | 2.48                 | 12.39  | 5.35   | 64.80                    | 12.72  | 3.08   | 1.60  | 0.73  | 0.22  |                |
| 25             | 1.30                                                              | 0.93                     | 0.78  | 3.20                 | 7.42   | 16.68  | 55.80                    | 13.05  | 3.08   | 1.60  | 0.73  | 0.22  |                |
| 26             | 1.30                                                              | 0.93                     | 1.10  | 8.80                 | 5.51   | 17.67  | 3.57                     | 9.84   | 3.08   | 1.50  | 0.73  | 0.22  |                |
| 27             | 0.98                                                              | 0.93                     | 0.75  | 5.51                 | 4.52   | 56.60  | 8.38                     | 9.06   | 3.08   | 1.50  | 0.73  | 0.80  |                |
| 28             | 0.98                                                              | 0.90                     | 0.63  | 5.01                 | 3.70   | 146.80 | 12.45                    | 8.57   | 3.08   | 1.50  | 0.73  | 1.60  |                |
| 29             | 0.98                                                              | 0.85                     | 0.70  | 3.53                 | 2.96   | 97.60  | 16.34                    | 8.57   | 3.08   | 1.50  |       | 1.60  |                |
| 30             | 0.95                                                              | 0.85                     | 0.73  | 5.51                 | 2.48   | 40.43  | 8.01                     | 9.84   | 2.96   | 1.50  |       | 1.60  |                |
| 31             |                                                                   | 0.88                     |       | 9.06                 | 2.84   |        | 9.49                     |        | 2.48   | 1.50  |       | 1.60  |                |
| Total          | 29.52                                                             | 30.44                    | 26.08 | 70.48                | 381.89 | 849.52 | 735.45                   | 361.58 | 228.41 | 63.40 | 27.03 | 16.89 | 2820.69 CMSDAY |
| Mean           | 0.98                                                              | 0.98                     | 0.87  | 2.27                 | 12.32  | 28.32  | 23.72                    | 12.05  | 7.37   | 2.05  | 0.97  | 0.54  | 7.73 CMS       |
| Max            | 1.30                                                              | 2.48                     | 1.70  | 9.06                 | 62.60  | 146.80 | 130.00                   | 28.38  | 16.02  | 3.08  | 1.50  | 1.60  | 146.80 CMS     |
| Min            | 0.90                                                              | 0.73                     | 0.48  | 0.73                 | 2.48   | 3.08   | 3.57                     | 7.19   | 2.48   | 1.40  | 0.73  | 0.22  | 0.22 CMS       |
| Runoff         | 2.55                                                              | 2.63                     | 2.25  | 6.09                 | 33.00  | 73.40  | 63.54                    | 31.24  | 19.74  | 5.48  | 2.34  | 1.46  | 243.71 MCM     |
| Momentary Peak | 162.00 CMS. at 288.40 m. (MSL.) at 20.00 Hours , on Sep 28 , 2013 |                          |       |                      |        |        |                          |        |        |       |       |       |                |
| Runoff Yield   | 4.73                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 99.143 | Liters/Second/Square KM. |        |        |       |       |       |                |

## WATER YEAR : 2013

## PING RIVER BASIN

### Ping River at Ban Sop Soi , Chiang Mai (P.73

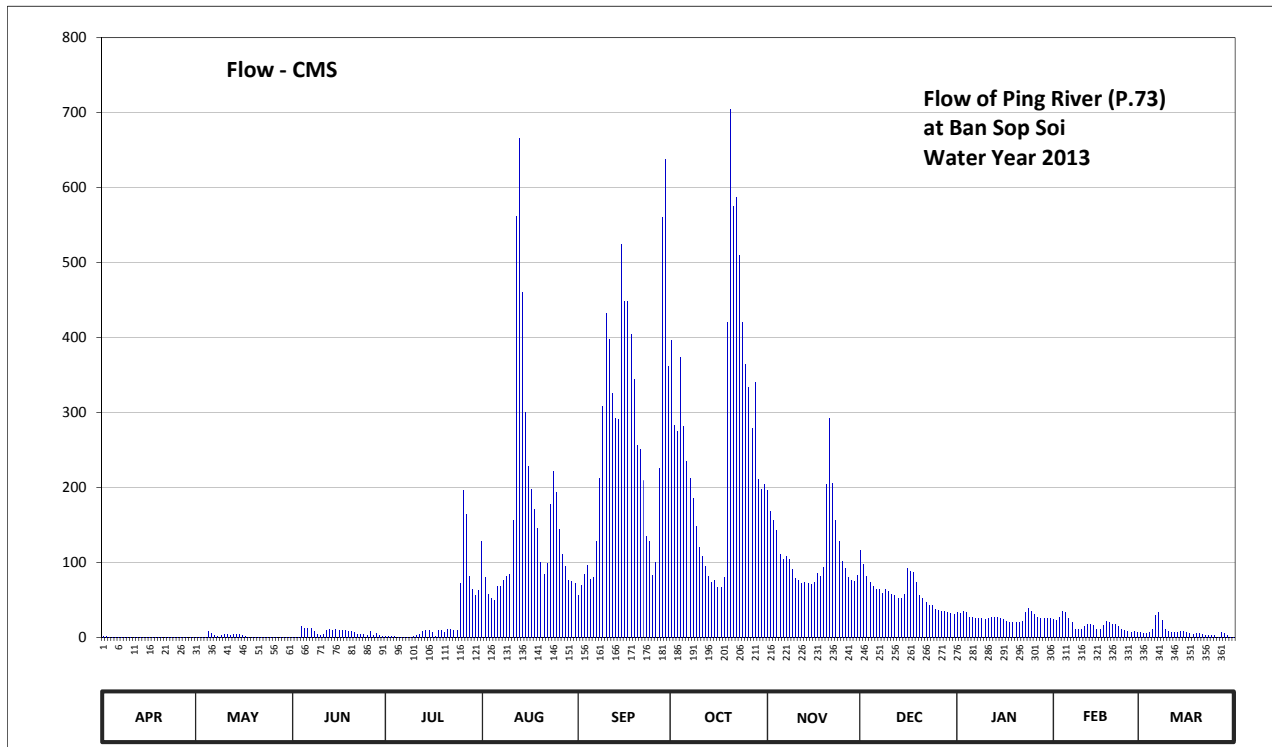
Lat 18 - 17 - 25 N      Long 98 - 39 - 01 E

**Location : on left bank at Sop Soi Phatana Bridge**

|                                         | Ban Sop Soi                                                                 | Amphoe Chom Thong | Changwat         | Chiang Mai         |
|-----------------------------------------|-----------------------------------------------------------------------------|-------------------|------------------|--------------------|
| <b>Drainage Area</b>                    | 14,814                                                                      | sq.km.            |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |                   |                  |                    |
| <b>Zero Gage at Bottom</b>              | +261.750                                                                    | m. (MSL.)         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                   |                  |                    |
| <b>Location BM</b>                      | On left bank about 15 meters from the abutment of the bridge.               |                   | <b>Elevation</b> | +267.505 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                  |                   |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |                   |                  |                    |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                |                   |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                   |                  |                    |
| <b>Period of Rating</b>                 | 1997 to date                                                                |                   |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                   |                  |                    |
| <b>Rated by Current Meter</b>           | 1998 to date                                                                |                   |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |                   |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                   |                  |                    |
| <b>General Description</b>              | Records fair. No gage height in the drought period.                         |                   |                  |                    |
|                                         | Stage-discharge relation defined by 39 discharge measurements made in 2013. |                   |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                               | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 260.73 | 260.48 | 260.49                                            | 260.79 | 261.82 | 261.26 | 263.27 | 262.26 | 261.74 | 261.03 | 260.91 | 260.55 |        |
| 2                                | 260.71 | 260.53 | 260.49                                            | 260.77 | 261.49 | 261.40 | 262.74 | 262.09 | 261.62 | 261.02 | 260.89 | 260.54 |        |
| 3                                | 260.70 | 260.56 | 260.69                                            | 260.77 | 261.28 | 261.52 | 262.70 | 262.01 | 261.50 | 261.05 | 260.95 | 260.53 |        |
| 4                                | 260.66 | 260.61 | 261.33                                            | 260.73 | 261.22 | 261.61 | 263.17 | 261.92 | 261.43 | 261.03 | 261.05 | 260.55 |        |
| 5                                | 260.58 | 261.10 | 261.24                                            | 260.70 | 261.20 | 261.46 | 262.73 | 261.71 | 261.39 | 260.96 | 261.04 | 260.65 |        |
| 6                                | 260.54 | 261.01 | 261.24                                            | 260.69 | 261.39 | 261.49 | 262.48 | 261.66 | 261.35 | 260.94 | 260.93 | 260.99 |        |
| 7                                | 260.53 | 260.83 | 261.23                                            | 260.65 | 261.39 | 261.82 | 262.36 | 261.69 | 261.34 | 260.93 | 260.84 | 261.03 |        |
| 8                                | 260.53 | 260.81 | 261.09                                            | 260.65 | 261.45 | 262.36 | 262.20 | 261.66 | 261.29 | 260.93 | 260.65 | 260.88 |        |
| 9                                | 260.53 | 260.83 | 260.92                                            | 260.70 | 261.50 | 262.87 | 261.96 | 261.57 | 261.34 | 260.93 | 260.65 | 260.64 |        |
| 10                               | 260.50 | 260.94 | 260.89                                            | 260.82 | 261.52 | 263.43 | 261.77 | 261.47 | 261.32 | 260.91 | 260.66 | 260.59 |        |
| 11                               | 260.49 | 260.90 | 260.95                                            | 260.83 | 262.01 | 263.28 | 261.69 | 261.45 | 261.28 | 260.93 | 260.72 | 260.55 |        |
| 12                               | 260.46 | 260.88 | 261.16                                            | 260.95 | 263.96 | 262.95 | 261.60 | 261.42 | 261.26 | 260.95 | 260.77 | 260.55 |        |
| 13                               | 260.48 | 260.91 | 261.21                                            | 261.08 | 264.36 | 262.79 | 261.50 | 261.43 | 261.23 | 260.94 | 260.77 | 260.56 |        |
| 14                               | 260.45 | 260.92 | 261.16                                            | 261.13 | 263.55 | 262.78 | 261.43 | 261.42 | 261.22 | 260.94 | 260.74 | 260.61 |        |
| 15                               | 260.43 | 260.90 | 261.20                                            | 261.15 | 262.83 | 263.81 | 261.45 | 261.41 | 261.28 | 260.92 | 260.65 | 260.61 |        |
| 16                               | 260.41 | 260.85 | 261.12                                            | 261.05 | 262.45 | 263.50 | 261.37 | 261.43 | 261.58 | 260.90 | 260.66 | 260.55 |        |
| 17                               | 260.45 | 260.74 | 261.14                                            | 260.80 | 262.27 | 263.50 | 261.37 | 261.53 | 261.55 | 260.87 | 260.76 | 260.52 |        |
| 18                               | 260.48 | 260.69 | 261.12                                            | 261.15 | 262.11 | 263.31 | 261.48 | 261.50 | 261.54 | 260.84 | 260.86 | 260.50 |        |
| 19                               | 260.55 | 260.65 | 261.10                                            | 261.16 | 261.94 | 263.04 | 263.38 | 261.59 | 261.43 | 260.83 | 260.83 | 260.51 |        |
| 20                               | 260.50 | 260.65 | 261.10                                            | 261.06 | 261.64 | 262.60 | 264.51 | 262.31 | 261.27 | 260.83 | 260.79 | 260.53 |        |
| 21                               | 260.40 | 260.67 | 261.07                                            | 261.19 | 261.52 | 262.57 | 264.01 | 262.79 | 261.22 | 260.82 | 260.78 | 260.49 |        |
| 22                               | 260.46 | 260.61 | 260.95                                            | 261.18 | 261.63 | 262.34 | 264.06 | 262.32 | 261.17 | 260.85 | 260.73 | 260.45 |        |
| 23                               | 260.60 | 260.59 | 260.93                                            | 261.15 | 262.15 | 261.87 | 263.75 | 262.01 | 261.13 | 261.04 | 260.65 | 260.45 |        |
| 24                               | 260.60 | 260.55 | 260.90                                            | 261.15 | 262.41 | 261.82 | 263.38 | 261.82 | 261.13 | 261.09 | 260.62 | 260.45 |        |
| 25                               | 260.60 | 260.55 | 260.89                                            | 261.42 | 262.25 | 261.51 | 263.13 | 261.65 | 261.07 | 261.05 | 260.59 | 260.43 |        |
| 26                               | 260.61 | 260.54 | 261.08                                            | 262.26 | 261.93 | 261.64 | 262.99 | 261.58 | 261.06 | 261.01 | 260.56 | 260.52 |        |
| 27                               | 260.64 | 260.54 | 260.89                                            | 262.06 | 261.71 | 262.43 | 262.72 | 261.48 | 261.05 | 260.95 | 260.59 | 261.04 |        |
| 28                               | 260.60 | 260.52 | 261.01                                            | 261.50 | 261.60 | 263.95 | 263.02 | 261.45 | 261.05 | 260.92 | 260.55 | 260.99 |        |
| 29                               | 260.60 | 260.50 | 260.87                                            | 261.34 | 261.45 | 264.25 | 262.35 | 261.44 | 261.04 | 260.93 |        | 260.86 |        |
| 30                               | 260.58 | 260.46 | 260.80                                            | 261.27 | 261.44 | 263.12 | 262.27 | 261.51 | 261.02 | 260.93 |        | 260.64 |        |
| 31                               |        | 260.49 |                                                   | 261.33 | 261.42 |        | 262.31 |        | 261.01 | 260.93 |        | 260.60 |        |
| Mean                             | 260.55 | 260.70 | 261.01                                            | 261.08 | 261.96 | 262.54 | 262.55 | 261.72 | 261.29 | 260.94 | 260.76 | 260.62 |        |
| Max                              | 260.73 | 261.10 | 261.33                                            | 262.26 | 264.36 | 264.25 | 264.51 | 262.79 | 261.74 | 261.09 | 261.05 | 261.04 | 264.51 |
| Min                              | 260.40 | 260.46 | 260.49                                            | 260.65 | 261.20 | 261.26 | 261.37 | 261.41 | 261.01 | 260.82 | 260.55 | 260.43 | 260.40 |
| Annual Max Momentary Gage Height |        | 264.77 | m. (MSL.) , at 24.00 Hours , on Sep 28 , 2013     |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 261.75 | m. (MSL.) , River Bed 258.75 m. (MSL.)            |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 267.73 | m. (MSL.) ,                                       |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 268.03 | m. (MSL.) , Drainage Area 14814 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 1.54                                                              | 0.48                     | 0.51   | 2.11   | 128.00               | 56.00   | 395.75  | 196.20  | 116.00                   | 33.42  | 24.65  | 6.75   |          |        |
| 2              | 1.34                                                              | 0.61                     | 0.51   | 1.91   | 81.25                | 70.00   | 283.60  | 168.95  | 98.00                    | 32.45  | 23.50  | 6.40   |          |        |
| 3              | 1.25                                                              | 0.69                     | 1.20   | 1.91   | 58.00                | 85.00   | 276.00  | 156.55  | 82.50                    | 35.37  | 27.25  | 6.05   |          |        |
| 4              | 1.07                                                              | 0.84                     | 15.75  | 1.54   | 52.00                | 96.50   | 373.25  | 143.00  | 73.75                    | 33.42  | 35.37  | 6.75   |          |        |
| 5              | 0.75                                                              | 8.70                     | 12.78  | 1.25   | 50.00                | 77.50   | 281.70  | 111.50  | 69.00                    | 27.90  | 34.40  | 11.20  |          |        |
| 6              | 0.64                                                              | 6.27                     | 12.78  | 1.20   | 69.00                | 81.25   | 234.80  | 104.00  | 65.00                    | 26.60  | 25.95  | 29.85  |          |        |
| 7              | 0.61                                                              | 2.74                     | 12.46  | 1.02   | 69.00                | 128.00  | 213.20  | 108.50  | 64.00                    | 25.95  | 20.97  | 33.42  |          |        |
| 8              | 0.61                                                              | 2.38                     | 8.43   | 1.02   | 76.25                | 213.20  | 186.00  | 104.00  | 59.00                    | 25.95  | 11.20  | 22.99  |          |        |
| 9              | 0.61                                                              | 2.74                     | 4.40   | 1.25   | 82.50                | 309.00  | 149.00  | 91.25   | 64.00                    | 25.95  | 11.20  | 10.66  |          |        |
| 10             | 0.53                                                              | 4.80                     | 3.82   | 2.56   | 85.00                | 432.05  | 120.50  | 78.75   | 62.00                    | 24.65  | 11.74  | 8.15   |          |        |
| 11             | 0.51                                                              | 4.00                     | 5.00   | 2.74   | 156.55               | 398.00  | 108.50  | 76.25   | 58.00                    | 25.95  | 14.91  | 6.75   |          |        |
| 12             | 0.43                                                              | 3.64                     | 10.38  | 5.00   | 562.00               | 325.00  | 95.00   | 72.50   | 56.00                    | 27.25  | 17.43  | 6.75   |          |        |
| 13             | 0.48                                                              | 4.20                     | 11.82  | 8.16   | 665.60               | 293.10  | 82.50   | 73.75   | 53.00                    | 26.60  | 17.43  | 7.10   |          |        |
| 14             | 0.40                                                              | 4.40                     | 10.38  | 9.54   | 460.25               | 291.20  | 73.75   | 72.50   | 52.00                    | 26.60  | 15.92  | 9.04   |          |        |
| 15             | 0.35                                                              | 4.00                     | 11.50  | 10.10  | 301.00               | 524.50  | 76.25   | 71.25   | 58.00                    | 25.30  | 11.20  | 9.04   |          |        |
| 16             | 0.29                                                              | 3.10                     | 9.26   | 7.35   | 229.25               | 448.50  | 67.00   | 73.75   | 92.50                    | 24.00  | 11.74  | 6.75   |          |        |
| 17             | 0.40                                                              | 1.63                     | 9.82   | 2.20   | 197.90               | 448.50  | 67.00   | 86.25   | 88.75                    | 22.48  | 16.93  | 5.70   |          |        |
| 18             | 0.48                                                              | 1.20                     | 9.26   | 10.10  | 172.05               | 404.75  | 80.00   | 82.50   | 87.50                    | 20.97  | 21.98  | 5.00   |          |        |
| 19             | 0.67                                                              | 1.02                     | 8.70   | 10.38  | 146.00               | 344.00  | 420.50  | 93.75   | 73.75                    | 20.46  | 20.46  | 5.35   |          |        |
| 20             | 0.53                                                              | 1.02                     | 8.70   | 7.62   | 101.00               | 257.00  | 704.60  | 204.70  | 57.00                    | 20.46  | 18.45  | 6.05   |          |        |
| 21             | 0.27                                                              | 1.12                     | 7.89   | 11.22  | 85.00                | 251.45  | 574.60  | 293.10  | 52.00                    | 19.96  | 17.94  | 4.70   |          |        |
| 22             | 0.43                                                              | 0.84                     | 5.00   | 10.94  | 99.50                | 209.80  | 587.60  | 206.40  | 47.08                    | 21.48  | 15.42  | 3.50   |          |        |
| 23             | 0.80                                                              | 0.77                     | 4.60   | 10.10  | 178.25               | 135.50  | 509.50  | 156.55  | 43.17                    | 34.40  | 11.20  | 3.50   |          |        |
| 24             | 0.80                                                              | 0.67                     | 4.00   | 10.10  | 221.85               | 128.00  | 420.50  | 128.00  | 43.17                    | 39.27  | 9.58   | 3.50   |          |        |
| 25             | 0.80                                                              | 0.67                     | 3.82   | 72.50  | 194.50               | 83.75   | 364.25  | 102.50  | 37.33                    | 35.37  | 8.15   | 2.90   |          |        |
| 26             | 0.84                                                              | 0.64                     | 8.16   | 196.20 | 144.50               | 101.00  | 333.00  | 92.50   | 36.35                    | 31.48  | 7.10   | 0.59   |          |        |
| 27             | 0.98                                                              | 0.64                     | 3.82   | 164.30 | 111.50               | 225.55  | 279.80  | 80.00   | 35.37                    | 27.25  | 8.15   | 7.08   |          |        |
| 28             | 0.80                                                              | 0.59                     | 6.27   | 82.50  | 95.00                | 559.50  | 339.50  | 76.25   | 35.37                    | 25.30  | 6.75   | 5.80   |          |        |
| 29             | 0.80                                                              | 0.53                     | 3.46   | 64.00  | 76.25                | 637.00  | 211.50  | 75.00   | 34.40                    | 25.95  |        | 3.28   |          |        |
| 30             | 0.75                                                              | 0.43                     | 2.20   | 57.00  | 75.00                | 362.00  | 197.90  | 83.75   | 32.45                    | 25.95  |        | 0.98   |          |        |
| 31             |                                                                   | 0.51                     |        | 63.00  | 72.50                |         | 204.70  |         | 31.48                    | 25.95  |        | 0.80   |          |        |
| Total          | 20.76                                                             | 65.87                    | 216.68 | 830.82 | 5096.45              | 7976.60 | 8311.75 | 3463.95 | 1857.92                  | 844.09 | 476.97 | 246.38 | 29408.24 | CMSDAY |
| Mean           | 0.69                                                              | 2.12                     | 7.22   | 26.80  | 164.40               | 265.89  | 268.12  | 115.47  | 59.93                    | 27.23  | 17.03  | 7.95   | 80.57    | CMS    |
| Max            | 1.54                                                              | 8.70                     | 15.75  | 196.20 | 665.60               | 637.00  | 704.60  | 293.10  | 116.00                   | 39.27  | 35.37  | 33.42  | 704.60   | CMS    |
| Min            | 0.27                                                              | 0.43                     | 0.51   | 1.02   | 50.00                | 56.00   | 67.00   | 71.25   | 31.48                    | 19.96  | 6.75   | 0.59   | 0.27     | CMS    |
| Runoff         | 1.79                                                              | 5.69                     | 18.72  | 71.78  | 440.33               | 689.18  | 718.14  | 299.29  | 160.52                   | 72.93  | 41.21  | 21.29  | 2540.87  | MCM    |
| Momentary Peak | 773.90 CMS. at 264.77 m. (MSL.) at 24.00 Hours , on Sep 28 , 2013 |                          |        |        |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 5.44                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 52.241  | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

### Ping River at Ban Cho Lae , Chiang Mai (P.75

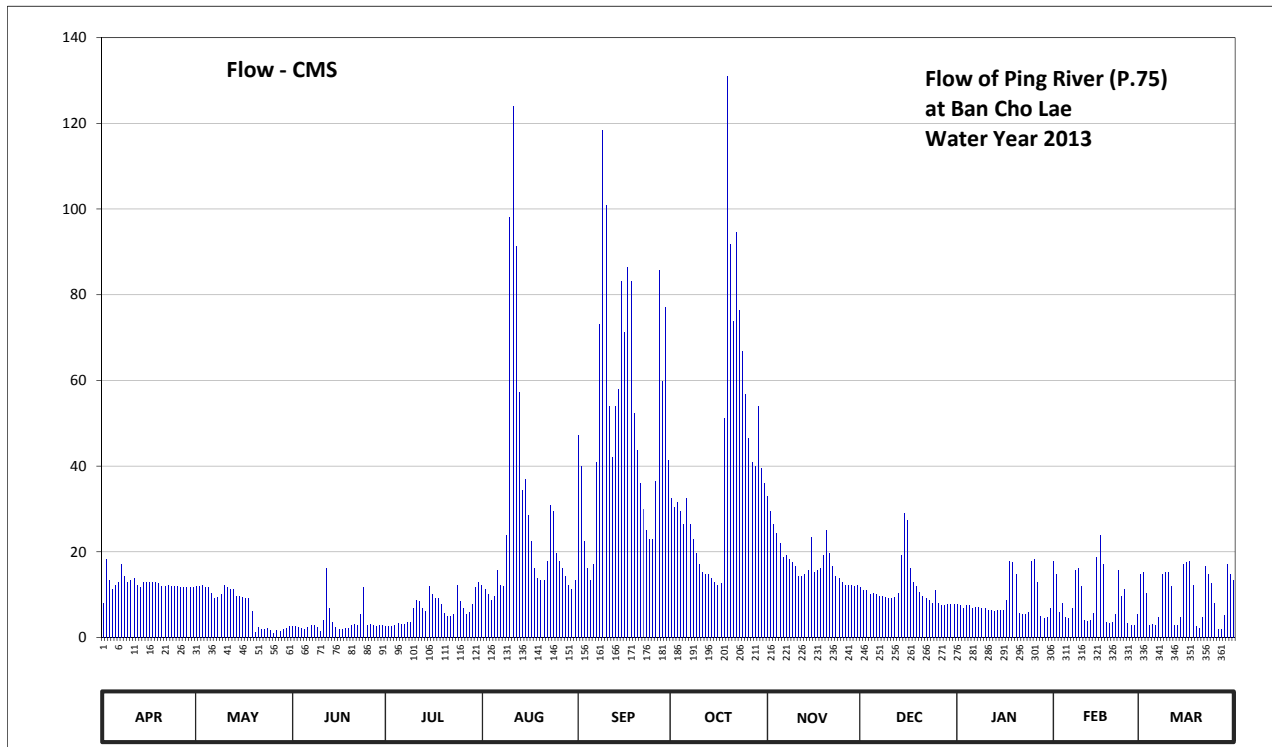
Lat 19 - 08 - 58 N    Long 99 - 00 - 43 E

**Location : on left bank at the bridge on road**

|                                         |                                                                                           |           |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Cho Lae   | <b>Amphoe</b> | Mae Teang | <b>Changwat</b>  | Chiang Mai        |
| <b>Drainage Area</b>                    | 3,088                                                                                     | sq.km.    |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +337.600                                                                                  | m. (MSL.) |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                   |
| <b>Location BM</b>                      | On left bank about 3 meters from the top staff gage.                                      |           |               |           | <b>Elevation</b> | +341.805 m. (MSL) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                |           |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 1998 to date                                                                              |           |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                   |
| <b>Period of Rating</b>                 | 1998 to date                                                                              |           |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |           |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 41 discharge measurements made in 1913. |           |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 338.05 | 338.17 | 337.83                                           | 337.83 | 338.18 | 338.89 | 338.61 | 338.62 | 338.16 | 338.04 | 338.31 | 338.24 |        |
| 2                                | 338.32 | 338.17 | 337.83                                           | 337.83 | 338.15 | 338.76 | 338.57 | 338.55 | 338.14 | 338.03 | 338.24 | 338.25 |        |
| 3                                | 338.21 | 338.18 | 337.82                                           | 337.83 | 338.11 | 338.41 | 338.59 | 338.49 | 338.14 | 338.01 | 337.98 | 338.12 |        |
| 4                                | 338.15 | 338.16 | 337.81                                           | 337.85 | 338.07 | 338.27 | 338.55 | 338.45 | 338.11 | 338.03 | 338.05 | 337.85 |        |
| 5                                | 338.18 | 338.16 | 337.80                                           | 337.87 | 338.10 | 338.21 | 338.49 | 338.40 | 338.12 | 338.03 | 337.93 | 337.86 |        |
| 6                                | 338.20 | 338.12 | 337.82                                           | 337.86 | 338.26 | 338.29 | 338.61 | 338.33 | 338.11 | 338.01 | 337.92 | 337.85 |        |
| 7                                | 338.29 | 338.08 | 337.84                                           | 337.86 | 338.18 | 338.78 | 338.49 | 338.34 | 338.10 | 338.02 | 338.01 | 337.93 |        |
| 8                                | 338.23 | 338.09 | 337.84                                           | 337.88 | 338.17 | 339.31 | 338.42 | 338.32 | 338.10 | 338.02 | 338.26 | 338.24 |        |
| 9                                | 338.20 | 338.11 | 337.82                                           | 337.88 | 338.44 | 339.97 | 338.35 | 338.30 | 338.09 | 338.01 | 338.27 | 338.25 |        |
| 10                               | 338.21 | 338.18 | 337.77                                           | 338.01 | 339.68 | 339.72 | 338.29 | 338.28 | 338.08 | 338.01 | 338.17 | 338.25 |        |
| 11                               | 338.22 | 338.16 | 337.90                                           | 338.07 | 340.05 | 339.01 | 338.25 | 338.23 | 338.08 | 338.00 | 337.90 | 338.17 |        |
| 12                               | 338.18 | 338.15 | 338.27                                           | 338.06 | 339.58 | 338.80 | 338.24 | 338.23 | 338.09 | 338.00 | 337.89 | 337.85 |        |
| 13                               | 338.16 | 338.15 | 338.01                                           | 338.01 | 339.06 | 339.01 | 338.24 | 338.24 | 338.12 | 337.99 | 337.90 | 337.84 |        |
| 14                               | 338.20 | 338.10 | 337.88                                           | 337.99 | 338.65 | 339.07 | 338.22 | 338.26 | 338.34 | 338.00 | 337.97 | 337.93 |        |
| 15                               | 338.20 | 338.10 | 337.82                                           | 338.17 | 338.70 | 339.46 | 338.20 | 338.43 | 338.54 | 338.00 | 338.33 | 338.29 |        |
| 16                               | 338.20 | 338.09 | 337.80                                           | 338.11 | 338.53 | 339.28 | 338.18 | 338.25 | 338.51 | 338.00 | 338.44 | 338.30 |        |
| 17                               | 338.20 | 338.08 | 337.80                                           | 338.08 | 338.41 | 339.51 | 338.19 | 338.26 | 338.27 | 338.07 | 338.29 | 338.31 |        |
| 18                               | 338.20 | 338.08 | 337.81                                           | 338.08 | 338.27 | 339.46 | 338.96 | 338.27 | 338.20 | 338.31 | 337.88 | 338.18 |        |
| 19                               | 338.19 | 337.99 | 337.81                                           | 338.04 | 338.22 | 338.98 | 340.15 | 338.34 | 338.17 | 338.30 | 337.87 | 337.83 |        |
| 20                               | 338.17 | 337.75 | 337.85                                           | 337.97 | 338.21 | 338.83 | 339.59 | 338.46 | 338.13 | 338.24 | 337.88 | 337.81 |        |
| 21                               | 338.17 | 337.82 | 337.86                                           | 337.94 | 338.21 | 338.68 | 339.32 | 338.35 | 338.10 | 337.97 | 337.96 | 337.93 |        |
| 22                               | 338.18 | 337.80 | 337.84                                           | 337.94 | 338.31 | 338.56 | 339.63 | 338.28 | 338.08 | 337.96 | 338.26 | 338.28 |        |
| 23                               | 338.17 | 337.79 | 337.96                                           | 337.96 | 338.58 | 338.46 | 339.36 | 338.23 | 338.07 | 337.96 | 338.10 | 338.24 |        |
| 24                               | 338.17 | 337.81 | 338.16                                           | 338.18 | 338.55 | 338.42 | 339.21 | 338.22 | 338.05 | 337.98 | 338.15 | 338.19 |        |
| 25                               | 338.17 | 337.78 | 337.84                                           | 338.06 | 338.35 | 338.42 | 339.05 | 338.20 | 338.14 | 338.31 | 337.87 | 338.05 |        |
| 26                               | 338.16 | 337.74 | 337.86                                           | 338.01 | 338.31 | 338.69 | 338.88 | 338.18 | 338.05 | 338.32 | 337.85 | 337.80 |        |
| 27                               | 338.16 | 337.78 | 337.85                                           | 337.96 | 338.27 | 339.50 | 338.78 | 338.18 | 338.03 | 338.20 | 337.85 | 337.80 |        |
| 28                               | 338.16 | 337.77 | 337.83                                           | 337.98 | 338.23 | 339.10 | 338.76 | 338.18 | 338.03 | 337.94 | 337.96 | 337.95 |        |
| 29                               | 338.16 | 337.79 | 337.84                                           | 338.04 | 338.18 | 339.37 | 339.01 | 338.17 | 338.04 | 337.92 |        | 338.29 |        |
| 30                               | 338.16 | 337.81 | 337.85                                           | 338.16 | 338.15 | 338.79 | 338.75 | 338.18 | 338.04 | 337.93 |        | 338.24 |        |
| 31                               |        | 337.83 |                                                  | 338.20 | 338.21 |        | 338.68 |        | 338.04 | 338.01 |        | 338.21 |        |
| Mean                             | 338.19 | 337.99 | 337.87                                           | 337.99 | 338.46 | 338.93 | 338.73 | 338.31 | 338.14 | 338.05 | 338.05 | 338.08 |        |
| Max                              | 338.32 | 338.18 | 338.27                                           | 338.20 | 340.05 | 339.97 | 340.15 | 338.62 | 338.54 | 338.32 | 338.44 | 338.31 | 340.15 |
| Min                              | 338.05 | 337.74 | 337.77                                           | 337.83 | 338.07 | 338.21 | 338.18 | 338.17 | 338.03 | 337.92 | 337.85 | 337.80 | 337.75 |
| Annual Max Momentary Gage Height |        | 340.23 | m. (MSL.) , at 10.00 Hours , on Oct 19 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 337.60 | m. (MSL.) , River Bed 337.34 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 345.12 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 345.16 | m. (MSL.) , Drainage Area 3088 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

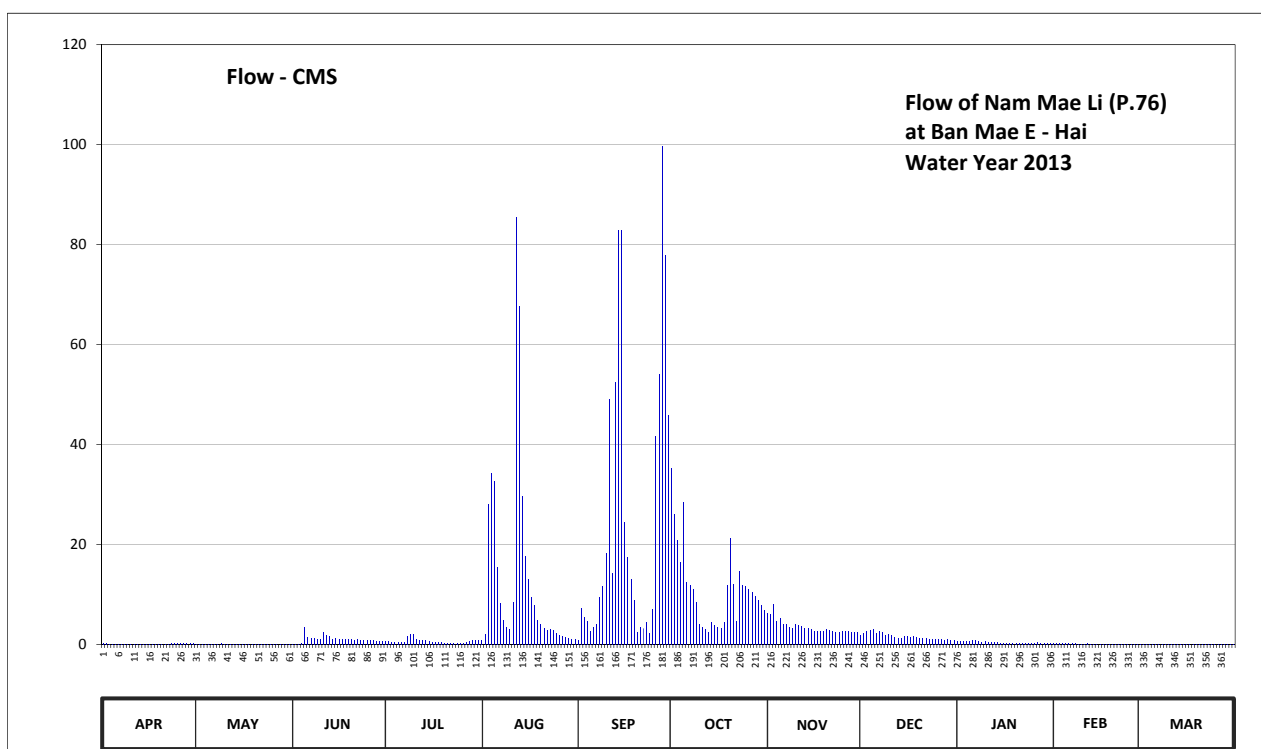


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|--------|--------------------------|--------|--------|--------|----------------|
| 1              | 8.12                                                              | 12.03                    | 2.60   | 2.60   | 12.35                | 47.18   | 32.50   | 33.00  | 11.70                    | 7.80   | 17.95  | 14.80  |                |
| 2              | 18.40                                                             | 12.03                    | 2.60   | 2.60   | 11.37                | 40.00   | 30.50   | 29.50  | 11.05                    | 7.47   | 14.80  | 15.25  |                |
| 3              | 13.45                                                             | 12.35                    | 2.40   | 2.60   | 10.07                | 22.50   | 31.50   | 26.50  | 11.05                    | 6.83   | 6.00   | 10.40  |                |
| 4              | 11.37                                                             | 11.70                    | 2.20   | 3.00   | 8.78                 | 16.15   | 29.50   | 24.50  | 10.07                    | 7.47   | 8.12   | 3.00   |                |
| 5              | 12.35                                                             | 11.70                    | 2.00   | 3.40   | 9.75                 | 13.45   | 26.50   | 22.00  | 10.40                    | 7.47   | 4.75   | 3.20   |                |
| 6              | 13.00                                                             | 10.40                    | 2.40   | 3.20   | 15.70                | 17.05   | 32.50   | 18.85  | 10.07                    | 6.83   | 4.50   | 3.00   |                |
| 7              | 17.05                                                             | 9.10                     | 2.80   | 3.20   | 12.35                | 41.00   | 26.50   | 19.30  | 9.75                     | 7.15   | 6.83   | 4.75   |                |
| 8              | 14.35                                                             | 9.42                     | 2.80   | 3.60   | 12.03                | 73.15   | 23.00   | 18.40  | 9.75                     | 7.15   | 15.70  | 14.80  |                |
| 9              | 13.00                                                             | 10.07                    | 2.40   | 3.60   | 24.00                | 118.40  | 19.75   | 17.50  | 9.42                     | 6.83   | 16.15  | 15.25  |                |
| 10             | 13.45                                                             | 12.35                    | 1.55   | 6.83   | 98.10                | 100.90  | 17.05   | 16.60  | 9.10                     | 6.83   | 12.03  | 15.25  |                |
| 11             | 13.90                                                             | 11.70                    | 4.00   | 8.78   | 124.00               | 54.13   | 15.25   | 14.35  | 9.10                     | 6.50   | 4.00   | 12.03  |                |
| 12             | 12.35                                                             | 11.37                    | 16.15  | 8.45   | 91.15                | 42.00   | 14.80   | 14.35  | 9.42                     | 6.50   | 3.80   | 3.00   |                |
| 13             | 11.70                                                             | 11.37                    | 6.83   | 6.83   | 57.25                | 54.13   | 14.80   | 14.80  | 10.40                    | 6.25   | 4.00   | 2.80   |                |
| 14             | 13.00                                                             | 9.75                     | 3.60   | 6.25   | 34.50                | 57.88   | 13.90   | 15.70  | 19.30                    | 6.50   | 5.75   | 4.75   |                |
| 15             | 13.00                                                             | 9.75                     | 2.40   | 12.03  | 37.00                | 83.05   | 13.00   | 23.50  | 29.00                    | 6.50   | 18.85  | 17.05  |                |
| 16             | 13.00                                                             | 9.42                     | 2.00   | 10.07  | 28.50                | 71.20   | 12.35   | 15.25  | 27.50                    | 6.50   | 24.00  | 17.50  |                |
| 17             | 13.00                                                             | 9.10                     | 2.00   | 9.10   | 22.50                | 86.43   | 12.67   | 15.70  | 16.15                    | 8.78   | 17.05  | 17.95  |                |
| 18             | 13.00                                                             | 9.10                     | 2.20   | 9.10   | 16.15                | 83.05   | 51.20   | 16.15  | 13.00                    | 17.95  | 3.60   | 12.35  |                |
| 19             | 12.67                                                             | 6.25                     | 2.20   | 7.80   | 13.90                | 52.35   | 131.00  | 19.30  | 12.03                    | 17.50  | 3.40   | 2.60   |                |
| 20             | 12.03                                                             | 1.25                     | 3.00   | 5.75   | 13.45                | 43.72   | 91.82   | 25.00  | 10.72                    | 14.80  | 3.60   | 2.20   |                |
| 21             | 12.03                                                             | 2.40                     | 3.20   | 5.00   | 13.45                | 36.00   | 73.80   | 19.75  | 9.75                     | 5.75   | 5.50   | 4.75   |                |
| 22             | 12.35                                                             | 2.00                     | 2.80   | 5.00   | 17.95                | 30.00   | 94.60   | 16.60  | 9.10                     | 5.50   | 15.70  | 16.60  |                |
| 23             | 12.03                                                             | 1.85                     | 5.50   | 5.50   | 31.00                | 25.00   | 76.40   | 14.35  | 8.78                     | 5.50   | 9.75   | 14.80  |                |
| 24             | 12.03                                                             | 2.20                     | 11.70  | 12.35  | 29.50                | 23.00   | 66.65   | 13.90  | 8.12                     | 6.00   | 11.37  | 12.67  |                |
| 25             | 12.03                                                             | 1.70                     | 2.80   | 8.45   | 19.75                | 23.00   | 56.62   | 13.00  | 11.05                    | 17.95  | 3.40   | 8.12   |                |
| 26             | 11.70                                                             | 1.10                     | 3.20   | 6.83   | 17.95                | 36.50   | 46.60   | 12.35  | 8.12                     | 18.40  | 3.00   | 2.00   |                |
| 27             | 11.70                                                             | 1.70                     | 3.00   | 5.50   | 16.15                | 85.75   | 41.00   | 12.35  | 7.47                     | 13.00  | 3.00   | 2.00   |                |
| 28             | 11.70                                                             | 1.55                     | 2.60   | 6.00   | 14.35                | 59.75   | 40.00   | 12.35  | 7.47                     | 5.00   | 5.50   | 5.25   |                |
| 29             | 11.70                                                             | 1.85                     | 2.80   | 7.80   | 12.35                | 77.05   | 54.13   | 12.03  | 7.80                     | 4.50   |        | 17.05  |                |
| 30             | 11.70                                                             | 2.20                     | 3.00   | 11.70  | 11.37                | 41.50   | 39.50   | 12.35  | 7.80                     | 4.75   |        | 14.80  |                |
| 31             |                                                                   | 2.60                     |        | 13.00  | 13.45                |         | 36.00   |        | 7.80                     | 6.83   |        | 13.45  |                |
| Total          | 381.16                                                            | 221.36                   | 108.73 | 205.92 | 850.17               | 1555.27 | 1265.39 | 539.28 | 352.24                   | 262.79 | 252.10 | 303.42 | 6297.83 CMSDAY |
| Mean           | 12.71                                                             | 7.14                     | 3.62   | 6.64   | 27.42                | 51.84   | 40.82   | 17.98  | 11.36                    | 8.48   | 9.00   | 9.79   | 17.25 CMS      |
| Max            | 18.40                                                             | 12.35                    | 16.15  | 13.00  | 124.00               | 118.40  | 131.00  | 33.00  | 29.00                    | 18.40  | 24.00  | 17.95  | 131.00 CMS     |
| Min            | 8.12                                                              | 1.10                     | 1.55   | 2.60   | 8.78                 | 13.45   | 12.35   | 12.03  | 7.47                     | 4.50   | 3.00   | 2.00   | 1.10 CMS       |
| Runoff         | 32.93                                                             | 19.13                    | 9.39   | 17.79  | 73.46                | 134.38  | 109.33  | 46.59  | 30.43                    | 22.71  | 21.78  | 26.22  | 544.13 MCM     |
| Momentary Peak | 136.75 CMS. at 340.23 m. (MSL.) at 10.00 Hours , on Oct 19 , 2013 |                          |        |        |                      |         |         |        |                          |        |        |        |                |
| Runoff Yield   | 5.59                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 44.284 | Liters/Second/Square KM. |        |        |        |                |



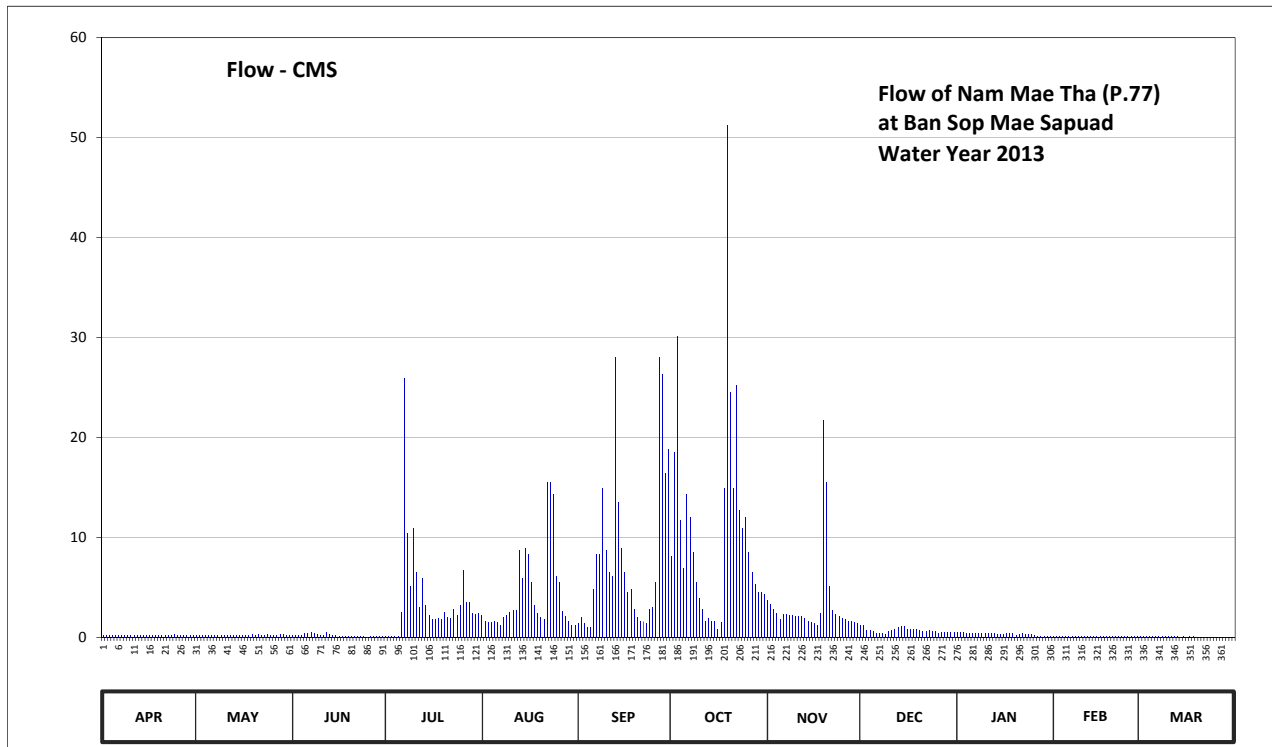




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                        | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual         |
|----------------|--------|------------------------------------------------------------|-------|----------------------|--------|--------|--------------------------|--------|-------|-------|------|------|----------------|
| 1              | 0.24   | 0.19                                                       | 0.19  | 0.66                 | 0.84   | 0.90   | 35.23                    | 6.20   | 1.90  | 0.66  | 0.33 | 0.10 |                |
| 2              | 0.24   | 0.14                                                       | 0.19  | 0.60                 | 2.18   | 7.35   | 26.05                    | 6.00   | 2.32  | 0.60  | 0.29 | 0.10 |                |
| 3              | 0.19   | 0.12                                                       | 0.15  | 0.46                 | 28.00  | 5.40   | 20.98                    | 8.04   | 2.76  | 0.66  | 0.29 | 0.10 |                |
| 4              | 0.14   | 0.14                                                       | 0.29  | 0.46                 | 34.37  | 4.60   | 16.48                    | 4.60   | 2.92  | 0.66  | 0.29 | 0.10 |                |
| 5              | 0.13   | 0.15                                                       | 3.56  | 0.42                 | 32.68  | 2.76   | 28.43                    | 5.20   | 3.08  | 0.66  | 0.24 | 0.08 |                |
| 6              | 0.11   | 0.19                                                       | 1.48  | 0.46                 | 15.55  | 3.56   | 12.50                    | 4.04   | 2.32  | 0.84  | 0.24 | 0.09 |                |
| 7              | 0.12   | 0.19                                                       | 1.20  | 0.51                 | 8.27   | 4.04   | 11.90                    | 4.20   | 2.76  | 0.78  | 0.24 | 0.05 |                |
| 8              | 0.12   | 0.19                                                       | 1.34  | 1.76                 | 5.00   | 9.50   | 11.00                    | 3.56   | 2.46  | 0.72  | 0.29 | 0.05 |                |
| 9              | 0.12   | 0.29                                                       | 1.14  | 2.18                 | 3.56   | 11.60  | 8.50                     | 3.24   | 1.90  | 0.56  | 0.19 | 0.07 |                |
| 10             | 0.12   | 0.15                                                       | 1.08  | 2.18                 | 3.08   | 18.34  | 4.04                     | 4.04   | 2.04  | 0.66  | 0.19 | 0.09 |                |
| 11             | 0.14   | 0.13                                                       | 2.46  | 1.14                 | 8.50   | 49.00  | 3.56                     | 3.88   | 1.90  | 0.46  | 0.19 | 0.10 |                |
| 12             | 0.14   | 0.13                                                       | 1.90  | 0.90                 | 85.50  | 14.31  | 3.08                     | 3.72   | 1.48  | 0.46  | 0.24 | 0.10 |                |
| 13             | 0.13   | 0.14                                                       | 1.62  | 0.78                 | 67.60  | 52.50  | 2.60                     | 3.40   | 1.34  | 0.46  | 0.19 | 0.10 |                |
| 14             | 0.14   | 0.14                                                       | 1.08  | 0.78                 | 29.70  | 82.90  | 4.40                     | 3.40   | 1.34  | 0.42  | 0.19 | 0.11 |                |
| 15             | 0.13   | 0.14                                                       | 1.20  | 0.60                 | 17.72  | 82.90  | 3.88                     | 3.08   | 1.76  | 0.38  | 0.15 | 0.11 |                |
| 16             | 0.14   | 0.13                                                       | 1.14  | 0.42                 | 13.10  | 24.49  | 3.56                     | 2.76   | 1.76  | 0.38  | 0.15 | 0.11 |                |
| 17             | 0.14   | 0.14                                                       | 1.08  | 0.46                 | 9.50   | 17.41  | 3.40                     | 2.76   | 1.48  | 0.29  | 0.15 | 0.11 |                |
| 18             | 0.13   | 0.15                                                       | 1.02  | 0.51                 | 7.81   | 13.10  | 4.40                     | 2.76   | 1.62  | 0.24  | 0.14 | 0.10 |                |
| 19             | 0.15   | 0.15                                                       | 1.02  | 0.42                 | 4.80   | 9.00   | 11.90                    | 2.76   | 1.48  | 0.29  | 0.15 | 0.10 |                |
| 20             | 0.14   | 0.15                                                       | 1.08  | 0.38                 | 4.04   | 2.60   | 21.37                    | 3.08   | 1.34  | 0.29  | 0.14 | 0.10 |                |
| 21             | 0.13   | 0.19                                                       | 0.96  | 0.38                 | 3.40   | 3.56   | 12.20                    | 2.92   | 1.34  | 0.29  | 0.13 | 0.10 |                |
| 22             | 0.19   | 0.15                                                       | 1.08  | 0.38                 | 2.92   | 3.24   | 4.60                     | 2.76   | 1.20  | 0.24  | 0.13 | 0.10 |                |
| 23             | 0.24   | 0.14                                                       | 0.96  | 0.33                 | 3.08   | 4.40   | 14.62                    | 2.46   | 1.02  | 0.29  | 0.14 | 0.09 |                |
| 24             | 0.24   | 0.14                                                       | 0.78  | 0.29                 | 2.92   | 2.32   | 11.90                    | 2.60   | 1.08  | 0.29  | 0.13 | 0.08 |                |
| 25             | 0.24   | 0.14                                                       | 0.78  | 0.29                 | 2.32   | 7.12   | 11.60                    | 2.76   | 1.02  | 0.33  | 0.11 | 0.08 |                |
| 26             | 0.24   | 0.13                                                       | 0.84  | 0.33                 | 1.90   | 41.72  | 11.00                    | 2.76   | 1.08  | 0.29  | 0.11 | 0.08 |                |
| 27             | 0.24   | 0.13                                                       | 0.78  | 0.46                 | 1.76   | 54.00  | 10.50                    | 2.76   | 1.02  | 0.46  | 0.12 | 0.07 |                |
| 28             | 0.29   | 0.12                                                       | 0.72  | 0.72                 | 1.48   | 99.70  | 9.75                     | 2.46   | 0.90  | 0.38  | 0.11 | 0.07 |                |
| 29             | 0.29   | 0.13                                                       | 0.60  | 0.78                 | 1.20   | 77.80  | 9.00                     | 2.46   | 1.02  | 0.38  |      | 0.07 |                |
| 30             | 0.24   | 0.12                                                       | 0.66  | 0.90                 | 1.14   | 46.00  | 7.81                     | 2.46   | 0.90  | 0.33  |      | 0.07 |                |
| 31             |        | 0.19                                                       |       | 0.90                 | 1.14   |        | 6.89                     |        | 0.84  | 0.33  |      | 0.08 |                |
| Total          | 5.25   | 4.73                                                       | 32.38 | 21.84                | 405.06 | 756.12 | 347.13                   | 107.12 | 51.38 | 14.08 | 5.26 | 2.76 | 1753.11 CMSDAY |
| Mean           | 0.17   | 0.15                                                       | 1.08  | 0.70                 | 13.07  | 25.20  | 11.20                    | 3.57   | 1.66  | 0.45  | 0.19 | 0.09 | 4.80 CMS       |
| Max            | 0.29   | 0.29                                                       | 3.56  | 2.18                 | 85.50  | 99.70  | 35.23                    | 8.04   | 3.08  | 0.84  | 0.33 | 0.11 | 99.70 CMS      |
| Min            | 0.11   | 0.12                                                       | 0.15  | 0.29                 | 0.84   | 0.90   | 2.60                     | 2.46   | 0.84  | 0.24  | 0.11 | 0.05 | 0.05 CMS       |
| Runoff         | 0.45   | 0.41                                                       | 2.80  | 1.89                 | 35.00  | 65.33  | 29.99                    | 9.26   | 4.44  | 1.22  | 0.45 | 0.24 | 151.47 MCM     |
| Momentary Peak | 141.75 | CMS. at 367.29 m. (MSL.) at 03.00 Hours , on Sep 15 , 2013 |       |                      |        |        |                          |        |       |       |      |      |                |
| Runoff Yield   | 3.11   | Liters/Second/Square KM.                                   |       | Momentary Peak Yield |        | 91.807 | Liters/Second/Square KM. |        |       |       |      |      |                |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb  | Mar  | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|------|----------------------|--------|---------|--------------------------|-------|-------|-------|------|------|---------------|
| 1              | 0.21                                                            | 0.23                     | 0.28 | 0.14                 | 2.23   | 1.40    | 8.18                     | 3.76  | 1.30  | 0.58  | 0.11 | 0.11 |               |
| 2              | 0.21                                                            | 0.23                     | 0.24 | 0.12                 | 1.70   | 2.01    | 18.50                    | 3.38  | 1.30  | 0.54  | 0.11 | 0.11 |               |
| 3              | 0.22                                                            | 0.23                     | 0.26 | 0.12                 | 1.50   | 1.40    | 30.15                    | 2.89  | 0.74  | 0.54  | 0.11 | 0.12 |               |
| 4              | 0.21                                                            | 0.23                     | 0.25 | 0.12                 | 1.50   | 1.00    | 11.75                    | 2.45  | 0.74  | 0.50  | 0.11 | 0.11 |               |
| 5              | 0.21                                                            | 0.23                     | 0.49 | 0.12                 | 1.70   | 1.00    | 6.95                     | 1.80  | 0.66  | 0.50  | 0.11 | 0.11 |               |
| 6              | 0.21                                                            | 0.24                     | 0.49 | 2.56                 | 1.50   | 4.90    | 14.30                    | 2.34  | 0.40  | 0.46  | 0.12 | 0.11 |               |
| 7              | 0.21                                                            | 0.24                     | 0.52 | 25.95                | 1.20   | 8.39    | 12.00                    | 2.34  | 0.40  | 0.50  | 0.13 | 0.11 |               |
| 8              | 0.21                                                            | 0.23                     | 0.44 | 10.50                | 2.01   | 8.39    | 8.59                     | 2.23  | 0.40  | 0.46  | 0.13 | 0.11 |               |
| 9              | 0.21                                                            | 0.23                     | 0.31 | 5.11                 | 2.23   | 14.90   | 5.51                     | 2.23  | 0.36  | 0.50  | 0.13 | 0.12 |               |
| 10             | 0.21                                                            | 0.23                     | 0.23 | 11.00                | 2.56   | 8.79    | 3.95                     | 2.12  | 0.66  | 0.43  | 0.13 | 0.11 |               |
| 11             | 0.21                                                            | 0.24                     | 0.25 | 6.54                 | 2.78   | 6.54    | 2.89                     | 2.12  | 0.70  | 0.43  | 0.13 | 0.11 |               |
| 12             | 0.21                                                            | 0.23                     | 0.55 | 3.00                 | 2.78   | 6.13    | 1.60                     | 2.12  | 0.82  | 0.40  | 0.13 | 0.11 |               |
| 13             | 0.21                                                            | 0.24                     | 0.33 | 5.92                 | 8.79   | 28.05   | 1.90                     | 1.90  | 1.00  | 0.40  | 0.14 | 0.12 |               |
| 14             | 0.21                                                            | 0.24                     | 0.27 | 3.19                 | 5.92   | 13.50   | 1.70                     | 1.60  | 1.10  | 0.36  | 0.14 | 0.06 |               |
| 15             | 0.21                                                            | 0.24                     | 0.20 | 2.23                 | 9.00   | 9.00    | 1.70                     | 1.50  | 1.10  | 0.36  | 0.14 | 0.10 |               |
| 16             | 0.21                                                            | 0.24                     | 0.17 | 1.80                 | 8.39   | 6.54    | 0.90                     | 1.40  | 0.90  | 0.36  | 0.14 | 0.09 |               |
| 17             | 0.22                                                            | 0.24                     | 0.15 | 1.80                 | 5.51   | 4.52    | 1.50                     | 1.20  | 0.82  | 0.40  | 0.13 | 0.10 |               |
| 18             | 0.22                                                            | 0.25                     | 0.14 | 1.90                 | 3.19   | 4.90    | 14.90                    | 2.45  | 0.82  | 0.46  | 0.13 | 0.10 |               |
| 19             | 0.21                                                            | 0.30                     | 0.14 | 1.80                 | 2.45   | 2.89    | 51.25                    | 21.75 | 0.82  | 0.40  | 0.13 | 0.09 |               |
| 20             | 0.21                                                            | 0.26                     | 0.12 | 2.56                 | 2.01   | 2.01    | 24.55                    | 15.50 | 0.78  | 0.29  | 0.13 | 0.09 |               |
| 21             | 0.21                                                            | 0.30                     | 0.12 | 2.01                 | 1.80   | 1.70    | 14.90                    | 5.11  | 0.66  | 0.32  | 0.13 | 0.09 |               |
| 22             | 0.21                                                            | 0.25                     | 0.12 | 1.90                 | 15.50  | 1.60    | 25.25                    | 2.78  | 0.66  | 0.40  | 0.13 | 0.09 |               |
| 23             | 0.21                                                            | 0.26                     | 0.12 | 2.89                 | 15.50  | 1.40    | 12.75                    | 2.34  | 0.70  | 0.36  | 0.13 | 0.09 |               |
| 24             | 0.36                                                            | 0.31                     | 0.12 | 2.23                 | 14.30  | 2.89    | 11.00                    | 2.12  | 0.62  | 0.32  | 0.13 | 0.09 |               |
| 25             | 0.25                                                            | 0.28                     | 0.09 | 3.19                 | 6.13   | 3.00    | 12.00                    | 1.90  | 0.62  | 0.32  | 0.12 | 0.09 |               |
| 26             | 0.20                                                            | 0.26                     | 0.12 | 6.74                 | 5.51   | 5.51    | 8.59                     | 1.80  | 0.50  | 0.25  | 0.12 | 0.09 |               |
| 27             | 0.24                                                            | 0.26                     | 0.12 | 3.57                 | 2.67   | 28.05   | 6.54                     | 1.70  | 0.54  | 0.19  | 0.12 | 0.09 |               |
| 28             | 0.21                                                            | 0.30                     | 0.14 | 3.57                 | 2.12   | 26.30   | 5.31                     | 1.70  | 0.58  | 0.13  | 0.11 | 0.09 |               |
| 29             | 0.21                                                            | 0.30                     | 0.12 | 2.45                 | 1.70   | 16.40   | 4.52                     | 1.50  | 0.54  | 0.12  |      | 0.09 |               |
| 30             | 0.23                                                            | 0.25                     | 0.14 | 2.34                 | 1.20   | 18.80   | 4.52                     | 1.40  | 0.54  | 0.11  |      | 0.09 |               |
| 31             |                                                                 | 0.28                     |      | 2.45                 | 1.30   |         | 4.33                     |       | 0.54  | 0.10  |      | 0.09 |               |
| Total          | 6.56                                                            | 7.85                     | 7.04 | 119.82               | 136.68 | 241.91  | 332.48                   | 99.43 | 22.32 | 11.49 | 3.52 | 3.08 | 992.18 CMSDAY |
| Mean           | 0.22                                                            | 0.25                     | 0.23 | 3.87                 | 4.41   | 8.06    | 10.73                    | 3.31  | 0.72  | 0.37  | 0.13 | 0.10 | 2.72 CMS      |
| Max            | 0.36                                                            | 0.31                     | 0.55 | 25.95                | 15.50  | 28.05   | 51.25                    | 21.75 | 1.30  | 0.58  | 0.14 | 0.12 | 51.25 CMS     |
| Min            | 0.20                                                            | 0.23                     | 0.09 | 0.12                 | 1.20   | 1.00    | 0.90                     | 1.20  | 0.36  | 0.10  | 0.11 | 0.06 | 0.06 CMS      |
| Runoff         | 0.57                                                            | 0.68                     | 0.61 | 10.35                | 11.81  | 20.90   | 28.73                    | 8.59  | 1.93  | 0.99  | 0.30 | 0.27 | 85.72 MCM     |
| Momentary Peak | 70.45 CMS. at 367.78 m. (MSL.) at 24.00 Hours , on Oct 2 , 2013 |                          |      |                      |        |         |                          |       |       |       |      |      |               |
| Runoff Yield   | 4.94                                                            | Liters/Second/Square KM. |      | Momentary Peak Yield |        | 128.091 | Liters/Second/Square KM. |       |       |       |      |      |               |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Khlong Khlung at Ban Sam Ruean , Kamphaeng Phet (P.78)**

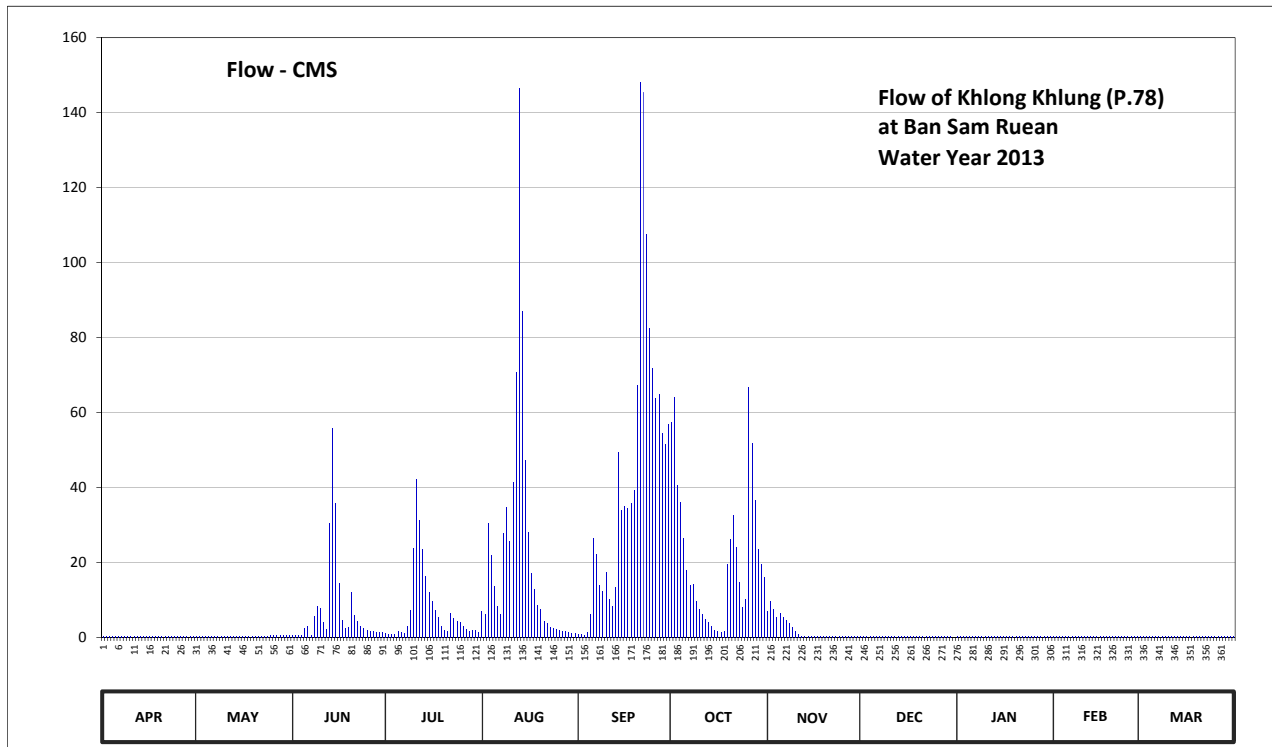
Lat 16 - 11 - 03 N      Long 99 - 36 - 09 E

**Location :** on left bank at Ban Sam Ruean.

|                                         |                                                                                           |           |               |               |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Sam Ruean | <b>Amphoe</b> | Khlong Khlung | <b>Changwat</b>  | Kamphaeng Phet    |
| <b>Drainge Area</b>                     | 1,119                                                                                     | sq.km.    |               |               |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |               |                  |                   |
| <b>Zero Gage at Bottom</b>              | +65.177                                                                                   | m. (MSL.) |               |               |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |               |                  |                   |
| <b>Location BM</b>                      | Near the gage site.                                                                       |           |               |               | <b>Elevation</b> | +73.494 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |               |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |               |                  |                   |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                              |           |               |               |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |               |                  |                   |
| <b>Period of Rating</b>                 | 2005 to date                                                                              |           |               |               |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |               |                  |                   |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                              |           |               |               |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |               |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |               |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 21 discharge measurements made in 2013. |           |               |               |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

|                                  | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 66.36 | 66.36 | 66.42                                            | 66.57 | 67.31 | 66.53 | 69.46 | 67.30 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 2                                | 66.36 | 66.36 | 66.42                                            | 66.54 | 67.23 | 66.51 | 69.65 | 67.49 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 3                                | 66.36 | 66.36 | 66.41                                            | 66.52 | 68.54 | 66.49 | 68.93 | 67.33 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 4                                | 66.36 | 66.36 | 66.41                                            | 66.51 | 68.18 | 66.66 | 68.77 | 67.16 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 5                                | 66.36 | 66.36 | 66.81                                            | 66.67 | 67.74 | 67.22 | 68.38 | 67.24 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 6                                | 66.36 | 66.36 | 66.86                                            | 66.64 | 67.40 | 68.38 | 67.97 | 67.14 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 7                                | 66.36 | 66.36 | 66.44                                            | 66.61 | 67.23 | 68.19 | 67.76 | 67.06 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 8                                | 66.36 | 66.36 | 67.18                                            | 66.86 | 68.43 | 67.75 | 67.77 | 66.97 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 9                                | 66.36 | 66.36 | 67.39                                            | 67.32 | 68.71 | 67.66 | 67.49 | 66.84 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 10                               | 66.36 | 66.36 | 67.36                                            | 68.26 | 68.34 | 67.95 | 67.33 | 66.68 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 11                               | 66.36 | 66.36 | 67.00                                            | 68.99 | 68.96 | 67.51 | 67.23 | 66.52 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 12                               | 66.36 | 66.36 | 66.75                                            | 68.57 | 69.84 | 67.40 | 67.09 | 66.40 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 13                               | 66.36 | 66.36 | 68.54                                            | 68.25 | 71.50 | 67.73 | 67.02 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 14                               | 66.36 | 66.36 | 69.42                                            | 67.89 | 70.27 | 69.22 | 66.86 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 15                               | 66.36 | 66.36 | 68.75                                            | 67.65 | 69.16 | 68.68 | 66.72 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 16                               | 66.36 | 66.36 | 67.79                                            | 67.48 | 68.45 | 68.72 | 66.68 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 17                               | 66.36 | 66.36 | 67.07                                            | 67.32 | 67.93 | 68.70 | 66.65 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 18                               | 66.36 | 66.36 | 66.80                                            | 67.16 | 67.70 | 68.75 | 66.69 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 19                               | 66.36 | 66.36 | 66.83                                            | 66.86 | 67.42 | 68.88 | 68.05 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 20                               | 66.36 | 66.36 | 67.64                                            | 66.74 | 67.34 | 69.74 | 68.37 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 21                               | 66.36 | 66.36 | 67.20                                            | 66.68 | 67.05 | 71.53 | 68.63 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 22                               | 66.36 | 66.36 | 67.04                                            | 67.25 | 66.99 | 71.48 | 68.27 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 23                               | 66.36 | 66.38 | 66.88                                            | 67.12 | 66.84 | 70.69 | 67.80 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 24                               | 66.36 | 66.38 | 66.79                                            | 67.04 | 66.79 | 70.15 | 67.37 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 25                               | 66.36 | 66.43 | 66.72                                            | 67.02 | 66.77 | 69.87 | 67.52 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 26                               | 66.36 | 66.43 | 66.68                                            | 66.88 | 66.74 | 69.64 | 69.73 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 27                               | 66.36 | 66.42 | 66.67                                            | 66.78 | 66.71 | 69.67 | 69.30 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 28                               | 66.36 | 66.41 | 66.65                                            | 66.71 | 66.69 | 69.38 | 68.79 | 66.36 | 66.36 | 66.36 | 66.36 | 66.36 |        |
| 29                               | 66.36 | 66.41 | 66.64                                            | 66.74 | 66.66 | 69.29 | 68.25 | 66.36 | 66.36 | 66.36 |       | 66.36 |        |
| 30                               | 66.36 | 66.41 | 66.63                                            | 66.74 | 66.60 | 69.45 | 68.05 | 66.36 | 66.36 | 66.36 |       | 66.36 |        |
| 31                               |       | 66.43 |                                                  | 66.62 | 66.56 |       | 67.88 |       | 66.12 | 66.36 |       | 66.36 |        |
| Mean                             | 66.36 | 66.37 | 67.07                                            | 67.13 | 67.81 | 68.66 | 67.95 | 66.62 | 66.35 | 66.36 | 66.36 | 66.36 |        |
| Max                              | 66.36 | 66.43 | 69.42                                            | 68.99 | 71.50 | 71.53 | 69.73 | 67.49 | 66.36 | 66.36 | 66.36 | 66.36 | 71.53  |
| Min                              | 66.36 | 66.36 | 66.41                                            | 66.51 | 66.56 | 66.49 | 66.65 | 66.36 | 66.12 | 66.36 | 66.36 | 66.36 | 66.12  |
| Annual Max Momentary Gage Height |       | 71.65 | m. (MSL.) , at 15.00 Hours , on Sep 21 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 65.18 | m. (MSL.) , River Bed 66.14 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 73.23 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 73.25 | m. (MSL.) , Drainage Area 1119 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|-------|----------------|
| 1              | 0.40                                                             | 0.40                     | 0.55   | 1.10                 | 7.15   | 0.90    | 57.35                    | 7.00  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 2              | 0.40                                                             | 0.40                     | 0.55   | 0.95                 | 6.30   | 0.80    | 64.00                    | 9.85  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 3              | 0.40                                                             | 0.40                     | 0.53   | 0.85                 | 30.50  | 0.72    | 40.57                    | 7.45  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 4              | 0.40                                                             | 0.40                     | 0.53   | 0.80                 | 22.10  | 1.55    | 36.25                    | 5.60  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 5              | 0.40                                                             | 0.40                     | 2.57   | 1.60                 | 13.70  | 6.20    | 26.55                    | 6.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 6              | 0.40                                                             | 0.40                     | 2.95   | 1.45                 | 8.50   | 26.55   | 17.90                    | 5.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 7              | 0.40                                                             | 0.40                     | 0.60   | 1.30                 | 6.30   | 22.30   | 14.05                    | 4.60  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 8              | 0.40                                                             | 0.40                     | 5.80   | 2.95                 | 27.75  | 13.88   | 14.22                    | 3.78  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 9              | 0.40                                                             | 0.40                     | 8.35   | 7.30                 | 34.75  | 12.40   | 9.85                     | 2.80  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 10             | 0.40                                                             | 0.40                     | 7.90   | 23.85                | 25.65  | 17.50   | 7.45                     | 1.65  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 11             | 0.40                                                             | 0.40                     | 4.00   | 42.22                | 41.40  | 10.15   | 6.30                     | 0.85  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 12             | 0.40                                                             | 0.40                     | 2.13   | 31.25                | 70.75  | 8.50    | 4.90                     | 0.50  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 13             | 0.40                                                             | 0.40                     | 30.50  | 23.63                | 146.50 | 13.53   | 4.20                     | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 14             | 0.40                                                             | 0.40                     | 55.95  | 16.32                | 87.05  | 49.40   | 2.95                     | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 15             | 0.40                                                             | 0.40                     | 35.75  | 12.25                | 47.45  | 34.00   | 1.90                     | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 16             | 0.40                                                             | 0.40                     | 14.58  | 9.70                 | 28.25  | 35.00   | 1.65                     | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 17             | 0.40                                                             | 0.40                     | 4.70   | 7.30                 | 17.10  | 34.50   | 1.50                     | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 18             | 0.40                                                             | 0.40                     | 2.50   | 5.60                 | 13.00  | 35.75   | 1.70                     | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 19             | 0.40                                                             | 0.40                     | 2.73   | 2.95                 | 8.80   | 39.20   | 19.50                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 20             | 0.40                                                             | 0.40                     | 12.10  | 2.05                 | 7.60   | 67.15   | 26.33                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 21             | 0.40                                                             | 0.40                     | 6.00   | 1.65                 | 4.50   | 148.15  | 32.75                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 22             | 0.40                                                             | 0.40                     | 4.40   | 6.50                 | 3.92   | 145.45  | 24.07                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 23             | 0.40                                                             | 0.45                     | 3.10   | 5.20                 | 2.80   | 107.52  | 14.75                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 24             | 0.40                                                             | 0.45                     | 2.43   | 4.40                 | 2.43   | 82.38   | 8.05                     | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 25             | 0.40                                                             | 0.58                     | 1.90   | 4.20                 | 2.27   | 71.88   | 10.30                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 26             | 0.40                                                             | 0.58                     | 1.65   | 3.10                 | 2.05   | 63.65   | 66.80                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 27             | 0.40                                                             | 0.55                     | 1.60   | 2.35                 | 1.83   | 64.70   | 52.00                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 28             | 0.40                                                             | 0.53                     | 1.50   | 1.83                 | 1.70   | 54.60   | 36.75                    | 0.40  | 0.40  | 0.40  | 0.40  | 0.40  |                |
| 29             | 0.40                                                             | 0.53                     | 1.45   | 2.05                 | 1.55   | 51.68   | 23.63                    | 0.40  | 0.40  | 0.40  |       | 0.40  |                |
| 30             | 0.40                                                             | 0.53                     | 1.40   | 2.05                 | 1.25   | 57.00   | 19.50                    | 0.40  | 0.40  | 0.40  |       | 0.40  |                |
| 31             |                                                                  | 0.58                     |        | 1.35                 | 1.05   |         | 16.15                    |       | 0.00  | 0.40  |       | 0.40  |                |
| Total          | 12.00                                                            | 13.58                    | 220.70 | 230.10               | 675.95 | 1276.99 | 663.87                   | 63.08 | 12.00 | 12.40 | 11.20 | 12.40 | 3204.27 CMSDAY |
| Mean           | 0.40                                                             | 0.44                     | 7.36   | 7.42                 | 21.80  | 42.57   | 21.42                    | 2.10  | 0.39  | 0.40  | 0.40  | 0.40  | 8.78 CMS       |
| Max            | 0.40                                                             | 0.58                     | 55.95  | 42.22                | 146.50 | 148.15  | 66.80                    | 9.85  | 0.40  | 0.40  | 0.40  | 0.40  | 148.15 CMS     |
| Min            | 0.40                                                             | 0.40                     | 0.53   | 0.80                 | 1.05   | 0.72    | 1.50                     | 0.40  | 0.00  | 0.40  | 0.40  | 0.40  | 0.00 CMS       |
| Runoff         | 1.04                                                             | 1.17                     | 19.07  | 19.88                | 58.40  | 110.33  | 57.36                    | 5.45  | 1.04  | 1.07  | 0.97  | 1.07  | 276.85 MCM     |
| Momentary Peak | 154.75 CMS. at 71.65 m. (MSL.) at 15.00 Hours , on Sep 21 , 2013 |                          |        |                      |        |         |                          |       |       |       |       |       |                |
| Runoff Yield   | 7.85                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 138.293 | Liters/Second/Square KM. |       |       |       |       |       |                |

## WATER YEAR : 2013

## PING RIVER BASIN

**Nam Mae Kuang at Ban Mae Wan , Chiang Mai (P.79**

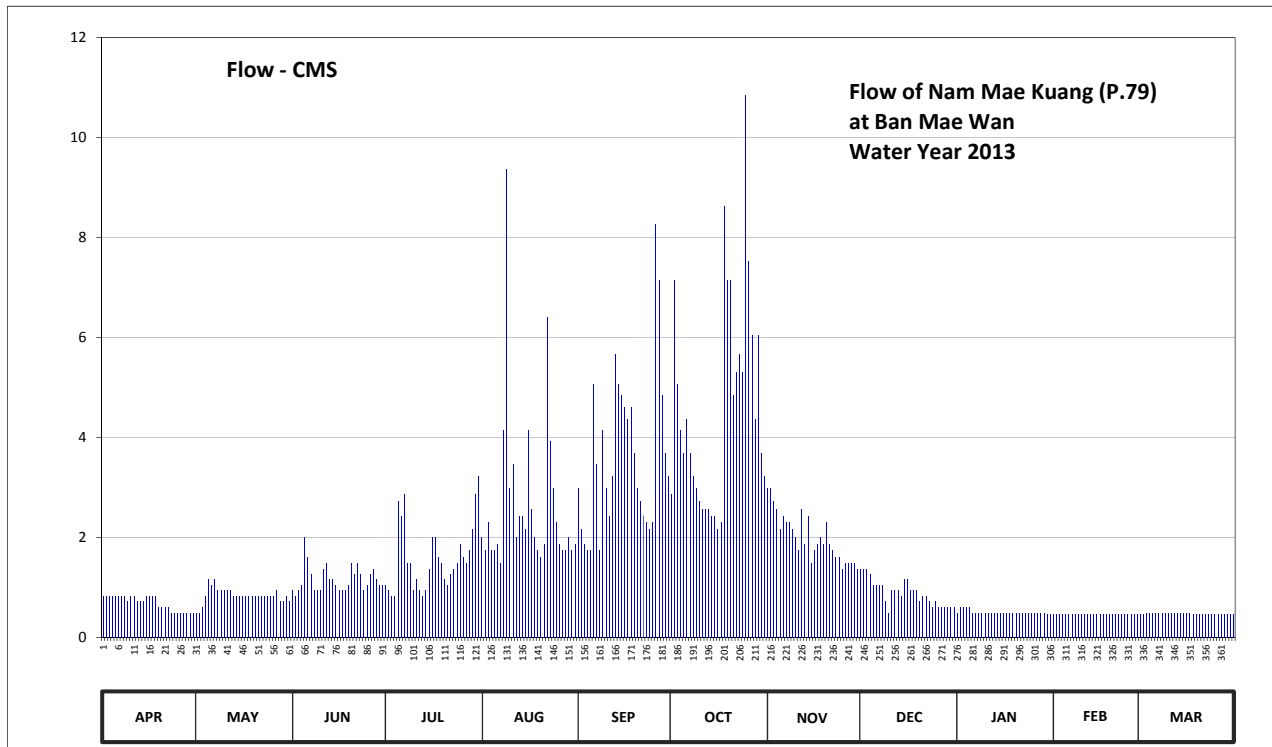
Lat 18 - 57 - 45 N      Long 99 - 14 - 31 W

**Location :** on left bank at the bridge on road

|                                         |                                                                                           |           |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Mae Wan   | <b>Amphoe</b> | Doi Saket | <b>Changwat</b>  | Chiang Mai        |
| <b>Drainage Area</b>                    | 136                                                                                       | sq.km.    |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +442.300                                                                                  | m. (MSL.) |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                   |
| <b>Location BM</b>                      | On left bank at the approach of the bridge.                                               |           |               |           | <b>Elevation</b> | +447.326 m. (MSL) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                |           |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 2001 to date                                                                              |           |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                   |
| <b>Period of Rating</b>                 | 2001 to date                                                                              |           |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                              |           |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 39 discharge measurements made in 2013. |           |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------|--------|-----------------------------------|--------|--------|-------------------|--------|--------|--------|--------|--------|
|                                  | 1  | 442.73 | 442.70 | 442.74      | 442.75 | 442.83                            | 442.90 | 442.89 | 442.90            | 442.78 | 442.70 | 442.66 | 442.65 |        |
|                                  | 2  | 442.73 | 442.70 | 442.73      | 442.74 | 442.81                            | 442.84 | 443.05 | 442.90            | 442.78 | 442.71 | 442.65 | 442.66 |        |
|                                  | 3  | 442.73 | 442.71 | 442.74      | 442.73 | 442.85                            | 442.82 | 442.99 | 442.88            | 442.78 | 442.71 | 442.66 | 442.68 |        |
|                                  | 4  | 442.73 | 442.73 | 442.75      | 442.73 | 442.81                            | 442.81 | 442.95 | 442.87            | 442.77 | 442.71 | 442.66 | 442.67 |        |
|                                  | 5  | 442.73 | 442.76 | 442.83      | 442.88 | 442.81                            | 442.81 | 442.93 | 442.84            | 442.75 | 442.71 | 442.66 | 442.70 |        |
|                                  | 6  | 442.73 | 442.75 | 442.80      | 442.86 | 442.82                            | 442.99 | 442.96 | 442.86            | 442.75 | 442.70 | 442.66 | 442.68 |        |
|                                  | 7  | 442.73 | 442.76 | 442.77      | 442.89 | 442.79                            | 442.92 | 442.93 | 442.85            | 442.75 | 442.70 | 442.66 | 442.68 |        |
|                                  | 8  | 442.73 | 442.74 | 442.74      | 442.79 | 442.95                            | 442.81 | 442.91 | 442.85            | 442.75 | 442.70 | 442.66 | 442.68 |        |
|                                  | 9  | 442.72 | 442.74 | 442.74      | 442.79 | 443.11                            | 442.95 | 442.90 | 442.84            | 442.72 | 442.69 | 442.66 | 442.68 |        |
|                                  | 10 | 442.73 | 442.74 | 442.74      | 442.74 | 442.90                            | 442.90 | 442.88 | 442.83            | 442.68 | 442.69 | 442.66 | 442.68 |        |
|                                  | 11 | 442.73 | 442.74 | 442.78      | 442.76 | 442.92                            | 442.86 | 442.87 | 442.81            | 442.74 | 442.69 | 442.65 | 442.68 |        |
|                                  | 12 | 442.72 | 442.74 | 442.79      | 442.74 | 442.83                            | 442.91 | 442.87 | 442.87            | 442.74 | 442.69 | 442.66 | 442.68 |        |
|                                  | 13 | 442.72 | 442.73 | 442.76      | 442.73 | 442.86                            | 443.01 | 442.87 | 442.82            | 442.74 | 442.69 | 442.66 | 442.68 |        |
|                                  | 14 | 442.72 | 442.73 | 442.76      | 442.74 | 442.86                            | 442.99 | 442.86 | 442.86            | 442.73 | 442.68 | 442.66 | 442.68 |        |
|                                  | 15 | 442.73 | 442.73 | 442.75      | 442.78 | 442.84                            | 442.98 | 442.86 | 442.79            | 442.76 | 442.68 | 442.66 | 442.68 |        |
|                                  | 16 | 442.73 | 442.73 | 442.74      | 442.83 | 442.95                            | 442.97 | 442.84 | 442.81            | 442.76 | 442.68 | 442.66 | 442.68 |        |
|                                  | 17 | 442.73 | 442.73 | 442.74      | 442.83 | 442.87                            | 442.96 | 442.85 | 442.82            | 442.74 | 442.68 | 442.65 | 442.67 |        |
|                                  | 18 | 442.73 | 442.73 | 442.74      | 442.80 | 442.83                            | 442.97 | 443.09 | 442.83            | 442.74 | 442.68 | 442.65 | 442.65 |        |
|                                  | 19 | 442.71 | 442.73 | 442.75      | 442.79 | 442.81                            | 442.93 | 443.05 | 442.82            | 442.74 | 442.68 | 442.65 | 442.65 |        |
|                                  | 20 | 442.71 | 442.73 | 442.79      | 442.76 | 442.80                            | 442.90 | 443.05 | 442.85            | 442.72 | 442.68 | 442.65 | 442.65 |        |
|                                  | 21 | 442.71 | 442.73 | 442.77      | 442.75 | 442.82                            | 442.88 | 442.98 | 442.82            | 442.73 | 442.68 | 442.65 | 442.65 |        |
|                                  | 22 | 442.71 | 442.73 | 442.79      | 442.77 | 443.03                            | 442.86 | 443.00 | 442.81            | 442.73 | 442.68 | 442.65 | 442.65 |        |
|                                  | 23 | 442.70 | 442.73 | 442.77      | 442.78 | 442.94                            | 442.85 | 443.01 | 442.80            | 442.72 | 442.68 | 442.65 | 442.65 |        |
|                                  | 24 | 442.70 | 442.73 | 442.74      | 442.79 | 442.90                            | 442.84 | 443.00 | 442.80            | 442.71 | 442.68 | 442.65 | 442.65 |        |
|                                  | 25 | 442.70 | 442.73 | 442.75      | 442.82 | 442.85                            | 442.85 | 443.15 | 442.78            | 442.72 | 442.68 | 442.65 | 442.65 |        |
|                                  | 26 | 442.70 | 442.73 | 442.77      | 442.80 | 442.82                            | 443.08 | 443.06 | 442.79            | 442.71 | 442.68 | 442.65 | 442.65 |        |
|                                  | 27 | 442.70 | 442.74 | 442.78      | 442.79 | 442.81                            | 443.05 | 443.02 | 442.79            | 442.71 | 442.68 | 442.65 | 442.65 |        |
|                                  | 28 | 442.70 | 442.72 | 442.76      | 442.81 | 442.81                            | 442.98 | 442.96 | 442.79            | 442.71 | 442.68 | 442.65 | 442.65 |        |
|                                  | 29 | 442.70 | 442.72 | 442.75      | 442.84 | 442.83                            | 442.93 | 443.02 | 442.79            | 442.71 | 442.67 |        | 442.65 |        |
|                                  | 30 | 442.70 | 442.73 | 442.75      | 442.89 | 442.81                            | 442.91 | 442.93 | 442.78            | 442.71 | 442.66 |        | 442.65 |        |
|                                  | 31 |        | 442.72 |             | 442.91 | 442.82                            |        | 442.91 |                   | 442.71 | 442.66 |        | 442.65 |        |
| Mean                             |    | 442.72 | 442.73 | 442.76      | 442.79 | 442.86                            | 442.92 | 442.96 | 442.83            | 442.74 | 442.69 | 442.66 | 442.67 |        |
| Max                              |    | 442.73 | 442.76 | 442.83      | 442.91 | 443.11                            | 443.08 | 443.15 | 442.90            | 442.78 | 442.71 | 442.66 | 442.70 | 443.11 |
| Min                              |    | 442.70 | 442.70 | 442.73      | 442.73 | 442.79                            | 442.81 | 442.84 | 442.78            | 442.68 | 442.66 | 442.65 | 442.65 | 442.65 |
| Annual Max Momentary Gage Height |    |        | 443.50 | m. (MSL.) , |        | at 12.00 Hours , on Sep 26 , 2013 |        |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 442.30 | m. (MSL.) , |        | River Bed                         |        | 442.58 | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |    |        | 446.86 | m. (MSL.) , |        |                                   |        |        |                   |        |        |        |        |        |
| Right Bank Elevation             |    |        | 446.08 | m. (MSL.) , |        | Drainage Area                     |        | 136    | Square Kilometers |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun   | Jul   | Aug                  | Sep    | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual |        |
|----------------|-------|------------------------------------------------------------|-------|-------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|--------|--------|
| 1              | 0.83  | 0.50                                                       | 0.94  | 1.05  | 2.02                 | 3.00   | 2.86    | 3.00                     | 1.38  | 0.50  | 0.47  | 0.46  |        |        |
| 2              | 0.83  | 0.50                                                       | 0.83  | 0.94  | 1.74                 | 2.16   | 7.15    | 3.00                     | 1.38  | 0.61  | 0.46  | 0.47  |        |        |
| 3              | 0.83  | 0.61                                                       | 0.94  | 0.83  | 2.30                 | 1.88   | 5.07    | 2.72                     | 1.38  | 0.61  | 0.47  | 0.49  |        |        |
| 4              | 0.83  | 0.83                                                       | 1.05  | 0.83  | 1.74                 | 1.74   | 4.15    | 2.58                     | 1.27  | 0.61  | 0.47  | 0.48  |        |        |
| 5              | 0.83  | 1.16                                                       | 2.02  | 2.72  | 1.74                 | 1.74   | 3.69    | 2.16                     | 1.05  | 0.61  | 0.47  | 0.50  |        |        |
| 6              | 0.83  | 1.05                                                       | 1.60  | 2.44  | 1.88                 | 5.07   | 4.38    | 2.44                     | 1.05  | 0.50  | 0.47  | 0.49  |        |        |
| 7              | 0.83  | 1.16                                                       | 1.27  | 2.86  | 1.49                 | 3.46   | 3.69    | 2.30                     | 1.05  | 0.50  | 0.47  | 0.49  |        |        |
| 8              | 0.83  | 0.94                                                       | 0.94  | 1.49  | 4.15                 | 1.74   | 3.23    | 2.30                     | 1.05  | 0.50  | 0.47  | 0.49  |        |        |
| 9              | 0.72  | 0.94                                                       | 0.94  | 1.49  | 9.37                 | 4.15   | 3.00    | 2.16                     | 0.72  | 0.49  | 0.47  | 0.49  |        |        |
| 10             | 0.83  | 0.94                                                       | 0.94  | 0.94  | 3.00                 | 3.00   | 2.72    | 2.02                     | 0.49  | 0.49  | 0.47  | 0.49  |        |        |
| 11             | 0.83  | 0.94                                                       | 1.38  | 1.16  | 3.46                 | 2.44   | 2.58    | 1.74                     | 0.94  | 0.49  | 0.46  | 0.49  |        |        |
| 12             | 0.72  | 0.94                                                       | 1.49  | 0.94  | 2.02                 | 3.23   | 2.58    | 2.58                     | 0.94  | 0.49  | 0.47  | 0.49  |        |        |
| 13             | 0.72  | 0.83                                                       | 1.16  | 0.83  | 2.44                 | 5.67   | 2.58    | 1.88                     | 0.94  | 0.49  | 0.47  | 0.49  |        |        |
| 14             | 0.72  | 0.83                                                       | 1.16  | 0.94  | 2.44                 | 5.07   | 2.44    | 2.44                     | 0.83  | 0.49  | 0.47  | 0.49  |        |        |
| 15             | 0.83  | 0.83                                                       | 1.05  | 1.38  | 2.16                 | 4.84   | 2.44    | 1.49                     | 1.16  | 0.49  | 0.47  | 0.49  |        |        |
| 16             | 0.83  | 0.83                                                       | 0.94  | 2.02  | 4.15                 | 4.61   | 2.16    | 1.74                     | 1.16  | 0.49  | 0.47  | 0.49  |        |        |
| 17             | 0.83  | 0.83                                                       | 0.94  | 2.02  | 2.58                 | 4.38   | 2.30    | 1.88                     | 0.94  | 0.49  | 0.46  | 0.48  |        |        |
| 18             | 0.83  | 0.83                                                       | 0.94  | 1.60  | 2.02                 | 4.61   | 8.63    | 2.02                     | 0.94  | 0.49  | 0.46  | 0.46  |        |        |
| 19             | 0.61  | 0.83                                                       | 1.05  | 1.49  | 1.74                 | 3.69   | 7.15    | 1.88                     | 0.94  | 0.49  | 0.46  | 0.46  |        |        |
| 20             | 0.61  | 0.83                                                       | 1.49  | 1.16  | 1.60                 | 3.00   | 7.15    | 2.30                     | 0.72  | 0.49  | 0.46  | 0.46  |        |        |
| 21             | 0.61  | 0.83                                                       | 1.27  | 1.05  | 1.88                 | 2.72   | 4.84    | 1.88                     | 0.83  | 0.49  | 0.46  | 0.46  |        |        |
| 22             | 0.61  | 0.83                                                       | 1.49  | 1.27  | 6.41                 | 2.44   | 5.30    | 1.74                     | 0.83  | 0.49  | 0.46  | 0.46  |        |        |
| 23             | 0.50  | 0.83                                                       | 1.27  | 1.38  | 3.92                 | 2.30   | 5.67    | 1.60                     | 0.72  | 0.49  | 0.46  | 0.46  |        |        |
| 24             | 0.50  | 0.83                                                       | 0.94  | 1.49  | 3.00                 | 2.16   | 5.30    | 1.60                     | 0.61  | 0.49  | 0.46  | 0.46  |        |        |
| 25             | 0.50  | 0.83                                                       | 1.05  | 1.88  | 2.30                 | 2.30   | 10.85   | 1.38                     | 0.72  | 0.49  | 0.46  | 0.46  |        |        |
| 26             | 0.50  | 0.83                                                       | 1.27  | 1.60  | 1.88                 | 8.26   | 7.52    | 1.49                     | 0.61  | 0.49  | 0.46  | 0.46  |        |        |
| 27             | 0.50  | 0.94                                                       | 1.38  | 1.49  | 1.74                 | 7.15   | 6.04    | 1.49                     | 0.61  | 0.49  | 0.46  | 0.46  |        |        |
| 28             | 0.50  | 0.72                                                       | 1.16  | 1.74  | 1.74                 | 4.84   | 4.38    | 1.49                     | 0.61  | 0.49  | 0.46  | 0.46  |        |        |
| 29             | 0.50  | 0.72                                                       | 1.05  | 2.16  | 2.02                 | 3.69   | 6.04    | 1.49                     | 0.61  | 0.48  |       | 0.46  |        |        |
| 30             | 0.50  | 0.83                                                       | 1.05  | 2.86  | 1.74                 | 3.23   | 3.69    | 1.38                     | 0.61  | 0.47  |       | 0.46  |        |        |
| 31             |       | 0.72                                                       |       | 3.23  | 1.88                 |        | 3.23    |                          | 0.61  | 0.47  |       | 0.46  |        |        |
| Total          | 20.94 | 26.06                                                      | 35.00 | 49.28 | 82.55                | 108.57 | 142.81  | 60.17                    | 27.70 | 15.66 | 13.02 | 14.71 | 596.47 | CMSDAY |
| Mean           | 0.70  | 0.84                                                       | 1.17  | 1.59  | 2.66                 | 3.62   | 4.61    | 2.01                     | 0.89  | 0.51  | 0.46  | 0.47  | 1.63   | CMS    |
| Max            | 0.83  | 1.16                                                       | 2.02  | 3.23  | 9.37                 | 8.26   | 10.85   | 3.00                     | 1.38  | 0.61  | 0.47  | 0.50  | 10.85  | CMS    |
| Min            | 0.50  | 0.50                                                       | 0.83  | 0.83  | 1.49                 | 1.74   | 2.16    | 1.38                     | 0.49  | 0.47  | 0.46  | 0.46  | 0.46   | CMS    |
| Runoff         | 1.81  | 2.25                                                       | 3.02  | 4.26  | 7.13                 | 9.38   | 12.34   | 5.20                     | 2.39  | 1.35  | 1.13  | 1.27  | 51.54  | MCM    |
| Momentary Peak | 27.25 | CMS. at 443.50 m. (MSL.) at 12.00 Hours , on Sep 26 , 2013 |       |       |                      |        |         |                          |       |       |       |       |        |        |
| Runoff Yield   | 12.02 | Liters/Second/Square KM.                                   |       |       | Momentary Peak Yield |        | 200.368 | Liters/Second/Square KM. |       |       |       |       |        |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae Lai at Ban Pong Din , Chiang Mai (P.80**

Lat 18 - 54 - 49 N    Long 99 - 14 - 17 W

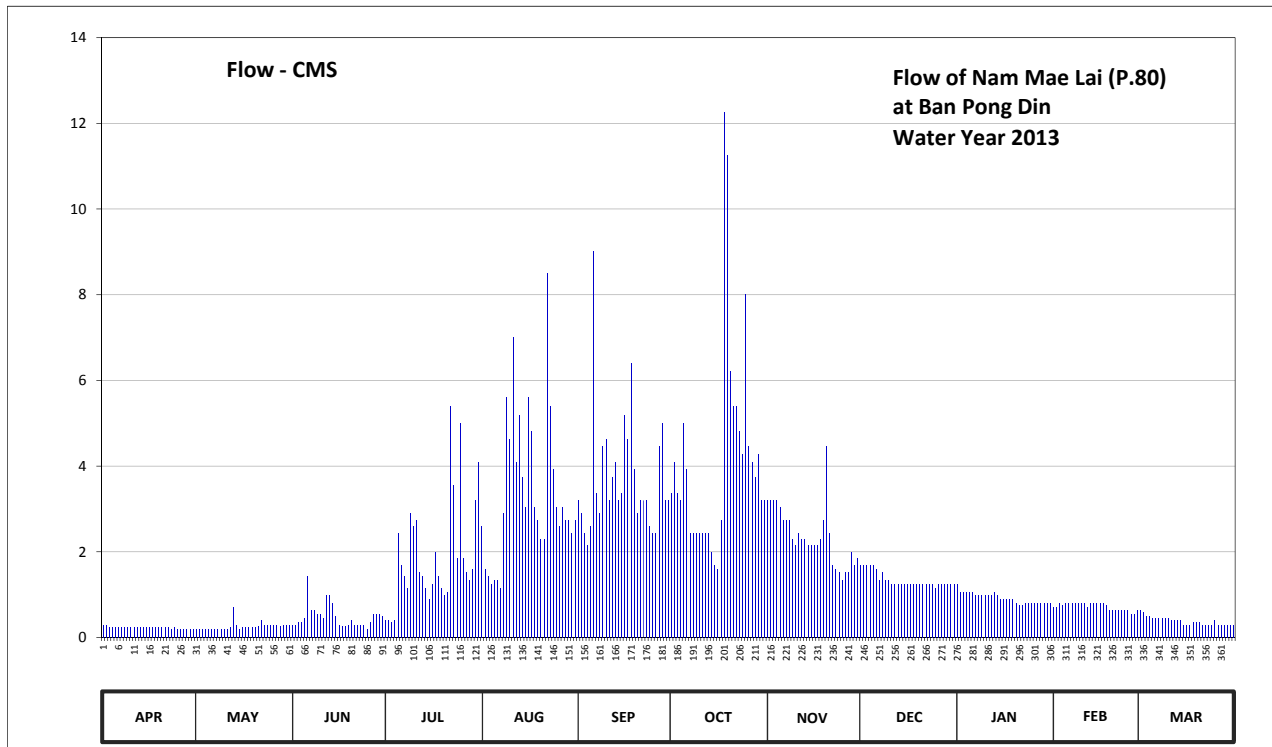
**Location :** on left bank at the bridge on road

|                                         |                                                                                           |           |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pong Din  | <b>Amphoe</b> | Doi Saket | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 129                                                                                       | sq.km.    |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +455.096                                                                                  | m. (MSL.) |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                    |
| <b>Location BM</b>                      | On left bank at the approach of the bridge.                                               |           |               |           | <b>Elevation</b> | +462.021 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                |           |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 2001 to date                                                                              |           |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                    |
| <b>Period of Rating</b>                 | 2001 to date                                                                              |           |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                              |           |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2013. |           |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 455.40 | 455.37 | 455.40                                          | 455.42 | 455.66 | 455.70 | 455.71 | 455.70 | 455.60 | 455.55 | 455.48 | 455.47 |        |
|                                  | 2  | 455.40 | 455.37 | 455.40                                          | 455.42 | 455.59 | 455.68 | 455.75 | 455.70 | 455.60 | 455.53 | 455.48 | 455.46 |        |
|                                  | 3  | 455.38 | 455.37 | 455.41                                          | 455.41 | 455.57 | 455.65 | 455.71 | 455.70 | 455.60 | 455.53 | 455.50 | 455.44 |        |
|                                  | 4  | 455.38 | 455.37 | 455.41                                          | 455.42 | 455.55 | 455.63 | 455.70 | 455.70 | 455.60 | 455.53 | 455.49 | 455.44 |        |
|                                  | 5  | 455.38 | 455.37 | 455.43                                          | 455.65 | 455.56 | 455.66 | 455.80 | 455.69 | 455.60 | 455.53 | 455.50 | 455.43 |        |
|                                  | 6  | 455.38 | 455.37 | 455.57                                          | 455.60 | 455.56 | 455.98 | 455.74 | 455.67 | 455.59 | 455.53 | 455.50 | 455.43 |        |
|                                  | 7  | 455.38 | 455.37 | 455.47                                          | 455.57 | 455.54 | 455.71 | 455.65 | 455.67 | 455.56 | 455.52 | 455.50 | 455.43 |        |
|                                  | 8  | 455.38 | 455.37 | 455.47                                          | 455.54 | 455.68 | 455.68 | 455.65 | 455.67 | 455.58 | 455.52 | 455.50 | 455.43 |        |
|                                  | 9  | 455.38 | 455.37 | 455.45                                          | 455.68 | 455.83 | 455.77 | 455.65 | 455.64 | 455.56 | 455.52 | 455.50 | 455.43 |        |
|                                  | 10 | 455.38 | 455.37 | 455.45                                          | 455.66 | 455.78 | 455.78 | 455.65 | 455.63 | 455.56 | 455.52 | 455.50 | 455.43 |        |
|                                  | 11 | 455.38 | 455.37 | 455.43                                          | 455.67 | 455.90 | 455.70 | 455.65 | 455.65 | 455.55 | 455.52 | 455.50 | 455.42 |        |
|                                  | 12 | 455.38 | 455.38 | 455.52                                          | 455.58 | 455.75 | 455.73 | 455.65 | 455.64 | 455.55 | 455.52 | 455.48 | 455.42 |        |
|                                  | 13 | 455.38 | 455.48 | 455.52                                          | 455.57 | 455.81 | 455.75 | 455.65 | 455.64 | 455.55 | 455.53 | 455.50 | 455.42 |        |
|                                  | 14 | 455.38 | 455.40 | 455.50                                          | 455.54 | 455.73 | 455.70 | 455.62 | 455.63 | 455.55 | 455.52 | 455.50 | 455.42 |        |
|                                  | 15 | 455.38 | 455.37 | 455.44                                          | 455.51 | 455.69 | 455.71 | 455.60 | 455.63 | 455.55 | 455.51 | 455.50 | 455.40 |        |
|                                  | 16 | 455.38 | 455.38 | 455.40                                          | 455.55 | 455.83 | 455.81 | 455.59 | 455.63 | 455.55 | 455.51 | 455.50 | 455.40 |        |
|                                  | 17 | 455.38 | 455.38 | 455.39                                          | 455.62 | 455.79 | 455.78 | 455.67 | 455.63 | 455.55 | 455.51 | 455.50 | 455.40 |        |
|                                  | 18 | 455.38 | 455.38 | 455.39                                          | 455.57 | 455.69 | 455.87 | 456.11 | 455.64 | 455.55 | 455.51 | 455.49 | 455.41 |        |
|                                  | 19 | 455.38 | 455.38 | 455.40                                          | 455.54 | 455.67 | 455.74 | 456.07 | 455.67 | 455.55 | 455.51 | 455.47 | 455.41 |        |
|                                  | 20 | 455.38 | 455.38 | 455.42                                          | 455.52 | 455.64 | 455.68 | 455.86 | 455.77 | 455.55 | 455.50 | 455.47 | 455.41 |        |
|                                  | 21 | 455.38 | 455.39 | 455.40                                          | 455.53 | 455.64 | 455.70 | 455.82 | 455.65 | 455.55 | 455.49 | 455.47 | 455.40 |        |
|                                  | 22 | 455.38 | 455.42 | 455.40                                          | 455.82 | 455.96 | 455.70 | 455.82 | 455.60 | 455.55 | 455.49 | 455.47 | 455.40 |        |
|                                  | 23 | 455.37 | 455.40 | 455.40                                          | 455.72 | 455.82 | 455.70 | 455.79 | 455.59 | 455.55 | 455.50 | 455.47 | 455.40 |        |
|                                  | 24 | 455.38 | 455.40 | 455.40                                          | 455.61 | 455.74 | 455.66 | 455.76 | 455.58 | 455.55 | 455.50 | 455.47 | 455.40 |        |
|                                  | 25 | 455.37 | 455.40 | 455.37                                          | 455.80 | 455.69 | 455.65 | 455.94 | 455.56 | 455.54 | 455.50 | 455.47 | 455.42 |        |
|                                  | 26 | 455.37 | 455.40 | 455.41                                          | 455.61 | 455.66 | 455.65 | 455.77 | 455.58 | 455.55 | 455.50 | 455.45 | 455.40 |        |
|                                  | 27 | 455.37 | 455.40 | 455.45                                          | 455.58 | 455.69 | 455.77 | 455.75 | 455.58 | 455.55 | 455.50 | 455.45 | 455.40 |        |
|                                  | 28 | 455.37 | 455.39 | 455.45                                          | 455.56 | 455.67 | 455.80 | 455.73 | 455.62 | 455.55 | 455.50 | 455.47 | 455.40 |        |
|                                  | 29 | 455.37 | 455.40 | 455.45                                          | 455.59 | 455.67 | 455.70 | 455.76 | 455.60 | 455.55 | 455.50 |        | 455.40 |        |
|                                  | 30 | 455.37 | 455.40 | 455.44                                          | 455.70 | 455.65 | 455.70 | 455.70 | 455.61 | 455.55 | 455.50 |        | 455.40 |        |
|                                  | 31 |        | 455.40 |                                                 | 455.75 | 455.67 |        | 455.70 |        | 455.55 | 455.50 |        | 455.40 |        |
| Mean                             |    | 455.38 | 455.39 | 455.43                                          | 455.59 | 455.70 | 455.72 | 455.74 | 455.64 | 455.56 | 455.51 | 455.48 | 455.42 |        |
| Max                              |    | 455.40 | 455.48 | 455.57                                          | 455.82 | 455.96 | 455.98 | 456.11 | 455.77 | 455.60 | 455.55 | 455.50 | 455.47 | 456.11 |
| Min                              |    | 455.37 | 455.37 | 455.37                                          | 455.41 | 455.54 | 455.63 | 455.59 | 455.56 | 455.54 | 455.49 | 455.45 | 455.40 | 455.37 |
| Annual Max Momentary Gage Height |    |        | 456.58 | m. (MSL.) , at 12.00 Hours , on Oct 18 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 455.10 | m. (MSL.) , River Bed 455.10 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 461.90 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 461.92 | m. (MSL.) , Drainage Area 129 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 0.30                                                             | 0.21                     | 0.30  | 0.40                 | 2.60   | 3.20    | 3.38                     | 3.20  | 1.70  | 1.25  | 0.70  | 0.65  |               |
| 2              | 0.30                                                             | 0.21                     | 0.30  | 0.40                 | 1.61   | 2.90    | 4.10                     | 3.20  | 1.70  | 1.07  | 0.70  | 0.60  |               |
| 3              | 0.24                                                             | 0.21                     | 0.35  | 0.35                 | 1.43   | 2.45    | 3.38                     | 3.20  | 1.70  | 1.07  | 0.80  | 0.50  |               |
| 4              | 0.24                                                             | 0.21                     | 0.35  | 0.40                 | 1.25   | 2.15    | 3.20                     | 3.20  | 1.70  | 1.07  | 0.75  | 0.50  |               |
| 5              | 0.24                                                             | 0.21                     | 0.45  | 2.45                 | 1.34   | 2.60    | 5.00                     | 3.05  | 1.70  | 1.07  | 0.80  | 0.45  |               |
| 6              | 0.24                                                             | 0.21                     | 1.43  | 1.70                 | 1.34   | 9.00    | 3.92                     | 2.75  | 1.61  | 1.07  | 0.80  | 0.45  |               |
| 7              | 0.24                                                             | 0.21                     | 0.65  | 1.43                 | 1.16   | 3.38    | 2.45                     | 2.75  | 1.34  | 0.98  | 0.80  | 0.45  |               |
| 8              | 0.24                                                             | 0.21                     | 0.65  | 1.16                 | 2.90   | 2.90    | 2.45                     | 2.75  | 1.52  | 0.98  | 0.80  | 0.45  |               |
| 9              | 0.24                                                             | 0.21                     | 0.55  | 2.90                 | 5.60   | 4.46    | 2.45                     | 2.30  | 1.34  | 0.98  | 0.80  | 0.45  |               |
| 10             | 0.24                                                             | 0.21                     | 0.55  | 2.60                 | 4.64   | 4.64    | 2.45                     | 2.15  | 1.34  | 0.98  | 0.80  | 0.45  |               |
| 11             | 0.24                                                             | 0.21                     | 0.45  | 2.75                 | 7.00   | 3.20    | 2.45                     | 2.45  | 1.25  | 0.98  | 0.80  | 0.40  |               |
| 12             | 0.24                                                             | 0.24                     | 0.98  | 1.52                 | 4.10   | 3.74    | 2.45                     | 2.30  | 1.25  | 0.98  | 0.70  | 0.40  |               |
| 13             | 0.24                                                             | 0.70                     | 0.98  | 1.43                 | 5.20   | 4.10    | 2.45                     | 2.30  | 1.25  | 1.07  | 0.80  | 0.40  |               |
| 14             | 0.24                                                             | 0.30                     | 0.80  | 1.16                 | 3.74   | 3.20    | 2.00                     | 2.15  | 1.25  | 0.98  | 0.80  | 0.40  |               |
| 15             | 0.24                                                             | 0.21                     | 0.50  | 0.89                 | 3.05   | 3.38    | 1.70                     | 2.15  | 1.25  | 0.89  | 0.80  | 0.30  |               |
| 16             | 0.24                                                             | 0.24                     | 0.30  | 1.25                 | 5.60   | 5.20    | 1.61                     | 2.15  | 1.25  | 0.89  | 0.80  | 0.30  |               |
| 17             | 0.24                                                             | 0.24                     | 0.27  | 2.00                 | 4.82   | 4.64    | 2.75                     | 2.15  | 1.25  | 0.89  | 0.80  | 0.30  |               |
| 18             | 0.24                                                             | 0.24                     | 0.27  | 1.43                 | 3.05   | 6.40    | 12.25                    | 2.30  | 1.25  | 0.89  | 0.75  | 0.35  |               |
| 19             | 0.24                                                             | 0.24                     | 0.30  | 1.16                 | 2.75   | 3.92    | 11.25                    | 2.75  | 1.25  | 0.89  | 0.65  | 0.35  |               |
| 20             | 0.24                                                             | 0.24                     | 0.40  | 0.98                 | 2.30   | 2.90    | 6.20                     | 4.46  | 1.25  | 0.80  | 0.65  | 0.35  |               |
| 21             | 0.24                                                             | 0.27                     | 0.30  | 1.07                 | 2.30   | 3.20    | 5.40                     | 2.45  | 1.25  | 0.75  | 0.65  | 0.30  |               |
| 22             | 0.24                                                             | 0.40                     | 0.30  | 5.40                 | 8.50   | 3.20    | 5.40                     | 1.70  | 1.25  | 0.75  | 0.65  | 0.30  |               |
| 23             | 0.21                                                             | 0.30                     | 0.30  | 3.56                 | 5.40   | 3.20    | 4.82                     | 1.61  | 1.25  | 0.80  | 0.65  | 0.30  |               |
| 24             | 0.24                                                             | 0.30                     | 0.30  | 1.85                 | 3.92   | 2.60    | 4.28                     | 1.52  | 1.25  | 0.80  | 0.65  | 0.30  |               |
| 25             | 0.21                                                             | 0.30                     | 0.21  | 5.00                 | 3.05   | 2.45    | 8.00                     | 1.34  | 1.16  | 0.80  | 0.65  | 0.40  |               |
| 26             | 0.21                                                             | 0.30                     | 0.35  | 1.85                 | 2.60   | 2.45    | 4.46                     | 1.52  | 1.25  | 0.80  | 0.55  | 0.30  |               |
| 27             | 0.21                                                             | 0.30                     | 0.55  | 1.52                 | 3.05   | 4.46    | 4.10                     | 1.52  | 1.25  | 0.80  | 0.55  | 0.30  |               |
| 28             | 0.21                                                             | 0.27                     | 0.55  | 1.34                 | 2.75   | 5.00    | 3.74                     | 2.00  | 1.25  | 0.80  | 0.65  | 0.30  |               |
| 29             | 0.21                                                             | 0.30                     | 0.55  | 1.61                 | 2.75   | 3.20    | 4.28                     | 1.70  | 1.25  | 0.80  |       | 0.30  |               |
| 30             | 0.21                                                             | 0.30                     | 0.50  | 3.20                 | 2.45   | 3.20    | 3.20                     | 1.85  | 1.25  | 0.80  |       | 0.30  |               |
| 31             |                                                                  | 0.30                     |       | 4.10                 | 2.75   |         | 3.20                     |       | 1.25  | 0.80  |       | 0.30  |               |
| Total          | 7.11                                                             | 8.30                     | 14.74 | 58.86                | 105.00 | 111.32  | 128.77                   | 70.92 | 41.81 | 28.48 | 20.30 | 11.90 | 607.51 CMSDAY |
| Mean           | 0.24                                                             | 0.27                     | 0.49  | 1.90                 | 3.39   | 3.71    | 4.15                     | 2.36  | 1.35  | 0.92  | 0.72  | 0.38  | 1.66 CMS      |
| Max            | 0.30                                                             | 0.70                     | 1.43  | 5.40                 | 8.50   | 9.00    | 12.25                    | 4.46  | 1.70  | 1.25  | 0.80  | 0.65  | 12.25 CMS     |
| Min            | 0.21                                                             | 0.21                     | 0.21  | 0.35                 | 1.16   | 2.15    | 1.61                     | 1.34  | 1.16  | 0.75  | 0.55  | 0.30  | 0.21 CMS      |
| Runoff         | 0.61                                                             | 0.72                     | 1.27  | 5.09                 | 9.07   | 9.62    | 11.13                    | 6.13  | 3.61  | 2.46  | 1.75  | 1.03  | 52.49 MCM     |
| Momentary Peak | 25.40 CMS. at 456.58 m. (MSL.) at 12.00 Hours , on Oct 18 , 2013 |                          |       |                      |        |         |                          |       |       |       |       |       |               |
| Runoff Yield   | 12.90                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 196.899 | Liters/Second/Square KM. |       |       |       |       |       |               |

## WATER YEAR : 2013

## PING RIVER BASIN

**Nam Mae Kuang at Ban Pong , Chiang Mai (P.81**

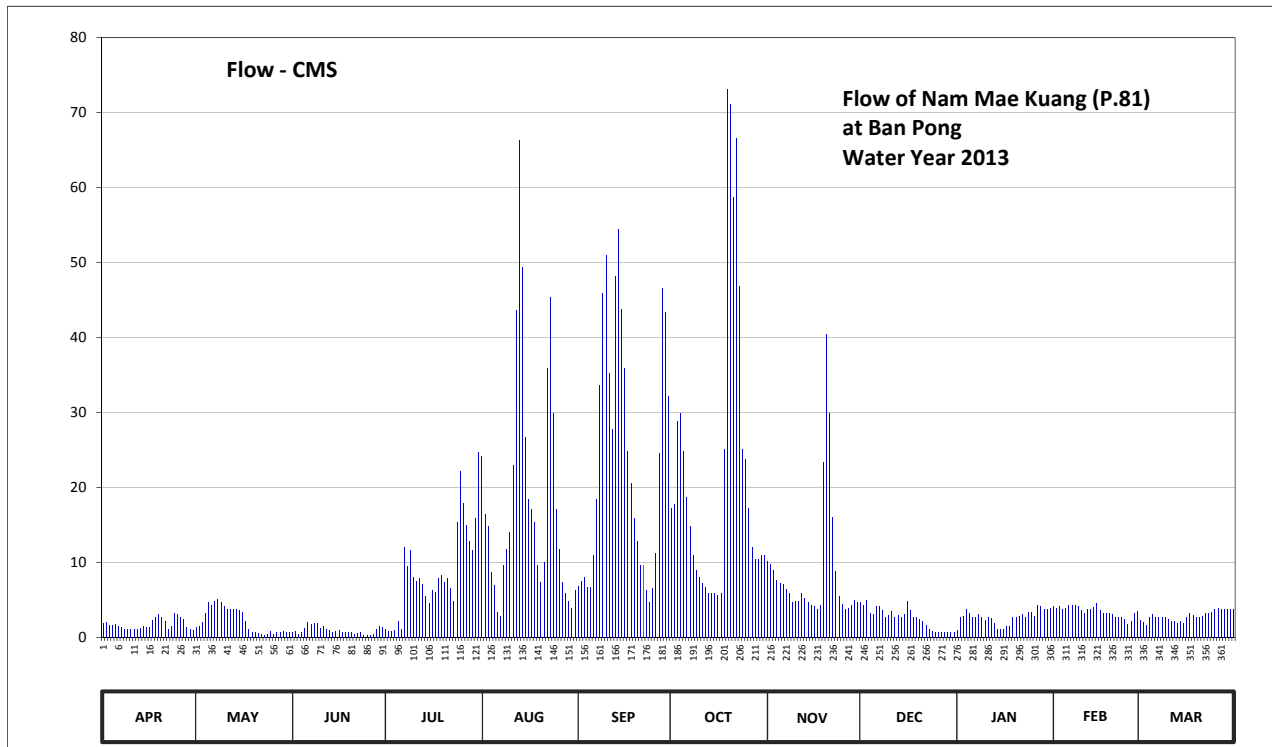
Lat 18 - 41 - 37 N    Long 99 - 04 - 55 E

**Location : on right bank at Ban Pong**

|                                         |                                                                                           |               |               |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban Pong</b>                                                                           | <b>Amphoe</b> | San Kamphaeng | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 1,190                                                                                     | sq.km.        |               |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +289.919                                                                                  | m. (MSL.)     |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |               |                  |                    |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |               |               | <b>Elevation</b> | +295.749 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 2002 to date                                                                              |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |               |               |                  |                    |
| <b>Period of Rating</b>                 | 2002 to date                                                                              |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 2002 to date                                                                              |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2013. |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 290.83 | 290.76 | 290.63                                           | 290.71 | 292.29 | 291.29 | 291.93 | 291.52 | 291.11 | 290.70 | 291.06 | 290.88 |        |
| 2                                | 290.85 | 290.77 | 290.65                                           | 290.67 | 291.88 | 291.34 | 291.96 | 291.49 | 291.08 | 290.92 | 291.04 | 290.85 |        |
| 3                                | 290.79 | 290.84 | 290.57                                           | 290.67 | 291.79 | 291.37 | 292.52 | 291.44 | 291.14 | 290.94 | 291.06 | 290.80 |        |
| 4                                | 290.79 | 290.98 | 290.62                                           | 290.69 | 291.42 | 291.28 | 292.57 | 291.35 | 290.98 | 291.02 | 291.02 | 290.93 |        |
| 5                                | 290.81 | 291.11 | 290.74                                           | 290.86 | 291.30 | 291.28 | 292.33 | 291.32 | 290.96 | 290.98 | 291.04 | 290.96 |        |
| 6                                | 290.77 | 291.08 | 290.84                                           | 290.71 | 290.99 | 291.57 | 292.01 | 291.31 | 291.06 | 290.92 | 291.07 | 290.93 |        |
| 7                                | 290.76 | 291.13 | 290.82                                           | 291.63 | 290.94 | 292.00 | 291.79 | 291.26 | 291.06 | 290.93 | 291.07 | 290.92 |        |
| 8                                | 290.72 | 291.15 | 290.83                                           | 291.47 | 291.48 | 292.74 | 291.57 | 291.22 | 291.01 | 290.96 | 291.07 | 290.92 |        |
| 9                                | 290.72 | 291.11 | 290.83                                           | 291.61 | 291.62 | 293.26 | 291.44 | 291.11 | 290.93 | 290.92 | 291.06 | 290.92 |        |
| 10                               | 290.72 | 291.06 | 290.74                                           | 291.38 | 291.75 | 293.46 | 291.37 | 291.12 | 290.95 | 290.88 | 291.01 | 290.90 |        |
| 11                               | 290.72 | 291.02 | 290.77                                           | 291.34 | 292.23 | 292.81 | 291.32 | 291.12 | 291.00 | 290.92 | 290.98 | 290.87 |        |
| 12                               | 290.72 | 291.02 | 290.72                                           | 291.36 | 293.17 | 292.47 | 291.28 | 291.22 | 290.93 | 290.91 | 291.02 | 290.86 |        |
| 13                               | 290.74 | 291.02 | 290.69                                           | 291.31 | 294.03 | 293.35 | 291.22 | 291.16 | 290.95 | 290.83 | 291.02 | 290.83 |        |
| 14                               | 290.77 | 291.02 | 290.62                                           | 291.19 | 293.40 | 293.59 | 291.22 | 291.11 | 290.92 | 290.72 | 291.05 | 290.86 |        |
| 15                               | 290.76 | 291.01 | 290.65                                           | 291.10 | 292.42 | 293.18 | 291.22 | 291.07 | 290.96 | 290.72 | 291.10 | 290.83 |        |
| 16                               | 290.76 | 290.99 | 290.70                                           | 291.25 | 292.00 | 292.84 | 291.20 | 291.06 | 291.13 | 290.72 | 291.01 | 290.93 |        |
| 17                               | 290.88 | 290.87 | 290.62                                           | 291.23 | 291.92 | 292.33 | 291.22 | 291.02 | 291.01 | 290.78 | 290.97 | 290.97 |        |
| 18                               | 290.93 | 290.71 | 290.62                                           | 291.36 | 291.82 | 292.11 | 292.34 | 291.07 | 290.93 | 290.78 | 290.97 | 290.95 |        |
| 19                               | 290.96 | 290.62 | 290.62                                           | 291.39 | 291.48 | 291.85 | 294.27 | 292.25 | 290.92 | 290.92 | 290.97 | 290.92 |        |
| 20                               | 290.92 | 290.62 | 290.63                                           | 291.33 | 291.33 | 291.68 | 294.20 | 293.04 | 290.90 | 290.92 | 290.96 | 290.92 |        |
| 21                               | 290.86 | 290.61 | 290.56                                           | 291.36 | 291.51 | 291.48 | 293.75 | 292.57 | 290.86 | 290.94 | 290.92 | 290.94 |        |
| 22                               | 290.72 | 290.56 | 290.61                                           | 291.27 | 292.84 | 291.48 | 294.04 | 291.86 | 290.80 | 290.96 | 290.92 | 290.97 |        |
| 23                               | 290.77 | 290.52 | 290.64                                           | 291.12 | 293.24 | 291.25 | 293.30 | 291.43 | 290.72 | 290.93 | 290.92 | 290.97 |        |
| 24                               | 290.98 | 290.54 | 290.50                                           | 291.82 | 292.57 | 291.11 | 292.34 | 291.19 | 290.67 | 290.99 | 290.90 | 290.99 |        |
| 25                               | 290.96 | 290.67 | 290.52                                           | 292.19 | 291.92 | 291.27 | 292.27 | 291.09 | 290.63 | 290.99 | 290.82 | 291.02 |        |
| 26                               | 290.92 | 290.54 | 290.52                                           | 291.97 | 291.62 | 291.58 | 291.93 | 291.02 | 290.62 | 290.94 | 290.86 | 291.04 |        |
| 27                               | 290.89 | 290.62 | 290.56                                           | 291.80 | 291.33 | 292.31 | 291.63 | 291.04 | 290.62 | 291.08 | 290.97 | 291.02 |        |
| 28                               | 290.76 | 290.62 | 290.71                                           | 291.68 | 291.22 | 293.29 | 291.53 | 291.08 | 290.62 | 291.06 | 291.00 | 291.02 |        |
| 29                               | 290.71 | 290.66 | 290.77                                           | 291.61 | 291.12 | 293.16 | 291.53 | 291.14 | 290.62 | 291.02 |        | 291.02 |        |
| 30                               | 290.69 | 290.62 | 290.76                                           | 291.85 | 291.04 | 292.67 | 291.57 | 291.11 | 290.62 | 291.02 |        | 291.02 |        |
| 31                               |        | 290.62 |                                                  | 292.32 | 291.25 |        | 291.57 |        | 290.62 | 291.04 |        | 291.02 |        |
| Mean                             | 290.81 | 290.82 | 290.67                                           | 291.36 | 291.90 | 292.18 | 292.08 | 291.36 | 290.88 | 290.91 | 291.00 | 290.93 |        |
| Max                              | 290.98 | 291.15 | 290.84                                           | 292.32 | 294.03 | 293.59 | 294.27 | 293.04 | 291.14 | 291.08 | 291.10 | 291.04 | 294.27 |
| Min                              | 290.69 | 290.52 | 290.50                                           | 290.67 | 290.94 | 291.11 | 291.20 | 291.02 | 290.62 | 290.70 | 290.82 | 290.80 | 290.50 |
| Annual Max Momentary Gage Height |        | 294.47 | m. (MSL.) , at 22.00 Hours , on Oct 19 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 289.92 | m. (MSL.) , River Bed 289.87 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 296.87 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 296.87 | m. (MSL.) , Drainage Area 1190 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun   | Jul    | Aug                  | Sep    | Oct    | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------|------------------------------------------------------------|-------|--------|----------------------|--------|--------|--------------------------|-------|-------|-------|-------|----------------|
| 1              | 1.94  | 1.42                                                       | 0.72  | 1.07   | 24.16                | 6.92   | 17.27  | 10.26                    | 4.71  | 1.00  | 4.16  | 2.34  |                |
| 2              | 2.10  | 1.49                                                       | 0.80  | 0.88   | 16.40                | 7.59   | 17.80  | 9.79                     | 4.38  | 2.70  | 3.94  | 2.10  |                |
| 3              | 1.63  | 2.02                                                       | 0.51  | 0.88   | 14.83                | 7.99   | 28.88  | 9.02                     | 5.04  | 2.90  | 4.16  | 1.70  |                |
| 4              | 1.63  | 3.30                                                       | 0.68  | 0.96   | 8.71                 | 6.78   | 29.96  | 7.73                     | 3.30  | 3.72  | 3.72  | 2.80  |                |
| 5              | 1.78  | 4.71                                                       | 1.28  | 2.18   | 7.05                 | 6.78   | 24.93  | 7.32                     | 3.10  | 3.30  | 3.94  | 3.10  |                |
| 6              | 1.49  | 4.38                                                       | 2.02  | 1.07   | 3.40                 | 11.04  | 18.70  | 7.18                     | 4.16  | 2.70  | 4.27  | 2.80  |                |
| 7              | 1.42  | 4.93                                                       | 1.86  | 12.02  | 2.90                 | 18.50  | 14.83  | 6.51                     | 4.16  | 2.80  | 4.27  | 2.70  |                |
| 8              | 1.14  | 5.15                                                       | 1.94  | 9.49   | 9.64                 | 33.68  | 11.04  | 5.97                     | 3.61  | 3.10  | 4.27  | 2.70  |                |
| 9              | 1.14  | 4.71                                                       | 1.94  | 11.67  | 11.85                | 45.83  | 9.02   | 4.71                     | 2.80  | 2.70  | 4.16  | 2.70  |                |
| 10             | 1.14  | 4.16                                                       | 1.28  | 8.13   | 14.12                | 50.99  | 7.99   | 4.82                     | 3.00  | 2.34  | 3.61  | 2.50  |                |
| 11             | 1.14  | 3.72                                                       | 1.49  | 7.59   | 22.99                | 35.23  | 7.32   | 4.82                     | 3.50  | 2.70  | 3.30  | 2.26  |                |
| 12             | 1.14  | 3.72                                                       | 1.14  | 7.86   | 43.58                | 27.81  | 6.78   | 5.97                     | 2.80  | 2.60  | 3.72  | 2.18  |                |
| 13             | 1.28  | 3.72                                                       | 0.96  | 7.18   | 66.34                | 48.13  | 5.97   | 5.26                     | 3.00  | 1.94  | 3.72  | 1.94  |                |
| 14             | 1.49  | 3.72                                                       | 0.68  | 5.59   | 49.40                | 54.44  | 5.97   | 4.71                     | 2.70  | 1.14  | 4.05  | 2.18  |                |
| 15             | 1.42  | 3.61                                                       | 0.80  | 4.60   | 26.73                | 43.82  | 5.97   | 4.27                     | 3.10  | 1.14  | 4.60  | 1.94  |                |
| 16             | 1.42  | 3.40                                                       | 1.00  | 6.37   | 18.50                | 35.90  | 5.70   | 4.16                     | 4.93  | 1.14  | 3.61  | 2.80  |                |
| 17             | 2.34  | 2.26                                                       | 0.68  | 6.11   | 17.10                | 24.93  | 5.97   | 3.72                     | 3.61  | 1.56  | 3.20  | 3.20  |                |
| 18             | 2.80  | 1.07                                                       | 0.68  | 7.86   | 15.35                | 20.64  | 25.13  | 4.27                     | 2.80  | 1.56  | 3.20  | 3.00  |                |
| 19             | 3.10  | 0.68                                                       | 0.68  | 8.27   | 9.64                 | 15.88  | 73.16  | 23.38                    | 2.70  | 2.70  | 3.20  | 2.70  |                |
| 20             | 2.70  | 0.68                                                       | 0.72  | 7.45   | 7.45                 | 12.90  | 71.10  | 40.46                    | 2.50  | 2.70  | 3.10  | 2.70  |                |
| 21             | 2.18  | 0.64                                                       | 0.48  | 7.86   | 10.11                | 9.64   | 58.68  | 29.96                    | 2.18  | 2.90  | 2.70  | 2.90  |                |
| 22             | 1.14  | 0.48                                                       | 0.64  | 6.64   | 35.90                | 9.64   | 66.62  | 16.05                    | 1.70  | 3.10  | 2.70  | 3.20  |                |
| 23             | 1.49  | 0.36                                                       | 0.76  | 4.82   | 45.32                | 6.37   | 46.85  | 8.86                     | 1.14  | 2.80  | 2.70  | 3.20  |                |
| 24             | 3.30  | 0.42                                                       | 0.30  | 15.35  | 29.96                | 4.71   | 25.13  | 5.59                     | 0.88  | 3.40  | 2.50  | 3.40  |                |
| 25             | 3.10  | 0.88                                                       | 0.36  | 22.21  | 17.10                | 6.64   | 23.76  | 4.49                     | 0.72  | 3.40  | 1.86  | 3.72  |                |
| 26             | 2.70  | 0.42                                                       | 0.36  | 17.98  | 11.85                | 11.19  | 17.27  | 3.72                     | 0.68  | 2.90  | 2.18  | 3.94  |                |
| 27             | 2.42  | 0.68                                                       | 0.48  | 15.00  | 7.45                 | 24.55  | 12.02  | 3.94                     | 0.68  | 4.38  | 3.20  | 3.72  |                |
| 28             | 1.42  | 0.68                                                       | 1.07  | 12.90  | 5.97                 | 46.60  | 10.41  | 4.38                     | 0.68  | 4.16  | 3.50  | 3.72  |                |
| 29             | 1.07  | 0.84                                                       | 1.49  | 11.67  | 4.82                 | 43.34  | 10.41  | 5.04                     | 0.68  | 3.72  |       | 3.72  |                |
| 30             | 0.96  | 0.68                                                       | 1.42  | 15.88  | 3.94                 | 32.14  | 11.04  | 4.71                     | 0.68  | 3.72  |       | 3.72  |                |
| 31             |       | 0.68                                                       |       | 24.74  | 6.37                 |        | 11.04  |                          | 0.68  | 3.94  |       | 3.72  |                |
| Total          | 54.02 | 69.61                                                      | 29.22 | 272.28 | 568.93               | 710.60 | 686.72 | 261.07                   | 80.60 | 84.86 | 97.54 | 89.30 | 3004.75 CMSDAY |
| Mean           | 1.80  | 2.25                                                       | 0.97  | 8.78   | 18.35                | 23.69  | 22.15  | 8.70                     | 2.60  | 2.74  | 3.48  | 2.88  | 8.23 CMS       |
| Max            | 3.30  | 5.15                                                       | 2.02  | 24.74  | 66.34                | 54.44  | 73.16  | 40.46                    | 5.04  | 4.38  | 4.60  | 3.94  | 73.16 CMS      |
| Min            | 0.96  | 0.36                                                       | 0.30  | 0.88   | 2.90                 | 4.71   | 5.70   | 3.72                     | 0.68  | 1.00  | 1.86  | 1.70  | 0.30 CMS       |
| Runoff         | 4.67  | 6.01                                                       | 2.53  | 23.53  | 49.16                | 61.40  | 59.33  | 22.56                    | 6.96  | 7.33  | 8.43  | 7.72  | 259.61 MCM     |
| Momentary Peak | 79.06 | CMS. at 294.47 m. (MSL.) at 22.00 Hours , on Oct 19 , 2013 |       |        |                      |        |        |                          |       |       |       |       |                |
| Runoff Yield   | 6.92  | Liters/Second/Square KM.                                   |       |        | Momentary Peak Yield |        | 66.437 | Liters/Second/Square KM. |       |       |       |       |                |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae Wang at Ban Sop Win , Chiang Mai (P.82)**

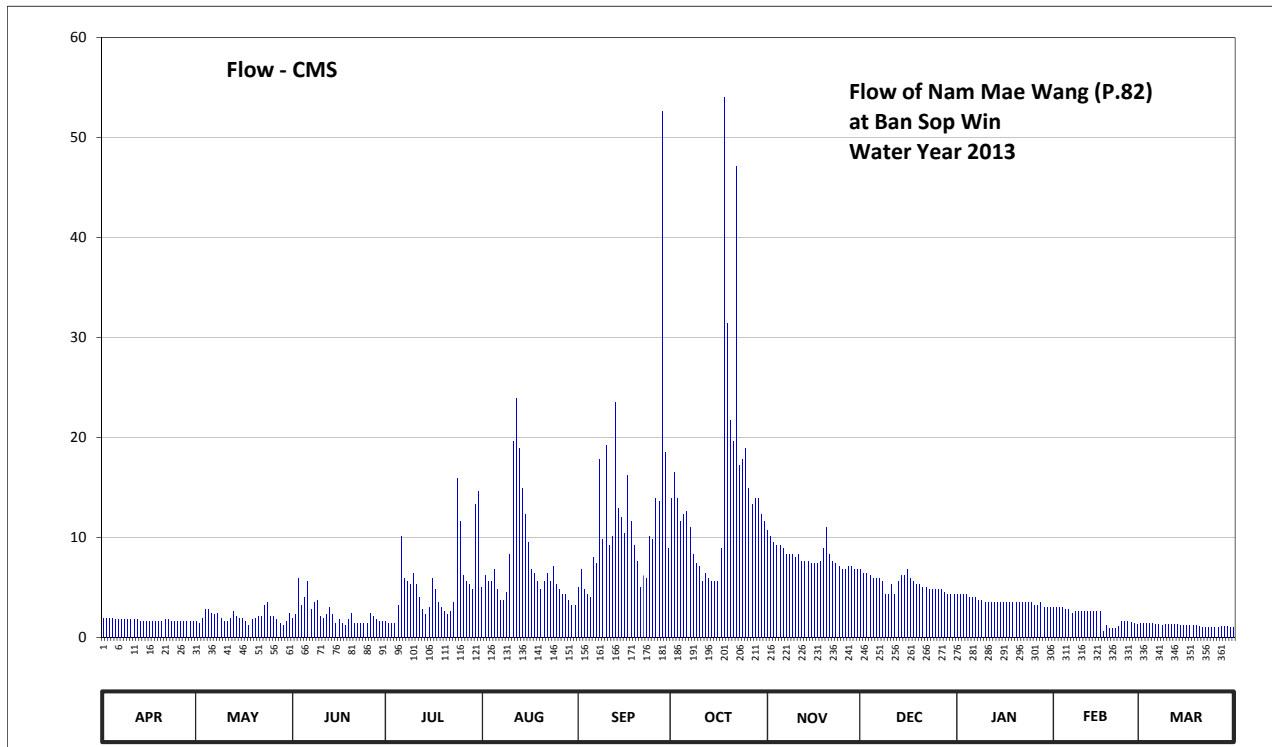
Lat 18 - 39 - 06 N    Long 98 - 41 - 23 E

**Location :** on left bank at Ban Sop Win.

|                                         |                                                                                           |                |               |          |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Sop Win        | <b>Amphoe</b> | Mae Wang | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 389                                                                                       | sq.km.         |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water -                                                                                   | stage recorder |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +400.196                                                                                  | m. (MSL.)      |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |          |                  |                    |
| <b>Location BM</b>                      | On left bank about 5.00 meters from the top staff gage.                                   |                |               |          | <b>Elevation</b> | +406.756 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                |                |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                              |                |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |          |                  |                    |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |                |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |                |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Rather unstable by some scouring.                                                         |                |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |          |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2013. |                |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 401.04 | 401.02 | 401.04                                          | 401.02 | 401.18 | 401.18 | 401.47 | 401.37 | 401.24 | 401.15 | 401.10 | 400.56 |        |
| 2                                | 401.04 | 401.01 | 401.06                                          | 401.01 | 401.22 | 401.24 | 401.55 | 401.35 | 401.23 | 401.15 | 401.10 | 400.56 |        |
| 3                                | 401.04 | 401.04 | 401.21                                          | 401.01 | 401.20 | 401.17 | 401.47 | 401.33 | 401.23 | 401.15 | 401.10 | 400.56 |        |
| 4                                | 401.04 | 401.09 | 401.11                                          | 401.01 | 401.20 | 401.15 | 401.40 | 401.32 | 401.22 | 401.15 | 401.10 | 400.56 |        |
| 5                                | 401.03 | 401.09 | 401.14                                          | 401.11 | 401.24 | 401.14 | 401.42 | 401.32 | 401.21 | 401.14 | 401.09 | 400.56 |        |
| 6                                | 401.03 | 401.07 | 401.20                                          | 401.35 | 401.17 | 401.28 | 401.43 | 401.31 | 401.21 | 401.14 | 401.09 | 400.55 |        |
| 7                                | 401.03 | 401.06 | 401.09                                          | 401.21 | 401.13 | 401.26 | 401.38 | 401.29 | 401.21 | 401.14 | 401.07 | 400.55 |        |
| 8                                | 401.03 | 401.07 | 401.12                                          | 401.20 | 401.13 | 401.59 | 401.29 | 401.29 | 401.20 | 401.13 | 401.08 | 400.54 |        |
| 9                                | 401.03 | 401.04 | 401.13                                          | 401.19 | 401.16 | 401.34 | 401.26 | 401.29 | 401.15 | 401.13 | 401.08 | 400.55 |        |
| 10                               | 401.03 | 401.02 | 401.05                                          | 401.23 | 401.29 | 401.63 | 401.25 | 401.28 | 401.15 | 401.12 | 401.08 | 400.55 |        |
| 11                               | 401.03 | 401.02 | 401.04                                          | 401.19 | 401.64 | 401.32 | 401.20 | 401.29 | 401.19 | 401.12 | 401.08 | 400.55 |        |
| 12                               | 401.03 | 401.04 | 401.06                                          | 401.14 | 401.76 | 401.35 | 401.23 | 401.27 | 401.15 | 401.12 | 401.08 | 400.55 |        |
| 13                               | 401.02 | 401.08 | 401.10                                          | 401.09 | 401.62 | 401.75 | 401.21 | 401.27 | 401.20 | 401.12 | 401.08 | 400.55 |        |
| 14                               | 401.02 | 401.05 | 401.06                                          | 401.06 | 401.50 | 401.44 | 401.20 | 401.27 | 401.22 | 401.12 | 401.08 | 400.54 |        |
| 15                               | 401.02 | 401.04 | 401.01                                          | 401.10 | 401.42 | 401.41 | 401.20 | 401.26 | 401.22 | 401.12 | 401.08 | 400.54 |        |
| 16                               | 401.02 | 401.04 | 401.03                                          | 401.21 | 401.33 | 401.36 | 401.20 | 401.26 | 401.24 | 401.12 | 401.08 | 400.54 |        |
| 17                               | 401.02 | 401.02 | 401.01                                          | 401.17 | 401.24 | 401.54 | 401.31 | 401.26 | 401.21 | 401.12 | 400.90 | 400.54 |        |
| 18                               | 401.02 | 401.00 | 401.00                                          | 401.12 | 401.23 | 401.40 | 402.48 | 401.27 | 401.20 | 401.12 | 400.53 | 400.53 |        |
| 19                               | 401.02 | 401.03 | 401.03                                          | 401.10 | 401.20 | 401.32 | 401.96 | 401.31 | 401.19 | 401.12 | 400.49 | 400.53 |        |
| 20                               | 401.02 | 401.04 | 401.07                                          | 401.08 | 401.17 | 401.27 | 401.70 | 401.38 | 401.19 | 401.12 | 400.49 | 400.52 |        |
| 21                               | 401.03 | 401.05 | 401.01                                          | 401.06 | 401.20 | 401.18 | 401.64 | 401.29 | 401.18 | 401.12 | 400.49 | 400.51 |        |
| 22                               | 401.03 | 401.05 | 401.01                                          | 401.08 | 401.23 | 401.22 | 402.33 | 401.27 | 401.18 | 401.12 | 400.52 | 400.51 |        |
| 23                               | 401.02 | 401.11 | 401.01                                          | 401.12 | 401.20 | 401.21 | 401.57 | 401.26 | 401.17 | 401.12 | 400.59 | 400.51 |        |
| 24                               | 401.02 | 401.12 | 401.01                                          | 401.53 | 401.25 | 401.35 | 401.59 | 401.25 | 401.17 | 401.12 | 400.59 | 400.51 |        |
| 25                               | 401.02 | 401.05 | 401.01                                          | 401.40 | 401.19 | 401.34 | 401.62 | 401.24 | 401.17 | 401.12 | 400.59 | 400.51 |        |
| 26                               | 401.02 | 401.05 | 401.07                                          | 401.22 | 401.17 | 401.47 | 401.50 | 401.24 | 401.17 | 401.11 | 400.58 | 400.51 |        |
| 27                               | 401.02 | 401.03 | 401.05                                          | 401.20 | 401.15 | 401.46 | 401.45 | 401.25 | 401.17 | 401.11 | 400.56 | 400.52 |        |
| 28                               | 401.02 | 401.01 | 401.03                                          | 401.19 | 401.15 | 402.45 | 401.47 | 401.25 | 401.16 | 401.12 | 400.55 | 400.52 |        |
| 29                               | 401.02 | 401.00 | 401.02                                          | 401.17 | 401.13 | 401.61 | 401.47 | 401.24 | 401.15 | 401.10 |        | 400.52 |        |
| 30                               | 401.02 | 401.02 | 401.02                                          | 401.45 | 401.11 | 401.31 | 401.42 | 401.24 | 401.15 | 401.10 |        | 400.51 |        |
| 31                               |        | 401.07 |                                                 | 401.49 | 401.11 |        | 401.40 |        | 401.15 | 401.10 |        | 400.51 |        |
| Mean                             | 401.03 | 401.05 | 401.06                                          | 401.18 | 401.26 | 401.39 | 401.49 | 401.28 | 401.19 | 401.12 | 400.87 | 400.53 |        |
| Max                              | 401.04 | 401.12 | 401.21                                          | 401.53 | 401.76 | 402.45 | 402.48 | 401.38 | 401.24 | 401.15 | 401.10 | 400.56 | 402.48 |
| Min                              | 401.02 | 401.00 | 401.00                                          | 401.01 | 401.11 | 401.14 | 401.20 | 401.24 | 401.15 | 401.10 | 400.49 | 400.51 | 400.49 |
| Annual Max Momentary Gage Height |        | 403.35 | m. (MSL.) , at 07.00 Hours , on Sep 28 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 400.20 | m. (MSL.) , River Bed 400.30 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 405.99 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 406.21 | m. (MSL.) , Drainage Area 389 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------|--------------------------|--------|--------|-------|-------|----------------|
| 1              | 1.98                                                             | 1.64                     | 1.98  | 1.64                 | 5.08   | 5.08    | 13.98  | 10.77                    | 6.80   | 4.30   | 3.00  | 1.42  |                |
| 2              | 1.98                                                             | 1.47                     | 2.32  | 1.47                 | 6.20   | 6.80    | 16.57  | 10.15                    | 6.50   | 4.30   | 3.00  | 1.42  |                |
| 3              | 1.98                                                             | 1.98                     | 5.90  | 1.47                 | 5.60   | 4.82    | 13.98  | 9.53                     | 6.50   | 4.30   | 3.00  | 1.42  |                |
| 4              | 1.98                                                             | 2.83                     | 3.26  | 1.47                 | 5.60   | 4.30    | 11.70  | 9.22                     | 6.20   | 4.30   | 3.00  | 1.42  |                |
| 5              | 1.81                                                             | 2.83                     | 4.04  | 3.26                 | 6.80   | 4.04    | 12.35  | 9.22                     | 5.90   | 4.04   | 2.83  | 1.42  |                |
| 6              | 1.81                                                             | 2.49                     | 5.60  | 10.15                | 4.82   | 8.00    | 12.67  | 8.91                     | 5.90   | 4.04   | 2.83  | 1.35  |                |
| 7              | 1.81                                                             | 2.32                     | 2.83  | 5.90                 | 3.78   | 7.40    | 11.08  | 8.30                     | 5.90   | 4.04   | 2.49  | 1.35  |                |
| 8              | 1.81                                                             | 2.49                     | 3.52  | 5.60                 | 3.78   | 17.87   | 8.30   | 8.30                     | 5.60   | 3.78   | 2.66  | 1.28  |                |
| 9              | 1.81                                                             | 1.98                     | 3.78  | 5.34                 | 4.56   | 9.84    | 7.40   | 8.30                     | 4.30   | 3.78   | 2.66  | 1.35  |                |
| 10             | 1.81                                                             | 1.64                     | 2.15  | 6.50                 | 8.30   | 19.27   | 7.10   | 8.00                     | 4.30   | 3.52   | 2.66  | 1.35  |                |
| 11             | 1.81                                                             | 1.64                     | 1.98  | 5.34                 | 19.62  | 9.22    | 5.60   | 8.30                     | 5.34   | 3.52   | 2.66  | 1.35  |                |
| 12             | 1.81                                                             | 1.98                     | 2.32  | 4.04                 | 23.88  | 10.15   | 6.50   | 7.70                     | 4.30   | 3.52   | 2.66  | 1.35  |                |
| 13             | 1.64                                                             | 2.66                     | 3.00  | 2.83                 | 18.91  | 23.53   | 5.90   | 7.70                     | 5.60   | 3.52   | 2.66  | 1.35  |                |
| 14             | 1.64                                                             | 2.15                     | 2.32  | 2.32                 | 14.95  | 13.00   | 5.60   | 7.70                     | 6.20   | 3.52   | 2.66  | 1.28  |                |
| 15             | 1.64                                                             | 1.98                     | 1.47  | 3.00                 | 12.35  | 12.03   | 5.60   | 7.40                     | 6.20   | 3.52   | 2.66  | 1.28  |                |
| 16             | 1.64                                                             | 1.98                     | 1.81  | 5.90                 | 9.53   | 10.46   | 5.60   | 7.40                     | 6.80   | 3.52   | 2.66  | 1.28  |                |
| 17             | 1.64                                                             | 1.64                     | 1.47  | 4.82                 | 6.80   | 16.25   | 8.91   | 7.40                     | 5.90   | 3.52   | 0.60  | 1.28  |                |
| 18             | 1.64                                                             | 1.30                     | 1.30  | 3.52                 | 6.50   | 11.70   | 54.06  | 7.70                     | 5.60   | 3.52   | 1.21  | 1.21  |                |
| 19             | 1.64                                                             | 1.81                     | 1.81  | 3.00                 | 5.60   | 9.22    | 31.38  | 8.91                     | 5.34   | 3.52   | 0.94  | 1.21  |                |
| 20             | 1.64                                                             | 1.98                     | 2.49  | 2.66                 | 4.82   | 7.70    | 21.75  | 11.08                    | 5.34   | 3.52   | 0.94  | 1.14  |                |
| 21             | 1.81                                                             | 2.15                     | 1.47  | 2.32                 | 5.60   | 5.08    | 19.62  | 8.30                     | 5.08   | 3.52   | 0.94  | 1.07  |                |
| 22             | 1.81                                                             | 2.15                     | 1.47  | 2.66                 | 6.50   | 6.20    | 47.15  | 7.70                     | 5.08   | 3.52   | 1.14  | 1.07  |                |
| 23             | 1.64                                                             | 3.26                     | 1.47  | 3.52                 | 5.60   | 5.90    | 17.23  | 7.40                     | 4.82   | 3.52   | 1.63  | 1.07  |                |
| 24             | 1.64                                                             | 3.52                     | 1.47  | 15.92                | 7.10   | 10.15   | 17.87  | 7.10                     | 4.82   | 3.52   | 1.63  | 1.07  |                |
| 25             | 1.64                                                             | 2.15                     | 1.47  | 11.70                | 5.34   | 9.84    | 18.91  | 6.80                     | 4.82   | 3.52   | 1.63  | 1.07  |                |
| 26             | 1.64                                                             | 2.15                     | 2.49  | 6.20                 | 4.82   | 13.98   | 14.95  | 6.80                     | 4.82   | 3.26   | 1.56  | 1.07  |                |
| 27             | 1.64                                                             | 1.81                     | 2.15  | 5.60                 | 4.30   | 13.65   | 13.33  | 7.10                     | 4.82   | 3.26   | 1.42  | 1.14  |                |
| 28             | 1.64                                                             | 1.47                     | 1.81  | 5.34                 | 4.30   | 52.65   | 13.98  | 7.10                     | 4.56   | 3.52   | 1.35  | 1.14  |                |
| 29             | 1.64                                                             | 1.30                     | 1.64  | 4.82                 | 3.78   | 18.55   | 13.98  | 6.80                     | 4.30   | 3.00   |       | 1.14  |                |
| 30             | 1.64                                                             | 1.64                     | 1.64  | 13.33                | 3.26   | 8.91    | 12.35  | 6.80                     | 4.30   | 3.00   |       | 1.07  |                |
| 31             |                                                                  | 2.49                     |       | 14.62                | 3.26   |         | 11.70  |                          | 4.30   | 3.00   |       | 1.07  |                |
| Total          | 52.26                                                            | 64.88                    | 72.43 | 166.26               | 231.34 | 355.59  | 467.10 | 243.89                   | 166.24 | 112.24 | 59.08 | 38.49 | 2029.80 CMSDAY |
| Mean           | 1.74                                                             | 2.09                     | 2.41  | 5.36                 | 7.46   | 11.85   | 15.07  | 8.13                     | 5.36   | 3.62   | 2.11  | 1.24  | 5.56 CMS       |
| Max            | 1.98                                                             | 3.52                     | 5.90  | 15.92                | 23.88  | 52.65   | 54.06  | 11.08                    | 6.80   | 4.30   | 3.00  | 1.42  | 54.06 CMS      |
| Min            | 1.64                                                             | 1.30                     | 1.30  | 1.47                 | 3.26   | 4.04    | 5.60   | 6.80                     | 4.30   | 3.00   | 0.60  | 1.07  | 0.60 CMS       |
| Runoff         | 4.52                                                             | 5.61                     | 6.26  | 14.37                | 19.99  | 30.72   | 40.36  | 21.07                    | 14.36  | 9.70   | 5.11  | 3.33  | 175.38 MCM     |
| Momentary Peak | 98.25 CMS. at 403.35 m. (MSL.) at 07.00 Hours , on Sep 28 , 2013 |                          |       |                      |        |         |        |                          |        |        |       |       |                |
| Runoff Yield   | 14.30                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 252.571 |        | Liters/Second/Square KM. |        |        |       |       |                |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae Wang at Ban Phan Ton , Chiang Mai (P.84)**

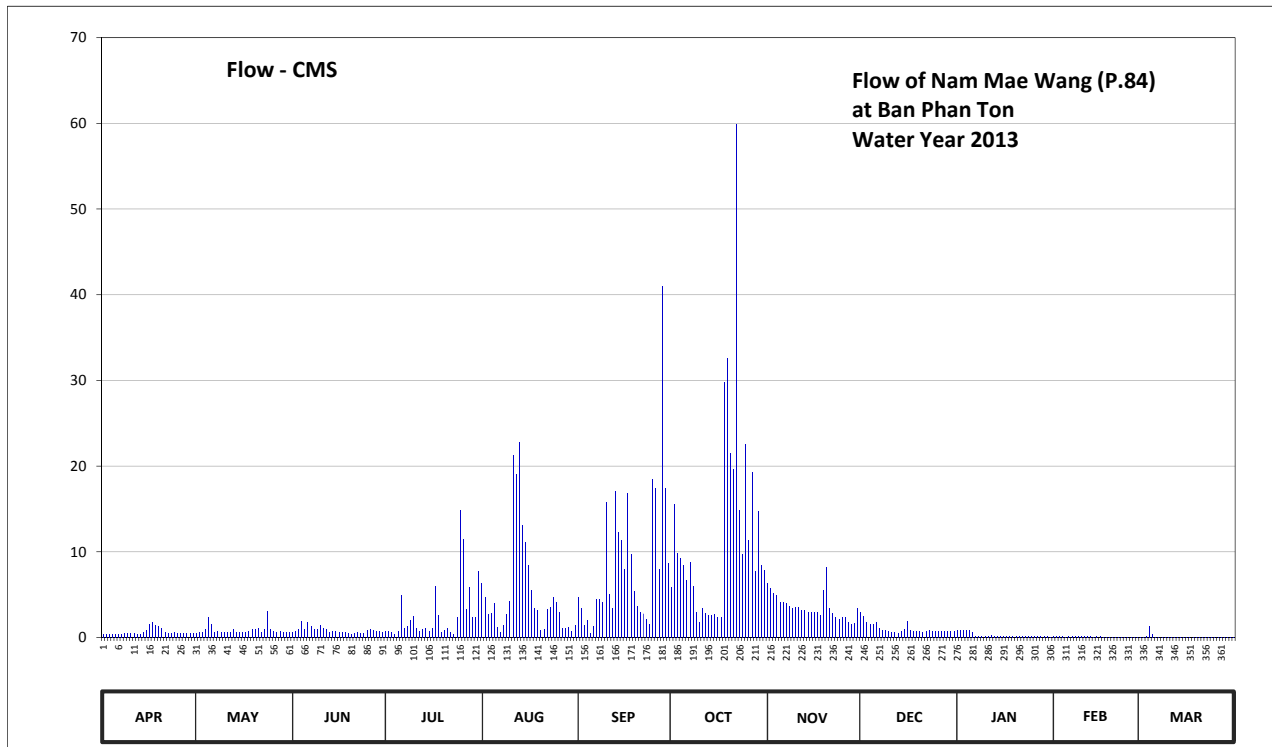
Lat 18 - 35 - 19 N    Long 98 - 47 - 58 E

**Location : on left bank at Ban Phan Ton.**

|                                         |                                                                                           |           |               |          |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Phan Ton  | <b>Amphoe</b> | Mae Wang | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 491                                                                                       | sq.km.    |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +303.244                                                                                  | m. (MSL.) |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |          |                  |                    |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |           |               |          | <b>Elevation</b> | +309.244 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording.                                                                                |           |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                              |           |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                    |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |           |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |           |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |          |                  |                    |
| <b>General Description</b>              | Records Fair. Stage-discharge relation defined by 42 discharge measurements made in 2013. |           |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 303.53 | 303.57 | 303.59      | 303.60 | 304.17                            | 304.04 | 304.13            | 304.17 | 303.89 | 303.64 | 303.42 | 303.37 |        |
|                                  | 2  | 303.53 | 303.58 | 303.60      | 303.60 | 304.04                            | 303.93 | 304.74            | 304.12 | 303.85 | 303.63 | 303.42 | 303.39 |        |
|                                  | 3  | 303.54 | 303.58 | 303.65      | 303.59 | 303.87                            | 303.73 | 304.40            | 304.08 | 303.78 | 303.63 | 303.44 | 303.45 |        |
|                                  | 4  | 303.55 | 303.67 | 303.79      | 303.54 | 303.88                            | 303.80 | 304.36            | 304.06 | 303.74 | 303.64 | 303.43 | 303.71 |        |
|                                  | 5  | 303.53 | 303.84 | 303.66      | 303.61 | 303.98                            | 303.56 | 304.31            | 303.99 | 303.75 | 303.63 | 303.41 | 303.55 |        |
|                                  | 6  | 303.54 | 303.74 | 303.78      | 304.06 | 303.70                            | 303.72 | 304.19            | 303.99 | 303.78 | 303.59 | 303.44 | 303.39 |        |
|                                  | 7  | 303.55 | 303.59 | 303.71      | 303.69 | 303.59                            | 304.02 | 304.33            | 303.98 | 303.69 | 303.50 | 303.43 | 303.39 |        |
|                                  | 8  | 303.56 | 303.60 | 303.66      | 303.71 | 303.73                            | 304.02 | 304.14            | 303.95 | 303.64 | 303.47 | 303.44 | 303.36 |        |
|                                  | 9  | 303.57 | 303.58 | 303.67      | 303.80 | 303.87                            | 303.99 | 303.89            | 303.93 | 303.64 | 303.48 | 303.44 | 303.33 |        |
|                                  | 10 | 303.57 | 303.59 | 303.73      | 303.85 | 304.00                            | 304.75 | 303.78            | 303.94 | 303.62 | 303.46 | 303.44 | 303.34 |        |
|                                  | 11 | 303.56 | 303.59 | 303.69      | 303.68 | 305.03                            | 304.07 | 303.93            | 303.94 | 303.59 | 303.49 | 303.46 | 303.35 |        |
|                                  | 12 | 303.55 | 303.59 | 303.65      | 303.61 | 304.92                            | 303.93 | 303.88            | 303.91 | 303.59 | 303.51 | 303.44 | 303.35 |        |
|                                  | 13 | 303.55 | 303.65 | 303.59      | 303.65 | 305.10                            | 304.82 | 303.86            | 303.91 | 303.56 | 303.48 | 303.43 | 303.33 |        |
|                                  | 14 | 303.59 | 303.59 | 303.60      | 303.68 | 304.60                            | 304.55 | 303.86            | 303.89 | 303.62 | 303.48 | 303.41 | 303.35 |        |
|                                  | 15 | 303.63 | 303.58 | 303.61      | 303.60 | 304.48                            | 304.49 | 303.87            | 303.89 | 303.66 | 303.45 | 303.42 | 303.36 |        |
|                                  | 16 | 303.74 | 303.58 | 303.59      | 303.69 | 304.31                            | 304.28 | 303.84            | 303.89 | 303.79 | 303.42 | 303.43 | 303.34 |        |
|                                  | 17 | 303.77 | 303.58 | 303.59      | 304.14 | 304.10                            | 304.81 | 303.83            | 303.89 | 303.64 | 303.42 | 303.39 | 303.36 |        |
|                                  | 18 | 303.73 | 303.60 | 303.58      | 303.86 | 303.93                            | 304.39 | 305.41            | 303.86 | 303.62 | 303.42 | 303.38 | 303.38 |        |
|                                  | 19 | 303.72 | 303.65 | 303.56      | 303.59 | 303.91                            | 304.09 | 305.53            | 304.10 | 303.61 | 303.42 | 303.39 | 303.36 |        |
|                                  | 20 | 303.69 | 303.67 | 303.55      | 303.64 | 303.64                            | 303.95 | 305.04            | 304.29 | 303.60 | 303.42 | 303.40 | 303.35 |        |
|                                  | 21 | 303.58 | 303.68 | 303.56      | 303.68 | 303.65                            | 303.89 | 304.95            | 303.93 | 303.59 | 303.42 | 303.41 | 303.35 |        |
|                                  | 22 | 303.56 | 303.59 | 303.59      | 303.58 | 303.92                            | 303.87 | 306.49            | 303.88 | 303.62 | 303.43 | 303.39 | 303.33 |        |
|                                  | 23 | 303.57 | 303.65 | 303.56      | 303.55 | 303.94                            | 303.81 | 304.70            | 303.84 | 303.64 | 303.46 | 303.40 | 303.33 |        |
|                                  | 24 | 303.58 | 303.90 | 303.57      | 303.84 | 304.04                            | 303.75 | 304.39            | 303.81 | 303.61 | 303.44 | 303.39 | 303.30 |        |
|                                  | 25 | 303.57 | 303.67 | 303.64      | 304.70 | 303.99                            | 304.89 | 305.09            | 303.83 | 303.60 | 303.44 | 303.38 | 303.31 |        |
|                                  | 26 | 303.56 | 303.62 | 303.65      | 304.50 | 303.89                            | 304.84 | 304.49            | 303.84 | 303.60 | 303.45 | 303.37 | 303.30 |        |
|                                  | 27 | 303.57 | 303.59 | 303.63      | 303.92 | 303.68                            | 304.28 | 304.93            | 303.78 | 303.62 | 303.45 | 303.39 | 303.32 |        |
|                                  | 28 | 303.56 | 303.60 | 303.60      | 304.13 | 303.69                            | 305.86 | 304.26            | 303.74 | 303.61 | 303.43 | 303.38 | 303.34 |        |
|                                  | 29 | 303.57 | 303.59 | 303.60      | 303.84 | 303.70                            | 304.84 | 304.69            | 303.76 | 303.62 | 303.42 |        | 303.34 |        |
|                                  | 30 | 303.57 | 303.59 | 303.59      | 303.83 | 303.60                            | 304.32 | 304.31            | 303.93 | 303.62 | 303.42 |        | 303.34 |        |
|                                  | 31 |        | 303.59 |             | 304.26 | 303.73                            |        | 304.27            |        | 303.61 | 303.41 |        | 303.33 |        |
| Mean                             |    | 303.59 | 303.63 | 303.63      | 303.81 | 304.02                            | 304.24 | 304.45            | 303.94 | 303.66 | 303.48 | 303.41 | 303.37 |        |
| Max                              |    | 303.77 | 303.90 | 303.79      | 304.70 | 305.10                            | 305.86 | 306.49            | 304.29 | 303.89 | 303.64 | 303.46 | 303.71 | 306.49 |
| Min                              |    | 303.53 | 303.57 | 303.55      | 303.54 | 303.59                            | 303.56 | 303.78            | 303.74 | 303.56 | 303.41 | 303.37 | 303.30 | 303.30 |
| Annual Max Momentary Gage Height |    |        | 307.34 | m. (MSL.) , |        | at 09.00 Hours , on Oct 22 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 303.24 | m. (MSL.) , |        | River Bed                         | 303.20 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 309.05 | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 309.06 | m. (MSL.) , |        | Drainage Area                     | 491    | Square Kilometers |        |        |        |        |        |        |

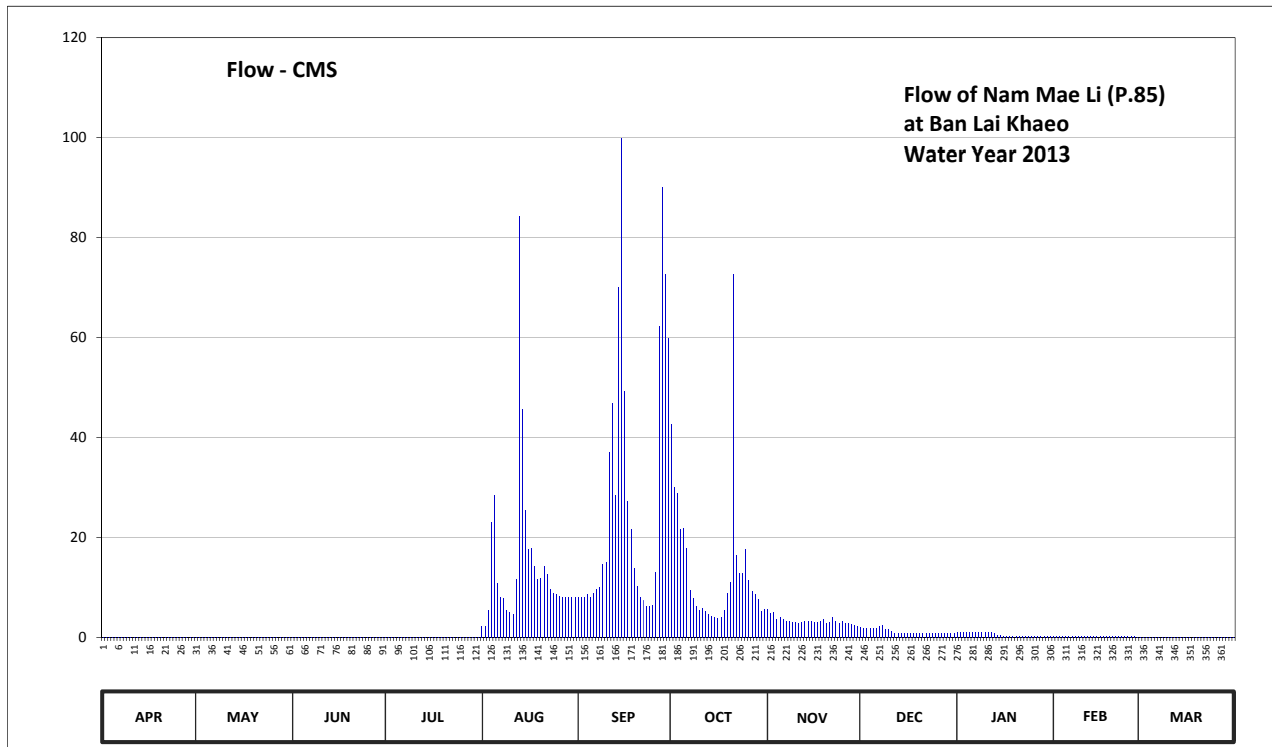


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|------|------|------|----------------|
| 1              | 0.35                                                             | 0.55                     | 0.65  | 0.70                 | 6.41   | 4.72    | 5.89                     | 6.41   | 2.99  | 0.90 | 0.12 | 0.08 |                |
| 2              | 0.35                                                             | 0.60                     | 0.70  | 0.70                 | 4.72   | 3.43    | 15.62                    | 5.76   | 2.55  | 0.85 | 0.12 | 0.10 |                |
| 3              | 0.40                                                             | 0.60                     | 0.95  | 0.65                 | 2.77   | 1.44    | 9.90                     | 5.24   | 1.84  | 0.85 | 0.14 | 0.15 |                |
| 4              | 0.45                                                             | 1.05                     | 1.92  | 0.40                 | 2.88   | 2.00    | 9.28                     | 4.98   | 1.52  | 0.90 | 0.13 | 1.28 |                |
| 5              | 0.35                                                             | 2.44                     | 1.00  | 0.75                 | 3.98   | 0.50    | 8.50                     | 4.09   | 1.60  | 0.85 | 0.11 | 0.45 |                |
| 6              | 0.40                                                             | 1.52                     | 1.84  | 4.98                 | 1.20   | 1.36    | 6.67                     | 4.09   | 1.84  | 0.65 | 0.14 | 0.10 |                |
| 7              | 0.45                                                             | 0.65                     | 1.28  | 1.15                 | 0.65   | 4.46    | 8.81                     | 3.98   | 1.15  | 0.20 | 0.13 | 0.10 |                |
| 8              | 0.50                                                             | 0.70                     | 1.00  | 1.28                 | 1.44   | 4.46    | 6.02                     | 3.65   | 0.90  | 0.17 | 0.14 | 0.08 |                |
| 9              | 0.55                                                             | 0.60                     | 1.05  | 2.00                 | 2.77   | 4.09    | 2.99                     | 3.43   | 0.90  | 0.18 | 0.14 | 0.06 |                |
| 10             | 0.55                                                             | 0.65                     | 1.44  | 2.55                 | 4.20   | 15.80   | 1.84                     | 3.54   | 0.80  | 0.16 | 0.14 | 0.07 |                |
| 11             | 0.50                                                             | 0.65                     | 1.15  | 1.10                 | 21.34  | 5.11    | 3.43                     | 3.54   | 0.65  | 0.19 | 0.16 | 0.08 |                |
| 12             | 0.45                                                             | 0.65                     | 0.95  | 0.75                 | 19.10  | 3.43    | 2.88                     | 3.21   | 0.65  | 0.25 | 0.14 | 0.08 |                |
| 13             | 0.45                                                             | 0.95                     | 0.65  | 0.95                 | 22.85  | 17.10   | 2.66                     | 3.21   | 0.50  | 0.18 | 0.13 | 0.06 |                |
| 14             | 0.65                                                             | 0.65                     | 0.70  | 1.10                 | 13.10  | 12.30   | 2.66                     | 2.99   | 0.80  | 0.18 | 0.11 | 0.08 |                |
| 15             | 0.85                                                             | 0.60                     | 0.75  | 0.70                 | 11.18  | 11.34   | 2.77                     | 2.99   | 1.00  | 0.15 | 0.12 | 0.08 |                |
| 16             | 1.52                                                             | 0.60                     | 0.65  | 1.15                 | 8.50   | 8.04    | 2.44                     | 2.99   | 1.92  | 0.12 | 0.13 | 0.07 |                |
| 17             | 1.76                                                             | 0.60                     | 0.65  | 6.02                 | 5.50   | 16.90   | 2.33                     | 2.99   | 0.90  | 0.12 | 0.10 | 0.08 |                |
| 18             | 1.44                                                             | 0.70                     | 0.60  | 2.66                 | 3.43   | 9.75    | 29.74                    | 2.66   | 0.80  | 0.12 | 0.09 | 0.09 |                |
| 19             | 1.36                                                             | 0.95                     | 0.50  | 0.65                 | 3.21   | 5.37    | 32.55                    | 5.50   | 0.75  | 0.12 | 0.10 | 0.08 |                |
| 20             | 1.15                                                             | 1.05                     | 0.45  | 0.90                 | 0.90   | 3.65    | 21.56                    | 8.20   | 0.70  | 0.12 | 0.10 | 0.08 |                |
| 21             | 0.60                                                             | 1.10                     | 0.50  | 1.10                 | 0.95   | 2.99    | 19.70                    | 3.43   | 0.65  | 0.12 | 0.11 | 0.08 |                |
| 22             | 0.50                                                             | 0.65                     | 0.65  | 0.60                 | 3.32   | 2.77    | 59.86                    | 2.88   | 0.80  | 0.13 | 0.10 | 0.06 |                |
| 23             | 0.55                                                             | 0.95                     | 0.50  | 0.45                 | 3.54   | 2.11    | 14.90                    | 2.44   | 0.90  | 0.16 | 0.10 | 0.06 |                |
| 24             | 0.60                                                             | 3.10                     | 0.55  | 2.44                 | 4.72   | 1.60    | 9.75                     | 2.11   | 0.75  | 0.14 | 0.10 | 0.05 |                |
| 25             | 0.55                                                             | 1.05                     | 0.90  | 14.90                | 4.09   | 18.50   | 22.63                    | 2.33   | 0.70  | 0.14 | 0.09 | 0.05 |                |
| 26             | 0.50                                                             | 0.80                     | 0.95  | 11.50                | 2.99   | 17.50   | 11.34                    | 2.44   | 0.70  | 0.15 | 0.08 | 0.05 |                |
| 27             | 0.55                                                             | 0.65                     | 0.85  | 3.32                 | 1.10   | 8.04    | 19.30                    | 1.84   | 0.80  | 0.15 | 0.10 | 0.06 |                |
| 28             | 0.50                                                             | 0.70                     | 0.70  | 5.89                 | 1.15   | 40.92   | 7.73                     | 1.52   | 0.75  | 0.13 | 0.09 | 0.07 |                |
| 29             | 0.55                                                             | 0.65                     | 0.70  | 2.44                 | 1.20   | 17.50   | 14.72                    | 1.68   | 0.80  | 0.12 |      | 0.07 |                |
| 30             | 0.55                                                             | 0.65                     | 0.65  | 2.33                 | 0.70   | 8.66    | 8.50                     | 3.43   | 0.80  | 0.12 |      | 0.07 |                |
| 31             |                                                                  | 0.65                     |       | 7.73                 | 1.44   |         | 7.88                     |        | 0.75  | 0.11 |      | 0.06 |                |
| Total          | 19.93                                                            | 27.71                    | 25.83 | 83.84                | 165.33 | 255.84  | 374.85                   | 107.55 | 33.16 | 8.73 | 3.26 | 3.93 | 1109.96 CMSDAY |
| Mean           | 0.66                                                             | 0.89                     | 0.86  | 2.70                 | 5.33   | 8.53    | 12.09                    | 3.59   | 1.07  | 0.28 | 0.12 | 0.13 | 3.04 CMS       |
| Max            | 1.76                                                             | 3.10                     | 1.92  | 14.90                | 22.85  | 40.92   | 59.86                    | 8.20   | 2.99  | 0.90 | 0.16 | 1.28 | 59.86 CMS      |
| Min            | 0.35                                                             | 0.55                     | 0.45  | 0.40                 | 0.65   | 0.50    | 1.84                     | 1.52   | 0.50  | 0.11 | 0.08 | 0.05 | 0.05 CMS       |
| Runoff         | 1.72                                                             | 2.39                     | 2.23  | 7.24                 | 14.29  | 22.11   | 32.39                    | 9.29   | 2.87  | 0.75 | 0.28 | 0.34 | 95.90 MCM      |
| Momentary Peak | 91.04 CMS. at 307.34 m. (MSL.) at 09.00 Hours , on Oct 22 , 2013 |                          |       |                      |        |         |                          |        |       |      |      |      |                |
| Runoff Yield   | 6.19                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 185.418 | Liters/Second/Square KM. |        |       |      |      |      |                |







**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun  | Jul  | Aug                  | Sep    | Oct    | Nov    | Dec                      | Jan   | Feb  | Mar  | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|------|------|----------------------|--------|--------|--------|--------------------------|-------|------|------|----------------|
| 1              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 2.20                 | 8.16   | 42.64  | 5.59   | 2.12                     | 1.05  | 0.28 | 0.17 |                |
| 2              | 0.07                                                              | 0.09                     | 0.07 | 0.07 | 2.36                 | 8.16   | 30.17  | 4.93   | 1.96                     | 1.05  | 0.28 | 0.17 |                |
| 3              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 5.48                 | 8.16   | 28.94  | 5.04   | 1.96                     | 1.05  | 0.28 | 0.17 |                |
| 4              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 23.04                | 8.65   | 21.62  | 3.60   | 1.96                     | 1.05  | 0.28 | 0.17 |                |
| 5              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 28.53                | 8.16   | 21.97  | 4.20   | 1.96                     | 1.05  | 0.32 | 0.17 |                |
| 6              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 10.93                | 8.98   | 17.92  | 3.60   | 1.96                     | 1.05  | 0.38 | 0.17 |                |
| 7              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 7.99                 | 9.64   | 9.47   | 3.30   | 2.28                     | 1.05  | 0.38 | 0.11 |                |
| 8              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 7.82                 | 10.13  | 7.82   | 3.20   | 2.44                     | 1.05  | 0.38 | 0.05 |                |
| 9              | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 5.48                 | 14.79  | 6.22   | 3.10   | 1.62                     | 1.05  | 0.38 | 0.05 |                |
| 10             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 5.15                 | 15.07  | 5.48   | 3.00   | 1.62                     | 1.05  | 0.38 | 0.05 |                |
| 11             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 4.71                 | 37.03  | 5.83   | 2.90   | 1.38                     | 1.05  | 0.38 | 0.05 |                |
| 12             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 11.77                | 46.85  | 5.26   | 3.00   | 0.90                     | 1.05  | 0.38 | 0.05 |                |
| 13             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 84.24                | 28.53  | 4.71   | 3.30   | 0.90                     | 0.95  | 0.38 | 0.05 |                |
| 14             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 45.70                | 70.00  | 4.30   | 3.30   | 0.90                     | 0.58  | 0.38 | 0.05 |                |
| 15             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 25.53                | 99.80  | 4.10   | 3.20   | 0.90                     | 0.47  | 0.38 | 0.05 |                |
| 16             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 17.64                | 49.15  | 3.90   | 3.10   | 0.90                     | 0.30  | 0.38 | 0.05 |                |
| 17             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 17.92                | 27.30  | 4.00   | 3.10   | 0.90                     | 0.30  | 0.38 | 0.05 |                |
| 18             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 14.29                | 21.62  | 5.48   | 3.40   | 0.90                     | 0.28  | 0.38 | 0.05 |                |
| 19             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 11.77                | 13.87  | 8.81   | 3.60   | 0.90                     | 0.28  | 0.38 | 0.05 |                |
| 20             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 11.98                | 10.30  | 11.14  | 2.80   | 0.90                     | 0.28  | 0.38 | 0.05 |                |
| 21             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 14.29                | 8.16   | 72.70  | 3.00   | 0.85                     | 0.28  | 0.38 | 0.05 |                |
| 22             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 12.61                | 7.49   | 16.50  | 4.10   | 0.80                     | 0.28  | 0.38 | 0.05 |                |
| 23             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 9.64                 | 6.35   | 12.82  | 3.30   | 0.80                     | 0.28  | 0.38 | 0.05 |                |
| 24             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 8.81                 | 6.35   | 12.82  | 2.80   | 0.80                     | 0.28  | 0.38 | 0.05 |                |
| 25             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 8.65                 | 6.48   | 17.64  | 3.20   | 0.80                     | 0.28  | 0.38 | 0.05 |                |
| 26             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 8.32                 | 13.03  | 11.56  | 2.80   | 0.80                     | 0.28  | 0.38 | 0.05 |                |
| 27             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 8.16                 | 62.32  | 9.31   | 2.80   | 0.80                     | 0.28  | 0.25 | 0.05 |                |
| 28             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 8.16                 | 90.12  | 8.65   | 2.70   | 0.80                     | 0.28  | 0.17 | 0.05 |                |
| 29             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 8.16                 | 72.70  | 7.66   | 2.52   | 0.80                     | 0.28  |      | 0.05 |                |
| 30             | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 8.16                 | 59.76  | 5.37   | 2.36   | 0.80                     | 0.28  |      | 0.05 |                |
| 31             |                                                                   | 0.07                     |      | 0.07 | 8.16                 |        | 5.59   |        | 0.80                     | 0.28  |      | 0.05 |                |
| Total          | 2.10                                                              | 2.19                     | 2.10 | 2.17 | 447.65               | 837.11 | 430.40 | 100.84 | 38.21                    | 19.12 | 9.84 | 2.33 | 1894.06 CMSDAY |
| Mean           | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 14.44                | 27.90  | 13.88  | 3.36   | 1.23                     | 0.62  | 0.35 | 0.08 | 5.19 CMS       |
| Max            | 0.07                                                              | 0.09                     | 0.07 | 0.07 | 84.24                | 99.80  | 72.70  | 5.59   | 2.44                     | 1.05  | 0.38 | 0.17 | 99.80 CMS      |
| Min            | 0.07                                                              | 0.07                     | 0.07 | 0.07 | 2.20                 | 6.35   | 3.90   | 2.36   | 0.80                     | 0.28  | 0.17 | 0.05 | 0.05 CMS       |
| Runoff         | 0.18                                                              | 0.19                     | 0.18 | 0.19 | 38.68                | 72.33  | 37.19  | 8.71   | 3.30                     | 1.65  | 0.85 | 0.20 | 163.65 MCM     |
| Momentary Peak | 114.20 CMS. at 292.20 m. (MSL.) at 15.00 Hours , on Sep 15 , 2013 |                          |      |      |                      |        |        |        |                          |       |      |      |                |
| Runoff Yield   | 2.55                                                              | Liters/Second/Square KM. |      |      | Momentary Peak Yield |        |        | 56.063 | Liters/Second/Square KM. |       |      |      |                |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae On at Ban Hong , Chiang Mai (P.86**

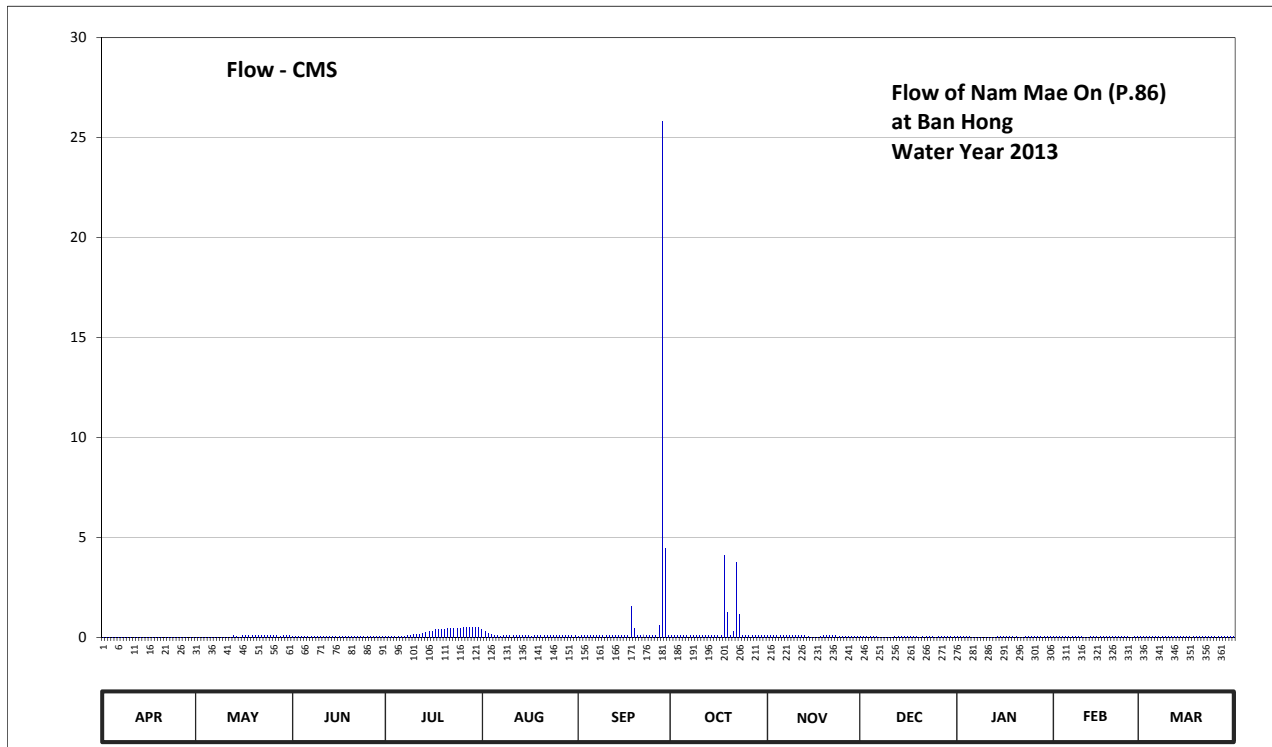
Lat 18 - 44 - 18 N      Long 99 - 13 - 18 E

**Location : on left bank at Ban Hong**

|                                         |                                                                                           |           |               |               |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Hong      | <b>Amphoe</b> | San Kamphaeng | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 97                                                                                        | sq.km.    |               |               |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +341.205                                                                                  | m. (MSL.) |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |               |                  |                    |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |           |               |               | <b>Elevation</b> | +345.535 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                              |           |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |               |                  |                    |
| <b>Period of Rating</b>                 | 2004 to date                                                                              |           |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                              |           |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |               |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2013. |           |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

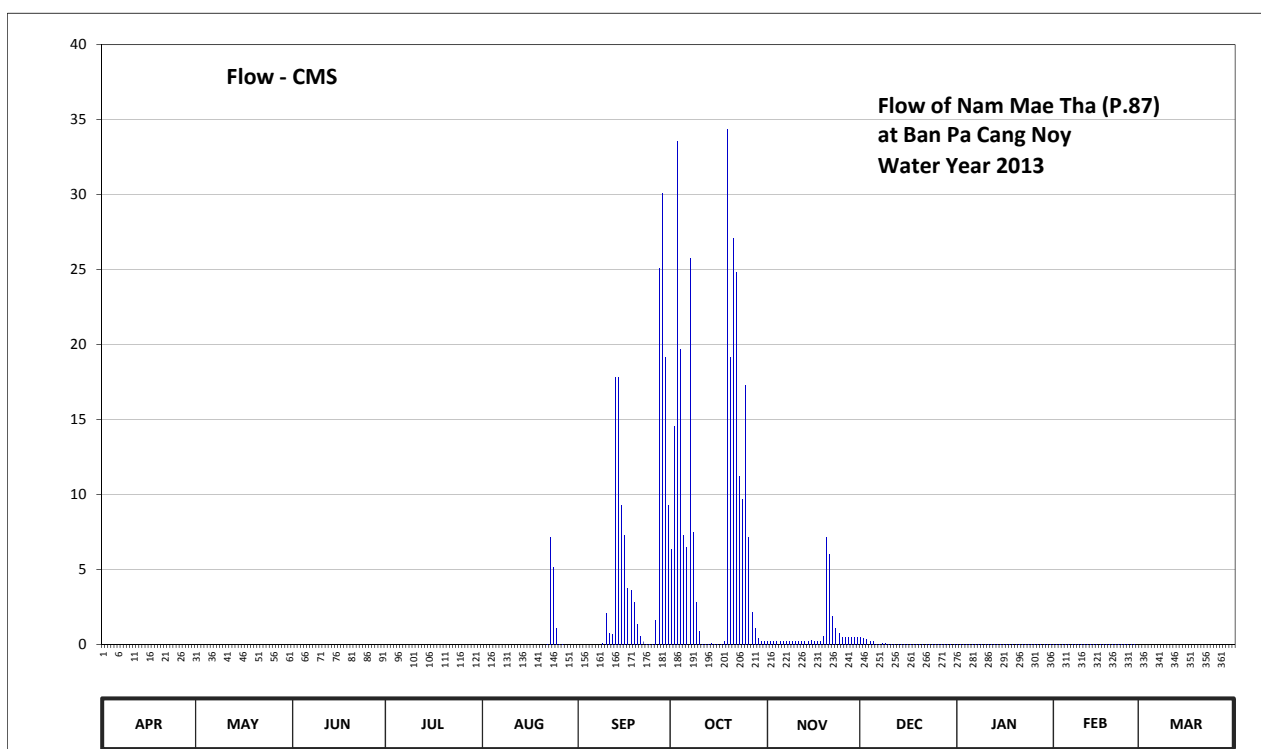
| Date                             | Apr    | May    | Jun    | Jul                                            | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------|------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 340.96 | 340.96 | 341.08 | 341.01                                         | 341.18 | 341.08 | 341.11 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 2                                | 340.96 | 340.96 | 341.03 | 341.01                                         | 341.16 | 341.10 | 341.11 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 3                                | 340.96 | 340.98 | 341.01 | 341.02                                         | 341.13 | 341.11 | 341.11 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 4                                | 340.96 | 340.96 | 341.01 | 341.03                                         | 341.12 | 341.11 | 341.11 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 5                                | 340.96 | 340.96 | 341.01 | 341.05                                         | 341.11 | 341.11 | 341.11 | 341.11 | 341.01 | 341.00 | 341.01 | 341.00 |        |
| 6                                | 340.96 | 340.96 | 341.01 | 341.07                                         | 341.11 | 341.11 | 341.11 | 341.11 | 341.00 | 340.98 | 341.01 | 341.01 |        |
| 7                                | 340.96 | 340.96 | 341.01 | 341.09                                         | 341.09 | 341.11 | 341.11 | 341.11 | 340.99 | 340.98 | 341.01 | 341.01 |        |
| 8                                | 340.96 | 340.96 | 341.01 | 341.11                                         | 341.11 | 341.11 | 341.11 | 341.11 | 340.98 | 340.98 | 341.01 | 341.01 |        |
| 9                                | 340.97 | 340.96 | 341.01 | 341.11                                         | 341.11 | 341.11 | 341.11 | 341.11 | 340.98 | 340.98 | 341.01 | 341.01 |        |
| 10                               | 340.96 | 340.96 | 341.02 | 341.12                                         | 341.11 | 341.11 | 341.11 | 341.11 | 340.98 | 340.98 | 341.00 | 341.01 |        |
| 11                               | 340.96 | 340.96 | 341.01 | 341.12                                         | 341.11 | 341.11 | 341.11 | 341.11 | 340.99 | 340.98 | 340.99 | 341.01 |        |
| 12                               | 340.96 | 340.98 | 341.01 | 341.12                                         | 341.11 | 341.11 | 341.11 | 341.11 | 341.01 | 340.99 | 340.99 | 341.01 |        |
| 13                               | 340.96 | 341.11 | 341.01 | 341.13                                         | 341.11 | 341.11 | 341.11 | 341.11 | 341.01 | 340.99 | 341.01 | 341.01 |        |
| 14                               | 340.96 | 341.07 | 341.01 | 341.14                                         | 341.11 | 341.11 | 341.11 | 341.03 | 341.01 | 341.00 | 341.01 | 341.01 |        |
| 15                               | 340.96 | 340.99 | 341.01 | 341.15                                         | 341.11 | 341.11 | 341.11 | 340.96 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 16                               | 340.96 | 341.10 | 341.02 | 341.16                                         | 341.10 | 341.11 | 341.11 | 340.96 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 17                               | 340.96 | 341.11 | 341.02 | 341.18                                         | 341.07 | 341.11 | 341.11 | 340.96 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 18                               | 340.96 | 341.11 | 341.02 | 341.18                                         | 341.10 | 341.36 | 341.66 | 341.00 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 19                               | 340.96 | 341.11 | 341.02 | 341.18                                         | 341.11 | 341.19 | 341.32 | 341.10 | 341.00 | 341.01 | 341.01 | 341.01 |        |
| 20                               | 340.96 | 341.11 | 341.02 | 341.18                                         | 341.11 | 341.11 | 341.10 | 341.11 | 340.98 | 341.00 | 341.01 | 341.01 |        |
| 21                               | 340.96 | 341.11 | 341.01 | 341.19                                         | 341.11 | 341.11 | 341.15 | 341.11 | 341.01 | 340.99 | 341.01 | 341.01 |        |
| 22                               | 340.96 | 341.11 | 341.01 | 341.19                                         | 341.11 | 341.11 | 341.62 | 341.11 | 341.01 | 340.99 | 341.01 | 341.01 |        |
| 23                               | 340.96 | 341.11 | 341.01 | 341.19                                         | 341.11 | 341.11 | 341.31 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 24                               | 340.97 | 341.11 | 341.01 | 341.19                                         | 341.11 | 341.11 | 341.11 | 341.07 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 25                               | 340.96 | 341.11 | 341.01 | 341.19                                         | 341.11 | 341.11 | 341.11 | 341.01 | 340.99 | 341.01 | 341.01 | 341.00 |        |
| 26                               | 340.96 | 341.11 | 341.01 | 341.20                                         | 341.11 | 341.11 | 341.11 | 341.01 | 341.01 | 341.01 | 340.99 | 341.01 |        |
| 27                               | 340.96 | 341.11 | 341.01 | 341.20                                         | 341.11 | 341.22 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 28                               | 340.96 | 341.02 | 341.01 | 341.20                                         | 341.11 | 343.11 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 | 341.01 |        |
| 29                               | 340.96 | 341.10 | 341.01 | 341.20                                         | 341.11 | 341.70 | 341.11 | 341.01 | 341.01 | 341.01 |        | 341.01 |        |
| 30                               | 340.96 | 341.11 | 341.01 | 341.20                                         | 341.11 | 341.11 | 341.11 | 341.01 | 341.01 | 341.01 |        | 341.01 |        |
| 31                               |        | 341.11 |        | 341.20                                         | 341.11 |        | 341.11 |        | 341.01 | 341.01 |        | 341.01 |        |
| Mean                             | 340.96 | 341.04 | 341.02 | 341.14                                         | 341.11 | 341.21 | 341.16 | 341.07 | 341.00 | 341.00 | 341.01 | 341.01 |        |
| Max                              | 340.97 | 341.11 | 341.08 | 341.20                                         | 341.18 | 343.11 | 341.66 | 341.11 | 341.01 | 341.01 | 341.01 | 341.01 | 343.11 |
| Min                              | 340.96 | 340.96 | 341.01 | 341.01                                         | 341.07 | 341.08 | 341.10 | 340.96 | 340.98 | 340.98 | 340.99 | 341.00 | 340.96 |
| Annual Max Momentary Gage Height |        |        | 344.06 | m. (MSL.) , at 21.00 Hours , on Sep 28 , 2013  |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        |        | 341.20 | m. (MSL.) , River Bed 340.67 m. (MSL.)         |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        |        | 345.43 | m. (MSL.) ,                                    |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        |        | 345.35 | m. (MSL.) , Drainage Area 97 Square Kilometers |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun  | Jul                  | Aug  | Sep     | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |        |
|----------------|------------------------------------------------------------------|--------------------------|------|----------------------|------|---------|--------------------------|------|------|------|------|------|--------|--------|
| 1              | 0.03                                                             | 0.03                     | 0.09 | 0.06                 | 0.42 | 0.09    | 0.14                     | 0.14 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 2              | 0.03                                                             | 0.03                     | 0.06 | 0.06                 | 0.34 | 0.10    | 0.14                     | 0.14 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 3              | 0.03                                                             | 0.04                     | 0.06 | 0.06                 | 0.22 | 0.14    | 0.14                     | 0.14 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 4              | 0.03                                                             | 0.03                     | 0.06 | 0.06                 | 0.18 | 0.14    | 0.14                     | 0.14 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 5              | 0.03                                                             | 0.03                     | 0.06 | 0.07                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.06 | 0.05 | 0.06 | 0.05 |        |        |
| 6              | 0.03                                                             | 0.03                     | 0.06 | 0.09                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.05 | 0.04 | 0.06 | 0.06 |        |        |
| 7              | 0.03                                                             | 0.03                     | 0.06 | 0.09                 | 0.09 | 0.14    | 0.14                     | 0.14 | 0.04 | 0.04 | 0.06 | 0.06 |        |        |
| 8              | 0.03                                                             | 0.03                     | 0.06 | 0.14                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.04 | 0.04 | 0.06 | 0.06 |        |        |
| 9              | 0.04                                                             | 0.03                     | 0.06 | 0.14                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.04 | 0.04 | 0.06 | 0.06 |        |        |
| 10             | 0.03                                                             | 0.03                     | 0.06 | 0.18                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.04 | 0.04 | 0.05 | 0.06 |        |        |
| 11             | 0.03                                                             | 0.03                     | 0.06 | 0.18                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.04 | 0.04 | 0.04 | 0.06 |        |        |
| 12             | 0.03                                                             | 0.04                     | 0.06 | 0.18                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.06 | 0.04 | 0.04 | 0.06 |        |        |
| 13             | 0.03                                                             | 0.14                     | 0.06 | 0.22                 | 0.14 | 0.14    | 0.14                     | 0.14 | 0.06 | 0.04 | 0.06 | 0.06 |        |        |
| 14             | 0.03                                                             | 0.09                     | 0.06 | 0.26                 | 0.14 | 0.14    | 0.14                     | 0.06 | 0.06 | 0.05 | 0.06 | 0.06 |        |        |
| 15             | 0.03                                                             | 0.04                     | 0.06 | 0.30                 | 0.14 | 0.14    | 0.14                     | 0.03 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 16             | 0.03                                                             | 0.10                     | 0.06 | 0.34                 | 0.10 | 0.14    | 0.14                     | 0.03 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 17             | 0.03                                                             | 0.14                     | 0.06 | 0.42                 | 0.09 | 0.14    | 0.14                     | 0.03 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 18             | 0.03                                                             | 0.14                     | 0.06 | 0.42                 | 0.10 | 1.58    | 4.14                     | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 19             | 0.03                                                             | 0.14                     | 0.06 | 0.42                 | 0.14 | 0.46    | 1.26                     | 0.10 | 0.05 | 0.06 | 0.06 | 0.06 |        |        |
| 20             | 0.03                                                             | 0.14                     | 0.06 | 0.42                 | 0.14 | 0.14    | 0.10                     | 0.14 | 0.04 | 0.05 | 0.06 | 0.06 |        |        |
| 21             | 0.03                                                             | 0.14                     | 0.06 | 0.46                 | 0.14 | 0.14    | 0.30                     | 0.14 | 0.06 | 0.04 | 0.06 | 0.06 |        |        |
| 22             | 0.03                                                             | 0.14                     | 0.06 | 0.46                 | 0.14 | 0.14    | 3.78                     | 0.14 | 0.06 | 0.04 | 0.06 | 0.06 |        |        |
| 23             | 0.03                                                             | 0.14                     | 0.06 | 0.46                 | 0.14 | 0.14    | 1.18                     | 0.14 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 24             | 0.04                                                             | 0.14                     | 0.06 | 0.46                 | 0.14 | 0.14    | 0.14                     | 0.09 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 25             | 0.03                                                             | 0.14                     | 0.06 | 0.46                 | 0.14 | 0.14    | 0.14                     | 0.06 | 0.04 | 0.06 | 0.06 | 0.05 |        |        |
| 26             | 0.03                                                             | 0.14                     | 0.06 | 0.50                 | 0.14 | 0.14    | 0.14                     | 0.06 | 0.06 | 0.06 | 0.04 | 0.06 |        |        |
| 27             | 0.03                                                             | 0.14                     | 0.06 | 0.50                 | 0.14 | 0.62    | 0.14                     | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 28             | 0.03                                                             | 0.06                     | 0.06 | 0.50                 | 0.14 | 25.80   | 0.14                     | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |        |        |
| 29             | 0.03                                                             | 0.10                     | 0.06 | 0.50                 | 0.14 | 4.50    | 0.14                     | 0.06 | 0.06 | 0.06 |      | 0.06 |        |        |
| 30             | 0.03                                                             | 0.14                     | 0.06 | 0.50                 | 0.14 | 0.14    | 0.14                     | 0.06 | 0.06 | 0.06 |      | 0.06 |        |        |
| 31             |                                                                  | 0.14                     |      | 0.50                 | 0.14 |         | 0.14                     |      | 0.06 | 0.06 |      | 0.06 |        |        |
| Total          | 0.92                                                             | 2.73                     | 1.83 | 9.41                 | 4.76 | 36.37   | 14.26                    | 3.13 | 1.70 | 1.63 | 1.61 | 1.84 | 80.19  | CMSDAY |
| Mean           | 0.03                                                             | 0.09                     | 0.06 | 0.30                 | 0.15 | 1.21    | 0.46                     | 0.10 | 0.05 | 0.05 | 0.06 | 0.06 | 0.22   | CMS    |
| Max            | 0.04                                                             | 0.14                     | 0.09 | 0.50                 | 0.42 | 25.80   | 4.14                     | 0.14 | 0.06 | 0.06 | 0.06 | 0.06 | 25.80  | CMS    |
| Min            | 0.03                                                             | 0.03                     | 0.06 | 0.06                 | 0.09 | 0.09    | 0.10                     | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.03   | CMS    |
| Runoff         | 0.08                                                             | 0.24                     | 0.16 | 0.81                 | 0.41 | 3.14    | 1.23                     | 0.27 | 0.15 | 0.14 | 0.14 | 0.16 | 6.93   | MCM    |
| Momentary Peak | 46.28 CMS. at 344.06 m. (MSL.) at 21.00 Hours , on Sep 28 , 2013 |                          |      |                      |      |         |                          |      |      |      |      |      |        |        |
| Runoff Yield   | 2.26                                                             | Liters/Second/Square KM. |      | Momentary Peak Yield |      | 477.113 | Liters/Second/Square KM. |      |      |      |      |      |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun  | Jul                  | Aug   | Sep    | Oct                      | Nov   | Dec  | Jan  | Feb  | Mar  | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|------|----------------------|-------|--------|--------------------------|-------|------|------|------|------|---------------|
| 1              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 6.36                     | 0.25  | 0.50 | 0.01 | 0.01 | 0.00 |               |
| 2              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 14.54                    | 0.25  | 0.45 | 0.01 | 0.01 | 0.00 |               |
| 3              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 33.58                    | 0.25  | 0.35 | 0.01 | 0.01 | 0.00 |               |
| 4              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 19.69                    | 0.25  | 0.25 | 0.01 | 0.01 | 0.00 |               |
| 5              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 7.32                     | 0.25  | 0.20 | 0.01 | 0.01 | 0.00 |               |
| 6              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 6.52                     | 0.25  | 0.05 | 0.01 | 0.01 | 0.00 |               |
| 7              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 25.76                    | 0.25  | 0.02 | 0.01 | 0.01 | 0.00 |               |
| 8              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 7.48                     | 0.25  | 0.07 | 0.01 | 0.01 | 0.00 |               |
| 9              | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.10   | 2.80                     | 0.25  | 0.09 | 0.01 | 0.01 | 0.00 |               |
| 10             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 2.10   | 0.92                     | 0.25  | 0.05 | 0.01 | 0.01 | 0.00 |               |
| 11             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.78   | 0.04                     | 0.25  | 0.02 | 0.01 | 0.01 | 0.00 |               |
| 12             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.71   | 0.05                     | 0.25  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 13             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 17.78  | 0.05                     | 0.25  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 14             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 17.78  | 0.08                     | 0.25  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 15             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 9.32   | 0.05                     | 0.30  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 16             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 7.32   | 0.05                     | 0.25  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 17             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 3.79   | 0.05                     | 0.25  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 18             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 3.66   | 0.20                     | 0.25  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 19             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 2.80   | 34.33                    | 0.57  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 20             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 1.40   | 19.13                    | 7.16  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 21             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.57   | 27.08                    | 6.05  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 22             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.05  | 0.20   | 24.81                    | 1.90  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 23             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 7.16  | 0.04   | 11.21                    | 1.06  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 24             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 5.15  | 0.05   | 9.70                     | 0.78  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 25             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 1.13  | 0.05   | 17.24                    | 0.50  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 26             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.04  | 1.60   | 7.16                     | 0.50  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 27             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.01  | 25.10  | 2.20                     | 0.50  | 0.01 | 0.01 | 0.01 | 0.00 |               |
| 28             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 30.05  | 1.06                     | 0.50  | 0.01 | 0.01 | 0.00 | 0.00 |               |
| 29             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 19.13  | 0.45                     | 0.50  | 0.01 | 0.01 |      | 0.00 |               |
| 30             | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 9.32   | 0.25                     | 0.50  | 0.01 | 0.01 |      | 0.00 |               |
| 31             |                                                                  | 0.00                     |      | 0.00                 | 0.00  |        | 0.25                     |       | 0.01 | 0.01 |      | 0.00 |               |
| Total          | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 13.54 | 153.65 | 280.41                   | 25.07 | 2.25 | 0.31 | 0.27 | 0.00 | 475.50 CMSDAY |
| Mean           | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.44  | 5.12   | 9.05                     | 0.84  | 0.07 | 0.01 | 0.01 | 0.00 | 1.30 CMS      |
| Max            | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 7.16  | 30.05  | 34.33                    | 7.16  | 0.50 | 0.01 | 0.01 | 0.00 | 34.33 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 0.00  | 0.00   | 0.04                     | 0.25  | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 0.00                                                             | 0.00                     | 0.00 | 0.00                 | 1.17  | 13.28  | 24.23                    | 2.17  | 0.19 | 0.03 | 0.02 | 0.00 | 41.08 MCM     |
| Momentary Peak | 63.43 CMS. at 291.53 m. (MSL.) at 12.00 Hours , on Oct 19 , 2013 |                          |      |                      |       |        |                          |       |      |      |      |      |               |
| Runoff Yield   | 1.39                                                             | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 67.912 | Liters/Second/Square KM. |       |      |      |      |      |               |

**WATER YEAR : 2013**

## PING RIVER BASIN

### Ping River at Ban Thap Dua, Chiang Mai (P.90)

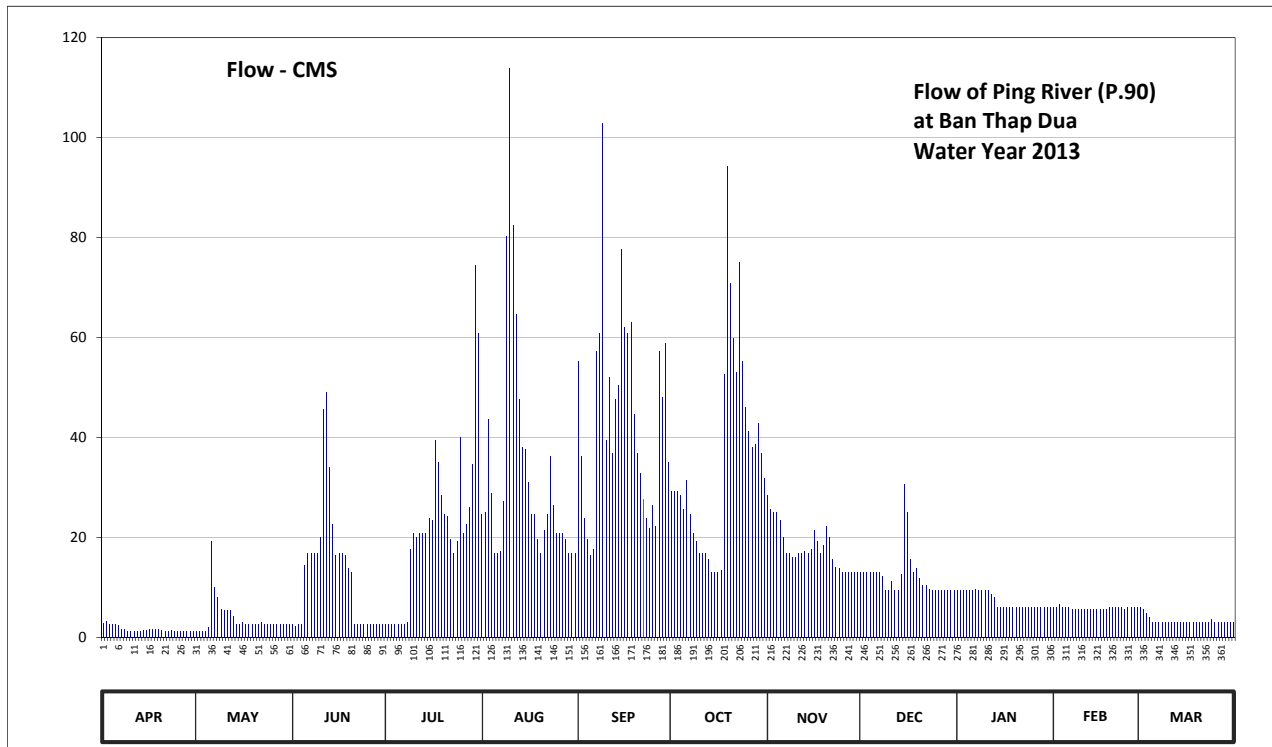
Lat 19 - 12 - 54 N Long 98 - 58 - 20 E

**Location : on right bank at Ban Thap Dua.**

|                                         |                                                                                           |           |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Thap Dua  | <b>Amphoe</b> | Mae Taeng | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 1,661                                                                                     | sq.km.    |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +343.338                                                                                  | m. (MSL.) |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |           |               |           | <b>Elevation</b> | +348.850 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |           |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |           |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |           |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2013. |           |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                                                                                  |    | Apr    | May    | Jun         | Jul    | Aug           | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|---------------------------------------------------------------------------------------|----|--------|--------|-------------|--------|---------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
|                                                                                       | 1  | 343.75 | 343.64 | 343.74      | 343.74 | 344.03        | 344.69 | 344.14            | 344.12 | 343.74 | 343.64 | 343.54 | 343.54 |        |
|                                                                                       | 2  | 343.77 | 343.64 | 343.72      | 343.74 | 344.04        | 344.30 | 344.14            | 344.05 | 343.74 | 343.64 | 343.54 | 343.53 |        |
|                                                                                       | 3  | 343.74 | 343.64 | 343.74      | 343.74 | 344.46        | 344.01 | 344.14            | 344.04 | 343.74 | 343.64 | 343.56 | 343.50 |        |
|                                                                                       | 4  | 343.74 | 343.64 | 343.74      | 343.74 | 344.13        | 343.91 | 344.12            | 344.04 | 343.74 | 343.64 | 343.54 | 343.48 |        |
|                                                                                       | 5  | 343.74 | 343.71 | 343.78      | 343.74 | 343.84        | 343.83 | 344.05            | 344.00 | 343.74 | 343.64 | 343.54 | 343.44 |        |
|                                                                                       | 6  | 343.73 | 344.04 | 343.84      | 343.74 | 343.84        | 343.86 | 344.19            | 343.92 | 343.74 | 343.64 | 343.54 | 343.44 |        |
|                                                                                       | 7  | 343.69 | 343.94 | 343.84      | 343.74 | 343.85        | 344.73 | 344.03            | 343.84 | 343.74 | 343.65 | 343.53 | 343.44 |        |
|                                                                                       | 8  | 343.68 | 343.91 | 343.84      | 343.76 | 344.09        | 344.80 | 343.94            | 343.84 | 343.72 | 343.64 | 343.53 | 343.44 |        |
|                                                                                       | 9  | 343.64 | 343.85 | 343.84      | 343.86 | 345.17        | 345.59 | 343.90            | 343.82 | 343.64 | 343.64 | 343.53 | 343.44 |        |
|                                                                                       | 10 | 343.64 | 343.84 | 343.92      | 343.94 | 345.79        | 344.37 | 343.84            | 343.82 | 343.64 | 343.64 | 343.53 | 343.44 |        |
|                                                                                       | 11 | 343.64 | 343.84 | 344.50      | 343.92 | 345.21        | 344.63 | 343.84            | 343.84 | 343.69 | 343.64 | 343.53 | 343.44 |        |
|                                                                                       | 12 | 343.64 | 343.84 | 344.57      | 343.94 | 344.87        | 344.31 | 343.84            | 343.84 | 343.64 | 343.62 | 343.53 | 343.44 |        |
|                                                                                       | 13 | 343.64 | 343.81 | 344.25      | 343.94 | 344.54        | 344.54 | 343.81            | 343.85 | 343.64 | 343.60 | 343.53 | 343.44 |        |
|                                                                                       | 14 | 343.66 | 343.74 | 343.98      | 343.94 | 344.34        | 344.60 | 343.74            | 343.84 | 343.73 | 343.54 | 343.53 | 343.44 |        |
|                                                                                       | 15 | 343.67 | 343.74 | 343.83      | 344.01 | 344.33        | 345.12 | 343.74            | 343.86 | 344.17 | 343.54 | 343.53 | 343.44 |        |
|                                                                                       | 16 | 343.69 | 343.76 | 343.84      | 344.00 | 344.18        | 344.82 | 343.74            | 343.95 | 344.04 | 343.54 | 343.53 | 343.44 |        |
|                                                                                       | 17 | 343.69 | 343.74 | 343.84      | 344.37 | 344.03        | 344.80 | 343.75            | 343.90 | 343.81 | 343.54 | 343.53 | 343.44 |        |
|                                                                                       | 18 | 343.69 | 343.74 | 343.83      | 344.27 | 344.03        | 344.84 | 344.64            | 343.84 | 343.74 | 343.54 | 343.53 | 343.44 |        |
|                                                                                       | 19 | 343.68 | 343.74 | 343.76      | 344.12 | 343.91        | 344.48 | 345.43            | 343.88 | 343.76 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 20 | 343.66 | 343.74 | 343.74      | 344.03 | 343.84        | 344.31 | 344.99            | 343.97 | 343.71 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 21 | 343.65 | 343.74 | 343.74      | 344.02 | 343.95        | 344.22 | 344.78            | 343.92 | 343.67 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 22 | 343.64 | 343.76 | 343.74      | 343.91 | 344.03        | 344.10 | 344.65            | 343.81 | 343.67 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 23 | 343.66 | 343.74 | 343.74      | 343.84 | 344.30        | 344.01 | 345.07            | 343.77 | 343.65 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 24 | 343.64 | 343.74 | 343.74      | 343.90 | 344.07        | 343.96 | 344.69            | 343.76 | 343.64 | 343.54 | 343.53 | 343.46 |        |
|                                                                                       | 25 | 343.64 | 343.74 | 343.74      | 344.38 | 343.94        | 344.07 | 344.51            | 343.74 | 343.64 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 26 | 343.64 | 343.74 | 343.74      | 343.94 | 343.94        | 343.97 | 344.41            | 343.74 | 343.64 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 27 | 343.64 | 343.74 | 343.74      | 343.98 | 343.94        | 344.73 | 344.34            | 343.74 | 343.64 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 28 | 343.64 | 343.74 | 343.74      | 344.06 | 343.91        | 344.55 | 344.35            | 343.74 | 343.64 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 29 | 343.64 | 343.74 | 343.74      | 344.26 | 343.84        | 344.76 | 344.44            | 343.74 | 343.64 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 30 | 343.64 | 343.74 | 343.74      | 345.06 | 343.84        | 344.27 | 344.31            | 343.74 | 343.64 | 343.54 | 343.54 | 343.44 |        |
|                                                                                       | 31 |        | 343.74 |             | 344.80 | 343.84        |        | 344.20            |        | 343.64 | 343.54 |        | 343.44 |        |
| Mean                                                                                  |    | 343.67 | 343.76 | 343.85      | 344.01 | 344.20        | 344.44 | 344.25            | 343.87 | 343.72 | 343.58 | 343.54 | 343.45 |        |
| Max                                                                                   |    | 343.77 | 344.04 | 344.57      | 345.06 | 345.79        | 345.59 | 345.43            | 344.12 | 344.17 | 343.65 | 343.56 | 343.54 | 345.79 |
| Min                                                                                   |    | 343.64 | 343.64 | 343.72      | 343.74 | 343.84        | 343.83 | 343.74            | 343.74 | 343.64 | 343.54 | 343.53 | 343.44 | 343.44 |
| Annual Max Momentary Gage Height 346.01 m. (MSL.) , at 18.00 Hours , on Aug 10 , 2013 |    |        |        |             |        |               |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation                                                         |    |        | 343.34 | m. (MSL.) , |        | River Bed     | 343.12 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation                                                                   |    |        | 347.66 | m. (MSL.) , |        |               |        |                   |        |        |        |        |        |        |
| Right Bank Elevation                                                                  |    |        | 346.40 | m. (MSL.) , |        | Drainage Area | 1661   | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar    | Annual  |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|--------|---------|--------|
| 1              | 2.90                                                              | 1.26                     | 2.68   | 2.68                 | 24.76   | 55.18   | 29.38   | 28.54                    | 13.08  | 9.44   | 6.08   | 6.08   |         |        |
| 2              | 3.34                                                              | 1.26                     | 2.24   | 2.68                 | 25.18   | 36.40   | 29.38   | 25.60                    | 13.08  | 9.44   | 6.08   | 5.76   |         |        |
| 3              | 2.68                                                              | 1.26                     | 2.68   | 2.68                 | 43.78   | 23.92   | 29.38   | 25.18                    | 13.08  | 9.44   | 6.72   | 4.80   |         |        |
| 4              | 2.68                                                              | 1.26                     | 2.68   | 2.68                 | 28.96   | 19.72   | 28.54   | 25.18                    | 13.08  | 9.44   | 6.08   | 4.20   |         |        |
| 5              | 2.68                                                              | 2.02                     | 14.56  | 2.68                 | 16.90   | 16.50   | 25.60   | 23.50                    | 13.08  | 9.44   | 6.08   | 3.00   |         |        |
| 6              | 2.46                                                              | 19.20                    | 16.90  | 2.68                 | 16.90   | 17.70   | 31.48   | 20.14                    | 13.08  | 9.44   | 6.08   | 3.00   |         |        |
| 7              | 1.71                                                              | 10.10                    | 16.90  | 2.68                 | 17.30   | 57.26   | 24.76   | 16.90                    | 13.08  | 9.80   | 5.76   | 3.00   |         |        |
| 8              | 1.62                                                              | 8.15                     | 16.90  | 3.12                 | 27.28   | 60.90   | 20.98   | 16.90                    | 12.34  | 9.44   | 5.76   | 3.00   |         |        |
| 9              | 1.26                                                              | 5.75                     | 16.90  | 17.70                | 80.23   | 102.95  | 19.30   | 16.10                    | 9.44   | 9.44   | 5.76   | 3.00   |         |        |
| 10             | 1.26                                                              | 5.40                     | 20.14  | 20.98                | 113.95  | 39.55   | 16.90   | 16.10                    | 9.44   | 9.44   | 5.76   | 3.00   |         |        |
| 11             | 1.26                                                              | 5.40                     | 45.70  | 20.14                | 82.33   | 52.06   | 16.90   | 16.90                    | 11.24  | 9.44   | 5.76   | 3.00   |         |        |
| 12             | 1.26                                                              | 5.40                     | 49.06  | 20.98                | 64.54   | 36.85   | 16.90   | 16.90                    | 9.44   | 8.72   | 5.76   | 3.00   |         |        |
| 13             | 1.26                                                              | 4.35                     | 34.15  | 20.98                | 47.62   | 47.62   | 15.70   | 17.30                    | 9.44   | 8.00   | 5.76   | 3.00   |         |        |
| 14             | 1.44                                                              | 2.68                     | 22.66  | 20.98                | 38.20   | 50.50   | 13.08   | 16.90                    | 12.71  | 6.08   | 5.76   | 3.00   |         |        |
| 15             | 1.53                                                              | 2.68                     | 16.50  | 23.92                | 37.75   | 77.60   | 13.08   | 17.70                    | 30.64  | 6.08   | 5.76   | 3.00   |         |        |
| 16             | 1.71                                                              | 3.12                     | 16.90  | 23.50                | 31.06   | 61.94   | 13.08   | 21.40                    | 25.18  | 6.08   | 5.76   | 3.00   |         |        |
| 17             | 1.71                                                              | 2.68                     | 16.90  | 39.55                | 24.76   | 60.90   | 13.45   | 19.30                    | 15.70  | 6.08   | 5.76   | 3.00   |         |        |
| 18             | 1.71                                                              | 2.68                     | 16.50  | 35.05                | 24.76   | 62.98   | 52.58   | 16.90                    | 13.08  | 6.08   | 5.76   | 3.00   |         |        |
| 19             | 1.62                                                              | 2.68                     | 13.82  | 28.54                | 19.72   | 44.74   | 94.15   | 18.50                    | 13.82  | 6.08   | 6.08   | 3.00   |         |        |
| 20             | 1.44                                                              | 2.68                     | 13.08  | 24.76                | 16.90   | 36.85   | 70.78   | 22.24                    | 11.97  | 6.08   | 6.08   | 3.00   |         |        |
| 21             | 1.35                                                              | 2.68                     | 2.68   | 24.34                | 21.40   | 32.80   | 59.86   | 20.14                    | 10.52  | 6.08   | 6.08   | 3.00   |         |        |
| 22             | 1.26                                                              | 3.12                     | 2.68   | 19.72                | 24.76   | 27.70   | 53.10   | 15.70                    | 10.52  | 6.08   | 6.08   | 3.00   |         |        |
| 23             | 1.44                                                              | 2.68                     | 2.68   | 16.90                | 36.40   | 23.92   | 74.98   | 14.19                    | 9.80   | 6.08   | 6.08   | 3.00   |         |        |
| 24             | 1.26                                                              | 2.68                     | 2.68   | 19.30                | 26.44   | 21.82   | 55.18   | 13.82                    | 9.44   | 6.08   | 5.76   | 3.60   |         |        |
| 25             | 1.26                                                              | 2.68                     | 2.68   | 40.00                | 20.98   | 26.44   | 46.18   | 13.08                    | 9.44   | 6.08   | 6.08   | 3.00   |         |        |
| 26             | 1.26                                                              | 2.68                     | 2.68   | 20.98                | 20.98   | 22.24   | 41.38   | 13.08                    | 9.44   | 6.08   | 6.08   | 3.00   |         |        |
| 27             | 1.26                                                              | 2.68                     | 2.68   | 22.66                | 20.98   | 57.26   | 38.20   | 13.08                    | 9.44   | 6.08   | 6.08   | 3.00   |         |        |
| 28             | 1.26                                                              | 2.68                     | 2.68   | 26.02                | 19.72   | 48.10   | 38.65   | 13.08                    | 9.44   | 6.08   | 6.08   | 3.00   |         |        |
| 29             | 1.26                                                              | 2.68                     | 2.68   | 34.60                | 16.90   | 58.82   | 42.82   | 13.08                    | 9.44   | 6.08   |        | 3.00   |         |        |
| 30             | 1.26                                                              | 2.68                     | 2.68   | 74.45                | 16.90   | 35.05   | 36.85   | 13.08                    | 9.44   | 6.08   |        | 3.00   |         |        |
| 31             |                                                                   | 2.68                     |        | 60.90                | 16.90   |         | 31.90   |                          | 9.44   | 6.08   |        | 3.00   |         |        |
| Total          | 50.40                                                             | 119.93                   | 384.65 | 678.83               | 1025.24 | 1316.27 | 1094.50 | 540.51                   | 382.36 | 230.36 | 166.72 | 102.44 | 6092.21 | CMSDAY |
| Mean           | 1.68                                                              | 3.87                     | 12.82  | 21.90                | 33.07   | 43.88   | 35.31   | 18.02                    | 12.33  | 7.43   | 5.95   | 3.30   | 16.69   | CMS    |
| Max            | 3.34                                                              | 19.20                    | 49.06  | 74.45                | 113.95  | 102.95  | 94.15   | 28.54                    | 30.64  | 9.80   | 6.72   | 6.08   | 113.95  | CMS    |
| Min            | 1.26                                                              | 1.26                     | 2.24   | 2.68                 | 16.90   | 16.50   | 13.08   | 13.08                    | 9.44   | 6.08   | 5.76   | 3.00   | 1.26    | CMS    |
| Runoff         | 4.36                                                              | 10.36                    | 33.23  | 58.65                | 88.58   | 113.73  | 94.57   | 46.70                    | 33.04  | 19.90  | 14.41  | 8.85   | 526.37  | MCM    |
| Momentary Peak | 126.05 CMS. at 346.01 m. (MSL.) at 18.00 Hours , on Aug 10 , 2013 |                          |        |                      |         |         |         |                          |        |        |        |        |         |        |
| Runoff Yield   | 10.05                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |         |         | 75.888  | Liters/Second/Square KM. |        |        |        |        |         |        |

## WATER YEAR : 2013

## PING RIVER BASIN

**Nam Mae Khod at Ban San Pu Loei, Chiang Mai (P.91**

Lat 19 - 05 - 42 N Long 99 - 10 - 44 E

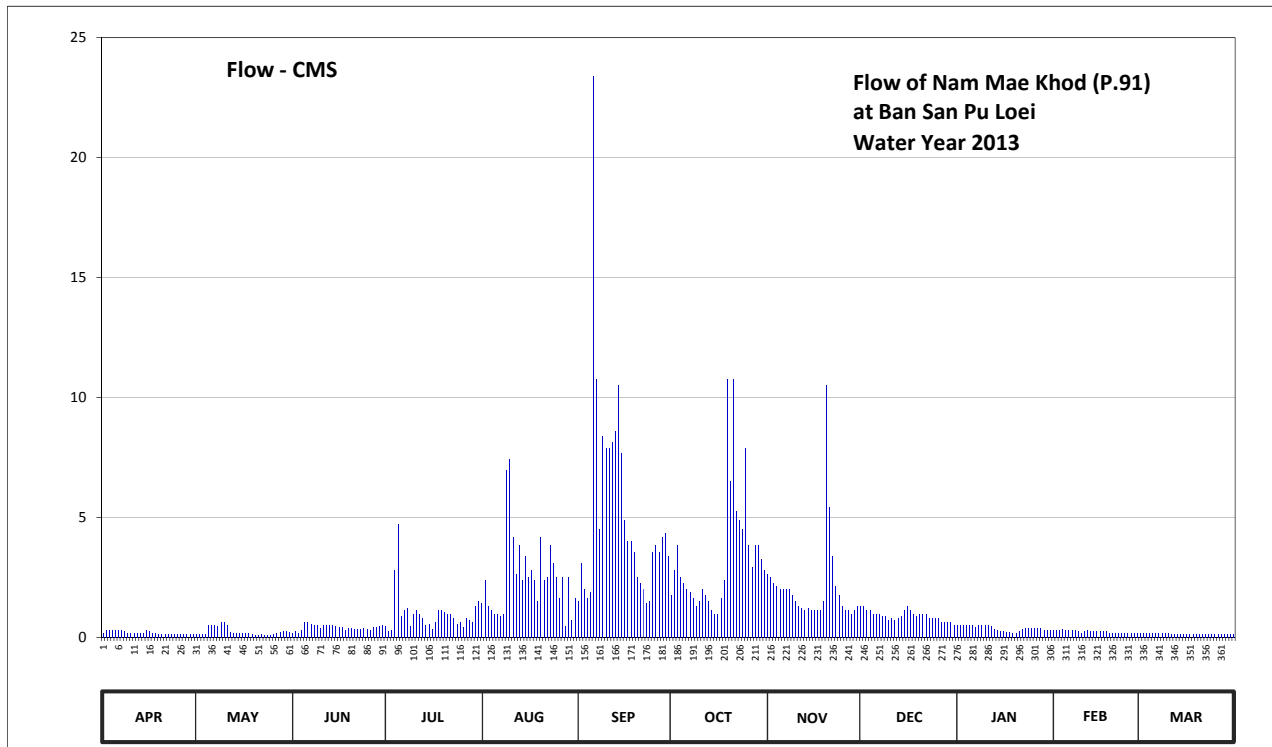
**Location : on right bank at Ban San Pu Loei**

|                                         |                                                                                           |                |               |       |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | San Pu Loei    | <b>Amphoe</b> | Phrao | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 130                                                                                       | sq.km.         |               |       |                  |                    |
| <b>Type of Gage</b>                     | Water -                                                                                   | stage recorder |               |       |                  |                    |
| <b>Zero Gage at Bottom</b>              | +413.100                                                                                  | m. (MSL.)      |               |       |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |       |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |                |               |       | <b>Elevation</b> | +419.380 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                |               |       |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                |               |       |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |                |               |       |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |       |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |                |               |       |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |       |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |                |               |       |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                |               |       |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |       |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2013. |                |               |       |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                                                                                 |    | Apr    | May    | Jun    | Jul         | Aug    | Sep           | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|--------------------------------------------------------------------------------------|----|--------|--------|--------|-------------|--------|---------------|--------|-------------------|--------|--------|--------|--------|--------|
|                                                                                      | 1  | 413.49 | 413.46 | 413.50 | 413.59      | 413.71 | 413.72        | 413.74 | 413.81            | 413.70 | 413.60 | 413.54 | 413.50 |        |
|                                                                                      | 2  | 413.54 | 413.46 | 413.52 | 413.52      | 413.79 | 413.84        | 413.82 | 413.80            | 413.70 | 413.60 | 413.53 | 413.49 |        |
|                                                                                      | 3  | 413.54 | 413.46 | 413.49 | 413.54      | 413.70 | 413.76        | 413.89 | 413.78            | 413.68 | 413.60 | 413.54 | 413.48 |        |
|                                                                                      | 4  | 413.54 | 413.46 | 413.54 | 413.82      | 413.68 | 413.73        | 413.80 | 413.77            | 413.68 | 413.60 | 413.55 | 413.48 |        |
|                                                                                      | 5  | 413.53 | 413.60 | 413.62 | 413.94      | 413.66 | 413.75        | 413.78 | 413.76            | 413.66 | 413.60 | 413.54 | 413.50 |        |
|                                                                                      | 6  | 413.53 | 413.60 | 413.62 | 413.65      | 413.66 | 414.65        | 413.76 | 413.76            | 413.66 | 413.60 | 413.54 | 413.48 |        |
|                                                                                      | 7  | 413.53 | 413.60 | 413.61 | 413.68      | 413.65 | 414.21        | 413.75 | 413.76            | 413.66 | 413.58 | 413.54 | 413.48 |        |
|                                                                                      | 8  | 413.52 | 413.59 | 413.60 | 413.69      | 413.66 | 413.93        | 413.73 | 413.76            | 413.65 | 413.60 | 413.53 | 413.48 |        |
|                                                                                      | 9  | 413.50 | 413.62 | 413.60 | 413.59      | 414.05 | 414.11        | 413.70 | 413.74            | 413.65 | 413.60 | 413.52 | 413.48 |        |
|                                                                                      | 10 | 413.50 | 413.62 | 413.56 | 413.66      | 414.07 | 414.09        | 413.72 | 413.72            | 413.63 | 413.60 | 413.50 | 413.48 |        |
|                                                                                      | 11 | 413.50 | 413.60 | 413.60 | 413.68      | 413.91 | 414.09        | 413.76 | 413.70            | 413.64 | 413.60 | 413.52 | 413.44 |        |
|                                                                                      | 12 | 413.50 | 413.51 | 413.60 | 413.66      | 413.81 | 414.10        | 413.74 | 413.69            | 413.63 | 413.59 | 413.53 | 413.44 |        |
|                                                                                      | 13 | 413.50 | 413.48 | 413.60 | 413.64      | 413.89 | 414.12        | 413.72 | 413.68            | 413.64 | 413.55 | 413.52 | 413.44 |        |
|                                                                                      | 14 | 413.49 | 413.47 | 413.60 | 413.60      | 413.79 | 414.20        | 413.68 | 413.69            | 413.65 | 413.54 | 413.52 | 413.44 |        |
|                                                                                      | 15 | 413.53 | 413.48 | 413.59 | 413.61      | 413.86 | 414.08        | 413.66 | 413.68            | 413.68 | 413.52 | 413.52 | 413.44 |        |
|                                                                                      | 16 | 413.52 | 413.48 | 413.58 | 413.55      | 413.80 | 413.95        | 413.66 | 413.68            | 413.70 | 413.52 | 413.52 | 413.44 |        |
|                                                                                      | 17 | 413.49 | 413.48 | 413.58 | 413.62      | 413.82 | 413.90        | 413.73 | 413.68            | 413.68 | 413.51 | 413.52 | 413.44 |        |
|                                                                                      | 18 | 413.48 | 413.48 | 413.53 | 413.68      | 413.79 | 413.90        | 413.79 | 413.68            | 413.66 | 413.51 | 413.52 | 413.44 |        |
|                                                                                      | 19 | 413.46 | 413.46 | 413.56 | 413.68      | 413.72 | 413.87        | 414.21 | 413.72            | 413.65 | 413.50 | 413.50 | 413.44 |        |
|                                                                                      | 20 | 413.46 | 413.41 | 413.56 | 413.67      | 413.91 | 413.80        | 414.03 | 414.20            | 413.66 | 413.50 | 413.49 | 413.44 |        |
|                                                                                      | 21 | 413.46 | 413.42 | 413.55 | 413.66      | 413.79 | 413.78        | 414.21 | 413.98            | 413.66 | 413.52 | 413.50 | 413.44 |        |
|                                                                                      | 22 | 413.45 | 413.44 | 413.55 | 413.66      | 413.80 | 413.76        | 413.97 | 413.86            | 413.66 | 413.55 | 413.50 | 413.44 |        |
|                                                                                      | 23 | 413.46 | 413.42 | 413.55 | 413.64      | 413.89 | 413.71        | 413.95 | 413.77            | 413.64 | 413.56 | 413.50 | 413.44 |        |
|                                                                                      | 24 | 413.46 | 413.42 | 413.56 | 413.61      | 413.84 | 413.72        | 413.93 | 413.74            | 413.64 | 413.56 | 413.50 | 413.44 |        |
|                                                                                      | 25 | 413.46 | 413.42 | 413.55 | 413.62      | 413.80 | 413.87        | 414.09 | 413.70            | 413.64 | 413.56 | 413.50 | 413.46 |        |
|                                                                                      | 26 | 413.46 | 413.44 | 413.53 | 413.58      | 413.73 | 413.89        | 413.89 | 413.68            | 413.64 | 413.56 | 413.49 | 413.44 |        |
|                                                                                      | 27 | 413.46 | 413.47 | 413.58 | 413.64      | 413.80 | 413.87        | 413.83 | 413.68            | 413.62 | 413.56 | 413.50 | 413.44 |        |
|                                                                                      | 28 | 413.46 | 413.51 | 413.58 | 413.63      | 413.59 | 413.91        | 413.89 | 413.66            | 413.62 | 413.56 | 413.50 | 413.44 |        |
|                                                                                      | 29 | 413.46 | 413.52 | 413.59 | 413.62      | 413.80 | 413.92        | 413.89 | 413.68            | 413.62 | 413.54 |        | 413.44 |        |
|                                                                                      | 30 | 413.46 | 413.52 | 413.60 | 413.70      | 413.63 | 413.86        | 413.85 | 413.70            | 413.62 | 413.54 |        | 413.44 |        |
|                                                                                      | 31 |        | 413.51 |        | 413.72      | 413.73 |               | 413.82 |                   | 413.60 | 413.54 |        | 413.44 |        |
| Mean                                                                                 |    | 413.49 | 413.50 | 413.57 | 413.65      | 413.78 | 413.94        | 413.84 | 413.75            | 413.65 | 413.56 | 413.52 | 413.46 |        |
| Max                                                                                  |    | 413.54 | 413.62 | 413.62 | 413.94      | 414.07 | 414.65        | 414.21 | 414.20            | 413.70 | 413.60 | 413.55 | 413.50 | 414.65 |
| Min                                                                                  |    | 413.45 | 413.41 | 413.49 | 413.52      | 413.59 | 413.71        | 413.66 | 413.66            | 413.60 | 413.50 | 413.49 | 413.44 | 413.44 |
| Annual Max Momentary Gage Height 414.89 m. (MSL.) , at 15.00 Hours , on Sep 6 , 2013 |    |        |        |        |             |        |               |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation                                                        |    |        |        | 413.10 | m. (MSL.) , |        | River Bed     | 412.91 | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation                                                                  |    |        |        | 418.78 | m. (MSL.) , |        |               |        |                   |        |        |        |        |        |
| Right Bank Elevation                                                                 |    |        |        | 418.84 | m. (MSL.) , |        | Drainage Area | 130    | Square Kilometers |        |        |        |        |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul   | Aug                  | Sep    | Oct     | Nov                      | Dec   | Jan   | Feb  | Mar  | Annual |
|----------------|-------|-----------------------------------------------------------|-------|-------|----------------------|--------|---------|--------------------------|-------|-------|------|------|--------|
| 1              | 0.19  | 0.16                                                      | 0.20  | 0.47  | 1.42                 | 1.54   | 1.78    | 2.65                     | 1.30  | 0.50  | 0.32 | 0.20 |        |
| 2              | 0.32  | 0.16                                                      | 0.26  | 0.26  | 2.38                 | 3.10   | 2.80    | 2.50                     | 1.30  | 0.50  | 0.29 | 0.19 |        |
| 3              | 0.32  | 0.16                                                      | 0.19  | 0.32  | 1.30                 | 2.02   | 3.85    | 2.26                     | 1.14  | 0.50  | 0.32 | 0.18 |        |
| 4              | 0.32  | 0.16                                                      | 0.32  | 2.80  | 1.14                 | 1.66   | 2.50    | 2.14                     | 1.14  | 0.50  | 0.35 | 0.18 |        |
| 5              | 0.29  | 0.50                                                      | 0.66  | 4.72  | 0.98                 | 1.90   | 2.26    | 2.02                     | 0.98  | 0.50  | 0.32 | 0.20 |        |
| 6              | 0.29  | 0.50                                                      | 0.66  | 0.90  | 0.98                 | 23.40  | 2.02    | 2.02                     | 0.98  | 0.50  | 0.32 | 0.18 |        |
| 7              | 0.29  | 0.50                                                      | 0.58  | 1.14  | 0.90                 | 10.75  | 1.90    | 2.02                     | 0.98  | 0.44  | 0.32 | 0.18 |        |
| 8              | 0.26  | 0.47                                                      | 0.50  | 1.22  | 0.98                 | 4.54   | 1.66    | 2.02                     | 0.90  | 0.50  | 0.29 | 0.18 |        |
| 9              | 0.20  | 0.66                                                      | 0.50  | 0.47  | 6.97                 | 8.38   | 1.30    | 1.78                     | 0.90  | 0.50  | 0.26 | 0.18 |        |
| 10             | 0.20  | 0.66                                                      | 0.38  | 0.98  | 7.45                 | 7.91   | 1.54    | 1.54                     | 0.74  | 0.50  | 0.20 | 0.18 |        |
| 11             | 0.20  | 0.50                                                      | 0.50  | 1.14  | 4.18                 | 7.91   | 2.02    | 1.30                     | 0.82  | 0.50  | 0.26 | 0.14 |        |
| 12             | 0.20  | 0.23                                                      | 0.50  | 0.98  | 2.65                 | 8.15   | 1.78    | 1.22                     | 0.74  | 0.47  | 0.29 | 0.14 |        |
| 13             | 0.20  | 0.18                                                      | 0.50  | 0.82  | 3.85                 | 8.62   | 1.54    | 1.14                     | 0.82  | 0.35  | 0.26 | 0.14 |        |
| 14             | 0.19  | 0.17                                                      | 0.50  | 0.50  | 2.38                 | 10.50  | 1.14    | 1.22                     | 0.90  | 0.32  | 0.26 | 0.14 |        |
| 15             | 0.29  | 0.18                                                      | 0.47  | 0.58  | 3.40                 | 7.68   | 0.98    | 1.14                     | 1.14  | 0.26  | 0.26 | 0.14 |        |
| 16             | 0.26  | 0.18                                                      | 0.44  | 0.35  | 2.50                 | 4.90   | 0.98    | 1.14                     | 1.30  | 0.26  | 0.26 | 0.14 |        |
| 17             | 0.19  | 0.18                                                      | 0.44  | 0.66  | 2.80                 | 4.00   | 1.66    | 1.14                     | 1.14  | 0.23  | 0.26 | 0.14 |        |
| 18             | 0.18  | 0.18                                                      | 0.29  | 1.14  | 2.38                 | 4.00   | 2.38    | 1.14                     | 0.98  | 0.23  | 0.26 | 0.14 |        |
| 19             | 0.16  | 0.16                                                      | 0.38  | 1.14  | 1.54                 | 3.55   | 10.75   | 1.54                     | 0.90  | 0.20  | 0.20 | 0.14 |        |
| 20             | 0.16  | 0.11                                                      | 0.38  | 1.06  | 4.18                 | 2.50   | 6.50    | 10.50                    | 0.98  | 0.20  | 0.19 | 0.14 |        |
| 21             | 0.16  | 0.12                                                      | 0.35  | 0.98  | 2.38                 | 2.26   | 10.75   | 5.44                     | 0.98  | 0.26  | 0.20 | 0.14 |        |
| 22             | 0.15  | 0.14                                                      | 0.35  | 0.98  | 2.50                 | 2.02   | 5.26    | 3.40                     | 0.98  | 0.35  | 0.20 | 0.14 |        |
| 23             | 0.16  | 0.12                                                      | 0.35  | 0.82  | 3.85                 | 1.42   | 4.90    | 2.14                     | 0.82  | 0.38  | 0.20 | 0.14 |        |
| 24             | 0.16  | 0.12                                                      | 0.38  | 0.58  | 3.10                 | 1.54   | 4.54    | 1.78                     | 0.82  | 0.38  | 0.20 | 0.14 |        |
| 25             | 0.16  | 0.12                                                      | 0.35  | 0.66  | 2.50                 | 3.55   | 7.91    | 1.30                     | 0.82  | 0.38  | 0.20 | 0.16 |        |
| 26             | 0.16  | 0.14                                                      | 0.29  | 0.44  | 1.66                 | 3.85   | 3.85    | 1.14                     | 0.82  | 0.38  | 0.19 | 0.14 |        |
| 27             | 0.16  | 0.17                                                      | 0.44  | 0.82  | 2.50                 | 3.55   | 2.95    | 1.14                     | 0.66  | 0.38  | 0.20 | 0.14 |        |
| 28             | 0.16  | 0.23                                                      | 0.44  | 0.74  | 0.47                 | 4.18   | 3.85    | 0.98                     | 0.66  | 0.38  | 0.20 | 0.14 |        |
| 29             | 0.16  | 0.26                                                      | 0.47  | 0.66  | 2.50                 | 4.36   | 3.85    | 1.14                     | 0.66  | 0.32  |      | 0.14 |        |
| 30             | 0.16  | 0.26                                                      | 0.50  | 1.30  | 0.74                 | 3.40   | 3.25    | 1.30                     | 0.66  | 0.32  |      | 0.14 |        |
| 31             |       | 0.23                                                      |       | 1.54  | 1.66                 |        | 2.80    |                          | 0.50  | 0.32  |      | 0.14 |        |
| Total          | 6.30  | 7.91                                                      | 12.57 | 31.17 | 78.22                | 157.14 | 105.25  | 62.19                    | 28.46 | 11.81 | 7.08 | 4.81 | 512.91 |
| Mean           | 0.21  | 0.26                                                      | 0.42  | 1.01  | 2.52                 | 5.24   | 3.40    | 2.07                     | 0.92  | 0.38  | 0.25 | 0.16 | 1.41   |
| Max            | 0.32  | 0.66                                                      | 0.66  | 4.72  | 7.45                 | 23.40  | 10.75   | 10.50                    | 1.30  | 0.50  | 0.35 | 0.20 | 23.40  |
| Min            | 0.15  | 0.11                                                      | 0.19  | 0.26  | 0.47                 | 1.42   | 0.98    | 0.98                     | 0.50  | 0.20  | 0.19 | 0.14 | 0.11   |
| Runoff         | 0.54  | 0.68                                                      | 1.09  | 2.69  | 6.76                 | 13.58  | 9.09    | 5.37                     | 2.46  | 1.02  | 0.61 | 0.42 | 44.32  |
| Momentary Peak | 32.24 | CMS. at 414.89 m. (MSL.) at 15.00 Hours , on Sep 6 , 2013 |       |       |                      |        |         |                          |       |       |      |      |        |
| Runoff Yield   | 10.81 | Liters/Second/Square KM.                                  |       |       | Momentary Peak Yield |        | 248.000 | Liters/Second/Square KM. |       |       |      |      |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae Taeng at Ban Mueang Kud, Chiang Mai (P.92**

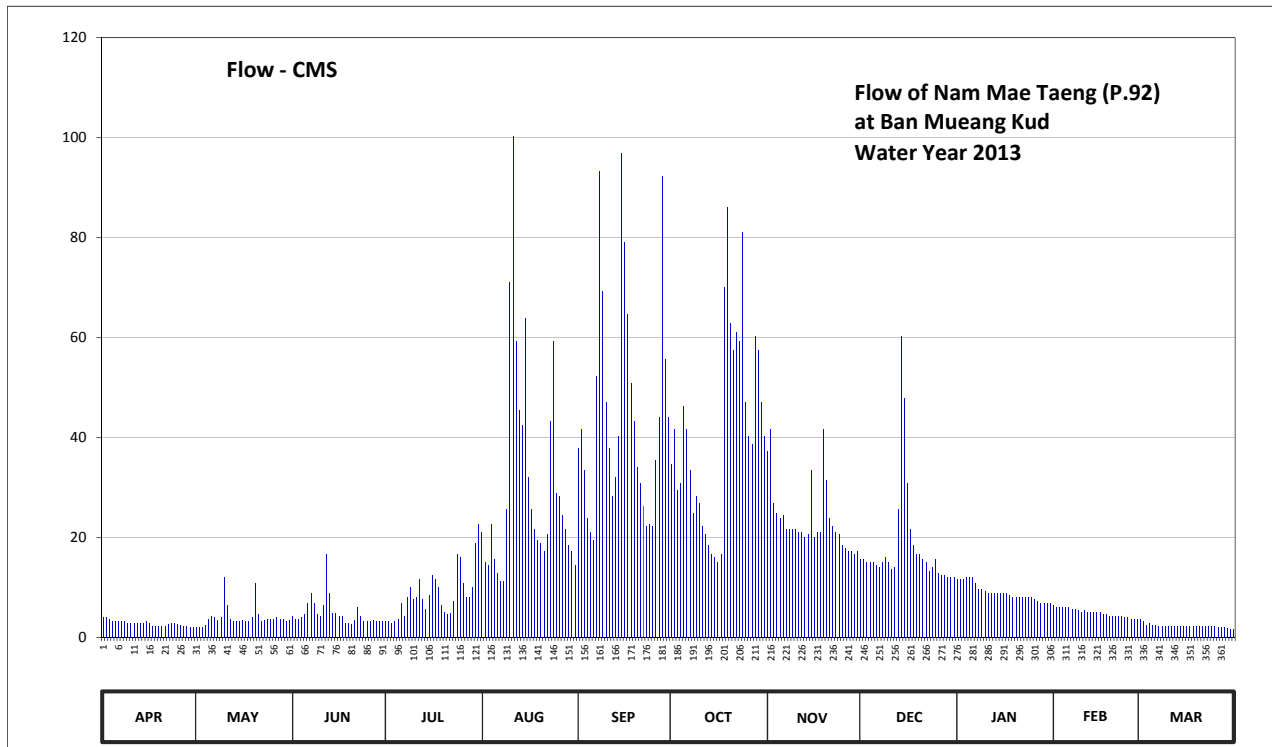
Lat 19 - 13 - 15 N Long 98 - 50 - 51 E

**Location :** on left bank at Ban Mueang Kud

|                                         |                                                                                           |            |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Mueang Kud | <b>Amphoe</b> | Mae Taeng | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 1,653                                                                                     | sq.km.     |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +440.645                                                                                  | m. (MSL.)  |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |           |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |            |               |           | <b>Elevation</b> | +447.535 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |            |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |            |               |           |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |            |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |            |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |            |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |           |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2013. |            |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 440.73 | 440.65 | 440.74      | 440.70 | 441.13                            | 441.40 | 441.35            | 441.39 | 441.03 | 440.94 | 440.81 | 440.72 |        |
| 2                                | 440.73 | 440.65 | 440.72      | 440.70 | 441.02                            | 441.45 | 441.45            | 441.45 | 441.03 | 440.94 | 440.80 | 440.70 |        |
| 3                                | 440.72 | 440.65 | 440.72      | 440.69 | 441.01                            | 441.33 | 441.27            | 441.23 | 441.02 | 440.94 | 440.80 | 440.67 |        |
| 4                                | 440.70 | 440.67 | 440.73      | 440.70 | 441.16                            | 441.18 | 441.29            | 441.20 | 441.02 | 440.95 | 440.80 | 440.69 |        |
| 5                                | 440.70 | 440.72 | 440.75      | 440.72 | 441.03                            | 441.13 | 441.51            | 441.18 | 441.02 | 440.95 | 440.80 | 440.67 |        |
| 6                                | 440.70 | 440.74 | 440.82      | 440.82 | 440.97                            | 441.10 | 441.45            | 441.19 | 441.01 | 440.95 | 440.80 | 440.67 |        |
| 7                                | 440.70 | 440.73 | 440.87      | 440.74 | 440.93                            | 441.59 | 441.33            | 441.14 | 441.00 | 440.92 | 440.79 | 440.66 |        |
| 8                                | 440.70 | 440.71 | 440.82      | 440.85 | 440.93                            | 442.02 | 441.20            | 441.14 | 441.02 | 440.89 | 440.79 | 440.66 |        |
| 9                                | 440.69 | 440.73 | 440.75      | 440.90 | 441.21                            | 441.78 | 441.25            | 441.14 | 441.04 | 440.89 | 440.78 | 440.66 |        |
| 10                               | 440.69 | 440.95 | 440.74      | 440.84 | 441.80                            | 441.52 | 441.23            | 441.14 | 441.02 | 440.88 | 440.77 | 440.66 |        |
| 11                               | 440.69 | 440.81 | 440.81      | 440.85 | 442.08                            | 441.40 | 441.15            | 441.13 | 440.99 | 440.87 | 440.78 | 440.66 |        |
| 12                               | 440.69 | 440.72 | 441.05      | 440.94 | 441.67                            | 441.25 | 441.12            | 441.13 | 441.00 | 440.87 | 440.77 | 440.66 |        |
| 13                               | 440.69 | 440.70 | 440.87      | 440.84 | 441.50                            | 441.31 | 441.08            | 441.11 | 441.21 | 440.87 | 440.77 | 440.66 |        |
| 14                               | 440.69 | 440.70 | 440.76      | 440.79 | 441.46                            | 441.43 | 441.05            | 441.12 | 441.68 | 440.87 | 440.77 | 440.66 |        |
| 15                               | 440.70 | 440.70 | 440.76      | 440.86 | 441.72                            | 442.05 | 441.04            | 441.33 | 441.53 | 440.87 | 440.77 | 440.66 |        |
| 16                               | 440.69 | 440.71 | 440.74      | 440.96 | 441.31                            | 441.88 | 441.02            | 441.11 | 441.29 | 440.87 | 440.77 | 440.66 |        |
| 17                               | 440.66 | 440.70 | 440.74      | 440.94 | 441.21                            | 441.73 | 441.05            | 441.13 | 441.14 | 440.87 | 440.75 | 440.66 |        |
| 18                               | 440.66 | 440.70 | 440.69      | 440.90 | 441.14                            | 441.57 | 441.79            | 441.13 | 441.08 | 440.86 | 440.75 | 440.66 |        |
| 19                               | 440.66 | 440.73 | 440.69      | 440.81 | 441.10                            | 441.47 | 441.95            | 441.45 | 441.05 | 440.85 | 440.74 | 440.66 |        |
| 20                               | 440.66 | 440.92 | 440.68      | 440.77 | 441.09                            | 441.34 | 441.71            | 441.30 | 441.05 | 440.85 | 440.74 | 440.66 |        |
| 21                               | 440.66 | 440.75 | 440.71      | 440.75 | 441.06                            | 441.29 | 441.65            | 441.18 | 441.03 | 440.85 | 440.74 | 440.66 |        |
| 22                               | 440.68 | 440.70 | 440.80      | 440.76 | 441.12                            | 441.22 | 441.69            | 441.15 | 441.02 | 440.85 | 440.74 | 440.66 |        |
| 23                               | 440.69 | 440.71 | 440.74      | 440.83 | 441.47                            | 441.15 | 441.67            | 441.13 | 440.98 | 440.85 | 440.74 | 440.66 |        |
| 24                               | 440.69 | 440.72 | 440.70      | 441.05 | 441.67                            | 441.16 | 441.90            | 441.12 | 441.00 | 440.85 | 440.73 | 440.66 |        |
| 25                               | 440.68 | 440.72 | 440.70      | 441.04 | 441.26                            | 441.15 | 441.52            | 441.08 | 441.03 | 440.85 | 440.73 | 440.66 |        |
| 26                               | 440.67 | 440.72 | 440.70      | 440.92 | 441.25                            | 441.36 | 441.43            | 441.07 | 440.97 | 440.84 | 440.72 | 440.65 |        |
| 27                               | 440.66 | 440.73 | 440.71      | 440.85 | 441.19                            | 441.48 | 441.41            | 441.06 | 440.96 | 440.83 | 440.72 | 440.65 |        |
| 28                               | 440.66 | 440.72 | 440.70      | 440.85 | 441.14                            | 442.01 | 441.68            | 441.06 | 440.96 | 440.82 | 440.72 | 440.65 |        |
| 29                               | 440.65 | 440.72 | 440.70      | 440.90 | 441.08                            | 441.63 | 441.65            | 441.05 | 440.95 | 440.82 |        | 440.64 |        |
| 30                               | 440.65 | 440.70 | 440.70      | 441.09 | 441.06                            | 441.48 | 441.52            | 441.06 | 440.95 | 440.82 |        | 440.63 |        |
| 31                               |        | 440.71 |             | 441.16 | 441.01                            |        | 441.43            |        | 440.95 | 440.82 |        | 440.63 |        |
| Mean                             | 440.68 | 440.73 | 440.75      | 440.86 | 441.25                            | 441.46 | 441.41            | 441.17 | 441.07 | 440.87 | 440.76 | 440.66 |        |
| Max                              | 440.73 | 440.95 | 441.05      | 441.16 | 442.08                            | 442.05 | 441.95            | 441.45 | 441.68 | 440.95 | 440.81 | 440.72 | 442.0  |
| Min                              | 440.65 | 440.65 | 440.68      | 440.69 | 440.93                            | 441.10 | 441.02            | 441.05 | 440.95 | 440.82 | 440.72 | 440.63 | 440.6  |
| Annual Max Momentary Gage Height |        | 442.48 | m. (MSL.) , |        | at 17.00 Hours , on Sep 28 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 440.64 | m. (MSL.) , |        | River Bed                         | 439.88 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 447.42 | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 447.32 | m. (MSL.) , |        | Drainage Area                     | 1653   | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan    | Feb    | Mar   | Annual  |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|--------|--------------------------|--------|--------|-------|---------|--------|
| 1              | 4.04                                                              | 2.10                     | 4.32   | 3.20   | 21.15                | 38.00   | 34.75   | 37.35  | 15.65                    | 11.60  | 6.40   | 3.76  |         |        |
| 2              | 4.04                                                              | 2.10                     | 3.76   | 3.20   | 15.10                | 41.75   | 41.75   | 41.75  | 15.65                    | 11.60  | 6.00   | 3.20  |         |        |
| 3              | 3.76                                                              | 2.10                     | 3.76   | 2.98   | 14.55                | 33.45   | 29.55   | 26.95  | 15.10                    | 11.60  | 6.00   | 2.54  |         |        |
| 4              | 3.20                                                              | 2.54                     | 4.04   | 3.20   | 22.80                | 23.90   | 30.85   | 25.00  | 15.10                    | 12.00  | 6.00   | 2.98  |         |        |
| 5              | 3.20                                                              | 3.76                     | 4.60   | 3.76   | 15.65                | 21.15   | 46.25   | 23.90  | 15.10                    | 12.00  | 6.00   | 2.54  |         |        |
| 6              | 3.20                                                              | 4.32                     | 6.80   | 6.80   | 12.80                | 19.50   | 41.75   | 24.45  | 14.55                    | 12.00  | 6.00   | 2.54  |         |        |
| 7              | 3.20                                                              | 4.04                     | 8.80   | 4.32   | 11.20                | 52.25   | 33.45   | 21.70  | 14.00                    | 10.80  | 5.72   | 2.32  |         |        |
| 8              | 3.20                                                              | 3.48                     | 6.80   | 8.00   | 11.20                | 93.30   | 25.00   | 21.70  | 15.10                    | 9.60   | 5.72   | 2.32  |         |        |
| 9              | 2.98                                                              | 4.04                     | 4.60   | 10.00  | 25.65                | 69.20   | 28.25   | 21.70  | 16.20                    | 9.60   | 5.44   | 2.32  |         |        |
| 10             | 2.98                                                              | 12.00                    | 4.32   | 7.60   | 71.00                | 47.00   | 26.95   | 21.70  | 15.10                    | 9.20   | 5.16   | 2.32  |         |        |
| 11             | 2.98                                                              | 6.40                     | 6.40   | 8.00   | 100.20               | 38.00   | 22.25   | 21.15  | 13.60                    | 8.80   | 5.44   | 2.32  |         |        |
| 12             | 2.98                                                              | 3.76                     | 16.75  | 11.60  | 59.30                | 28.25   | 20.60   | 21.15  | 14.00                    | 8.80   | 5.16   | 2.32  |         |        |
| 13             | 2.98                                                              | 3.20                     | 8.80   | 7.60   | 45.50                | 32.15   | 18.40   | 20.05  | 25.65                    | 8.80   | 5.16   | 2.32  |         |        |
| 14             | 2.98                                                              | 3.20                     | 4.88   | 5.72   | 42.50                | 40.25   | 16.75   | 20.60  | 60.20                    | 8.80   | 5.16   | 2.32  |         |        |
| 15             | 3.20                                                              | 3.20                     | 4.88   | 8.40   | 63.80                | 96.75   | 16.20   | 33.45  | 47.75                    | 8.80   | 5.16   | 2.32  |         |        |
| 16             | 2.98                                                              | 3.48                     | 4.32   | 12.40  | 32.15                | 79.00   | 15.10   | 20.05  | 30.85                    | 8.80   | 5.16   | 2.32  |         |        |
| 17             | 2.32                                                              | 3.20                     | 4.32   | 11.60  | 25.65                | 64.70   | 16.75   | 21.15  | 21.70                    | 8.80   | 4.60   | 2.32  |         |        |
| 18             | 2.32                                                              | 3.20                     | 2.98   | 10.00  | 21.70                | 50.75   | 70.10   | 21.15  | 18.40                    | 8.40   | 4.60   | 2.32  |         |        |
| 19             | 2.32                                                              | 4.04                     | 2.98   | 6.40   | 19.50                | 43.25   | 86.00   | 41.75  | 16.75                    | 8.00   | 4.32   | 2.32  |         |        |
| 20             | 2.32                                                              | 10.80                    | 2.76   | 5.16   | 18.95                | 34.10   | 62.90   | 31.50  | 16.75                    | 8.00   | 4.32   | 2.32  |         |        |
| 21             | 2.32                                                              | 4.60                     | 3.48   | 4.60   | 17.30                | 30.85   | 57.50   | 23.90  | 15.65                    | 8.00   | 4.32   | 2.32  |         |        |
| 22             | 2.76                                                              | 3.20                     | 6.00   | 4.88   | 20.60                | 26.30   | 61.10   | 22.25  | 15.10                    | 8.00   | 4.32   | 2.32  |         |        |
| 23             | 2.98                                                              | 3.48                     | 4.32   | 7.20   | 43.25                | 22.25   | 59.30   | 21.15  | 13.20                    | 8.00   | 4.32   | 2.32  |         |        |
| 24             | 2.98                                                              | 3.76                     | 3.20   | 16.75  | 59.30                | 22.80   | 81.00   | 20.60  | 14.00                    | 8.00   | 4.04   | 2.32  |         |        |
| 25             | 2.76                                                              | 3.76                     | 3.20   | 16.20  | 28.90                | 22.25   | 47.00   | 18.40  | 15.65                    | 8.00   | 4.04   | 2.32  |         |        |
| 26             | 2.54                                                              | 3.76                     | 3.20   | 10.80  | 28.25                | 35.40   | 40.25   | 17.85  | 12.80                    | 7.60   | 3.76   | 2.10  |         |        |
| 27             | 2.32                                                              | 4.04                     | 3.48   | 8.00   | 24.45                | 44.00   | 38.75   | 17.30  | 12.40                    | 7.20   | 3.76   | 2.10  |         |        |
| 28             | 2.32                                                              | 3.76                     | 3.20   | 8.00   | 21.70                | 92.15   | 60.20   | 17.30  | 12.40                    | 6.80   | 3.76   | 2.10  |         |        |
| 29             | 2.10                                                              | 3.76                     | 3.20   | 10.00  | 18.40                | 55.70   | 57.50   | 16.75  | 12.00                    | 6.80   |        | 1.88  |         |        |
| 30             | 2.10                                                              | 3.20                     | 3.20   | 18.95  | 17.30                | 44.00   | 47.00   | 17.30  | 12.00                    | 6.80   |        | 1.66  |         |        |
| 31             |                                                                   | 3.48                     |        | 22.80  | 14.55                |         | 40.25   |        | 12.00                    | 6.80   |        | 1.66  |         |        |
| Total          | 86.36                                                             | 125.76                   | 147.35 | 268.12 | 944.35               | 1342.40 | 1273.45 | 711.00 | 564.40                   | 278.00 | 139.84 | 73.14 | 5954.17 | CMSDAY |
| Mean           | 2.88                                                              | 4.06                     | 4.91   | 8.65   | 30.46                | 44.75   | 41.08   | 23.70  | 18.21                    | 8.97   | 4.99   | 2.36  | 16.31   | CMS    |
| Max            | 4.04                                                              | 12.00                    | 16.75  | 22.80  | 100.20               | 96.75   | 86.00   | 41.75  | 60.20                    | 12.00  | 6.40   | 3.76  | 100.20  | CMS    |
| Min            | 2.10                                                              | 2.10                     | 2.76   | 2.98   | 11.20                | 19.50   | 15.10   | 16.75  | 12.00                    | 6.80   | 3.76   | 1.66  | 1.66    | CMS    |
| Runoff         | 7.46                                                              | 10.87                    | 12.73  | 23.17  | 81.59                | 115.98  | 110.03  | 61.43  | 48.76                    | 24.02  | 12.08  | 6.32  | 514.44  | MCM    |
| Momentary Peak | 150.40 CMS. at 442.48 m. (MSL.) at 17.00 Hours , on Sep 28 , 2013 |                          |        |        |                      |         |         |        |                          |        |        |       |         |        |
| Runoff Yield   | 9.87                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 90.986 | Liters/Second/Square KM. |        |        |       |         |        |

**WATER YEAR : 2013**

## PING RIVER BASIN

**Nam Mae Rim at Ban Saluang Nok, Chiang Mai (P.93**

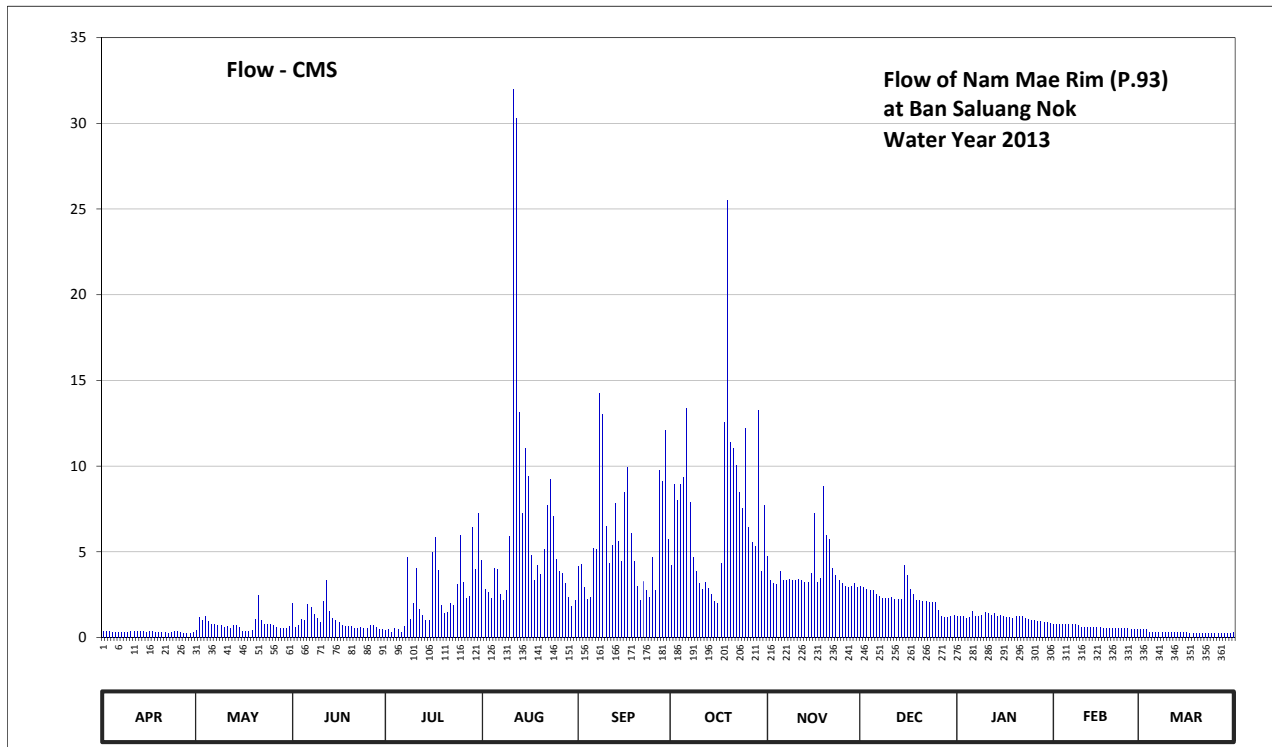
Lat 19 - 00 - 54 N Long 98 - 52 - 50 E

**Location : on left bank at Ban Saluang Nok**

|                                         |                                                                                           |             |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Saluang Nok | <b>Amphoe</b> | Mae Rim | <b>Changwat</b>  | Chiang Mai         |
| <b>Drainage Area</b>                    | 411                                                                                       | sq.km.      |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |             |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +340.588                                                                                  | m. (MSL.)   |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |         |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |             |               |         | <b>Elevation</b> | +344.720 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |             |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |             |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |             |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |             |               |         |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |             |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |             |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |             |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |         |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 39 discharge measurements made in 1913. |             |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 340.54 | 340.56 | 340.97      | 340.57 | 341.35                            | 341.30 | 341.31            | 341.38 | 341.13 | 340.82 | 340.70 | 340.60 |        |
| 2                                | 340.55 | 340.80 | 340.63      | 340.58 | 341.10                            | 341.32 | 341.84            | 341.19 | 341.12 | 340.81 | 340.69 | 340.60 |        |
| 3                                | 340.54 | 340.75 | 340.67      | 340.52 | 341.08                            | 341.12 | 341.75            | 341.16 | 341.10 | 340.81 | 340.70 | 340.58 |        |
| 4                                | 340.51 | 340.82 | 340.77      | 340.62 | 341.02                            | 341.01 | 341.84            | 341.15 | 341.09 | 340.79 | 340.70 | 340.52 |        |
| 5                                | 340.51 | 340.74 | 340.76      | 340.59 | 341.29                            | 341.03 | 341.88            | 341.26 | 341.09 | 340.80 | 340.69 | 340.52 |        |
| 6                                | 340.51 | 340.69 | 340.96      | 340.51 | 341.28                            | 341.44 | 342.24            | 341.19 | 341.06 | 340.89 | 340.69 | 340.52 |        |
| 7                                | 340.51 | 340.69 | 340.93      | 340.66 | 341.06                            | 341.43 | 341.74            | 341.19 | 341.04 | 340.82 | 340.69 | 340.52 |        |
| 8                                | 340.52 | 340.68 | 340.84      | 341.37 | 341.00                            | 342.31 | 341.37            | 341.20 | 341.02 | 340.81 | 340.69 | 340.52 |        |
| 9                                | 340.51 | 340.67 | 340.78      | 340.77 | 341.09                            | 342.21 | 341.26            | 341.19 | 341.02 | 340.83 | 340.68 | 340.51 |        |
| 10                               | 340.54 | 340.64 | 340.72      | 340.97 | 341.52                            | 341.59 | 341.16            | 341.19 | 341.02 | 340.87 | 340.64 | 340.51 |        |
| 11                               | 340.54 | 340.66 | 340.99      | 341.29 | 343.48                            | 341.33 | 341.10            | 341.20 | 341.03 | 340.86 | 340.64 | 340.51 |        |
| 12                               | 340.54 | 340.62 | 341.19      | 340.91 | 343.38                            | 341.46 | 341.17            | 341.19 | 341.01 | 340.83 | 340.64 | 340.51 |        |
| 13                               | 340.54 | 340.68 | 340.89      | 340.83 | 342.22                            | 341.73 | 341.11            | 341.17 | 341.01 | 340.85 | 340.64 | 340.51 |        |
| 14                               | 340.53 | 340.67 | 340.79      | 340.76 | 341.67                            | 341.49 | 341.06            | 341.17 | 341.01 | 340.81 | 340.64 | 340.51 |        |
| 15                               | 340.52 | 340.63 | 340.75      | 340.76 | 342.04                            | 341.34 | 340.99            | 341.25 | 341.31 | 340.83 | 340.64 | 340.50 |        |
| 16                               | 340.54 | 340.54 | 340.73      | 341.41 | 341.89                            | 341.80 | 340.97            | 341.67 | 341.23 | 340.81 | 340.63 | 340.50 |        |
| 17                               | 340.53 | 340.54 | 340.68      | 341.51 | 341.39                            | 341.94 | 341.33            | 341.17 | 341.10 | 340.80 | 340.61 | 340.49 |        |
| 18                               | 340.50 | 340.55 | 340.66      | 341.27 | 341.19                            | 341.54 | 342.17            | 341.21 | 341.06 | 340.80 | 340.61 | 340.49 |        |
| 19                               | 340.52 | 340.57 | 340.65      | 340.95 | 341.31                            | 341.34 | 343.08            | 341.83 | 341.00 | 340.79 | 340.61 | 340.49 |        |
| 20                               | 340.51 | 340.77 | 340.65      | 340.85 | 341.24                            | 341.13 | 342.07            | 341.53 | 341.00 | 340.81 | 340.61 | 340.48 |        |
| 21                               | 340.50 | 341.05 | 340.62      | 340.87 | 341.43                            | 341.00 | 342.04            | 341.50 | 340.99 | 340.81 | 340.61 | 340.49 |        |
| 22                               | 340.47 | 340.76 | 340.62      | 340.97 | 341.72                            | 341.18 | 341.95            | 341.29 | 340.99 | 340.81 | 340.61 | 340.49 |        |
| 23                               | 340.50 | 340.69 | 340.63      | 340.95 | 341.87                            | 341.09 | 341.80            | 341.23 | 340.98 | 340.79 | 340.61 | 340.49 |        |
| 24                               | 340.54 | 340.69 | 340.61      | 341.15 | 341.65                            | 341.03 | 341.70            | 341.19 | 340.98 | 340.77 | 340.61 | 340.49 |        |
| 25                               | 340.53 | 340.69 | 340.62      | 341.53 | 341.36                            | 341.37 | 342.14            | 341.16 | 340.98 | 340.76 | 340.61 | 340.49 |        |
| 26                               | 340.51 | 340.68 | 340.68      | 341.17 | 341.26                            | 341.09 | 341.58            | 341.13 | 340.90 | 340.76 | 340.60 | 340.49 |        |
| 27                               | 340.49 | 340.64 | 340.67      | 341.02 | 341.25                            | 341.92 | 341.48            | 341.12 | 340.82 | 340.74 | 340.60 | 340.49 |        |
| 28                               | 340.49 | 340.62 | 340.63      | 341.04 | 341.16                            | 341.86 | 341.45            | 341.13 | 340.80 | 340.74 | 340.60 | 340.49 |        |
| 29                               | 340.48 | 340.62 | 340.60      | 341.58 | 341.03                            | 342.13 | 342.23            | 341.16 | 340.80 | 340.72 |        | 340.49 |        |
| 30                               | 340.50 | 340.61 | 340.60      | 341.28 | 340.94                            | 341.50 | 341.26            | 341.12 | 340.81 | 340.72 |        | 340.49 |        |
| 31                               |        | 340.66 |             | 341.67 | 341.00                            |        | 341.72            |        | 340.83 | 340.71 |        | 340.50 |        |
| Mean                             | 340.52 | 340.68 | 340.74      | 341.00 | 341.49                            | 341.47 | 341.64            | 341.25 | 341.01 | 340.80 | 340.64 | 340.51 |        |
| Max                              | 340.55 | 341.05 | 341.19      | 341.67 | 343.48                            | 342.31 | 343.08            | 341.83 | 341.31 | 340.89 | 340.70 | 340.60 | 343.48 |
| Min                              | 340.47 | 340.54 | 340.60      | 340.51 | 340.94                            | 341.00 | 340.97            | 341.12 | 340.80 | 340.71 | 340.60 | 340.48 | 340.47 |
| Annual Max Momentary Gage Height |        | 344.01 | m. (MSL.) , |        | at 21.00 Hours , on Aug 11 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 340.59 | m. (MSL.) , |        | River Bed                         | 340.30 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 344.27 | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 344.08 | m. (MSL.) , |        | Drainage Area                     | 411    | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec   | Jan   | Feb   | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------|--------------------------|-------|-------|-------|------|----------------|
| 1              | 0.38                                                             | 0.42                     | 2.02  | 0.44                 | 4.53   | 4.15    | 4.22   | 4.75                     | 2.98  | 1.28  | 0.80  | 0.50 |                |
| 2              | 0.40                                                             | 1.20                     | 0.59  | 0.46                 | 2.80   | 4.30    | 8.92   | 3.34                     | 2.92  | 1.24  | 0.77  | 0.50 |                |
| 3              | 0.38                                                             | 1.00                     | 0.71  | 0.34                 | 2.68   | 2.92    | 8.03   | 3.16                     | 2.80  | 1.24  | 0.80  | 0.46 |                |
| 4              | 0.32                                                             | 1.28                     | 1.08  | 0.56                 | 2.32   | 2.26    | 8.92   | 3.10                     | 2.74  | 1.16  | 0.80  | 0.34 |                |
| 5              | 0.32                                                             | 0.96                     | 1.04  | 0.48                 | 4.08   | 2.38    | 9.34   | 3.85                     | 2.74  | 1.20  | 0.77  | 0.34 |                |
| 6              | 0.32                                                             | 0.77                     | 1.96  | 0.32                 | 4.00   | 5.24    | 13.40  | 3.34                     | 2.56  | 1.56  | 0.77  | 0.34 |                |
| 7              | 0.32                                                             | 0.77                     | 1.78  | 0.68                 | 2.56   | 5.15    | 7.93   | 3.34                     | 2.44  | 1.28  | 0.77  | 0.34 |                |
| 8              | 0.34                                                             | 0.74                     | 1.36  | 4.67                 | 2.20   | 14.27   | 4.67   | 3.40                     | 2.32  | 1.24  | 0.77  | 0.34 |                |
| 9              | 0.32                                                             | 0.71                     | 1.12  | 1.08                 | 2.74   | 13.02   | 3.85   | 3.34                     | 2.32  | 1.32  | 0.74  | 0.32 |                |
| 10             | 0.38                                                             | 0.62                     | 0.88  | 2.02                 | 5.92   | 6.51    | 3.16   | 3.34                     | 2.32  | 1.48  | 0.62  | 0.32 |                |
| 11             | 0.38                                                             | 0.68                     | 2.14  | 4.08                 | 31.96  | 4.37    | 2.80   | 3.40                     | 2.38  | 1.44  | 0.62  | 0.32 |                |
| 12             | 0.38                                                             | 0.56                     | 3.34  | 1.66                 | 30.28  | 5.41    | 3.22   | 3.34                     | 2.26  | 1.32  | 0.62  | 0.32 |                |
| 13             | 0.38                                                             | 0.74                     | 1.56  | 1.32                 | 13.15  | 7.84    | 2.86   | 3.22                     | 2.26  | 1.40  | 0.62  | 0.32 |                |
| 14             | 0.36                                                             | 0.71                     | 1.16  | 1.04                 | 7.27   | 5.66    | 2.56   | 3.22                     | 2.26  | 1.24  | 0.62  | 0.32 |                |
| 15             | 0.34                                                             | 0.59                     | 1.00  | 1.04                 | 11.06  | 4.45    | 2.14   | 3.77                     | 4.22  | 1.32  | 0.62  | 0.30 |                |
| 16             | 0.38                                                             | 0.38                     | 0.92  | 4.99                 | 9.45   | 8.50    | 2.02   | 7.27                     | 3.63  | 1.24  | 0.59  | 0.30 |                |
| 17             | 0.36                                                             | 0.38                     | 0.74  | 5.84                 | 4.83   | 9.97    | 4.37   | 3.22                     | 2.80  | 1.20  | 0.53  | 0.28 |                |
| 18             | 0.30                                                             | 0.40                     | 0.68  | 3.92                 | 3.34   | 6.09    | 12.56  | 3.47                     | 2.56  | 1.20  | 0.53  | 0.28 |                |
| 19             | 0.34                                                             | 0.44                     | 0.65  | 1.90                 | 4.22   | 4.45    | 25.48  | 8.81                     | 2.20  | 1.16  | 0.53  | 0.28 |                |
| 20             | 0.32                                                             | 1.08                     | 0.65  | 1.40                 | 3.70   | 2.98    | 11.41  | 6.00                     | 2.20  | 1.24  | 0.53  | 0.26 |                |
| 21             | 0.30                                                             | 2.50                     | 0.56  | 1.48                 | 5.15   | 2.20    | 11.06  | 5.75                     | 2.14  | 1.24  | 0.53  | 0.28 |                |
| 22             | 0.24                                                             | 1.04                     | 0.56  | 2.02                 | 7.74   | 3.28    | 10.08  | 4.08                     | 2.14  | 1.24  | 0.53  | 0.28 |                |
| 23             | 0.30                                                             | 0.77                     | 0.59  | 1.90                 | 9.24   | 2.74    | 8.50   | 3.63                     | 2.08  | 1.16  | 0.53  | 0.28 |                |
| 24             | 0.38                                                             | 0.77                     | 0.53  | 3.10                 | 7.07   | 2.38    | 7.55   | 3.34                     | 2.08  | 1.08  | 0.53  | 0.28 |                |
| 25             | 0.36                                                             | 0.77                     | 0.56  | 6.00                 | 4.60   | 4.67    | 12.21  | 3.16                     | 2.08  | 1.04  | 0.53  | 0.28 |                |
| 26             | 0.32                                                             | 0.74                     | 0.74  | 3.22                 | 3.85   | 2.74    | 6.43   | 2.98                     | 1.60  | 1.04  | 0.50  | 0.28 |                |
| 27             | 0.28                                                             | 0.62                     | 0.71  | 2.32                 | 3.77   | 9.76    | 5.58   | 2.92                     | 1.28  | 0.96  | 0.50  | 0.28 |                |
| 28             | 0.28                                                             | 0.56                     | 0.59  | 2.44                 | 3.16   | 9.13    | 5.33   | 2.98                     | 1.20  | 0.96  | 0.50  | 0.28 |                |
| 29             | 0.26                                                             | 0.56                     | 0.50  | 6.43                 | 2.38   | 12.09   | 13.28  | 3.16                     | 1.20  | 0.88  |       | 0.28 |                |
| 30             | 0.30                                                             | 0.53                     | 0.50  | 4.00                 | 1.84   | 5.75    | 3.85   | 2.92                     | 1.24  | 0.88  |       | 0.28 |                |
| 31             |                                                                  | 0.68                     |       | 7.27                 | 2.20   |         | 7.74   |                          | 1.32  | 0.84  |       | 0.30 |                |
| Total          | 10.04                                                            | 23.97                    | 31.22 | 78.42                | 204.09 | 174.66  | 233.47 | 115.60                   | 71.27 | 37.08 | 17.57 | 9.88 | 1007.27 CMSDAY |
| Mean           | 0.33                                                             | 0.77                     | 1.04  | 2.53                 | 6.58   | 5.82    | 7.53   | 3.85                     | 2.30  | 1.20  | 0.63  | 0.32 | 2.76 CMS       |
| Max            | 0.40                                                             | 2.50                     | 3.34  | 7.27                 | 31.96  | 14.27   | 25.48  | 8.81                     | 4.22  | 1.56  | 0.80  | 0.50 | 31.96 CMS      |
| Min            | 0.24                                                             | 0.38                     | 0.50  | 0.32                 | 1.84   | 2.20    | 2.02   | 2.92                     | 1.20  | 0.84  | 0.50  | 0.26 | 0.24 CMS       |
| Runoff         | 0.87                                                             | 2.07                     | 2.70  | 6.78                 | 17.63  | 15.09   | 20.17  | 9.99                     | 6.16  | 3.20  | 1.52  | 0.85 | 87.03 MCM      |
| Momentary Peak | 41.28 CMS. at 344.01 m. (MSL.) at 21.00 Hours , on Aug 11 , 2013 |                          |       |                      |        |         |        |                          |       |       |       |      |                |
| Runoff Yield   | 6.71                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 100.438 |        | Liters/Second/Square KM. |       |       |       |      |                |

## WATER YEAR : 2013

## WANG RIVER BASIN

**Wang River at Setuwaree Bridge , Lampang (W.1C)**

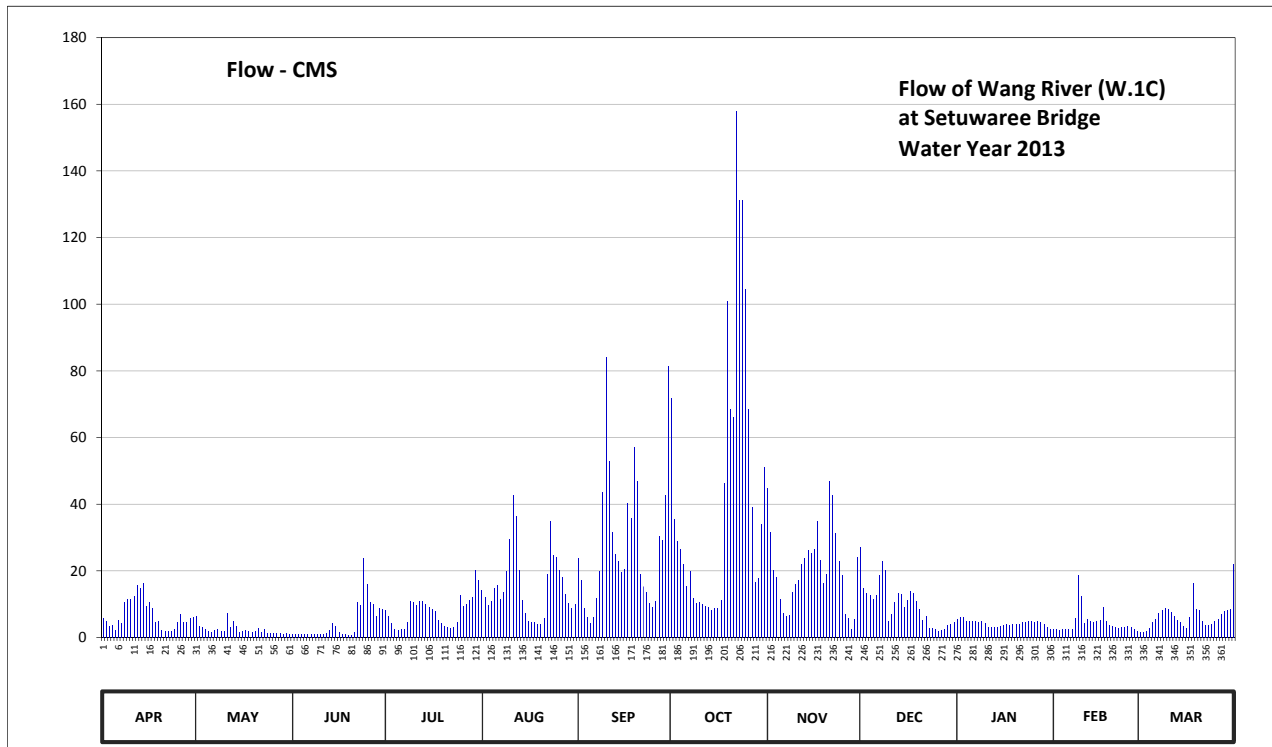
Lat 18 - 17 - 51 N    Long 99 - 30 - 56 W

**Location : on left bank at the bridge**

|                                         |                                                                                           |                  |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Setuwaree Bridge | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Lampang           |
| <b>Drainage Area</b>                    | 3,478                                                                                     | sq.km.           |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |                  |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +229.300                                                                                  | m. (MSL.)        |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                  |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank at the approach of the bridge.                                               |                  |               |        | <b>Elevation</b> | +234.725 m. (MSL) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                  |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                  |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1990 - 1998, 2006 to date                                                                 |                  |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1990 - 1998, 2006 to date                                                                 |                  |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1990 - 1998, 2006 to date                                                                 |                  |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |                  |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |        |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 48 discharge measurements made in 1913. |                  |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 228.81 | 228.84 | 228.52                                           | 228.90 | 229.10 | 229.37 | 230.31 | 229.83 | 229.45 | 228.80 | 228.65 | 228.58 |        |
| 2                                | 228.78 | 228.69 | 228.52                                           | 228.83 | 229.03 | 229.19 | 229.64 | 229.56 | 229.12 | 228.82 | 228.63 | 228.57 |        |
| 3                                | 228.70 | 228.67 | 228.52                                           | 228.74 | 228.95 | 228.92 | 229.49 | 229.27 | 229.07 | 228.82 | 228.62 | 228.59 |        |
| 4                                | 228.72 | 228.65 | 228.52                                           | 228.64 | 228.99 | 228.82 | 229.44 | 229.21 | 229.05 | 228.78 | 228.63 | 228.66 |        |
| 5                                | 228.62 | 228.61 | 228.51                                           | 228.62 | 229.12 | 228.74 | 229.32 | 229.01 | 229.01 | 228.78 | 228.65 | 228.75 |        |
| 6                                | 228.79 | 228.58 | 228.51                                           | 228.63 | 229.14 | 228.82 | 229.13 | 228.87 | 229.05 | 228.78 | 228.65 | 228.80 |        |
| 7                                | 228.74 | 228.62 | 228.51                                           | 228.63 | 229.01 | 229.02 | 229.26 | 228.83 | 229.23 | 228.77 | 228.64 | 228.87 |        |
| 8                                | 228.98 | 228.64 | 228.50                                           | 228.75 | 229.08 | 229.26 | 229.02 | 228.85 | 229.34 | 228.76 | 228.81 | 228.90 |        |
| 9                                | 229.01 | 228.61 | 228.50                                           | 228.99 | 229.26 | 229.81 | 228.97 | 229.08 | 229.27 | 228.77 | 229.23 | 228.92 |        |
| 10                               | 229.01 | 228.60 | 228.50                                           | 228.98 | 229.51 | 230.50 | 228.98 | 229.15 | 228.78 | 228.74 | 229.04 | 228.91 |        |
| 11                               | 229.04 | 228.87 | 228.50                                           | 228.95 | 229.79 | 229.98 | 228.96 | 229.19 | 228.86 | 228.67 | 228.74 | 228.88 |        |
| 12                               | 229.14 | 228.68 | 228.54                                           | 228.99 | 229.66 | 229.56 | 228.94 | 229.32 | 228.98 | 228.67 | 228.80 | 228.83 |        |
| 13                               | 229.12 | 228.77 | 228.62                                           | 228.99 | 229.27 | 229.40 | 228.93 | 229.37 | 229.07 | 228.68 | 228.77 | 228.79 |        |
| 14                               | 229.16 | 228.69 | 228.74                                           | 228.96 | 229.00 | 229.34 | 228.90 | 229.43 | 229.06 | 228.67 | 228.76 | 228.75 |        |
| 15                               | 228.94 | 228.58 | 228.70                                           | 228.93 | 228.87 | 229.25 | 228.92 | 229.41 | 228.93 | 228.69 | 228.78 | 228.70 |        |
| 16                               | 228.98 | 228.59 | 228.58                                           | 228.91 | 228.78 | 229.28 | 228.92 | 229.44 | 229.00 | 228.72 | 228.79 | 228.66 |        |
| 17                               | 228.92 | 228.62 | 228.52                                           | 228.89 | 228.76 | 229.74 | 229.00 | 229.63 | 229.09 | 228.73 | 228.93 | 228.82 |        |
| 18                               | 228.76 | 228.59 | 228.52                                           | 228.79 | 228.75 | 229.65 | 229.86 | 229.35 | 229.07 | 228.72 | 228.78 | 229.16 |        |
| 19                               | 228.78 | 228.58 | 228.49                                           | 228.74 | 228.73 | 230.06 | 230.73 | 229.16 | 228.99 | 228.73 | 228.72 | 228.91 |        |
| 20                               | 228.62 | 228.59 | 228.49                                           | 228.70 | 228.73 | 229.87 | 230.26 | 229.24 | 228.91 | 228.73 | 228.70 | 228.90 |        |
| 21                               | 228.59 | 228.66 | 228.58                                           | 228.67 | 228.81 | 229.24 | 230.22 | 229.87 | 228.79 | 228.73 | 228.67 | 228.78 |        |
| 22                               | 228.59 | 228.58 | 228.98                                           | 228.66 | 229.24 | 229.13 | 231.42 | 229.79 | 228.83 | 228.75 | 228.66 | 228.72 |        |
| 23                               | 228.61 | 228.64 | 228.95                                           | 228.68 | 229.63 | 229.08 | 231.12 | 229.55 | 228.66 | 228.76 | 228.67 | 228.71 |        |
| 24                               | 228.64 | 228.55 | 229.37                                           | 228.76 | 229.39 | 228.97 | 231.12 | 229.34 | 228.66 | 228.78 | 228.68 | 228.73 |        |
| 25                               | 228.75 | 228.54 | 229.15                                           | 229.05 | 229.38 | 228.93 | 230.78 | 229.23 | 228.63 | 228.78 | 228.69 | 228.77 |        |
| 26                               | 228.86 | 228.54 | 228.98                                           | 228.94 | 229.27 | 228.99 | 230.26 | 228.86 | 228.60 | 228.76 | 228.67 | 228.80 |        |
| 27                               | 228.76 | 228.53 | 228.96                                           | 228.96 | 229.21 | 229.53 | 229.72 | 228.81 | 228.62 | 228.78 | 228.63 | 228.86 |        |
| 28                               | 228.75 | 228.53 | 228.83                                           | 229.00 | 229.06 | 229.50 | 229.17 | 228.64 | 228.65 | 228.76 | 228.60 | 228.89 |        |
| 29                               | 228.81 | 228.52 | 228.92                                           | 229.03 | 228.97 | 229.79 | 229.20 | 228.80 | 228.71 | 228.73 |        | 228.90 |        |
| 30                               | 228.82 | 228.54 | 228.91                                           | 229.27 | 228.92 | 230.46 | 229.61 | 229.38 | 228.73 | 228.68 |        | 228.91 |        |
| 31                               |        | 228.51 |                                                  | 229.19 | 228.96 |        | 229.95 |        | 228.76 | 228.65 |        | 229.32 |        |
| Mean                             | 228.83 | 228.62 | 228.68                                           | 228.86 | 229.11 | 229.41 | 229.66 | 229.25 | 228.93 | 228.74 | 228.74 | 228.82 |        |
| Max                              | 229.16 | 228.87 | 229.37                                           | 229.27 | 229.79 | 230.50 | 231.42 | 229.87 | 229.45 | 228.82 | 229.23 | 229.32 | 231.42 |
| Min                              | 228.59 | 228.51 | 228.49                                           | 228.62 | 228.73 | 228.74 | 228.90 | 228.64 | 228.60 | 228.65 | 228.60 | 228.57 | 228.42 |
| Annual Max Momentary Gage Height |        | 231.56 | m. (MSL.) , at 14.00 Hours , on Oct 22 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 229.30 | m. (MSL.) , River Bed 227.88 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 234.69 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 235.05 | m. (MSL.) , Drainage Area 3478 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

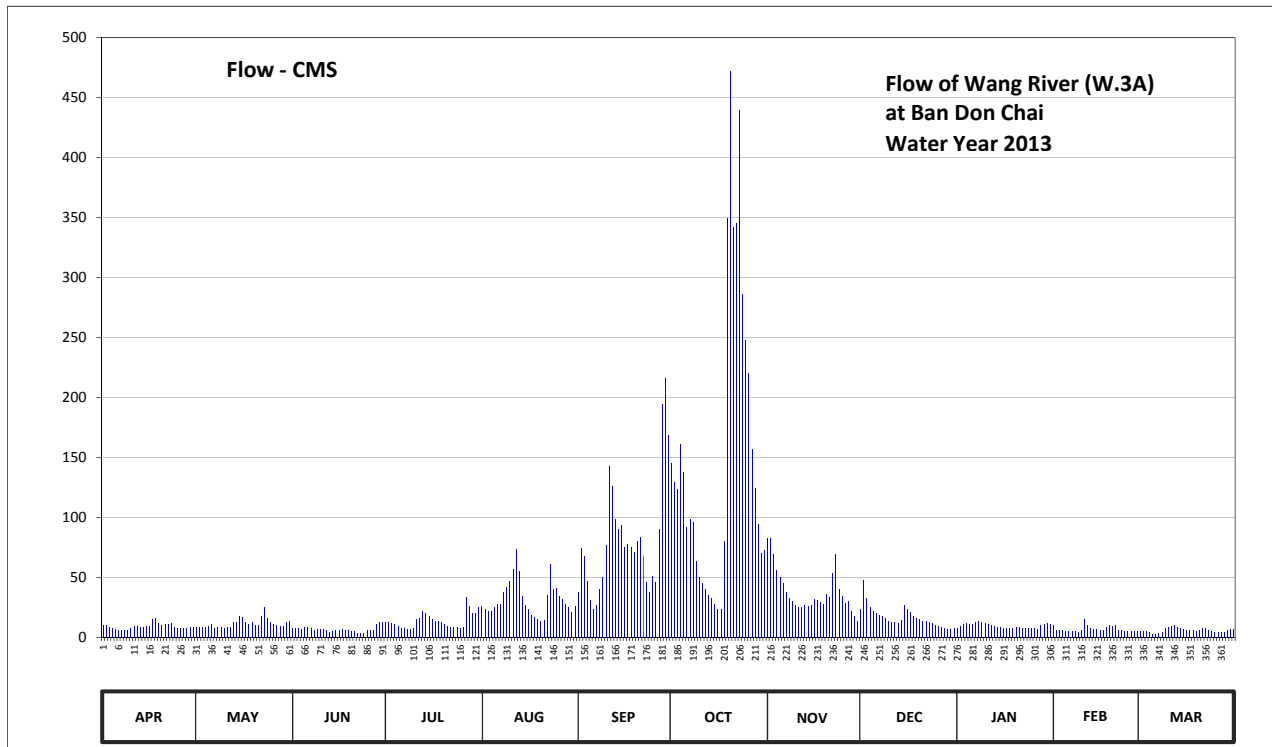


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|--------|--------------------------|--------|--------|--------|--------|--------|----------------|
| 1              | 5.77                                                              | 6.58                     | 1.10   | 8.20                 | 14.30  | 23.91  | 71.60                    | 44.73  | 27.12  | 5.50   | 2.70   | 1.70   |                |
| 2              | 5.10                                                              | 3.34                     | 1.10   | 6.31                 | 12.13  | 17.36  | 35.42                    | 31.80  | 14.98  | 6.04   | 2.38   | 1.60   |                |
| 3              | 3.50                                                              | 3.02                     | 1.10   | 4.30                 | 9.70   | 8.80   | 28.83                    | 20.26  | 13.37  | 6.04   | 2.22   | 1.80   |                |
| 4              | 3.90                                                              | 2.70                     | 1.10   | 2.54                 | 10.90  | 6.04   | 26.70                    | 18.07  | 12.75  | 5.10   | 2.38   | 2.86   |                |
| 5              | 2.22                                                              | 2.06                     | 1.00   | 2.22                 | 14.98  | 4.30   | 22.08                    | 11.51  | 11.51  | 5.10   | 2.70   | 4.50   |                |
| 6              | 5.30                                                              | 1.70                     | 1.00   | 2.38                 | 15.66  | 6.04   | 15.32                    | 7.39   | 12.75  | 5.10   | 2.70   | 5.50   |                |
| 7              | 4.30                                                              | 2.22                     | 1.00   | 2.38                 | 11.51  | 11.82  | 19.89                    | 6.31   | 18.79  | 4.90   | 2.54   | 7.39   |                |
| 8              | 10.60                                                             | 2.54                     | 0.90   | 4.50                 | 13.68  | 19.89  | 11.82                    | 6.85   | 22.81  | 4.70   | 5.77   | 8.20   |                |
| 9              | 11.51                                                             | 2.06                     | 0.90   | 10.90                | 19.89  | 43.64  | 10.30                    | 13.68  | 20.26  | 4.90   | 18.79  | 8.80   |                |
| 10             | 11.51                                                             | 1.90                     | 0.90   | 10.60                | 29.67  | 84.00  | 10.60                    | 16.00  | 5.10   | 4.30   | 12.44  | 8.50   |                |
| 11             | 12.44                                                             | 7.39                     | 0.90   | 9.70                 | 42.62  | 52.91  | 10.00                    | 17.36  | 7.12   | 3.02   | 4.30   | 7.66   |                |
| 12             | 15.66                                                             | 3.18                     | 1.30   | 10.90                | 36.38  | 31.80  | 9.40                     | 22.08  | 10.60  | 3.02   | 5.50   | 6.31   |                |
| 13             | 14.98                                                             | 4.90                     | 2.22   | 10.90                | 20.26  | 25.00  | 9.10                     | 23.91  | 13.37  | 3.18   | 4.90   | 5.30   |                |
| 14             | 16.34                                                             | 3.34                     | 4.30   | 10.00                | 11.20  | 22.81  | 8.20                     | 26.27  | 13.06  | 3.02   | 4.70   | 4.50   |                |
| 15             | 9.40                                                              | 1.70                     | 3.50   | 9.10                 | 7.39   | 19.53  | 8.80                     | 25.43  | 9.10   | 3.34   | 5.10   | 3.50   |                |
| 16             | 10.60                                                             | 1.80                     | 1.70   | 8.50                 | 5.10   | 20.62  | 8.80                     | 26.70  | 11.20  | 3.90   | 5.30   | 2.86   |                |
| 17             | 8.80                                                              | 2.22                     | 1.10   | 7.93                 | 4.70   | 40.22  | 11.20                    | 34.94  | 13.99  | 4.10   | 9.10   | 6.04   |                |
| 18             | 4.70                                                              | 1.80                     | 1.10   | 5.30                 | 4.50   | 35.90  | 46.37                    | 23.18  | 13.37  | 3.90   | 5.10   | 16.34  |                |
| 19             | 5.10                                                              | 1.70                     | 0.83   | 4.30                 | 4.10   | 57.30  | 100.75                   | 16.34  | 10.90  | 4.10   | 3.90   | 8.50   |                |
| 20             | 2.22                                                              | 1.80                     | 0.83   | 3.50                 | 4.10   | 46.91  | 68.60                    | 19.16  | 8.50   | 4.10   | 3.50   | 8.20   |                |
| 21             | 1.80                                                              | 2.86                     | 1.70   | 3.02                 | 5.77   | 19.16  | 66.20                    | 46.91  | 5.30   | 4.10   | 3.02   | 5.10   |                |
| 22             | 1.80                                                              | 1.70                     | 10.60  | 2.86                 | 19.16  | 15.32  | 158.00                   | 42.62  | 6.31   | 4.50   | 2.86   | 3.90   |                |
| 23             | 2.06                                                              | 2.54                     | 9.70   | 3.18                 | 34.94  | 13.68  | 131.20                   | 31.37  | 2.86   | 4.70   | 3.02   | 3.70   |                |
| 24             | 2.54                                                              | 1.40                     | 23.91  | 4.70                 | 24.64  | 10.30  | 131.20                   | 22.81  | 2.86   | 5.10   | 3.18   | 4.10   |                |
| 25             | 4.50                                                              | 1.30                     | 16.00  | 12.75                | 24.27  | 9.10   | 104.50                   | 18.79  | 2.38   | 5.10   | 3.34   | 4.90   |                |
| 26             | 7.12                                                              | 1.30                     | 10.60  | 9.40                 | 20.26  | 10.90  | 68.60                    | 7.12   | 1.90   | 4.70   | 3.02   | 5.50   |                |
| 27             | 4.70                                                              | 1.20                     | 10.00  | 10.00                | 18.07  | 30.52  | 39.26                    | 5.77   | 2.22   | 5.10   | 2.38   | 7.12   |                |
| 28             | 4.50                                                              | 1.20                     | 6.31   | 11.20                | 13.06  | 29.25  | 16.68                    | 2.54   | 2.70   | 4.70   | 1.90   | 7.93   |                |
| 29             | 5.77                                                              | 1.10                     | 8.80   | 12.13                | 10.30  | 42.62  | 17.70                    | 5.50   | 3.70   | 4.10   |        | 8.20   |                |
| 30             | 6.04                                                              | 1.30                     | 8.50   | 20.26                | 8.80   | 81.20  | 33.98                    | 24.27  | 4.10   | 3.18   |        | 8.50   |                |
| 31             |                                                                   | 1.00                     |        | 17.36                | 10.00  |        | 51.27                    |        | 4.70   | 2.70   |        | 22.08  |                |
| Total          | 204.78                                                            | 74.85                    | 134.00 | 241.32               | 482.04 | 840.85 | 1352.37                  | 619.67 | 309.68 | 135.34 | 128.74 | 201.09 | 4724.73 CMSDAY |
| Mean           | 6.83                                                              | 2.41                     | 4.47   | 7.78                 | 15.55  | 28.03  | 43.62                    | 20.66  | 9.99   | 4.37   | 4.60   | 6.49   | 12.94 CMS      |
| Max            | 16.34                                                             | 7.39                     | 23.91  | 20.26                | 42.62  | 84.00  | 158.00                   | 46.91  | 27.12  | 6.04   | 18.79  | 22.08  | 158.00 CMS     |
| Min            | 1.80                                                              | 1.00                     | 0.83   | 2.22                 | 4.10   | 4.30   | 8.20                     | 2.54   | 1.90   | 2.70   | 1.90   | 1.60   | 0.83 CMS       |
| Runoff         | 17.69                                                             | 6.47                     | 11.58  | 20.85                | 41.65  | 72.65  | 116.85                   | 53.54  | 26.76  | 11.69  | 11.12  | 17.37  | 408.22 MCM     |
| Momentary Peak | 172.00 CMS. at 231.56 m. (MSL.) at 14.00 Hours , on Oct 22 , 2013 |                          |        |                      |        |        |                          |        |        |        |        |        |                |
| Runoff Yield   | 3.72                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 49.454 | Liters/Second/Square KM. |        |        |        |        |        |                |







**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec    | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|---------|--------|--------|--------|--------|----------|--------|
| 1              | 10.40                                                             | 8.84                     | 8.18   | 13.10                | 26.40   | 38.00   | 145.50                   | 82.80   | 24.00  | 7.85   | 9.95   | 5.39   |          |        |
| 2              | 10.40                                                             | 8.84                     | 7.52   | 12.65                | 24.00   | 74.70   | 129.90                   | 82.80   | 48.00  | 9.17   | 6.53   | 5.12   |          |        |
| 3              | 8.84                                                              | 8.51                     | 7.52   | 11.75                | 22.40   | 68.10   | 123.60                   | 69.20   | 32.80  | 10.85  | 6.20   | 5.12   |          |        |
| 4              | 8.18                                                              | 8.51                     | 7.19   | 10.85                | 22.40   | 47.00   | 161.10                   | 56.00   | 25.60  | 12.20  | 5.93   | 4.31   |          |        |
| 5              | 7.19                                                              | 9.50                     | 8.51   | 9.50                 | 25.60   | 31.20   | 137.70                   | 50.00   | 22.40  | 11.30  | 5.66   | 2.90   |          |        |
| 6              | 6.20                                                              | 11.30                    | 8.51   | 8.18                 | 28.00   | 24.00   | 92.40                    | 45.00   | 20.00  | 11.30  | 5.66   | 3.10   |          |        |
| 7              | 6.20                                                              | 8.18                     | 7.52   | 7.52                 | 28.00   | 27.20   | 98.40                    | 38.00   | 18.80  | 12.65  | 5.39   | 3.30   |          |        |
| 8              | 6.20                                                              | 8.84                     | 6.53   | 7.19                 | 38.00   | 40.00   | 96.00                    | 32.80   | 17.60  | 14.00  | 5.39   | 4.31   |          |        |
| 9              | 6.20                                                              | 8.84                     | 7.19   | 6.86                 | 42.00   | 50.00   | 63.70                    | 30.40   | 16.40  | 13.10  | 4.85   | 7.52   |          |        |
| 10             | 8.18                                                              | 8.18                     | 7.19   | 7.52                 | 47.00   | 76.90   | 50.00                    | 27.20   | 14.00  | 12.20  | 6.20   | 8.51   |          |        |
| 11             | 9.50                                                              | 8.51                     | 6.86   | 15.20                | 57.10   | 142.90  | 45.00                    | 25.60   | 13.10  | 11.30  | 15.20  | 9.50   |          |        |
| 12             | 9.17                                                              | 8.51                     | 5.93   | 15.80                | 73.60   | 126.00  | 40.00                    | 25.60   | 12.65  | 10.40  | 10.40  | 9.95   |          |        |
| 13             | 8.84                                                              | 13.10                    | 4.85   | 22.40                | 55.00   | 98.40   | 35.20                    | 27.20   | 12.20  | 9.50   | 7.52   | 8.84   |          |        |
| 14             | 8.84                                                              | 13.10                    | 5.39   | 20.00                | 34.40   | 90.00   | 32.80                    | 26.40   | 14.60  | 8.84   | 7.19   | 7.85   |          |        |
| 15             | 9.17                                                              | 18.20                    | 5.93   | 17.60                | 27.20   | 93.60   | 28.00                    | 27.20   | 27.20  | 8.51   | 6.86   | 6.86   |          |        |
| 16             | 9.50                                                              | 17.00                    | 6.20   | 15.20                | 24.00   | 75.80   | 24.00                    | 32.00   | 24.00  | 8.18   | 6.53   | 6.53   |          |        |
| 17             | 15.20                                                             | 12.65                    | 7.19   | 14.00                | 18.80   | 78.00   | 24.00                    | 31.20   | 21.60  | 8.18   | 6.53   | 6.20   |          |        |
| 18             | 16.40                                                             | 10.85                    | 6.53   | 13.55                | 17.00   | 75.80   | 80.40                    | 29.60   | 17.60  | 7.85   | 8.51   | 5.93   |          |        |
| 19             | 12.20                                                             | 12.65                    | 6.20   | 12.65                | 15.20   | 71.40   | 349.00                   | 28.00   | 15.80  | 8.18   | 9.95   | 5.66   |          |        |
| 20             | 9.95                                                              | 10.40                    | 5.66   | 11.30                | 14.00   | 80.40   | 471.60                   | 36.00   | 15.20  | 8.51   | 9.50   | 6.20   |          |        |
| 21             | 11.30                                                             | 10.40                    | 5.39   | 9.50                 | 14.60   | 84.00   | 342.00                   | 33.60   | 14.00  | 8.51   | 10.40  | 8.18   |          |        |
| 22             | 10.85                                                             | 17.60                    | 4.04   | 8.84                 | 35.20   | 68.10   | 345.50                   | 54.00   | 13.55  | 8.18   | 6.20   | 7.52   |          |        |
| 23             | 12.20                                                             | 25.60                    | 3.50   | 8.84                 | 61.50   | 46.00   | 439.30                   | 69.20   | 13.10  | 7.85   | 6.53   | 6.20   |          |        |
| 24             | 8.84                                                              | 16.40                    | 4.04   | 8.51                 | 40.00   | 38.00   | 285.60                   | 40.00   | 11.75  | 7.85   | 5.66   | 5.39   |          |        |
| 25             | 7.52                                                              | 13.10                    | 5.93   | 8.18                 | 41.00   | 51.00   | 247.85                   | 34.40   | 9.95   | 7.85   | 5.66   | 4.85   |          |        |
| 26             | 7.52                                                              | 10.85                    | 5.93   | 8.84                 | 34.40   | 46.00   | 220.50                   | 28.80   | 9.17   | 8.18   | 5.66   | 4.58   |          |        |
| 27             | 7.52                                                              | 9.95                     | 5.93   | 33.60                | 32.00   | 90.00   | 157.20                   | 30.40   | 8.51   | 6.86   | 5.66   | 4.58   |          |        |
| 28             | 8.18                                                              | 9.50                     | 11.30  | 26.40                | 28.00   | 193.95  | 124.80                   | 22.40   | 7.85   | 10.40  | 5.39   | 4.85   |          |        |
| 29             | 8.84                                                              | 9.17                     | 13.10  | 20.00                | 25.60   | 216.00  | 94.80                    | 17.60   | 6.86   | 11.30  |        | 6.20   |          |        |
| 30             | 8.51                                                              | 12.65                    | 12.65  | 20.80                | 21.60   | 168.90  | 70.30                    | 14.00   | 6.86   | 11.75  |        | 6.86   |          |        |
| 31             |                                                                   | 13.55                    |        | 25.60                | 26.40   |         | 72.50                    |         | 7.85   | 11.30  |        | 7.19   |          |        |
| Total          | 278.04                                                            | 363.28                   | 208.41 | 431.93               | 1000.40 | 2411.35 | 4628.65                  | 1147.40 | 523.00 | 304.10 | 201.11 | 189.50 | 11687.17 | CMSDAY |
| Mean           | 9.27                                                              | 11.72                    | 6.95   | 13.93                | 32.27   | 80.38   | 149.31                   | 38.25   | 16.87  | 9.81   | 7.18   | 6.11   | 32.02    | CMS    |
| Max            | 16.40                                                             | 25.60                    | 13.10  | 33.60                | 73.60   | 216.00  | 471.60                   | 82.80   | 48.00  | 14.00  | 15.20  | 9.95   | 471.60   | CMS    |
| Min            | 6.20                                                              | 8.18                     | 3.50   | 6.86                 | 14.00   | 24.00   | 24.00                    | 14.00   | 6.86   | 6.86   | 4.85   | 2.90   | 2.90     | CMS    |
| Runoff         | 24.02                                                             | 31.39                    | 18.01  | 37.32                | 86.44   | 208.34  | 399.92                   | 99.14   | 45.19  | 26.27  | 17.38  | 16.37  | 1009.77  | MCM    |
| Momentary Peak | 510.30 CMS. at 164.54 m. (MSL.) at 06.00 Hours , on Oct 20 , 2013 |                          |        |                      |         |         |                          |         |        |        |        |        |          |        |
| Runoff Yield   | 3.59                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 57.183  | Liters/Second/Square KM. |         |        |        |        |        |          |        |

**WATER YEAR : 2013**

## WANG RIVER BASIN

**Wang River at Ban Wang Man , Tak (W.4A)**

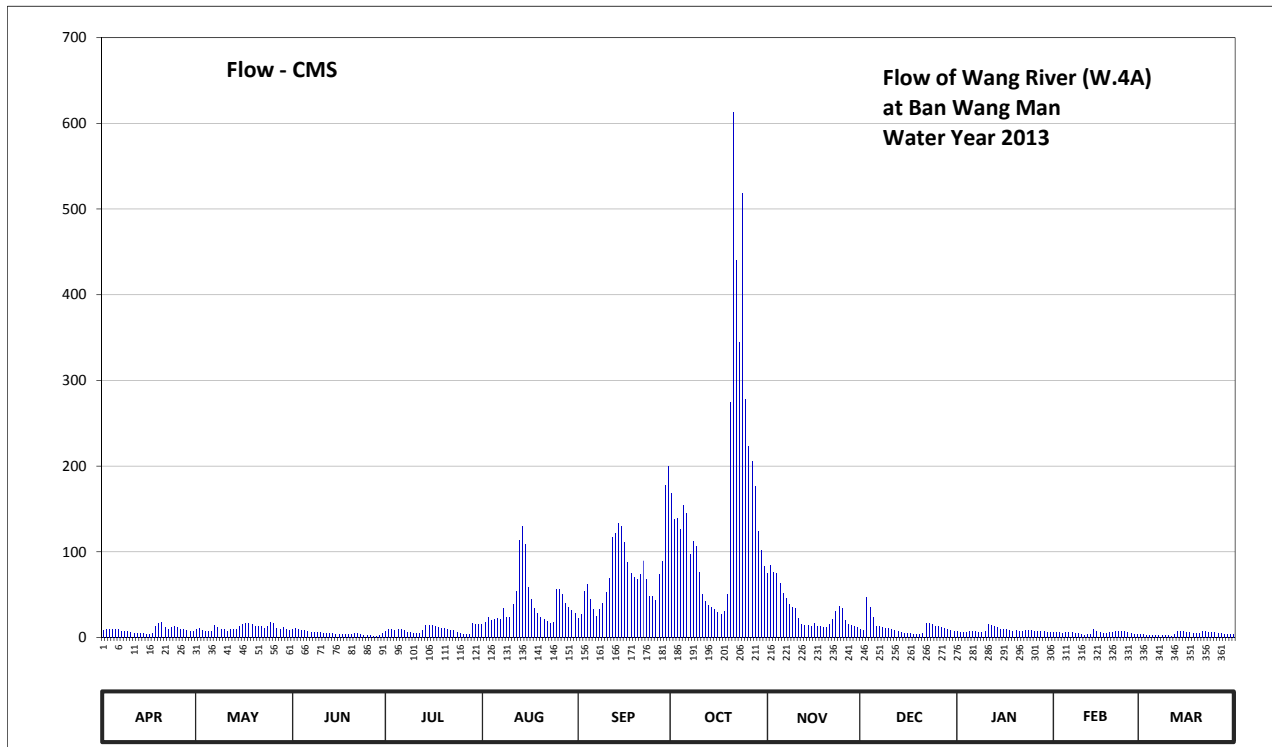
Lat 17 - 12 - 19 N    Long 99 - 06 - 05 E

**Location :** on left bank about 200 meters upstream from the bridge on highway

|                                         |                                                                                          |           |               |          |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Wang Man  | <b>Amphoe</b> | Sam Ngao | <b>Changwat</b>  | Tak               |
| <b>Drainage Area</b>                    | 10,439                                                                                   | sq.km.    |               |          |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                               |           |               |          |                  |                   |
| <b>Zero Gage at Bottom</b>              | +130.000                                                                                 | m. (MSL.) |               |          |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |          |                  |                   |
| <b>Location BM</b>                      | In front of Wat Wang Man                                                                 |           |               |          | <b>Elevation</b> | +143.191 m. (MSL) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours                      |           |               |          |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |           |               |          |                  |                   |
| <b>Period of Available Gage Records</b> | 1968 to date                                                                             |           |               |          |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |          |                  |                   |
| <b>Period of Rating</b>                 | 1971 to date                                                                             |           |               |          |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |          |                  |                   |
| <b>Rated by Current Meter</b>           | 1971 to date                                                                             |           |               |          |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |          |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |          |                  |                   |
| <b>General Description</b>              | Records good.Stage-discharge relation defined by 20 discharge measurements made in 2013. |           |               |          |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul         | Aug                               | Sep           | Oct       | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|-------------|-----------------------------------|---------------|-----------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 130.61 | 130.68 | 130.69      | 130.57      | 130.89                            | 131.17        | 134.25    | 132.45            | 130.67 | 130.55 | 130.52 | 130.39 |        |
| 2                                | 130.69 | 130.72 | 130.74      | 130.65      | 130.98                            | 131.29        | 133.73    | 132.65            | 130.61 | 130.52 | 130.51 | 130.38 |        |
| 3                                | 130.70 | 130.64 | 130.67      | 130.65      | 131.19                            | 131.96        | 133.75    | 132.47            | 131.78 | 130.52 | 130.50 | 130.37 |        |
| 4                                | 130.70 | 130.58 | 130.64      | 130.64      | 131.07                            | 132.16        | 133.50    | 132.44            | 131.49 | 130.50 | 130.49 | 130.36 |        |
| 5                                | 130.70 | 130.55 | 130.62      | 130.65      | 131.11                            | 131.73        | 134.01    | 132.20            | 131.18 | 130.57 | 130.51 | 130.35 |        |
| 6                                | 130.68 | 130.56 | 130.58      | 130.66      | 131.14                            | 131.42        | 133.85    | 131.89            | 130.83 | 130.60 | 130.51 | 130.35 |        |
| 7                                | 130.60 | 130.88 | 130.51      | 130.63      | 131.11                            | 131.24        | 132.93    | 131.76            | 130.81 | 130.57 | 130.51 | 130.35 |        |
| 8                                | 130.58 | 130.78 | 130.50      | 130.53      | 131.45                            | 131.42        | 133.24    | 131.59            | 130.77 | 130.53 | 130.47 | 130.34 |        |
| 9                                | 130.56 | 130.69 | 130.53      | 130.50      | 131.18                            | 131.61        | 133.12    | 131.49            | 130.73 | 130.50 | 130.44 | 130.33 |        |
| 10                               | 130.51 | 130.65 | 130.52      | 130.48      | 131.20                            | 131.94        | 132.48    | 131.46            | 130.71 | 130.55 | 130.42 | 130.32 |        |
| 11                               | 130.48 | 130.60 | 130.48      | 130.47      | 131.58                            | 132.32        | 131.88    | 131.16            | 130.67 | 130.93 | 130.37 | 130.30 |        |
| 12                               | 130.45 | 130.66 | 130.45      | 130.45      | 131.95                            | 133.32        | 131.66    | 130.90            | 130.61 | 130.87 | 130.39 | 130.39 |        |
| 13                               | 130.44 | 130.68 | 130.43      | 130.63      | 133.26                            | 133.43        | 131.54    | 130.87            | 130.58 | 130.83 | 130.41 | 130.57 |        |
| 14                               | 130.43 | 130.65 | 130.45      | 130.84      | 133.57                            | 133.65        | 131.49    | 130.85            | 130.53 | 130.76 | 130.67 | 130.60 |        |
| 15                               | 130.42 | 130.80 | 130.42      | 130.84      | 133.17                            | 133.57        | 131.43    | 130.82            | 130.49 | 130.69 | 130.55 | 130.56 |        |
| 16                               | 130.42 | 130.93 | 130.40      | 130.86      | 132.07                            | 133.20        | 131.35    | 130.95            | 130.47 | 130.67 | 130.50 | 130.54 |        |
| 17                               | 130.45 | 130.96 | 130.40      | 130.81      | 131.72                            | 132.73        | 131.29    | 130.83            | 130.44 | 130.66 | 130.47 | 130.51 |        |
| 18                               | 130.81 | 130.97 | 130.39      | 130.75      | 131.46                            | 132.46        | 131.36    | 130.81            | 130.42 | 130.64 | 130.46 | 130.47 |        |
| 19                               | 130.97 | 130.93 | 130.38      | 130.74      | 131.30                            | 132.35        | 131.88    | 130.78            | 130.40 | 130.60 | 130.51 | 130.44 |        |
| 20                               | 130.99 | 130.83 | 130.42      | 130.71      | 131.20                            | 132.30        | 135.59    | 130.77            | 130.39 | 130.62 | 130.54 | 130.43 |        |
| 21                               | 130.76 | 130.80 | 130.46      | 130.67      | 131.10                            | 132.42        | 136.44    | 130.93            | 130.46 | 130.58 | 130.57 | 130.60 |        |
| 22                               | 130.70 | 130.80 | 130.44      | 130.64      | 131.03                            | 132.77        | 136.15    | 131.11            | 130.94 | 130.56 | 130.60 | 130.59 |        |
| 23                               | 130.75 | 130.72 | 130.42      | 130.61      | 130.95                            | 132.29        | 135.91    | 131.36            | 130.96 | 130.61 | 130.57 | 130.52 |        |
| 24                               | 130.80 | 130.81 | 130.36      | 130.51      | 131.00                            | 131.82        | 136.29    | 131.51            | 130.89 | 130.62 | 130.55 | 130.50 |        |
| 25                               | 130.75 | 131.00 | 130.34      | 130.45      | 132.01                            | 131.82        | 135.61    | 131.47            | 130.83 | 130.61 | 130.51 | 130.50 |        |
| 26                               | 130.70 | 130.97 | 130.32      | 130.42      | 132.01                            | 131.68        | 135.07    | 131.07            | 130.80 | 130.60 | 130.47 | 130.49 |        |
| 27                               | 130.67 | 130.72 | 130.30      | 130.40      | 131.88                            | 132.41        | 134.83    | 130.91            | 130.75 | 130.60 | 130.41 | 130.47 |        |
| 28                               | 130.62 | 130.68 | 130.30      | 130.42      | 131.60                            | 132.75        | 134.37    | 130.85            | 130.72 | 130.60 | 130.38 | 130.42 |        |
| 29                               | 130.58 | 130.75 | 130.33      | 130.95      | 131.50                            | 134.40        | 133.47    | 130.80            | 130.68 | 130.57 |        | 130.41 |        |
| 30                               | 130.57 | 130.68 | 130.48      | 130.92      | 131.40                            | 134.75        | 133.01    | 130.75            | 130.64 | 130.54 |        | 130.40 |        |
| 31                               |        | 130.63 |             | 130.90      | 131.30                            |               | 132.63    |                   | 130.58 | 130.53 |        | 130.39 |        |
| Mean                             | 130.64 | 130.75 | 130.47      | 130.64      | 131.56                            | 132.41        | 133.49    | 131.33            | 130.74 | 130.62 | 130.49 | 130.44 |        |
| Max                              | 130.99 | 131.00 | 130.74      | 130.95      | 133.57                            | 134.75        | 136.44    | 132.65            | 131.78 | 130.93 | 130.67 | 130.60 | 136.44 |
| Min                              | 130.42 | 130.55 | 130.30      | 130.40      | 130.89                            | 131.17        | 131.29    | 130.75            | 130.39 | 130.50 | 130.37 | 130.30 | 130.30 |
| Annual Max Momentary Gage Height |        | 136.51 | m. (MSL.) , |             | at 06.00 Hours , on Oct 21 , 2013 |               |           |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 130.00 | m. (MSL.) , |             | River Bed                         | 128.77        | m. (MSL.) |                   |        |        |        |        |        |
| Left Bank Elevation              |        |        | 142.94      | m. (MSL.) , |                                   |               |           |                   |        |        |        |        |        |
| Right Bank Elevation             |        |        | 143.00      | m. (MSL.) , |                                   | Drainage Area | 10439     | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|--------|----------|--------|
| 1              | 8.25                                                              | 10.00                    | 10.25  | 7.40                 | 15.25   | 23.10   | 169.00                   | 75.25  | 9.75   | 7.00   | 6.40   | 3.80   |          |        |
| 2              | 10.25                                                             | 11.00                    | 11.50  | 9.25                 | 17.50   | 27.60   | 138.15                   | 84.25  | 8.25   | 6.40   | 6.20   | 3.60   |          |        |
| 3              | 10.50                                                             | 9.00                     | 9.75   | 9.25                 | 23.70   | 54.40   | 139.25                   | 76.15  | 47.20  | 6.40   | 6.00   | 3.40   |          |        |
| 4              | 10.50                                                             | 7.60                     | 9.00   | 9.00                 | 20.10   | 62.40   | 126.00                   | 74.80  | 35.60  | 6.00   | 5.80   | 3.20   |          |        |
| 5              | 10.50                                                             | 7.00                     | 8.50   | 9.25                 | 21.30   | 45.20   | 154.60                   | 64.00  | 23.40  | 7.40   | 6.20   | 3.00   |          |        |
| 6              | 10.00                                                             | 7.20                     | 7.60   | 9.50                 | 22.20   | 32.80   | 145.00                   | 51.60  | 13.75  | 8.00   | 6.20   | 3.00   |          |        |
| 7              | 8.00                                                              | 15.00                    | 6.20   | 8.75                 | 21.30   | 25.60   | 97.50                    | 46.40  | 13.25  | 7.40   | 6.20   | 3.00   |          |        |
| 8              | 7.60                                                              | 12.50                    | 6.00   | 6.60                 | 34.00   | 32.80   | 113.00                   | 39.60  | 12.25  | 6.60   | 5.40   | 2.80   |          |        |
| 9              | 7.20                                                              | 10.25                    | 6.60   | 6.00                 | 23.40   | 40.40   | 107.00                   | 35.60  | 11.25  | 6.00   | 4.80   | 2.60   |          |        |
| 10             | 6.20                                                              | 9.25                     | 6.40   | 5.60                 | 24.00   | 53.60   | 76.60                    | 34.40  | 10.75  | 7.00   | 4.40   | 2.40   |          |        |
| 11             | 5.60                                                              | 8.00                     | 5.60   | 5.40                 | 39.20   | 69.40   | 51.20                    | 22.80  | 9.75   | 16.25  | 3.40   | 2.00   |          |        |
| 12             | 5.00                                                              | 9.50                     | 5.00   | 5.00                 | 54.00   | 117.00  | 42.40                    | 15.50  | 8.25   | 14.75  | 3.80   | 3.80   |          |        |
| 13             | 4.80                                                              | 10.00                    | 4.60   | 8.75                 | 114.00  | 122.50  | 37.60                    | 14.75  | 7.60   | 13.75  | 4.20   | 7.40   |          |        |
| 14             | 4.60                                                              | 9.25                     | 5.00   | 14.00                | 129.50  | 133.75  | 35.60                    | 14.25  | 6.60   | 12.00  | 9.75   | 8.00   |          |        |
| 15             | 4.40                                                              | 13.00                    | 4.40   | 14.00                | 109.50  | 129.50  | 33.20                    | 13.50  | 5.80   | 10.25  | 7.00   | 7.20   |          |        |
| 16             | 4.40                                                              | 16.25                    | 4.00   | 14.50                | 58.80   | 111.00  | 30.00                    | 16.75  | 5.40   | 9.75   | 6.00   | 6.80   |          |        |
| 17             | 5.00                                                              | 17.00                    | 4.00   | 13.25                | 44.80   | 87.85   | 27.60                    | 13.75  | 4.80   | 9.50   | 5.40   | 6.20   |          |        |
| 18             | 13.25                                                             | 17.25                    | 3.80   | 11.75                | 34.40   | 75.70   | 30.40                    | 13.25  | 4.40   | 9.00   | 5.20   | 5.40   |          |        |
| 19             | 17.25                                                             | 16.25                    | 3.60   | 11.50                | 28.00   | 70.75   | 51.20                    | 12.50  | 4.00   | 8.00   | 6.20   | 4.80   |          |        |
| 20             | 17.75                                                             | 13.75                    | 4.40   | 10.75                | 24.00   | 68.50   | 274.85                   | 12.25  | 3.80   | 8.50   | 6.80   | 4.60   |          |        |
| 21             | 12.00                                                             | 13.00                    | 5.20   | 9.75                 | 21.00   | 73.90   | 612.80                   | 16.25  | 5.20   | 7.60   | 7.40   | 8.00   |          |        |
| 22             | 10.50                                                             | 13.00                    | 4.80   | 9.00                 | 18.90   | 89.65   | 440.50                   | 21.30  | 16.50  | 7.20   | 8.00   | 7.80   |          |        |
| 23             | 11.75                                                             | 11.00                    | 4.40   | 8.25                 | 16.75   | 68.05   | 343.90                   | 30.40  | 17.00  | 8.25   | 7.40   | 6.40   |          |        |
| 24             | 13.00                                                             | 13.25                    | 3.20   | 6.20                 | 18.00   | 48.80   | 518.00                   | 36.40  | 15.25  | 8.50   | 7.00   | 6.00   |          |        |
| 25             | 11.75                                                             | 18.00                    | 2.80   | 5.00                 | 56.40   | 48.80   | 277.80                   | 34.80  | 13.75  | 8.25   | 6.20   | 6.00   |          |        |
| 26             | 10.50                                                             | 17.25                    | 2.40   | 4.40                 | 56.40   | 43.20   | 223.25                   | 20.10  | 13.00  | 8.00   | 5.40   | 5.80   |          |        |
| 27             | 9.75                                                              | 11.00                    | 2.00   | 4.00                 | 51.20   | 73.45   | 206.10                   | 15.75  | 11.75  | 8.00   | 4.20   | 5.40   |          |        |
| 28             | 8.50                                                              | 10.00                    | 2.00   | 4.40                 | 40.00   | 88.75   | 176.20                   | 14.25  | 11.00  | 8.00   | 3.60   | 4.40   |          |        |
| 29             | 7.60                                                              | 11.75                    | 2.60   | 16.75                | 36.00   | 178.00  | 124.50                   | 13.00  | 10.00  | 7.40   |        | 4.20   |          |        |
| 30             | 7.40                                                              | 10.00                    | 5.60   | 16.00                | 32.00   | 200.50  | 101.50                   | 11.75  | 9.00   | 6.80   |        | 4.00   |          |        |
| 31             |                                                                   | 8.75                     |        | 15.50                | 28.00   |         | 83.35                    |        | 7.60   | 6.60   |        | 3.80   |          |        |
| Total          | 273.80                                                            | 366.05                   | 161.20 | 288.75               | 1233.60 | 2296.95 | 4988.05                  | 945.35 | 375.90 | 264.55 | 164.55 | 148.80 | 11507.55 | CMSDAY |
| Mean           | 9.13                                                              | 11.81                    | 5.37   | 9.31                 | 39.79   | 76.57   | 160.90                   | 31.51  | 12.13  | 8.53   | 5.88   | 4.80   | 31.53    | CMS    |
| Max            | 17.75                                                             | 18.00                    | 11.50  | 16.75                | 129.50  | 200.50  | 612.80                   | 84.25  | 47.20  | 16.25  | 9.75   | 8.00   | 612.80   | CMS    |
| Min            | 4.40                                                              | 7.00                     | 2.00   | 4.00                 | 15.25   | 23.10   | 27.60                    | 11.75  | 3.80   | 6.00   | 3.40   | 2.00   | 2.00     | CMS    |
| Runoff         | 23.66                                                             | 31.63                    | 13.93  | 24.95                | 106.58  | 198.46  | 430.97                   | 81.68  | 32.48  | 22.86  | 14.22  | 12.86  | 994.25   | MCM    |
| Momentary Peak | 663.20 CMS. at 136.51 m. (MSL.) at 06.00 Hours , on Oct 21 , 2013 |                          |        |                      |         |         |                          |        |        |        |        |        |          |        |
| Runoff Yield   | 3.02                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 63.531  | Liters/Second/Square KM. |        |        |        |        |        |          |        |

## WATER YEAR : 2013

## WANG RIVER BASIN

**Wang River at Ban Ko Kha , Lampang (W.5A)**

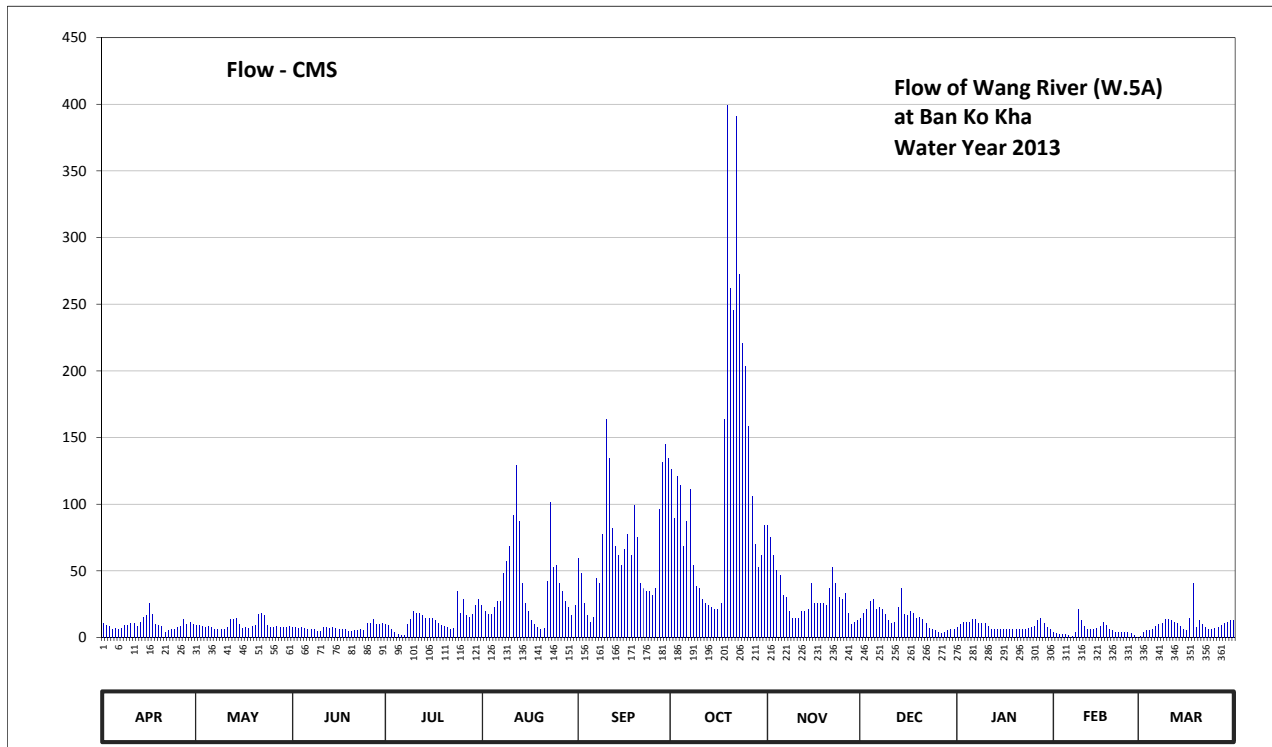
Lat 18 - 11 - 21 N Long 99 - 24 - 04 E

**Location :** on right bank upstream from Siriyong Bridge

|                                         | Ban                                                                                       | Ko Kha    | Amphoe | Ko Kha | Changwat         | Lampang            |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|--------|--------|------------------|--------------------|
| <b>Drainage Area</b>                    | 5,278                                                                                     | sq.km.    |        |        |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |        |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +216.855                                                                                  | m. (MSL.) |        |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |        |        |                  |                    |
| <b>Location BM</b>                      | On right bank near automatic gage building                                                |           |        |        | <b>Elevation</b> | +219.743 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |        |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |        |        |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |           |        |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |        |        |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |           |        |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |        |        |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |           |        |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |        |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |        |        |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 44 discharge measurements made in 2013. |           |        |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 217.02 | 217.00 | 216.98      | 217.01 | 217.14                            | 217.33 | 217.61            | 217.44 | 217.06 | 216.98 | 216.92 | 216.82 |        |
| 2                                | 217.00 | 217.00 | 216.98      | 217.00 | 217.11                            | 217.28 | 217.46            | 217.40 | 217.10 | 217.01 | 216.90 | 216.92 |        |
| 3                                | 216.99 | 216.99 | 216.97      | 216.95 | 217.09                            | 217.15 | 217.59            | 217.34 | 217.12 | 217.03 | 216.88 | 216.94 |        |
| 4                                | 216.96 | 216.98 | 216.98      | 216.91 | 217.09                            | 217.08 | 217.56            | 217.29 | 217.16 | 217.03 | 216.87 | 216.94 |        |
| 5                                | 216.97 | 216.99 | 216.97      | 216.87 | 217.13                            | 217.03 | 217.37            | 217.27 | 217.17 | 217.03 | 216.87 | 216.96 |        |
| 6                                | 216.96 | 216.98 | 216.95      | 216.85 | 217.16                            | 217.07 | 217.45            | 217.19 | 217.12 | 217.05 | 216.85 | 216.99 |        |
| 7                                | 216.97 | 216.96 | 216.95      | 216.86 | 217.16                            | 217.26 | 217.55            | 217.18 | 217.13 | 217.05 | 216.82 | 217.01 |        |
| 8                                | 217.00 | 216.96 | 216.95      | 217.01 | 217.28                            | 217.24 | 217.31            | 217.11 | 217.12 | 217.02 | 216.91 | 217.02 |        |
| 9                                | 217.00 | 216.95 | 216.93      | 217.05 | 217.32                            | 217.41 | 217.23            | 217.06 | 217.09 | 217.02 | 217.12 | 217.05 |        |
| 10                               | 217.02 | 216.95 | 216.93      | 217.11 | 217.37                            | 217.75 | 217.22            | 217.06 | 217.04 | 217.02 | 217.04 | 217.05 |        |
| 11                               | 217.02 | 216.98 | 216.98      | 217.10 | 217.47                            | 217.64 | 217.17            | 217.06 | 217.02 | 216.99 | 216.99 | 217.04 |        |
| 12                               | 216.99 | 217.05 | 216.98      | 217.10 | 217.62                            | 217.43 | 217.15            | 217.11 | 217.03 | 216.96 | 216.95 | 217.03 |        |
| 13                               | 217.03 | 217.05 | 216.97      | 217.08 | 217.45                            | 217.37 | 217.14            | 217.11 | 217.13 | 216.95 | 216.95 | 217.02 |        |
| 14                               | 217.07 | 217.06 | 216.98      | 217.06 | 217.24                            | 217.34 | 217.13            | 217.12 | 217.22 | 216.95 | 216.96 | 216.99 |        |
| 15                               | 217.08 | 217.01 | 216.97      | 217.06 | 217.15                            | 217.31 | 217.12            | 217.24 | 217.09 | 216.96 | 216.97 | 216.96 |        |
| 16                               | 217.15 | 216.97 | 216.95      | 217.06 | 217.11                            | 217.36 | 217.12            | 217.15 | 217.08 | 216.96 | 216.99 | 216.94 |        |
| 17                               | 217.09 | 216.98 | 216.95      | 217.04 | 217.04                            | 217.41 | 217.15            | 217.15 | 217.11 | 216.96 | 217.03 | 217.06 |        |
| 18                               | 217.01 | 216.97 | 216.95      | 217.02 | 217.01                            | 217.34 | 217.75            | 217.15 | 217.10 | 216.96 | 217.00 | 217.24 |        |
| 19                               | 217.00 | 216.99 | 216.93      | 217.00 | 216.98                            | 217.50 | 218.46            | 217.15 | 217.06 | 216.96 | 216.96 | 216.98 |        |
| 20                               | 216.99 | 217.00 | 216.93      | 216.99 | 216.96                            | 217.40 | 218.08            | 217.14 | 217.07 | 216.96 | 216.94 | 217.04 |        |
| 21                               | 216.92 | 217.09 | 216.94      | 216.98 | 216.97                            | 217.24 | 218.03            | 217.22 | 217.05 | 216.96 | 216.92 | 217.01 |        |
| 22                               | 216.94 | 217.10 | 216.94      | 216.96 | 217.25                            | 217.22 | 218.44            | 217.30 | 217.02 | 216.96 | 216.91 | 216.98 |        |
| 23                               | 216.96 | 217.08 | 216.96      | 216.97 | 217.51                            | 217.21 | 218.11            | 217.24 | 216.97 | 216.96 | 216.91 | 216.96 |        |
| 24                               | 216.96 | 217.00 | 216.94      | 217.21 | 217.30                            | 217.21 | 217.95            | 217.18 | 216.96 | 216.97 | 216.92 | 216.96 |        |
| 25                               | 216.98 | 216.98 | 217.02      | 217.10 | 217.31                            | 217.19 | 217.89            | 217.17 | 216.94 | 216.98 | 216.92 | 216.97 |        |
| 26                               | 216.99 | 216.98 | 217.02      | 217.17 | 217.24                            | 217.22 | 217.73            | 217.20 | 216.91 | 216.99 | 216.90 | 216.98 |        |
| 27                               | 217.05 | 216.99 | 217.05      | 217.08 | 217.21                            | 217.49 | 217.53            | 217.10 | 216.90 | 217.04 | 216.85 | 217.00 |        |
| 28                               | 217.01 | 216.98 | 217.01      | 217.07 | 217.16                            | 217.63 | 217.38            | 217.01 | 216.91 | 217.06 | 216.78 | 217.02 |        |
| 29                               | 217.03 | 216.98 | 217.01      | 217.09 | 217.13                            | 217.68 | 217.30            | 217.03 | 216.94 | 217.02 |        | 217.03 |        |
| 30                               | 217.01 | 216.98 | 217.02      | 217.14 | 217.08                            | 217.64 | 217.34            | 217.04 | 216.96 | 216.98 |        | 217.04 |        |
| 31                               |        | 216.99 |             | 217.17 | 217.14                            |        | 217.44            |        | 216.96 | 216.96 |        | 217.04 |        |
| Mean                             | 217.01 | 217.00 | 216.97      | 217.03 | 217.20                            | 217.35 | 217.54            | 217.17 | 217.05 | 216.99 | 216.93 | 217.00 |        |
| Max                              | 217.15 | 217.10 | 217.05      | 217.21 | 217.62                            | 217.75 | 218.46            | 217.44 | 217.22 | 217.06 | 217.12 | 217.24 | 218.46 |
| Min                              | 216.92 | 216.95 | 216.93      | 216.85 | 216.96                            | 217.03 | 217.12            | 217.01 | 216.90 | 216.95 | 216.78 | 216.82 | 216.78 |
| Annual Max Momentary Gage Height |        | 218.55 | m. (MSL.) , |        | at 11.00 Hours , on Oct 19 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 216.86 | m. (MSL.) , |        | River Bed                         | 212.49 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 221.25 | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 221.10 | m. (MSL.) , |        | Drainage Area                     | 5278   | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar    | Annual          |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|--------|-----------------|
| 1              | 10.90                                                             | 9.00                     | 7.84   | 9.95                 | 24.30   | 59.25   | 126.65  | 84.60                    | 14.70  | 7.84   | 4.36   | 1.04   |                 |
| 2              | 9.00                                                              | 9.00                     | 7.84   | 9.00                 | 19.95   | 48.60   | 89.40   | 75.00                    | 18.50  | 9.95   | 3.20   | 4.36   |                 |
| 3              | 8.42                                                              | 8.42                     | 7.26   | 6.10                 | 17.55   | 25.75   | 121.50  | 61.50                    | 21.40  | 11.85  | 2.66   | 5.52   |                 |
| 4              | 6.68                                                              | 7.84                     | 7.84   | 3.78                 | 17.55   | 16.60   | 114.00  | 50.55                    | 27.20  | 11.85  | 2.39   | 5.52   |                 |
| 5              | 7.26                                                              | 8.42                     | 7.26   | 2.39                 | 22.85   | 11.85   | 68.25   | 46.65                    | 28.65  | 11.85  | 2.39   | 6.68   |                 |
| 6              | 6.68                                                              | 7.84                     | 6.10   | 1.85                 | 27.20   | 15.65   | 87.00   | 31.55                    | 21.40  | 13.75  | 1.85   | 8.42   |                 |
| 7              | 7.26                                                              | 6.68                     | 6.10   | 2.12                 | 27.20   | 44.70   | 111.50  | 30.10                    | 22.85  | 13.75  | 1.04   | 9.95   |                 |
| 8              | 9.00                                                              | 6.68                     | 6.10   | 9.95                 | 48.60   | 40.80   | 54.75   | 19.95                    | 21.40  | 10.90  | 3.78   | 10.90  |                 |
| 9              | 9.00                                                              | 6.10                     | 4.94   | 13.75                | 57.00   | 77.40   | 38.85   | 14.70                    | 17.55  | 10.90  | 21.40  | 13.75  |                 |
| 10             | 10.90                                                             | 6.10                     | 4.94   | 19.95                | 68.25   | 163.75  | 36.90   | 14.70                    | 12.80  | 10.90  | 12.80  | 13.75  |                 |
| 11             | 10.90                                                             | 7.84                     | 7.84   | 18.50                | 91.80   | 134.60  | 28.65   | 14.70                    | 10.90  | 8.42   | 8.42   | 12.80  |                 |
| 12             | 8.42                                                              | 13.75                    | 7.84   | 18.50                | 129.30  | 82.20   | 25.75   | 19.95                    | 11.85  | 6.68   | 6.10   | 11.85  |                 |
| 13             | 11.85                                                             | 13.75                    | 7.26   | 16.60                | 87.00   | 68.25   | 24.30   | 19.95                    | 22.85  | 6.10   | 6.10   | 10.90  |                 |
| 14             | 15.65                                                             | 14.70                    | 7.84   | 14.70                | 40.80   | 61.50   | 22.85   | 21.40                    | 36.90  | 6.10   | 6.68   | 8.42   |                 |
| 15             | 16.60                                                             | 9.95                     | 7.26   | 14.70                | 25.75   | 54.75   | 21.40   | 40.80                    | 17.55  | 6.68   | 7.26   | 6.68   |                 |
| 16             | 25.75                                                             | 7.26                     | 6.10   | 14.70                | 19.95   | 66.00   | 21.40   | 25.75                    | 16.60  | 6.68   | 8.42   | 5.52   |                 |
| 17             | 17.55                                                             | 7.84                     | 6.10   | 12.80                | 12.80   | 77.40   | 25.75   | 25.75                    | 19.95  | 6.68   | 11.85  | 14.70  |                 |
| 18             | 9.95                                                              | 7.26                     | 6.10   | 10.90                | 9.95    | 61.50   | 163.75  | 25.75                    | 18.50  | 6.68   | 9.00   | 40.80  |                 |
| 19             | 9.00                                                              | 8.42                     | 4.94   | 9.00                 | 7.84    | 99.00   | 399.30  | 25.75                    | 14.70  | 6.68   | 6.68   | 7.84   |                 |
| 20             | 8.42                                                              | 9.00                     | 4.94   | 8.42                 | 6.68    | 75.00   | 262.20  | 24.30                    | 15.65  | 6.68   | 5.52   | 12.80  |                 |
| 21             | 4.36                                                              | 17.55                    | 5.52   | 7.84                 | 7.26    | 40.80   | 245.20  | 36.90                    | 13.75  | 6.68   | 4.36   | 9.95   |                 |
| 22             | 5.52                                                              | 18.50                    | 5.52   | 6.68                 | 42.75   | 36.90   | 391.20  | 52.50                    | 10.90  | 6.68   | 3.78   | 7.84   |                 |
| 23             | 6.68                                                              | 16.60                    | 6.68   | 7.26                 | 101.50  | 34.95   | 272.40  | 40.80                    | 7.26   | 6.68   | 3.78   | 6.68   |                 |
| 24             | 6.68                                                              | 9.00                     | 5.52   | 34.95                | 52.50   | 34.95   | 220.50  | 30.10                    | 6.68   | 7.26   | 4.36   | 6.68   |                 |
| 25             | 7.84                                                              | 7.84                     | 10.90  | 18.50                | 54.75   | 31.55   | 203.10  | 28.65                    | 5.52   | 7.84   | 4.36   | 7.26   |                 |
| 26             | 8.42                                                              | 7.84                     | 10.90  | 28.65                | 40.80   | 36.90   | 158.45  | 33.00                    | 3.78   | 8.42   | 3.20   | 7.84   |                 |
| 27             | 13.75                                                             | 8.42                     | 13.75  | 16.60                | 34.95   | 96.60   | 106.50  | 18.50                    | 3.20   | 12.80  | 1.85   | 9.00   |                 |
| 28             | 9.95                                                              | 7.84                     | 9.95   | 15.65                | 27.20   | 131.95  | 70.50   | 9.95                     | 3.78   | 14.70  | 0.40   | 10.90  |                 |
| 29             | 11.85                                                             | 7.84                     | 9.95   | 17.55                | 22.85   | 145.20  | 52.50   | 11.85                    | 5.52   | 10.90  |        | 11.85  |                 |
| 30             | 9.95                                                              | 7.84                     | 10.90  | 24.30                | 16.60   | 134.60  | 61.50   | 12.80                    | 6.68   | 7.84   |        | 12.80  |                 |
| 31             |                                                                   | 8.42                     |        | 28.65                | 24.30   |         | 84.60   |                          | 6.68   | 6.68   |        | 12.80  |                 |
| <hr/>          |                                                                   |                          |        |                      |         |         |         |                          |        |        |        |        |                 |
| Total          | 304.19                                                            | 293.54                   | 222.03 | 424.29               | 1187.78 | 2008.95 | 3710.60 | 948.45                   | 465.65 | 277.40 | 157.99 | 315.80 | 10316.67 CMSDAY |
| Mean           | 10.14                                                             | 9.47                     | 7.40   | 13.69                | 38.32   | 66.96   | 119.70  | 31.61                    | 15.02  | 8.95   | 5.64   | 10.19  | 28.26 CMS       |
| Max            | 25.75                                                             | 18.50                    | 13.75  | 34.95                | 129.30  | 163.75  | 399.30  | 84.60                    | 36.90  | 14.70  | 21.40  | 40.80  | 399.30 CMS      |
| Min            | 4.36                                                              | 6.10                     | 4.94   | 1.85                 | 6.68    | 11.85   | 21.40   | 9.95                     | 3.20   | 6.10   | 0.40   | 1.04   | 0.40 CMS        |
| Runoff         | 26.28                                                             | 25.36                    | 19.18  | 36.66                | 102.62  | 173.57  | 320.60  | 81.95                    | 40.23  | 23.97  | 13.65  | 27.29  | 891.36 MCM      |
| Momentary Peak | 435.75 CMS. at 218.55 m. (MSL.) at 11.00 Hours , on Oct 19 , 2013 |                          |        |                      |         |         |         |                          |        |        |        |        |                 |
| Runoff Yield   | 5.36                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 82.560  |         | Liters/Second/Square KM. |        |        |        |        |                 |

## WATER YEAR : 2013

## WANG RIVER BASIN

**Wang River at Ban Sop Prap , Lampang (W.6A)**

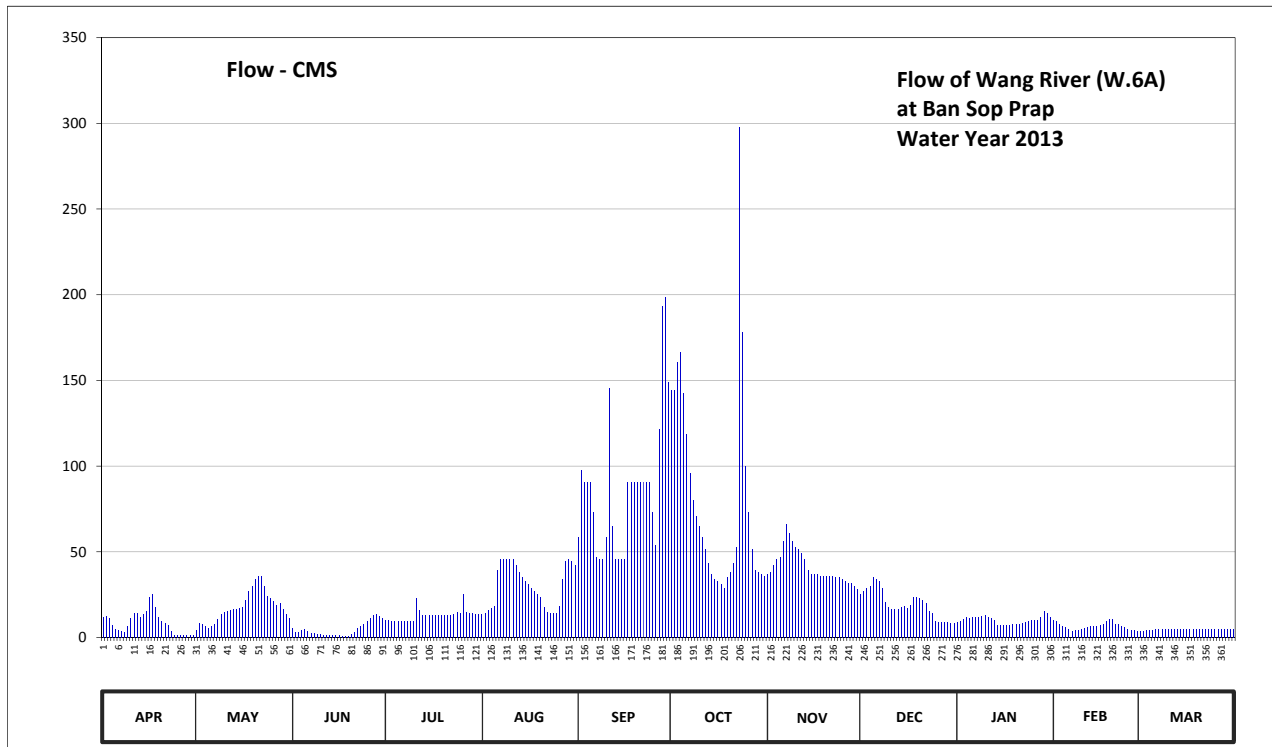
Lat 17 - 52 - 41 N Long 99 - 19 - 52 E

**Location : on left bank at Ban Sop Prap**

|                                         | Ban Sop Prap                                                                              | Amphoe Sop Prap | Changwat Lampang                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|-------------------------------------|
| <b>Drainge Area</b>                     | 8,150                                                                                     | sq.km.          |                                     |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                 |                                     |
| <b>Zero Gage at Bottom</b>              | +184.050                                                                                  | m. (MSL.)       |                                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                 |                                     |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |                 | <b>Elevation</b> +187.165 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                 |                                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                 |                                     |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |                 |                                     |
| <b>Rating Operation</b>                 |                                                                                           |                 |                                     |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |                 |                                     |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |                                     |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |                 |                                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                 |                                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                 |                                     |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 43 discharge measurements made in 2013. |                 |                                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 184.89 | 184.68 | 184.71                                           | 184.85 | 184.92 | 185.39 | 186.02 | 185.21 | 185.09 | 184.82 | 184.85 | 184.65 |        |
| 2                                | 184.90 | 184.81 | 184.62                                           | 184.85 | 184.93 | 185.70 | 186.02 | 185.22 | 185.11 | 184.84 | 184.83 | 184.65 |        |
| 3                                | 184.87 | 184.79 | 184.62                                           | 184.84 | 184.96 | 185.65 | 186.13 | 185.25 | 185.13 | 184.86 | 184.80 | 184.66 |        |
| 4                                | 184.78 | 184.75 | 184.66                                           | 184.83 | 184.98 | 185.65 | 186.17 | 185.28 | 185.14 | 184.89 | 184.76 | 184.67 |        |
| 5                                | 184.70 | 184.71 | 184.69                                           | 184.83 | 185.00 | 185.65 | 186.01 | 185.29 | 185.19 | 184.87 | 184.73 | 184.68 |        |
| 6                                | 184.68 | 184.76 | 184.65                                           | 184.83 | 185.23 | 185.51 | 185.85 | 185.37 | 185.18 | 184.88 | 184.70 | 184.69 |        |
| 7                                | 184.65 | 184.80 | 184.60                                           | 184.83 | 185.28 | 185.29 | 185.69 | 185.45 | 185.17 | 184.89 | 184.65 | 184.70 |        |
| 8                                | 184.61 | 184.86 | 184.58                                           | 184.83 | 185.28 | 185.28 | 185.57 | 185.41 | 185.13 | 184.89 | 184.66 | 184.70 |        |
| 9                                | 184.76 | 184.92 | 184.56                                           | 184.83 | 185.28 | 185.28 | 185.49 | 185.37 | 185.03 | 184.90 | 184.67 | 184.70 |        |
| 10                               | 184.87 | 184.94 | 184.54                                           | 184.84 | 185.28 | 185.39 | 185.44 | 185.34 | 184.99 | 184.91 | 184.70 | 184.70 |        |
| 11                               | 184.93 | 184.95 | 184.53                                           | 185.06 | 185.28 | 186.03 | 185.39 | 185.33 | 184.97 | 184.89 | 184.72 | 184.70 |        |
| 12                               | 184.93 | 184.96 | 184.53                                           | 184.96 | 185.25 | 185.44 | 185.33 | 185.31 | 184.97 | 184.87 | 184.74 | 184.70 |        |
| 13                               | 184.88 | 184.97 | 184.53                                           | 184.91 | 185.22 | 185.28 | 185.26 | 185.28 | 184.97 | 184.85 | 184.75 | 184.70 |        |
| 14                               | 184.92 | 184.97 | 184.52                                           | 184.91 | 185.19 | 185.28 | 185.21 | 185.23 | 184.99 | 184.78 | 184.76 | 184.70 |        |
| 15                               | 184.95 | 184.98 | 184.52                                           | 184.91 | 185.17 | 185.28 | 185.18 | 185.21 | 185.00 | 184.78 | 184.76 | 184.70 |        |
| 16                               | 185.07 | 184.99 | 184.51                                           | 184.91 | 185.15 | 185.28 | 185.17 | 185.21 | 184.98 | 184.78 | 184.78 | 184.70 |        |
| 17                               | 185.09 | 185.05 | 184.50                                           | 184.91 | 185.13 | 185.65 | 185.15 | 185.21 | 185.01 | 184.78 | 184.80 | 184.70 |        |
| 18                               | 184.99 | 185.11 | 184.50                                           | 184.91 | 185.11 | 185.65 | 185.13 | 185.20 | 185.07 | 184.78 | 184.83 | 184.70 |        |
| 19                               | 184.88 | 185.14 | 184.50                                           | 184.91 | 185.09 | 185.65 | 185.19 | 185.20 | 185.07 | 184.79 | 184.86 | 184.70 |        |
| 20                               | 184.83 | 185.18 | 184.54                                           | 184.91 | 185.07 | 185.65 | 185.22 | 185.20 | 185.06 | 184.79 | 184.86 | 184.70 |        |
| 21                               | 184.81 | 185.20 | 184.61                                           | 184.91 | 184.99 | 185.65 | 185.26 | 185.20 | 185.05 | 184.80 | 184.80 | 184.70 |        |
| 22                               | 184.77 | 185.20 | 184.72                                           | 184.91 | 184.94 | 185.65 | 185.34 | 185.20 | 185.02 | 184.81 | 184.80 | 184.70 |        |
| 23                               | 184.64 | 185.14 | 184.76                                           | 184.92 | 184.93 | 185.65 | 186.91 | 185.19 | 184.95 | 184.82 | 184.76 | 184.70 |        |
| 24                               | 184.51 | 185.08 | 184.79                                           | 184.94 | 184.93 | 185.65 | 186.24 | 185.19 | 184.93 | 184.84 | 184.73 | 184.70 |        |
| 25                               | 184.51 | 185.06 | 184.83                                           | 184.93 | 184.93 | 185.51 | 185.72 | 185.18 | 184.84 | 184.85 | 184.70 | 184.70 |        |
| 26                               | 184.51 | 185.04 | 184.87                                           | 185.09 | 185.00 | 185.35 | 185.51 | 185.17 | 184.82 | 184.85 | 184.67 | 184.70 |        |
| 27                               | 184.51 | 185.01 | 184.91                                           | 184.94 | 185.18 | 185.87 | 185.33 | 185.16 | 184.82 | 184.85 | 184.66 | 184.70 |        |
| 28                               | 184.51 | 185.02 | 184.92                                           | 184.93 | 185.27 | 186.33 | 185.23 | 185.16 | 184.82 | 184.89 | 184.65 | 184.70 |        |
| 29                               | 184.51 | 184.97 | 184.90                                           | 184.93 | 185.28 | 186.36 | 185.22 | 185.14 | 184.82 | 184.95 |        | 184.70 |        |
| 30                               | 184.51 | 184.92 | 184.87                                           | 184.92 | 185.27 | 186.05 | 185.21 | 185.12 | 184.81 | 184.93 |        | 184.70 |        |
| 31                               |        | 184.87 |                                                  | 184.92 | 185.25 |        | 185.20 |        | 184.81 | 184.89 |        | 184.70 |        |
| Mean                             | 184.77 | 184.96 | 184.65                                           | 184.90 | 185.12 | 185.60 | 185.54 | 185.24 | 185.00 | 184.85 | 184.75 | 184.69 |        |
| Max                              | 185.09 | 185.20 | 184.92                                           | 185.09 | 185.28 | 186.36 | 186.91 | 185.45 | 185.19 | 184.95 | 184.86 | 184.70 | 186.91 |
| Min                              | 184.51 | 184.68 | 184.50                                           | 184.83 | 184.92 | 185.28 | 185.13 | 185.12 | 184.81 | 184.78 | 184.65 | 184.65 | 184.50 |
| Annual Max Momentary Gage Height | 187.90 |        | m. (MSL.) , at 15.00 Hours , on Oct 23 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 184.05 |        | m. (MSL.) , River Bed 180.14 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 189.86 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 189.80 |        | m. (MSL.) , Drainage Area 8150 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar    | Annual  |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|---------|--------|
| 1              | 12.06                                                             | 4.56                     | 5.31   | 10.30  | 13.66                | 58.80   | 144.00  | 37.20                    | 25.23  | 8.98   | 10.30  | 3.90   |         |        |
| 2              | 12.50                                                             | 8.54                     | 3.24   | 10.30  | 14.24                | 97.50   | 144.00  | 38.40                    | 27.00  | 9.86   | 9.42   | 3.90   |         |        |
| 3              | 11.18                                                             | 7.79                     | 3.24   | 9.86   | 15.98                | 90.75   | 160.50  | 42.00                    | 29.00  | 10.74  | 8.10   | 4.12   |         |        |
| 4              | 7.48                                                              | 6.55                     | 4.12   | 9.42   | 17.14                | 90.75   | 166.50  | 45.60                    | 30.00  | 12.06  | 6.86   | 4.34   |         |        |
| 5              | 5.00                                                              | 5.31                     | 4.78   | 9.42   | 18.30                | 90.75   | 142.50  | 46.80                    | 35.00  | 11.18  | 5.93   | 4.56   |         |        |
| 6              | 4.56                                                              | 6.86                     | 3.90   | 9.42   | 39.60                | 73.20   | 118.50  | 56.40                    | 34.00  | 11.62  | 5.00   | 4.78   |         |        |
| 7              | 3.90                                                              | 8.10                     | 2.80   | 9.42   | 45.60                | 46.80   | 96.15   | 66.00                    | 33.00  | 12.06  | 3.90   | 5.00   |         |        |
| 8              | 3.02                                                              | 10.74                    | 2.46   | 9.42   | 45.60                | 45.60   | 80.40   | 61.20                    | 29.00  | 12.06  | 4.12   | 5.00   |         |        |
| 9              | 6.86                                                              | 13.66                    | 2.12   | 9.42   | 45.60                | 45.60   | 70.80   | 56.40                    | 20.61  | 12.50  | 4.34   | 5.00   |         |        |
| 10             | 11.18                                                             | 14.82                    | 1.78   | 9.86   | 45.60                | 58.80   | 64.80   | 52.80                    | 17.72  | 13.08  | 5.00   | 5.00   |         |        |
| 11             | 14.24                                                             | 15.40                    | 1.61   | 22.92  | 45.60                | 145.50  | 58.80   | 51.60                    | 16.56  | 12.06  | 5.62   | 5.00   |         |        |
| 12             | 14.24                                                             | 15.98                    | 1.61   | 15.98  | 42.00                | 64.80   | 51.60   | 49.20                    | 16.56  | 11.18  | 6.24   | 5.00   |         |        |
| 13             | 11.62                                                             | 16.56                    | 1.61   | 13.08  | 38.40                | 45.60   | 43.20   | 45.60                    | 16.56  | 10.30  | 6.55   | 5.00   |         |        |
| 14             | 13.66                                                             | 16.56                    | 1.44   | 13.08  | 35.00                | 45.60   | 37.20   | 39.60                    | 17.72  | 7.48   | 6.86   | 5.00   |         |        |
| 15             | 15.40                                                             | 17.14                    | 1.44   | 13.08  | 33.00                | 45.60   | 34.00   | 37.20                    | 18.30  | 7.48   | 6.86   | 5.00   |         |        |
| 16             | 23.69                                                             | 17.72                    | 1.27   | 13.08  | 31.00                | 45.60   | 33.00   | 37.20                    | 17.14  | 7.48   | 7.48   | 5.00   |         |        |
| 17             | 25.23                                                             | 22.15                    | 1.10   | 13.08  | 29.00                | 90.75   | 31.00   | 37.20                    | 19.07  | 7.48   | 8.10   | 5.00   |         |        |
| 18             | 17.72                                                             | 27.00                    | 1.10   | 13.08  | 27.00                | 90.75   | 29.00   | 36.00                    | 23.69  | 7.48   | 9.42   | 5.00   |         |        |
| 19             | 11.62                                                             | 30.00                    | 1.10   | 13.08  | 25.23                | 90.75   | 35.00   | 36.00                    | 23.69  | 7.79   | 10.74  | 5.00   |         |        |
| 20             | 9.42                                                              | 34.00                    | 1.78   | 13.08  | 23.69                | 90.75   | 38.40   | 36.00                    | 22.92  | 7.79   | 10.74  | 5.00   |         |        |
| 21             | 8.54                                                              | 36.00                    | 3.02   | 13.08  | 17.72                | 90.75   | 43.20   | 36.00                    | 22.15  | 8.10   | 8.10   | 5.00   |         |        |
| 22             | 7.17                                                              | 36.00                    | 5.62   | 13.08  | 14.82                | 90.75   | 52.80   | 36.00                    | 19.84  | 8.54   | 8.10   | 5.00   |         |        |
| 23             | 3.68                                                              | 30.00                    | 6.86   | 13.66  | 14.24                | 90.75   | 297.90  | 35.00                    | 15.40  | 8.98   | 6.86   | 5.00   |         |        |
| 24             | 1.27                                                              | 24.46                    | 7.79   | 14.82  | 14.24                | 90.75   | 177.80  | 35.00                    | 14.24  | 9.86   | 5.93   | 5.00   |         |        |
| 25             | 1.27                                                              | 22.92                    | 9.42   | 14.24  | 14.24                | 73.20   | 100.20  | 34.00                    | 9.86   | 10.30  | 5.00   | 5.00   |         |        |
| 26             | 1.27                                                              | 21.38                    | 11.18  | 25.23  | 18.30                | 54.00   | 73.20   | 33.00                    | 8.98   | 10.30  | 4.34   | 5.00   |         |        |
| 27             | 1.27                                                              | 19.07                    | 13.08  | 14.82  | 34.00                | 121.50  | 51.60   | 32.00                    | 8.98   | 10.30  | 4.12   | 5.00   |         |        |
| 28             | 1.27                                                              | 19.84                    | 13.66  | 14.24  | 44.40                | 193.10  | 39.60   | 32.00                    | 8.98   | 12.06  | 3.90   | 5.00   |         |        |
| 29             | 1.27                                                              | 16.56                    | 12.50  | 14.24  | 45.60                | 198.20  | 38.40   | 30.00                    | 8.98   | 15.40  |        | 5.00   |         |        |
| 30             | 1.27                                                              | 13.66                    | 11.18  | 13.66  | 44.40                | 148.50  | 37.20   | 28.00                    | 8.54   | 14.24  |        | 5.00   |         |        |
| 31             |                                                                   | 11.18                    |        | 13.66  | 42.00                |         | 36.00   |                          | 8.54   | 12.06  |        | 5.00   |         |        |
| Total          | 262.86                                                            | 550.51                   | 142.12 | 405.11 | 935.20               | 2605.75 | 2527.25 | 1239.40                  | 607.26 | 320.80 | 187.93 | 150.60 | 9934.79 | CMSDAY |
| Mean           | 8.76                                                              | 17.76                    | 4.74   | 13.07  | 30.17                | 86.86   | 81.52   | 41.31                    | 19.59  | 10.35  | 6.71   | 4.86   | 27.22   | CMS    |
| Max            | 25.23                                                             | 36.00                    | 13.66  | 25.23  | 45.60                | 198.20  | 297.90  | 66.00                    | 35.00  | 15.40  | 10.74  | 5.00   | 297.90  | CMS    |
| Min            | 1.27                                                              | 4.56                     | 1.10   | 9.42   | 13.66                | 45.60   | 29.00   | 28.00                    | 8.54   | 7.48   | 3.90   | 3.90   | 1.10    | CMS    |
| Runoff         | 22.71                                                             | 47.56                    | 12.28  | 35.00  | 80.80                | 225.14  | 218.35  | 107.08                   | 52.47  | 27.72  | 16.24  | 13.01  | 858.37  | MCM    |
| Momentary Peak | 499.50 CMS. at 187.90 m. (MSL.) at 15.00 Hours , on Oct 23 , 2013 |                          |        |        |                      |         |         |                          |        |        |        |        |         |        |
| Runoff Yield   | 3.34                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         | 61.288  | Liters/Second/Square KM. |        |        |        |        |         |        |

**WATER YEAR : 2013**

## WANG RIVER BASIN

**Wang River at Ban Don Mun , Lampang (W.10A)**

Lat 18 - 31 - 16 N    Long 99 - 37 - 52 E

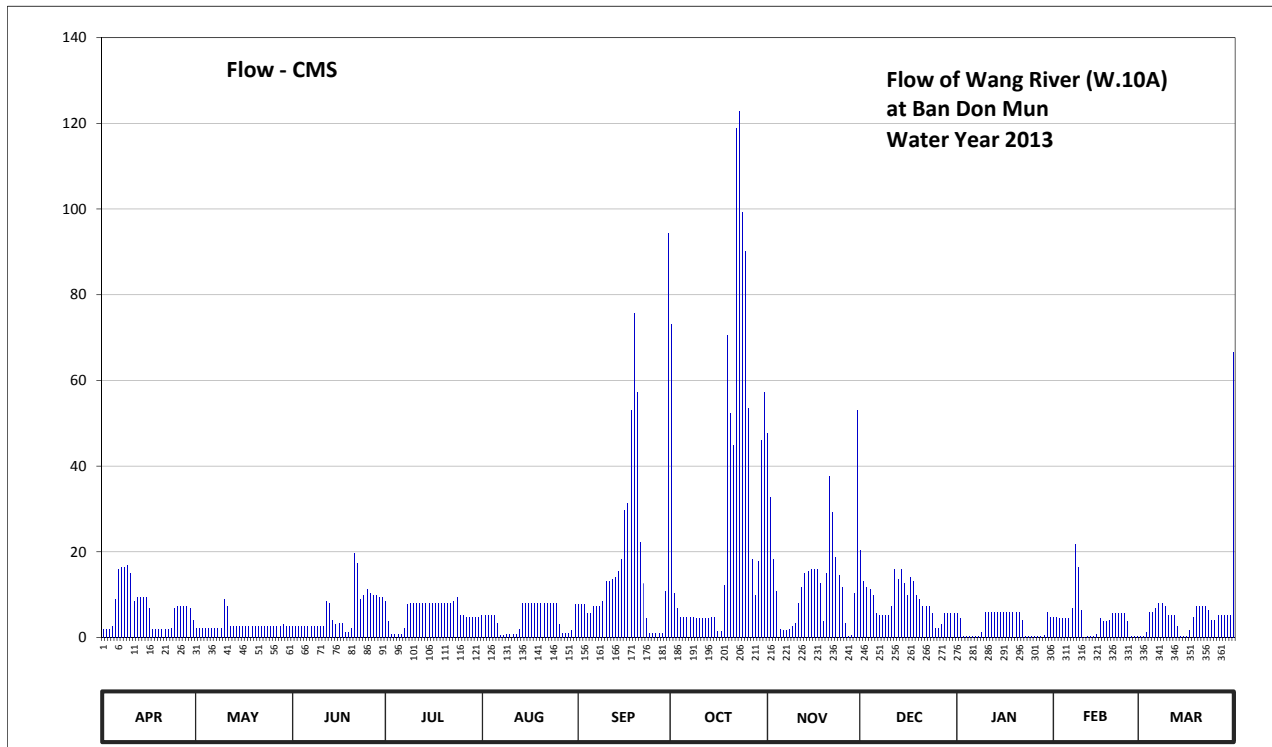
**Location :** on left bank at Ban Don Mun

|                                         |                                                                                          |           |               |        |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | Don Mun   | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Lampang            |
| <b>Drainage Area</b>                    | 2,798                                                                                    | sq.km.    |               |        |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |           |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +259.000                                                                                 | m. (MSL.) |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |        |                  |                    |
| <b>Location BM</b>                      | On left bank at the bridge.                                                              |           |               |        | <b>Elevation</b> | +270.290 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |           |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |           |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                             |           |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |           |               |        |                  |                    |
| <b>Period of Rating</b>                 | 1984 to date                                                                             |           |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                             |           |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                           |           |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |        |                  |                    |
| <b>General Description</b>              | Records fair.Stage-discharge relation defined by 48 discharge measurements made in 2013. |           |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 258.98 | 258.99 | 259.01                                           | 259.16 | 259.08 | 259.14 | 260.34 | 259.93 | 259.41 | 259.09 | 259.07 | 258.87 |        |
| 2                                | 258.98 | 258.99 | 259.01                                           | 259.04 | 259.08 | 259.14 | 259.20 | 259.66 | 259.26 | 259.06 | 259.07 | 258.87 |        |
| 3                                | 258.98 | 258.99 | 259.01                                           | 258.92 | 259.08 | 259.14 | 259.12 | 259.37 | 259.23 | 258.88 | 259.06 | 258.94 |        |
| 4                                | 259.01 | 258.99 | 259.01                                           | 258.92 | 259.08 | 259.09 | 259.07 | 259.21 | 259.22 | 258.88 | 259.06 | 259.10 |        |
| 5                                | 259.17 | 258.99 | 259.01                                           | 258.92 | 259.08 | 259.09 | 259.07 | 258.98 | 259.19 | 258.88 | 259.06 | 259.10 |        |
| 6                                | 259.32 | 258.99 | 259.01                                           | 258.92 | 259.03 | 259.13 | 259.07 | 258.97 | 259.09 | 258.88 | 259.06 | 259.12 |        |
| 7                                | 259.33 | 259.00 | 259.01                                           | 258.99 | 258.91 | 259.13 | 259.07 | 258.97 | 259.08 | 258.88 | 259.12 | 259.15 |        |
| 8                                | 259.33 | 259.00 | 259.01                                           | 259.14 | 258.91 | 259.13 | 259.07 | 258.98 | 259.08 | 258.88 | 259.44 | 259.15 |        |
| 9                                | 259.34 | 259.00 | 259.01                                           | 259.15 | 258.92 | 259.16 | 259.06 | 259.01 | 259.08 | 258.94 | 259.33 | 259.13 |        |
| 10                               | 259.30 | 259.17 | 259.01                                           | 259.15 | 258.92 | 259.26 | 259.06 | 259.03 | 259.08 | 259.10 | 259.11 | 259.08 |        |
| 11                               | 259.16 | 259.13 | 259.01                                           | 259.15 | 258.92 | 259.26 | 259.06 | 259.15 | 259.13 | 259.10 | 258.84 | 259.08 |        |
| 12                               | 259.18 | 259.01 | 259.16                                           | 259.15 | 258.92 | 259.27 | 259.06 | 259.23 | 259.32 | 259.10 | 258.87 | 259.08 |        |
| 13                               | 259.18 | 259.01 | 259.15                                           | 259.15 | 258.98 | 259.28 | 259.06 | 259.30 | 259.27 | 259.10 | 258.87 | 259.01 |        |
| 14                               | 259.18 | 259.01 | 259.05                                           | 259.15 | 259.15 | 259.31 | 259.07 | 259.31 | 259.32 | 259.10 | 258.87 | 258.86 |        |
| 15                               | 259.18 | 259.01 | 259.02                                           | 259.15 | 259.15 | 259.37 | 259.07 | 259.32 | 259.25 | 259.10 | 258.92 | 258.87 |        |
| 16                               | 259.12 | 259.01 | 259.03                                           | 259.15 | 259.15 | 259.60 | 258.95 | 259.32 | 259.19 | 259.10 | 259.06 | 258.89 |        |
| 17                               | 258.98 | 259.01 | 259.03                                           | 259.15 | 259.15 | 259.63 | 258.95 | 259.32 | 259.28 | 259.10 | 259.04 | 258.97 |        |
| 18                               | 258.98 | 259.01 | 258.94                                           | 259.15 | 259.15 | 260.02 | 259.24 | 259.25 | 259.26 | 259.10 | 259.04 | 259.07 |        |
| 19                               | 258.98 | 259.01 | 258.94                                           | 259.15 | 259.15 | 260.38 | 260.30 | 259.04 | 259.19 | 259.10 | 259.05 | 259.13 |        |
| 20                               | 258.98 | 259.01 | 258.99                                           | 259.15 | 259.15 | 260.09 | 260.01 | 259.30 | 259.17 | 259.10 | 259.09 | 259.13 |        |
| 21                               | 258.98 | 259.01 | 259.40                                           | 259.15 | 259.15 | 259.45 | 259.88 | 259.75 | 259.13 | 259.10 | 259.09 | 259.13 |        |
| 22                               | 258.98 | 259.01 | 259.35                                           | 259.15 | 259.15 | 259.25 | 260.99 | 259.59 | 259.13 | 259.05 | 259.09 | 259.13 |        |
| 23                               | 259.00 | 259.01 | 259.17                                           | 259.16 | 259.15 | 259.06 | 261.04 | 259.38 | 259.13 | 258.87 | 259.09 | 259.11 |        |
| 24                               | 259.12 | 259.01 | 259.19                                           | 259.18 | 259.15 | 258.93 | 260.72 | 259.29 | 259.09 | 258.89 | 259.09 | 259.05 |        |
| 25                               | 259.13 | 259.01 | 259.22                                           | 259.08 | 259.15 | 258.93 | 260.59 | 259.23 | 258.99 | 258.86 | 259.04 | 259.05 |        |
| 26                               | 259.13 | 259.01 | 259.20                                           | 259.08 | 259.02 | 258.93 | 260.03 | 259.03 | 258.99 | 258.86 | 258.85 | 259.08 |        |
| 27                               | 259.13 | 259.01 | 259.19                                           | 259.07 | 258.93 | 258.93 | 259.37 | 258.87 | 259.02 | 258.86 | 258.87 | 259.08 |        |
| 28                               | 259.13 | 259.01 | 259.19                                           | 259.07 | 258.93 | 258.93 | 259.19 | 258.90 | 259.09 | 258.86 | 258.87 | 259.08 |        |
| 29                               | 259.12 | 259.02 | 259.18                                           | 259.07 | 258.93 | 259.21 | 259.36 | 259.20 | 259.09 | 258.91 |        | 259.08 |        |
| 30                               | 259.05 | 259.01 | 259.18                                           | 259.07 | 258.97 | 260.65 | 259.90 | 260.02 | 259.09 | 259.10 |        | 259.08 |        |
| 31                               |        | 259.01 |                                                  | 259.07 | 259.14 |        | 260.09 |        | 259.09 | 259.07 |        | 260.24 |        |
| Mean                             | 259.11 | 259.01 | 259.09                                           | 259.10 | 259.05 | 259.33 | 259.55 | 259.26 | 259.16 | 259.00 | 259.04 | 259.09 |        |
| Max                              | 259.34 | 259.17 | 259.40                                           | 259.18 | 259.15 | 260.65 | 261.04 | 260.02 | 259.41 | 259.10 | 259.44 | 260.24 | 261.04 |
| Min                              | 258.98 | 258.99 | 258.94                                           | 258.92 | 258.91 | 258.93 | 258.95 | 258.87 | 258.99 | 258.86 | 258.84 | 258.86 | 258.84 |
| Annual Max Momentary Gage Height |        | 261.28 | m. (MSL.) , at 20.00 Hours , on Oct 22 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 259.00 | m. (MSL.) , River Bed 257.93 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 270.17 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 269.86 | m. (MSL.) , Drainage Area 2798 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                        | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual  |        |
|----------------|------------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|--------|--------------------------|--------|--------|--------|---------|--------|
| 1              | 1.94                                                       | 2.12                     | 2.67   | 8.58   | 5.26                 | 7.72   | 73.10  | 47.74  | 20.30                    | 5.63   | 4.89   | 0.35   |         |        |
| 2              | 1.94                                                       | 2.12                     | 2.67   | 3.78   | 5.26                 | 7.72   | 10.30  | 32.85  | 13.12                    | 4.52   | 4.89   | 0.35   |         |        |
| 3              | 1.94                                                       | 2.12                     | 2.67   | 0.86   | 5.26                 | 7.72   | 6.86   | 18.36  | 11.71                    | 0.40   | 4.52   | 1.22   |         |        |
| 4              | 2.67                                                       | 2.12                     | 2.67   | 0.86   | 5.26                 | 5.63   | 4.89   | 10.77  | 11.24                    | 0.40   | 4.52   | 6.00   |         |        |
| 5              | 9.01                                                       | 2.12                     | 2.67   | 0.86   | 5.26                 | 5.63   | 4.89   | 1.94   | 9.87                     | 0.40   | 4.52   | 6.00   |         |        |
| 6              | 15.96                                                      | 2.12                     | 2.67   | 0.86   | 3.41                 | 7.29   | 4.89   | 1.76   | 5.63                     | 0.40   | 4.52   | 6.86   |         |        |
| 7              | 16.44                                                      | 2.30                     | 2.67   | 2.12   | 0.68                 | 7.29   | 4.89   | 1.76   | 5.26                     | 0.40   | 6.86   | 8.15   |         |        |
| 8              | 16.44                                                      | 2.30                     | 2.67   | 7.72   | 0.68                 | 7.29   | 4.89   | 1.94   | 5.26                     | 0.40   | 21.78  | 8.15   |         |        |
| 9              | 16.92                                                      | 2.30                     | 2.67   | 8.15   | 0.86                 | 8.58   | 4.52   | 2.67   | 5.26                     | 1.22   | 16.44  | 7.29   |         |        |
| 10             | 15.00                                                      | 9.01                     | 2.67   | 8.15   | 0.86                 | 13.12  | 4.52   | 3.41   | 5.26                     | 6.00   | 6.43   | 5.26   |         |        |
| 11             | 8.58                                                       | 7.29                     | 2.67   | 8.15   | 0.86                 | 13.12  | 4.52   | 8.15   | 7.29                     | 6.00   | 0.20   | 5.26   |         |        |
| 12             | 9.44                                                       | 2.67                     | 8.58   | 8.15   | 0.86                 | 13.59  | 4.52   | 11.71  | 15.96                    | 6.00   | 0.35   | 5.26   |         |        |
| 13             | 9.44                                                       | 2.67                     | 8.15   | 8.15   | 1.94                 | 14.06  | 4.52   | 15.00  | 13.59                    | 6.00   | 0.35   | 2.67   |         |        |
| 14             | 9.44                                                       | 2.67                     | 4.15   | 8.15   | 8.15                 | 15.48  | 4.89   | 15.48  | 15.96                    | 6.00   | 0.35   | 0.30   |         |        |
| 15             | 9.44                                                       | 2.67                     | 3.04   | 8.15   | 8.15                 | 18.36  | 4.89   | 15.96  | 12.65                    | 6.00   | 0.86   | 0.35   |         |        |
| 16             | 6.86                                                       | 2.67                     | 3.41   | 8.15   | 8.15                 | 29.70  | 1.40   | 15.96  | 9.87                     | 6.00   | 4.52   | 0.45   |         |        |
| 17             | 1.94                                                       | 2.67                     | 3.41   | 8.15   | 8.15                 | 31.28  | 1.40   | 15.96  | 14.06                    | 6.00   | 3.78   | 1.76   |         |        |
| 18             | 1.94                                                       | 2.67                     | 1.22   | 8.15   | 8.15                 | 53.02  | 12.18  | 12.65  | 13.12                    | 6.00   | 3.78   | 4.89   |         |        |
| 19             | 1.94                                                       | 2.67                     | 1.22   | 8.15   | 8.15                 | 75.70  | 70.50  | 3.78   | 9.87                     | 6.00   | 4.15   | 7.29   |         |        |
| 20             | 1.94                                                       | 2.67                     | 2.12   | 8.15   | 8.15                 | 57.29  | 52.41  | 15.00  | 9.01                     | 6.00   | 5.63   | 7.29   |         |        |
| 21             | 1.94                                                       | 2.67                     | 19.80  | 8.15   | 8.15                 | 22.28  | 44.84  | 37.58  | 7.29                     | 6.00   | 5.63   | 7.29   |         |        |
| 22             | 1.94                                                       | 2.67                     | 17.40  | 8.15   | 8.15                 | 12.65  | 118.96 | 29.20  | 7.29                     | 4.15   | 5.63   | 7.29   |         |        |
| 23             | 2.30                                                       | 2.67                     | 9.01   | 8.58   | 8.15                 | 4.52   | 122.76 | 18.84  | 7.29                     | 0.35   | 5.63   | 6.43   |         |        |
| 24             | 6.86                                                       | 2.67                     | 9.87   | 9.44   | 8.15                 | 1.04   | 99.32  | 14.53  | 5.63                     | 0.45   | 5.63   | 4.15   |         |        |
| 25             | 7.29                                                       | 2.67                     | 11.24  | 5.26   | 8.15                 | 1.04   | 90.11  | 11.71  | 2.12                     | 0.30   | 3.78   | 4.15   |         |        |
| 26             | 7.29                                                       | 2.67                     | 10.30  | 5.26   | 3.04                 | 1.04   | 53.63  | 3.41   | 2.12                     | 0.30   | 0.25   | 5.26   |         |        |
| 27             | 7.29                                                       | 2.67                     | 9.87   | 4.89   | 1.04                 | 1.04   | 18.36  | 0.35   | 3.04                     | 0.30   | 0.35   | 5.26   |         |        |
| 28             | 7.29                                                       | 2.67                     | 9.87   | 4.89   | 1.04                 | 1.04   | 9.87   | 0.50   | 5.63                     | 0.30   | 0.35   | 5.26   |         |        |
| 29             | 6.86                                                       | 3.04                     | 9.44   | 4.89   | 1.04                 | 10.77  | 17.88  | 10.30  | 5.63                     | 0.68   |        | 5.26   |         |        |
| 30             | 4.15                                                       | 2.67                     | 9.44   | 4.89   | 1.76                 | 94.35  | 46.00  | 53.02  | 5.63                     | 6.00   |        | 5.26   |         |        |
| 31             |                                                            | 2.67                     |        | 4.89   | 7.72                 |        | 57.29  |        | 5.63                     | 4.89   |        | 66.60  |         |        |
| Total          | 212.43                                                     | 89.69                    | 180.91 | 192.73 | 149.89               | 549.36 | 964.00 | 432.29 | 271.59                   | 103.49 | 130.59 | 207.36 | 3484.33 | CMSDAY |
| Mean           | 7.08                                                       | 2.89                     | 6.03   | 6.22   | 4.84                 | 18.31  | 31.10  | 14.41  | 8.76                     | 3.34   | 4.66   | 6.69   | 9.55    | CMS    |
| Max            | 16.92                                                      | 9.01                     | 19.80  | 9.44   | 8.15                 | 94.35  | 122.76 | 53.02  | 20.30                    | 6.00   | 21.78  | 66.60  | 122.76  | CMS    |
| Min            | 1.94                                                       | 2.12                     | 1.22   | 0.86   | 0.68                 | 1.04   | 1.40   | 0.35   | 2.12                     | 0.30   | 0.20   | 0.30   | 0.20    | CMS    |
| Runoff         | 18.35                                                      | 7.75                     | 15.63  | 16.65  | 12.95                | 47.47  | 83.29  | 37.35  | 23.47                    | 8.94   | 11.28  | 17.92  | 301.05  | MCM    |
| Momentary Peak | CMS. at 261.28 m. (MSL.) at 20.00 Hours , on Oct 22 , 2013 |                          |        |        |                      |        |        |        |                          |        |        |        |         |        |
| Runoff Yield   | 3.41                                                       | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | 50.465 | Liters/Second/Square KM. |        |        |        |         |        |

**WATER YEAR : 2013**

## WANG RIVER BASIN

**Wang River at Ban Hai , Lampang (W.16A)**

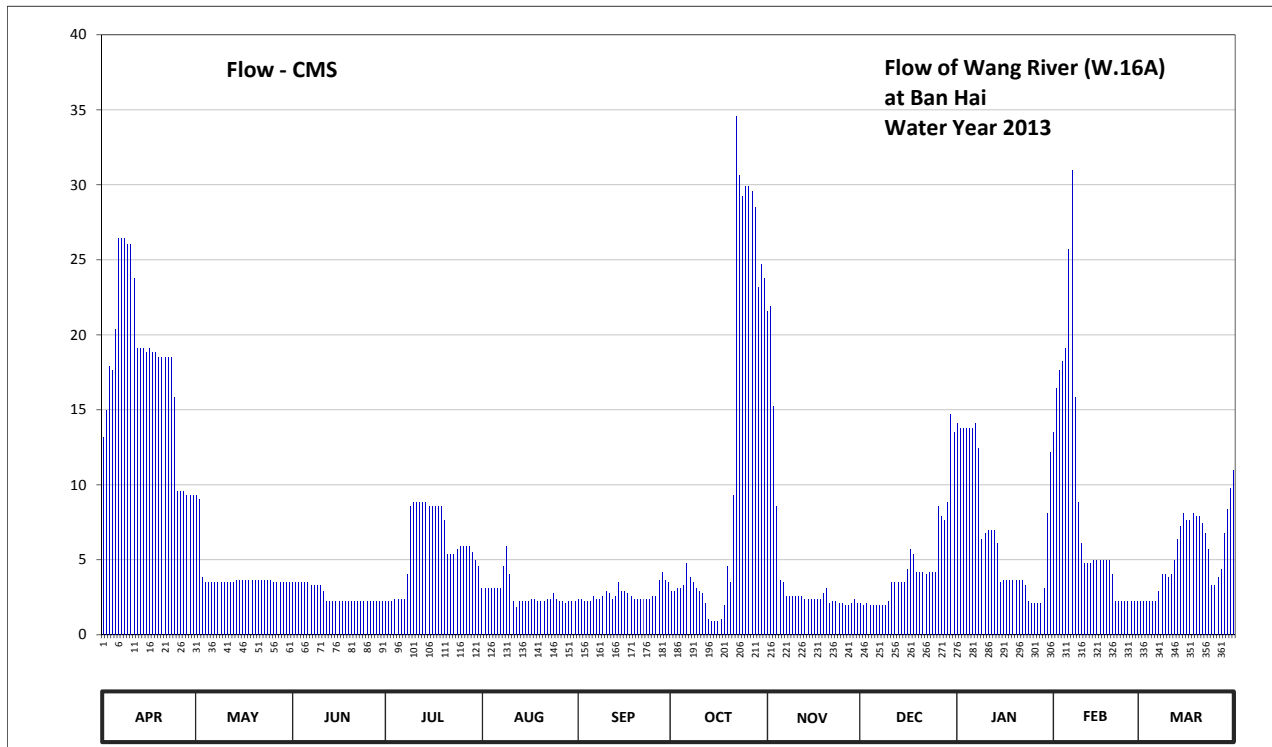
Lat 18 - 46 - 45 N    Long 99 - 37 - 52 E

**Location :** on left bank at Ban Hai

|                                         |                                                                                           |           |               |          |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Hai       | <b>Amphoe</b> | Chae Hom | <b>Changwat</b>  | Lampang            |
| <b>Drainage Area</b>                    | 1,392                                                                                     | sq.km.    |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +304.000                                                                                  | m. (MSL.) |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |          |                  |                    |
| <b>Location BM</b>                      | On left bank about 10.00 meters from the top staff gage.                                  |           |               |          | <b>Elevation</b> | +310.113 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 1995 to date                                                                              |           |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                    |
| <b>Period of Rating</b>                 | 1995 to date                                                                              |           |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 1995 to date                                                                              |           |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |          |                  |                    |
| <b>General Description</b>              | Records fair.The pumping station is located about 150 meters upstream from the gage site. |           |               |          |                  |                    |
|                                         | Stage-discharge relation defined by 45 discharge measurements made in 2013.               |           |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

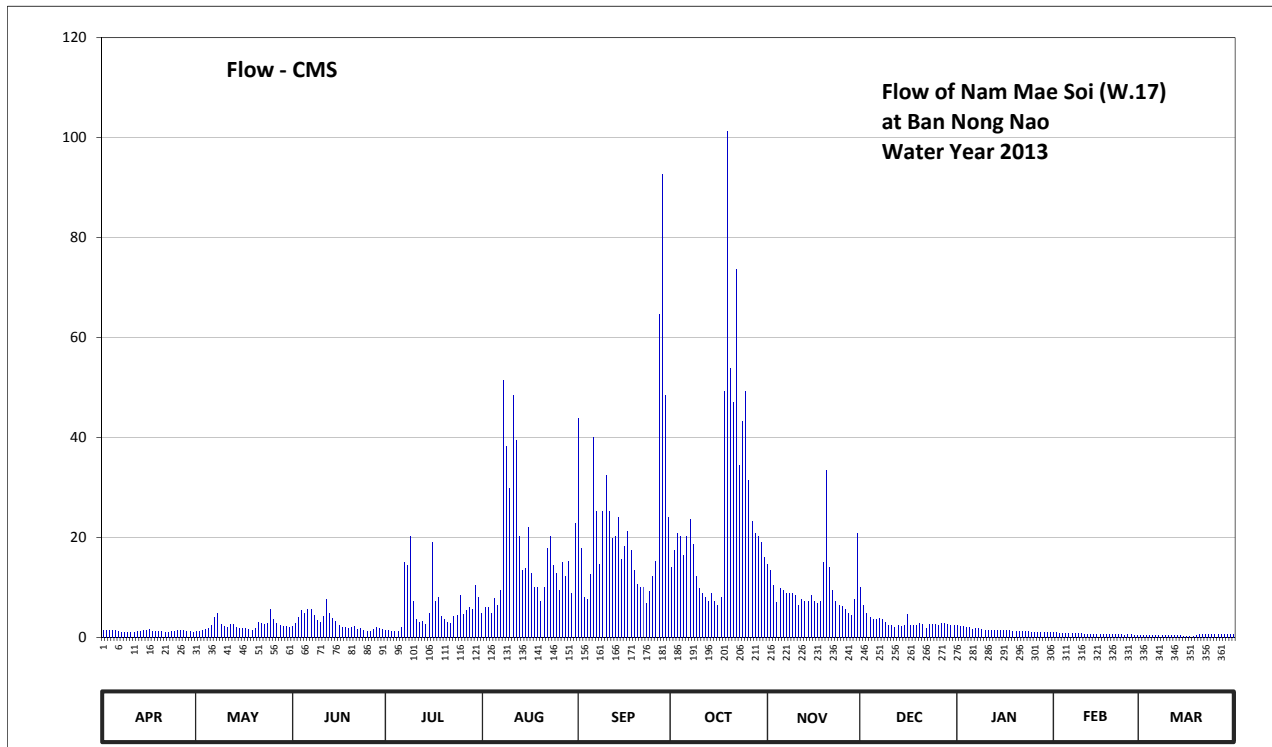
| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 305.41 | 305.25 | 304.97                                           | 304.90 | 304.95 | 304.91 | 304.94 | 305.69 | 304.89 | 305.44 | 305.42 | 304.90 |        |
| 2                                | 305.47 | 305.24 | 304.97                                           | 304.90 | 304.95 | 304.91 | 304.94 | 305.70 | 304.88 | 305.43 | 305.52 | 304.90 |        |
| 3                                | 305.57 | 304.99 | 304.97                                           | 304.90 | 304.95 | 304.90 | 304.95 | 305.48 | 304.89 | 305.43 | 305.56 | 304.90 |        |
| 4                                | 305.56 | 304.97 | 304.97                                           | 304.91 | 304.95 | 304.90 | 304.95 | 305.22 | 304.88 | 305.43 | 305.58 | 304.90 |        |
| 5                                | 305.65 | 304.97 | 304.97                                           | 304.91 | 304.95 | 304.90 | 304.96 | 304.98 | 304.88 | 305.43 | 305.61 | 304.90 |        |
| 6                                | 305.84 | 304.97 | 304.97                                           | 304.91 | 304.95 | 304.92 | 305.04 | 304.97 | 304.88 | 305.43 | 305.82 | 304.90 |        |
| 7                                | 305.84 | 304.97 | 304.96                                           | 304.91 | 304.95 | 304.91 | 304.99 | 304.92 | 304.88 | 305.44 | 305.97 | 304.94 |        |
| 8                                | 305.84 | 304.97 | 304.96                                           | 305.00 | 305.03 | 304.91 | 304.97 | 304.92 | 304.88 | 305.38 | 305.50 | 305.00 |        |
| 9                                | 305.83 | 304.97 | 304.96                                           | 305.22 | 305.10 | 304.92 | 304.95 | 304.92 | 304.88 | 305.12 | 305.23 | 305.00 |        |
| 10                               | 305.83 | 304.97 | 304.96                                           | 305.23 | 305.00 | 304.94 | 304.94 | 304.92 | 304.90 | 305.14 | 305.11 | 304.99 |        |
| 11                               | 305.76 | 304.97 | 304.94                                           | 305.23 | 304.90 | 304.93 | 304.93 | 304.92 | 304.97 | 305.15 | 305.04 | 305.00 |        |
| 12                               | 305.61 | 304.97 | 304.90                                           | 305.23 | 304.87 | 304.91 | 304.89 | 304.92 | 304.97 | 305.15 | 305.04 | 305.05 |        |
| 13                               | 305.61 | 304.97 | 304.90                                           | 305.23 | 304.90 | 304.92 | 304.80 | 304.91 | 304.97 | 305.15 | 305.04 | 305.12 |        |
| 14                               | 305.61 | 304.98 | 304.90                                           | 305.23 | 304.90 | 304.97 | 304.79 | 304.91 | 304.97 | 305.11 | 305.05 | 305.16 |        |
| 15                               | 305.60 | 304.98 | 304.90                                           | 305.22 | 304.90 | 304.94 | 304.79 | 304.91 | 304.97 | 304.97 | 305.05 | 305.20 |        |
| 16                               | 305.61 | 304.98 | 304.90                                           | 305.22 | 304.90 | 304.94 | 304.79 | 304.91 | 305.02 | 304.98 | 305.05 | 305.18 |        |
| 17                               | 305.60 | 304.98 | 304.90                                           | 305.22 | 304.91 | 304.93 | 304.80 | 304.91 | 305.09 | 304.98 | 305.05 | 305.18 |        |
| 18                               | 305.60 | 304.98 | 304.90                                           | 305.22 | 304.91 | 304.92 | 304.88 | 304.91 | 305.07 | 304.98 | 305.05 | 305.20 |        |
| 19                               | 305.59 | 304.98 | 304.90                                           | 305.22 | 304.90 | 304.91 | 305.03 | 304.93 | 305.01 | 304.98 | 305.05 | 305.19 |        |
| 20                               | 305.59 | 304.98 | 304.90                                           | 305.18 | 304.90 | 304.91 | 304.97 | 304.95 | 305.01 | 304.98 | 305.00 | 305.19 |        |
| 21                               | 305.59 | 304.98 | 304.90                                           | 305.07 | 304.90 | 304.91 | 305.25 | 304.89 | 305.01 | 304.98 | 304.90 | 305.17 |        |
| 22                               | 305.59 | 304.98 | 304.90                                           | 305.07 | 304.91 | 304.91 | 306.07 | 304.90 | 305.00 | 304.98 | 304.90 | 305.14 |        |
| 23                               | 305.59 | 304.98 | 304.90                                           | 305.07 | 304.91 | 304.91 | 305.96 | 304.90 | 305.01 | 304.96 | 304.90 | 305.09 |        |
| 24                               | 305.50 | 304.98 | 304.90                                           | 305.09 | 304.93 | 304.91 | 305.92 | 304.89 | 305.01 | 304.90 | 304.90 | 304.96 |        |
| 25                               | 305.26 | 304.98 | 304.90                                           | 305.10 | 304.91 | 304.92 | 305.94 | 304.89 | 305.01 | 304.89 | 304.90 | 304.96 |        |
| 26                               | 305.26 | 304.97 | 304.90                                           | 305.10 | 304.90 | 304.92 | 305.94 | 304.88 | 305.22 | 304.89 | 304.90 | 304.99 |        |
| 27                               | 305.26 | 304.97 | 304.90                                           | 305.10 | 304.90 | 304.98 | 305.93 | 304.88 | 305.19 | 304.89 | 304.90 | 305.02 |        |
| 28                               | 305.25 | 304.97 | 304.90                                           | 305.10 | 304.89 | 305.01 | 305.90 | 304.89 | 305.18 | 304.89 | 304.90 | 305.14 |        |
| 29                               | 305.25 | 304.97 | 304.90                                           | 305.08 | 304.90 | 304.98 | 305.74 | 304.91 | 305.23 | 304.95 |        | 305.21 |        |
| 30                               | 305.25 | 304.97 | 304.90                                           | 305.05 | 304.90 | 304.97 | 305.79 | 304.89 | 305.46 | 305.20 |        | 305.27 |        |
| 31                               |        | 304.97 |                                                  | 305.03 | 304.90 |        | 305.76 |        | 305.42 | 305.37 |        | 305.32 |        |
| Mean                             | 305.56 | 304.99 | 304.92                                           | 305.09 | 304.93 | 304.93 | 305.24 | 304.99 | 305.02 | 305.13 | 305.18 | 305.07 |        |
| Max                              | 305.84 | 305.25 | 304.97                                           | 305.23 | 305.10 | 305.01 | 306.07 | 305.70 | 305.46 | 305.44 | 305.97 | 305.32 | 306.07 |
| Min                              | 305.25 | 304.97 | 304.90                                           | 304.90 | 304.87 | 304.90 | 304.79 | 304.88 | 304.88 | 304.89 | 304.90 | 304.90 | 304.79 |
| Annual Max Momentary Gage Height |        | 306.12 | m. (MSL.) , at 10.00 Hours , on Oct 22 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 304.00 | m. (MSL.) , River Bed 303.25 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 310.12 | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 310.10 | m. (MSL.) , Drainage Area 1392 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                        | Jun   | Jul                  | Aug   | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|--------|------------------------------------------------------------|-------|----------------------|-------|--------|--------------------------|--------|--------|--------|--------|--------|----------------|
| 1              | 13.20  | 9.30                                                       | 3.46  | 2.20                 | 3.10  | 2.38   | 2.92                     | 21.59  | 2.08   | 14.08  | 13.49  | 2.20   |                |
| 2              | 14.97  | 9.06                                                       | 3.46  | 2.20                 | 3.10  | 2.38   | 2.92                     | 21.90  | 1.96   | 13.78  | 16.44  | 2.20   |                |
| 3              | 17.92  | 3.82                                                       | 3.46  | 2.20                 | 3.10  | 2.20   | 3.10                     | 15.26  | 2.08   | 13.78  | 17.62  | 2.20   |                |
| 4              | 17.62  | 3.46                                                       | 3.46  | 2.38                 | 3.10  | 2.20   | 3.10                     | 8.58   | 1.96   | 13.78  | 18.21  | 2.20   |                |
| 5              | 20.35  | 3.46                                                       | 3.46  | 2.38                 | 3.10  | 2.20   | 3.28                     | 3.64   | 1.96   | 13.78  | 19.11  | 2.20   |                |
| 6              | 26.40  | 3.46                                                       | 3.46  | 2.38                 | 3.10  | 2.56   | 4.76                     | 3.46   | 1.96   | 13.78  | 25.70  | 2.20   |                |
| 7              | 26.40  | 3.46                                                       | 3.28  | 2.38                 | 3.10  | 2.38   | 3.82                     | 2.56   | 1.96   | 14.08  | 30.95  | 2.92   |                |
| 8              | 26.40  | 3.46                                                       | 3.28  | 4.00                 | 4.57  | 2.38   | 3.46                     | 2.56   | 1.96   | 12.42  | 15.85  | 4.00   |                |
| 9              | 26.05  | 3.46                                                       | 3.28  | 8.58                 | 5.90  | 2.56   | 3.10                     | 2.56   | 1.96   | 6.34   | 8.82   | 4.00   |                |
| 10             | 26.05  | 3.46                                                       | 3.28  | 8.82                 | 4.00  | 2.92   | 2.92                     | 2.56   | 2.20   | 6.78   | 6.12   | 3.82   |                |
| 11             | 23.76  | 3.46                                                       | 2.92  | 8.82                 | 2.20  | 2.74   | 2.74                     | 2.56   | 3.46   | 7.00   | 4.76   | 4.00   |                |
| 12             | 19.11  | 3.46                                                       | 2.20  | 8.82                 | 1.84  | 2.38   | 2.08                     | 2.56   | 3.46   | 7.00   | 4.76   | 4.95   |                |
| 13             | 19.11  | 3.46                                                       | 2.20  | 8.82                 | 2.20  | 2.56   | 1.00                     | 2.38   | 3.46   | 7.00   | 4.76   | 6.34   |                |
| 14             | 19.11  | 3.64                                                       | 2.20  | 8.82                 | 2.20  | 3.46   | 0.90                     | 2.38   | 3.46   | 6.12   | 4.95   | 7.22   |                |
| 15             | 18.80  | 3.64                                                       | 2.20  | 8.58                 | 2.20  | 2.92   | 0.90                     | 2.38   | 3.46   | 3.46   | 4.95   | 8.10   |                |
| 16             | 19.11  | 3.64                                                       | 2.20  | 8.58                 | 2.20  | 2.92   | 0.90                     | 2.38   | 4.38   | 3.64   | 4.95   | 7.66   |                |
| 17             | 18.80  | 3.64                                                       | 2.20  | 8.58                 | 2.38  | 2.74   | 1.00                     | 2.38   | 5.71   | 3.64   | 4.95   | 7.66   |                |
| 18             | 18.80  | 3.64                                                       | 2.20  | 8.58                 | 2.38  | 2.56   | 1.96                     | 2.38   | 5.33   | 3.64   | 4.95   | 8.10   |                |
| 19             | 18.50  | 3.64                                                       | 2.20  | 8.58                 | 2.20  | 2.38   | 4.57                     | 2.74   | 4.19   | 3.64   | 4.95   | 7.88   |                |
| 20             | 18.50  | 3.64                                                       | 2.20  | 7.66                 | 2.20  | 2.38   | 3.46                     | 3.10   | 4.19   | 3.64   | 4.00   | 7.88   |                |
| 21             | 18.50  | 3.64                                                       | 2.20  | 5.33                 | 2.20  | 2.38   | 9.30                     | 2.08   | 4.19   | 3.64   | 2.20   | 7.44   |                |
| 22             | 18.50  | 3.64                                                       | 2.20  | 5.33                 | 2.38  | 2.38   | 34.59                    | 2.20   | 4.00   | 3.64   | 2.20   | 6.78   |                |
| 23             | 18.50  | 3.64                                                       | 2.20  | 5.33                 | 2.38  | 2.38   | 30.60                    | 2.20   | 4.19   | 3.28   | 2.20   | 5.71   |                |
| 24             | 15.85  | 3.64                                                       | 2.20  | 5.71                 | 2.74  | 2.38   | 29.20                    | 2.08   | 4.19   | 2.20   | 2.20   | 3.28   |                |
| 25             | 9.54   | 3.64                                                       | 2.20  | 5.90                 | 2.38  | 2.56   | 29.90                    | 2.08   | 4.19   | 2.08   | 2.20   | 3.28   |                |
| 26             | 9.54   | 3.46                                                       | 2.20  | 5.90                 | 2.20  | 2.56   | 29.90                    | 1.96   | 8.58   | 2.08   | 2.20   | 3.82   |                |
| 27             | 9.54   | 3.46                                                       | 2.20  | 5.90                 | 2.20  | 3.64   | 29.55                    | 1.96   | 7.88   | 2.08   | 2.20   | 4.38   |                |
| 28             | 9.30   | 3.46                                                       | 2.20  | 5.90                 | 2.08  | 4.19   | 28.50                    | 2.08   | 7.66   | 2.08   | 2.20   | 6.78   |                |
| 29             | 9.30   | 3.46                                                       | 2.20  | 5.52                 | 2.20  | 3.64   | 23.14                    | 2.38   | 8.82   | 3.10   |        | 8.34   |                |
| 30             | 9.30   | 3.46                                                       | 2.20  | 4.95                 | 2.20  | 3.46   | 24.69                    | 2.08   | 14.67  | 8.10   |        | 9.78   |                |
| 31             |        | 3.46                                                       |       | 4.57                 | 2.20  |        | 23.76                    |        | 13.49  | 12.18  |        | 10.98  |                |
| Total          | 536.83 | 121.22                                                     | 78.60 | 183.70               | 83.33 | 80.77  | 346.02                   | 131.01 | 143.04 | 215.84 | 237.89 | 168.30 | 2326.55 CMSDAY |
| Mean           | 17.89  | 3.91                                                       | 2.62  | 5.93                 | 2.69  | 2.69   | 11.16                    | 4.37   | 4.61   | 6.96   | 8.50   | 5.43   | 6.37 CMS       |
| Max            | 26.40  | 9.30                                                       | 3.46  | 8.82                 | 5.90  | 4.19   | 34.59                    | 21.90  | 14.67  | 14.08  | 30.95  | 10.98  | 34.59 CMS      |
| Min            | 9.30   | 3.46                                                       | 2.20  | 2.20                 | 1.84  | 2.20   | 0.90                     | 1.96   | 1.96   | 2.08   | 2.20   | 2.20   | 0.90 CMS       |
| Runoff         | 46.38  | 10.47                                                      | 6.79  | 15.87                | 7.20  | 6.98   | 29.90                    | 11.32  | 12.36  | 18.65  | 20.55  | 14.54  | 201.01 MCM     |
| Momentary Peak | 36.44  | CMS. at 306.12 m. (MSL.) at 10.00 Hours , on Oct 22 , 2013 |       |                      |       |        |                          |        |        |        |        |        |                |
| Runoff Yield   | 4.58   | Liters/Second/Square KM.                                   |       | Momentary Peak Yield |       | 26.178 | Liters/Second/Square KM. |        |        |        |        |        |                |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 1.45                                                              | 1.36                     | 2.26  | 1.45                 | 5.00   | 43.88   | 14.15                    | 14.77  | 10.12  | 2.38  | 1.09  | 0.55  |                |
| 2              | 1.54                                                              | 1.36                     | 2.98  | 1.45                 | 6.00   | 17.82   | 17.40                    | 13.53  | 6.40   | 2.26  | 1.09  | 0.50  |                |
| 3              | 1.54                                                              | 1.45                     | 4.12  | 1.36                 | 6.00   | 8.15    | 20.80                    | 10.43  | 5.00   | 2.26  | 0.95  | 0.46  |                |
| 4              | 1.45                                                              | 1.63                     | 5.40  | 1.36                 | 5.00   | 7.61    | 20.37                    | 7.07   | 4.12   | 2.14  | 1.00  | 0.50  |                |
| 5              | 1.45                                                              | 1.90                     | 4.80  | 1.36                 | 7.88   | 12.60   | 16.55                    | 9.81   | 3.78   | 2.02  | 1.00  | 0.50  |                |
| 6              | 1.27                                                              | 2.38                     | 5.80  | 2.14                 | 6.40   | 40.13   | 20.37                    | 9.50   | 3.78   | 1.72  | 1.00  | 0.46  |                |
| 7              | 1.18                                                              | 4.12                     | 5.60  | 15.08                | 9.50   | 25.23   | 23.78                    | 8.96   | 3.95   | 1.81  | 1.00  | 0.46  |                |
| 8              | 1.18                                                              | 4.80                     | 4.46  | 14.46                | 51.50  | 14.77   | 18.67                    | 8.96   | 3.78   | 1.81  | 1.00  | 0.46  |                |
| 9              | 1.18                                                              | 2.62                     | 3.44  | 20.37                | 38.25  | 25.23   | 12.29                    | 8.96   | 3.10   | 1.63  | 1.00  | 0.46  |                |
| 10             | 1.18                                                              | 2.26                     | 3.10  | 7.34                 | 29.87  | 32.44   | 9.81                     | 8.42   | 2.50   | 1.54  | 0.80  | 0.42  |                |
| 11             | 1.18                                                              | 2.14                     | 4.29  | 3.78                 | 48.50  | 25.23   | 8.96                     | 6.60   | 2.38   | 1.54  | 0.75  | 0.42  |                |
| 12             | 1.27                                                              | 2.74                     | 7.61  | 3.10                 | 39.50  | 19.95   | 8.15                     | 7.61   | 2.14   | 1.54  | 0.75  | 0.42  |                |
| 13             | 1.27                                                              | 2.62                     | 5.00  | 3.27                 | 20.37  | 20.37   | 7.34                     | 7.34   | 2.38   | 1.45  | 0.75  | 0.42  |                |
| 14             | 1.54                                                              | 2.14                     | 3.95  | 2.62                 | 13.53  | 24.20   | 8.96                     | 7.34   | 2.26   | 1.54  | 0.75  | 0.42  |                |
| 15             | 1.54                                                              | 1.81                     | 3.27  | 4.80                 | 13.84  | 15.70   | 7.34                     | 8.42   | 2.38   | 1.54  | 0.75  | 0.38  |                |
| 16             | 1.63                                                              | 1.90                     | 2.38  | 19.10                | 22.08  | 18.25   | 6.40                     | 7.34   | 4.63   | 1.54  | 0.70  | 0.34  |                |
| 17             | 1.36                                                              | 1.81                     | 2.02  | 7.34                 | 12.91  | 21.22   | 8.15                     | 6.80   | 2.38   | 1.45  | 0.70  | 0.34  |                |
| 18             | 1.36                                                              | 1.63                     | 2.02  | 8.15                 | 10.12  | 17.40   | 49.25                    | 7.34   | 2.38   | 1.45  | 0.70  | 0.34  |                |
| 19             | 1.27                                                              | 1.54                     | 1.90  | 4.29                 | 10.12  | 13.53   | 101.30                   | 15.08  | 2.50   | 1.36  | 0.70  | 0.42  |                |
| 20             | 1.27                                                              | 1.90                     | 2.02  | 3.61                 | 7.34   | 10.74   | 53.75                    | 33.47  | 2.86   | 1.27  | 0.65  | 0.60  |                |
| 21             | 1.18                                                              | 3.10                     | 2.26  | 3.10                 | 10.12  | 10.12   | 47.00                    | 14.15  | 2.62   | 1.27  | 0.65  | 0.60  |                |
| 22             | 1.18                                                              | 2.98                     | 1.63  | 2.86                 | 17.82  | 10.12   | 73.70                    | 9.50   | 1.90   | 1.27  | 0.65  | 0.60  |                |
| 23             | 1.36                                                              | 2.62                     | 1.81  | 4.29                 | 20.37  | 6.80    | 34.50                    | 7.34   | 2.74   | 1.27  | 0.65  | 0.60  |                |
| 24             | 1.36                                                              | 2.86                     | 1.45  | 4.46                 | 14.46  | 9.23    | 43.25                    | 6.60   | 2.62   | 1.27  | 0.55  | 0.65  |                |
| 25             | 1.45                                                              | 5.80                     | 1.36  | 8.42                 | 12.91  | 12.29   | 49.25                    | 6.20   | 2.62   | 1.18  | 0.60  | 0.60  |                |
| 26             | 1.45                                                              | 3.61                     | 1.36  | 4.63                 | 9.50   | 15.39   | 31.41                    | 5.60   | 2.50   | 1.18  | 0.60  | 0.70  |                |
| 27             | 1.45                                                              | 2.98                     | 1.72  | 5.40                 | 15.08  | 64.70   | 23.35                    | 4.80   | 2.86   | 1.18  | 0.55  | 0.70  |                |
| 28             | 1.36                                                              | 2.50                     | 2.14  | 6.00                 | 12.29  | 92.60   | 20.80                    | 4.46   | 2.86   | 1.18  | 0.55  | 0.70  |                |
| 29             | 1.27                                                              | 2.26                     | 1.81  | 5.60                 | 15.39  | 48.50   | 20.37                    | 7.61   | 2.62   | 1.09  |       | 0.70  |                |
| 30             | 1.18                                                              | 2.26                     | 1.63  | 10.43                | 8.96   | 24.20   | 19.10                    | 20.80  | 2.38   | 1.09  |       | 0.75  |                |
| 31             |                                                                   | 2.14                     |       | 8.15                 | 22.92  |         | 16.12                    |        | 2.38   | 1.09  |       | 0.75  |                |
| Total          | 40.35                                                             | 77.22                    | 93.59 | 189.77               | 523.53 | 708.40  | 812.64                   | 294.81 | 100.92 | 47.32 | 21.93 | 16.22 | 2926.70 CMSDAY |
| Mean           | 1.35                                                              | 2.49                     | 3.12  | 6.12                 | 16.89  | 23.61   | 26.21                    | 9.83   | 3.26   | 1.53  | 0.78  | 0.52  | 8.02 CMS       |
| Max            | 1.63                                                              | 5.80                     | 7.61  | 20.37                | 51.50  | 92.60   | 101.30                   | 33.47  | 10.12  | 2.38  | 1.09  | 0.75  | 101.30 CMS     |
| Min            | 1.18                                                              | 1.36                     | 1.36  | 1.36                 | 5.00   | 6.80    | 6.40                     | 4.46   | 1.90   | 1.09  | 0.55  | 0.34  | 0.34 CMS       |
| Runoff         | 3.49                                                              | 6.67                     | 8.09  | 16.40                | 45.23  | 61.21   | 70.21                    | 25.47  | 8.72   | 4.09  | 1.90  | 1.40  | 252.87 MCM     |
| Momentary Peak | 115.60 CMS. at 293.56 m. (MSL.) at 05.00 Hours , on Oct 19 , 2013 |                          |       |                      |        |         |                          |        |        |       |       |       |                |
| Runoff Yield   | 11.04                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 159.229 | Liters/Second/Square KM. |        |        |       |       |       |                |

**WATER YEAR : 2013**

## WANG RIVER BASIN

**Nam Mae Soi at Ban Thung Thong , Lampang (W.17A)**

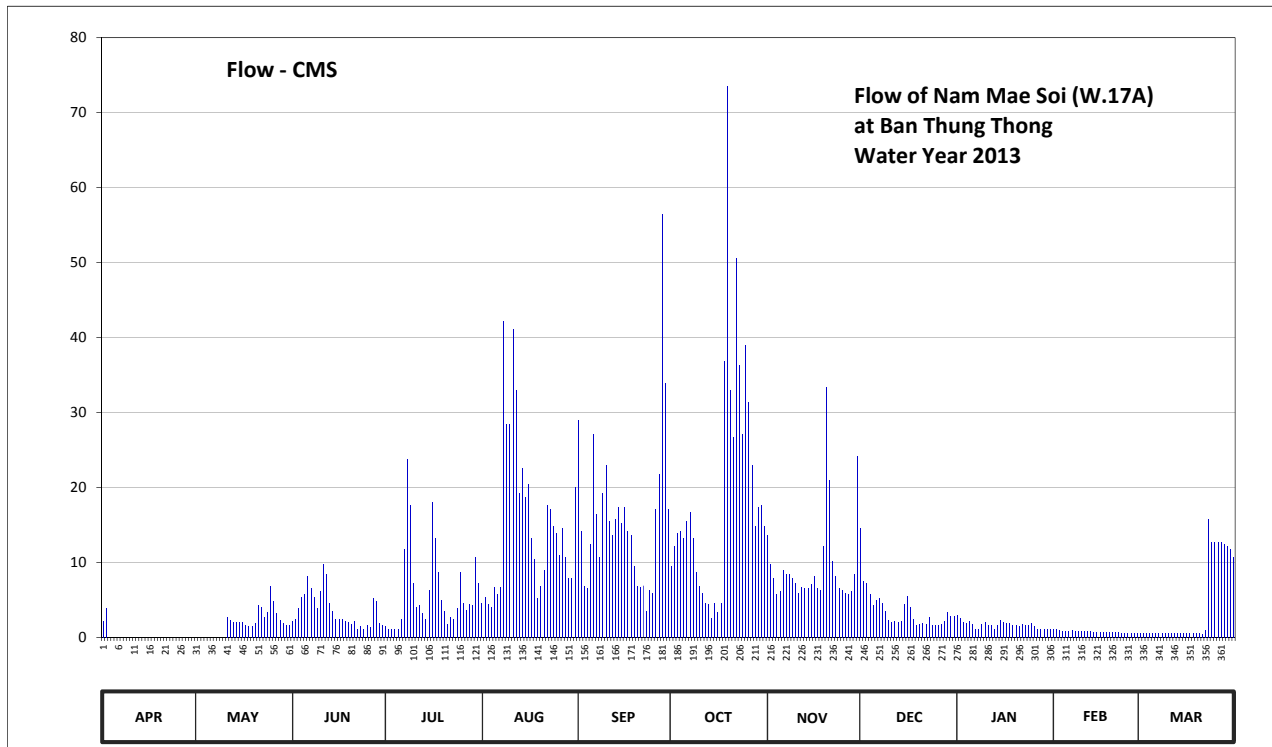
Lat 18 - 42 - 16 N Long 99 - 53 - 52 E

**Location : on left bank at Ban Thung Thong.**

|                                         |                                                                                          |                |               |          |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|----------------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | Thung Thong    | <b>Amphoe</b> | Chae Hom | <b>Changwat</b>  | Lampang            |
| <b>Drainage Area</b>                    | 788                                                                                      | sq.km.         |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water -                                                                                  | stage recorder |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +295.655                                                                                 | m. (MSL.)      |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |                |               |          |                  |                    |
| <b>Location BM</b>                      | About 21 meters from the top staff gage.                                                 |                |               |          | <b>Elevation</b> | +300.250 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |                |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |                |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                             |                |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |                |               |          |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                             |                |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |                |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                             |                |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Rather unstable by some scouring.                                                        |                |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                |               |          |                  |                    |
| <b>General Description</b>              | Records fair.Stage-discharge relation defined by 45 discharge measurements made in 2013. |                |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 296.11 | 296.65 | 296.11                                          | 296.05 | 296.26 | 297.03 | 296.48 | 296.62 | 296.65 | 296.17 | 296.01 | 295.90 |        |
| 2                                | 296.22 | 296.63 | 296.13                                          | 296.02 | 296.30 | 296.64 | 296.57 | 296.49 | 296.41 | 296.14 | 296.01 | 295.88 |        |
| 3                                | 296.69 | 296.63 | 296.22                                          | 296.01 | 296.25 | 296.38 | 296.63 | 296.42 | 296.40 | 296.10 | 295.99 | 295.88 |        |
| 4                                | 296.71 | 296.66 | 296.30                                          | 296.01 | 296.23 | 296.36 | 296.64 | 296.32 | 296.32 | 296.09 | 295.97 | 295.87 |        |
| 5                                | 296.71 | 296.71 | 296.32                                          | 296.01 | 296.37 | 296.58 | 296.61 | 296.34 | 296.24 | 296.11 | 295.98 | 295.87 |        |
| 6                                | 296.71 | 296.78 | 296.43                                          | 296.13 | 296.32 | 296.99 | 296.68 | 296.46 | 296.28 | 296.08 | 295.97 | 295.87 |        |
| 7                                | 296.71 | 296.78 | 296.36                                          | 296.56 | 296.37 | 296.71 | 296.72 | 296.44 | 296.29 | 296.01 | 295.99 | 295.88 |        |
| 8                                | 296.69 | 296.30 | 296.30                                          | 296.91 | 297.29 | 296.52 | 296.61 | 296.44 | 296.26 | 296.01 | 295.96 | 295.87 |        |
| 9                                | 296.70 | 296.12 | 296.22                                          | 296.75 | 297.02 | 296.80 | 296.45 | 296.42 | 296.20 | 296.08 | 295.96 | 295.86 |        |
| 10                               | 296.69 | 296.11 | 296.34                                          | 296.40 | 297.02 | 296.89 | 296.38 | 296.40 | 296.12 | 296.10 | 295.96 | 295.87 |        |
| 11                               | 296.69 | 296.15 | 296.49                                          | 296.23 | 297.27 | 296.68 | 296.33 | 296.33 | 296.10 | 296.06 | 295.96 | 295.87 |        |
| 12                               | 296.69 | 296.12 | 296.44                                          | 296.24 | 297.11 | 296.62 | 296.26 | 296.37 | 296.11 | 296.06 | 295.96 | 295.87 |        |
| 13                               | 296.69 | 296.10 | 296.26                                          | 296.18 | 296.80 | 296.69 | 296.25 | 296.36 | 296.10 | 296.02 | 295.95 | 295.87 |        |
| 14                               | 296.69 | 296.10 | 296.20                                          | 296.13 | 296.88 | 296.74 | 296.14 | 296.36 | 296.11 | 296.07 | 295.94 | 295.87 |        |
| 15                               | 296.70 | 296.10 | 296.13                                          | 296.35 | 296.78 | 296.67 | 296.26 | 296.39 | 296.25 | 296.12 | 295.93 | 295.87 |        |
| 16                               | 296.75 | 296.10 | 296.13                                          | 296.76 | 296.83 | 296.74 | 296.19 | 296.43 | 296.31 | 296.10 | 295.93 | 295.87 |        |
| 17                               | 296.66 | 296.06 | 296.13                                          | 296.61 | 296.61 | 296.64 | 296.26 | 296.36 | 296.23 | 296.09 | 295.93 | 295.87 |        |
| 18                               | 296.64 | 296.05 | 296.11                                          | 296.45 | 296.51 | 296.62 | 297.19 | 296.35 | 296.13 | 296.09 | 295.93 | 295.87 |        |
| 19                               | 296.64 | 296.05 | 296.10                                          | 296.28 | 296.29 | 296.48 | 297.80 | 296.57 | 296.07 | 296.06 | 295.94 | 295.88 |        |
| 20                               | 296.66 | 296.09 | 296.08                                          | 296.20 | 296.38 | 296.38 | 297.11 | 297.12 | 296.08 | 296.06 | 295.93 | 295.86 |        |
| 21                               | 296.66 | 296.24 | 296.11                                          | 296.08 | 296.46 | 296.37 | 296.98 | 296.84 | 296.09 | 296.05 | 295.92 | 295.84 |        |
| 22                               | 296.66 | 296.23 | 296.02                                          | 296.15 | 296.75 | 296.38 | 297.44 | 296.50 | 296.08 | 296.08 | 295.93 | 295.99 |        |
| 23                               | 296.66 | 296.15 | 296.05                                          | 296.13 | 296.73 | 296.20 | 297.18 | 296.43 | 296.15 | 296.07 | 295.91 | 296.69 |        |
| 24                               | 296.67 | 296.19 | 296.02                                          | 296.22 | 296.66 | 296.35 | 296.99 | 296.36 | 296.07 | 296.07 | 295.91 | 296.59 |        |
| 25                               | 296.71 | 296.38 | 296.06                                          | 296.45 | 296.63 | 296.33 | 297.23 | 296.35 | 296.06 | 296.09 | 295.91 | 296.59 |        |
| 26                               | 296.75 | 296.27 | 296.04                                          | 296.26 | 296.53 | 296.73 | 297.08 | 296.33 | 296.07 | 296.05 | 295.91 | 296.59 |        |
| 27                               | 296.67 | 296.18 | 296.29                                          | 296.21 | 296.65 | 296.86 | 296.89 | 296.32 | 296.08 | 296.02 | 295.90 | 296.59 |        |
| 28                               | 296.66 | 296.12 | 296.27                                          | 296.25 | 296.52 | 297.54 | 296.66 | 296.34 | 296.11 | 296.01 | 295.90 | 296.58 |        |
| 29                               | 296.66 | 296.09 | 296.09                                          | 296.24 | 296.42 | 297.13 | 296.74 | 296.44 | 296.19 | 296.01 |        | 296.57 |        |
| 30                               | 296.66 | 296.06 | 296.06                                          | 296.52 | 296.42 | 296.73 | 296.75 | 296.92 | 296.16 | 296.01 |        | 296.56 |        |
| 31                               |        | 296.07 |                                                 | 296.40 | 296.82 |        | 296.66 |        | 296.16 | 296.02 |        | 296.52 |        |
| Mean                             | 296.65 | 296.27 | 296.19                                          | 296.30 | 296.63 | 296.66 | 296.71 | 296.46 | 296.19 | 296.07 | 295.95 | 296.08 |        |
| Max                              | 296.75 | 296.78 | 296.49                                          | 296.91 | 297.29 | 297.54 | 297.80 | 297.12 | 296.65 | 296.17 | 296.01 | 296.69 | 297.80 |
| Min                              | 296.11 | 296.05 | 296.02                                          | 296.01 | 296.23 | 296.20 | 296.14 | 296.32 | 296.06 | 296.01 | 295.90 | 295.84 | 295.84 |
| Annual Max Momentary Gage Height | 297.96 |        | m. (MSL.) , at 05.00 Hours , on Oct 19 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 295.66 |        | m. (MSL.) , River Bed 295.28 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 300.10 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 300.20 |        | m. (MSL.) , Drainage Area 788 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar    | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|--------|----------------|
| 1              | 2.15                                                             | 0.00                     | 2.15   | 1.50                 | 4.64   | 28.97   | 9.58                     | 13.63  | 14.57  | 3.05  | 1.10  | 0.60   |                |
| 2              | 3.88                                                             | 0.00                     | 2.45   | 1.20                 | 5.40   | 14.26   | 12.15                    | 9.86   | 7.59   | 2.60  | 1.10  | 0.56   |                |
| 3              | 0.00                                                             | 0.00                     | 3.88   | 1.10                 | 4.45   | 6.92    | 13.95                    | 7.87   | 7.30   | 2.00  | 0.96  | 0.56   |                |
| 4              | 0.00                                                             | 0.00                     | 5.40   | 1.10                 | 4.07   | 6.54    | 14.26                    | 5.78   | 5.78   | 1.90  | 0.88  | 0.54   |                |
| 5              | 0.00                                                             | 0.00                     | 5.78   | 1.10                 | 6.73   | 12.43   | 13.31                    | 6.16   | 4.26   | 2.15  | 0.92  | 0.54   |                |
| 6              | 0.00                                                             | 0.00                     | 8.15   | 2.45                 | 5.78   | 27.09   | 15.52                    | 9.01   | 5.02   | 1.80  | 0.88  | 0.54   |                |
| 7              | 0.00                                                             | 0.00                     | 6.54   | 11.86                | 6.73   | 16.46   | 16.78                    | 8.44   | 5.21   | 1.10  | 0.96  | 0.56   |                |
| 8              | 0.00                                                             | 0.00                     | 5.40   | 23.81                | 42.21  | 10.72   | 13.31                    | 8.44   | 4.64   | 1.10  | 0.84  | 0.54   |                |
| 9              | 0.00                                                             | 0.00                     | 3.88   | 17.73                | 28.48  | 19.30   | 8.73                     | 7.87   | 3.50   | 1.80  | 0.84  | 0.52   |                |
| 10             | 0.00                                                             | 0.00                     | 6.16   | 7.30                 | 28.48  | 22.99   | 6.92                     | 7.30   | 2.30   | 2.00  | 0.84  | 0.54   |                |
| 11             | 0.00                                                             | 2.75                     | 9.86   | 4.07                 | 41.11  | 15.52   | 5.97                     | 5.97   | 2.00   | 1.60  | 0.84  | 0.54   |                |
| 12             | 0.00                                                             | 2.30                     | 8.44   | 4.26                 | 32.89  | 13.63   | 4.64                     | 6.73   | 2.15   | 1.60  | 0.84  | 0.54   |                |
| 13             | 0.00                                                             | 2.00                     | 4.64   | 3.20                 | 19.30  | 15.84   | 4.45                     | 6.54   | 2.00   | 1.20  | 0.80  | 0.54   |                |
| 14             | 0.00                                                             | 2.00                     | 3.50   | 2.45                 | 22.58  | 17.41   | 2.60                     | 6.54   | 2.15   | 1.70  | 0.76  | 0.54   |                |
| 15             | 0.00                                                             | 2.00                     | 2.45   | 6.35                 | 18.67  | 15.21   | 4.64                     | 7.11   | 4.45   | 2.30  | 0.72  | 0.54   |                |
| 16             | 0.00                                                             | 2.00                     | 2.45   | 18.04                | 20.53  | 17.41   | 3.35                     | 8.15   | 5.59   | 2.00  | 0.72  | 0.54   |                |
| 17             | 0.00                                                             | 1.60                     | 2.45   | 13.31                | 13.31  | 14.26   | 4.64                     | 6.54   | 4.07   | 1.90  | 0.72  | 0.54   |                |
| 18             | 0.00                                                             | 1.50                     | 2.15   | 8.73                 | 10.44  | 13.63   | 36.81                    | 6.35   | 2.45   | 1.90  | 0.72  | 0.54   |                |
| 19             | 0.00                                                             | 1.50                     | 2.00   | 5.02                 | 5.21   | 9.58    | 73.50                    | 12.15  | 1.70   | 1.60  | 0.76  | 0.56   |                |
| 20             | 0.00                                                             | 1.90                     | 1.80   | 3.50                 | 6.92   | 6.92    | 32.89                    | 33.38  | 1.80   | 1.60  | 0.72  | 0.52   |                |
| 21             | 0.00                                                             | 4.26                     | 2.15   | 1.80                 | 9.01   | 6.73    | 26.68                    | 20.94  | 1.90   | 1.50  | 0.68  | 0.48   |                |
| 22             | 0.00                                                             | 4.07                     | 1.20   | 2.75                 | 17.73  | 6.92    | 50.56                    | 10.15  | 1.80   | 1.80  | 0.72  | 0.96   |                |
| 23             | 0.00                                                             | 2.75                     | 1.50   | 2.45                 | 17.10  | 3.50    | 36.32                    | 8.15   | 2.75   | 1.70  | 0.64  | 15.84  |                |
| 24             | 0.00                                                             | 3.35                     | 1.20   | 3.88                 | 14.89  | 6.35    | 27.09                    | 6.54   | 1.70   | 1.70  | 0.64  | 12.71  |                |
| 25             | 0.00                                                             | 6.92                     | 1.60   | 8.73                 | 13.95  | 5.97    | 38.94                    | 6.35   | 1.60   | 1.90  | 0.64  | 12.71  |                |
| 26             | 0.00                                                             | 4.83                     | 1.40   | 4.64                 | 11.00  | 17.10   | 31.42                    | 5.97   | 1.70   | 1.50  | 0.64  | 12.71  |                |
| 27             | 0.00                                                             | 3.20                     | 5.21   | 3.69                 | 14.57  | 21.76   | 22.99                    | 5.78   | 1.80   | 1.20  | 0.60  | 12.71  |                |
| 28             | 0.00                                                             | 2.30                     | 4.83   | 4.45                 | 10.72  | 56.46   | 14.89                    | 6.16   | 2.15   | 1.10  | 0.60  | 12.43  |                |
| 29             | 0.00                                                             | 1.90                     | 1.90   | 4.26                 | 7.87   | 33.87   | 17.41                    | 8.44   | 3.35   | 1.10  |       | 12.15  |                |
| 30             | 0.00                                                             | 1.60                     | 1.60   | 10.72                | 7.87   | 17.10   | 17.73                    | 24.22  | 2.90   | 1.10  |       | 11.86  |                |
| 31             |                                                                  | 1.70                     |        | 7.30                 | 20.12  |         | 14.89                    |        | 2.90   | 1.20  |       | 10.72  |                |
| Total          | 6.03                                                             | 56.43                    | 112.12 | 192.75               | 472.76 | 480.85  | 596.92                   | 286.52 | 113.08 | 52.70 | 22.08 | 126.18 | 2518.42 CMSDAY |
| Mean           | 0.20                                                             | 1.82                     | 3.74   | 6.22                 | 15.25  | 16.03   | 19.26                    | 9.55   | 3.65   | 1.70  | 0.79  | 4.07   | 6.90 CMS       |
| Max            | 3.88                                                             | 6.92                     | 9.86   | 23.81                | 42.21  | 56.46   | 73.50                    | 33.38  | 14.57  | 3.05  | 1.10  | 15.84  | 73.50 CMS      |
| Min            | 0.00                                                             | 0.00                     | 1.20   | 1.10                 | 4.07   | 3.50    | 2.60                     | 5.78   | 1.60   | 1.10  | 0.60  | 0.48   | 0.00 CMS       |
| Runoff         | 0.52                                                             | 4.88                     | 9.69   | 16.65                | 40.85  | 41.55   | 51.57                    | 24.76  | 9.77   | 4.55  | 1.91  | 10.90  | 217.59 MCM     |
| Momentary Peak | 85.50 CMS. at 297.96 m. (MSL.) at 05.00 Hours , on Oct 19 , 2013 |                          |        |                      |        |         |                          |        |        |       |       |        |                |
| Runoff Yield   | 8.76                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 108.503 | Liters/Second/Square KM. |        |        |       |       |        |                |

**WATER YEAR : 2013**

## WANG RIVER BASIN

**Nam Mae Tam at Ban Sop Tam , Lampang (W.18A**

Lat 18 - 02 - 38 N Long 99 - 14 - 14

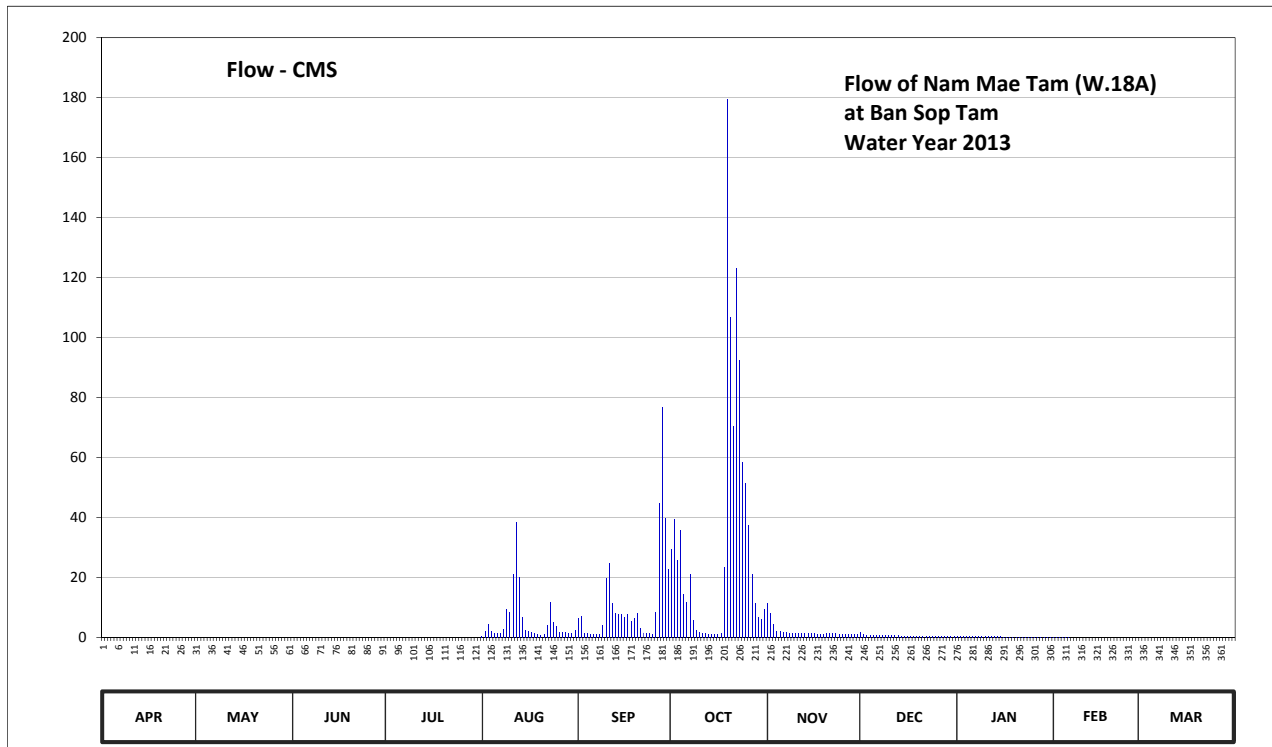
**Location :** on left bank at Ban Sop Tam.

|                                         |                                                                                          |           |               |        |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Sop Tam   | <b>Amphoe</b> | Ko Kha | <b>Changwat</b>  | Lampang           |
| <b>Drainage Area</b>                    | 371                                                                                      | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +204.920                                                                                 | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |        |                  |                   |
| <b>Location BM</b>                      | About 21 meters from the top staff gage.                                                 |           |               |        | <b>Elevation</b> | +213.703 m. (MSL) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                             |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2011 to date                                                                             |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                             |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                               |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |        |                  |                   |
| <b>General Description</b>              | Records fair.Stage-discharge relation defined by 32 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 204.76 | 204.81 | 204.81      | 204.81 | 204.91                            | 205.48 | 206.43            | 205.75 | 205.15 | 204.97 | 204.84 | 204.70 |        |
| 2                                | 204.75 | 204.81 | 204.81      | 204.81 | 205.19                            | 205.53 | 206.73            | 205.59 | 205.06 | 204.96 | 204.84 | 204.70 |        |
| 3                                | 204.74 | 204.81 | 204.81      | 204.81 | 205.34                            | 205.13 | 206.31            | 205.35 | 205.05 | 204.95 | 204.83 | 204.69 |        |
| 4                                | 204.75 | 204.81 | 204.81      | 204.81 | 205.19                            | 205.10 | 206.63            | 205.18 | 205.04 | 204.95 | 204.83 | 204.69 |        |
| 5                                | 204.75 | 204.81 | 204.81      | 204.81 | 205.12                            | 205.09 | 205.88            | 205.19 | 205.04 | 204.95 | 204.83 | 204.68 |        |
| 6                                | 204.76 | 204.81 | 204.81      | 204.81 | 205.12                            | 205.07 | 205.76            | 205.16 | 205.03 | 204.94 | 204.84 | 204.68 |        |
| 7                                | 204.74 | 204.81 | 204.81      | 204.81 | 205.11                            | 205.08 | 206.14            | 205.16 | 205.03 | 204.94 | 204.76 | 204.68 |        |
| 8                                | 204.74 | 204.81 | 204.81      | 204.81 | 205.22                            | 205.08 | 205.43            | 205.13 | 205.02 | 204.93 | 204.76 | 204.67 |        |
| 9                                | 204.72 | 204.81 | 204.81      | 204.81 | 205.65                            | 205.32 | 205.21            | 205.12 | 205.02 | 204.91 | 204.77 | 204.67 |        |
| 10                               | 204.71 | 204.81 | 204.81      | 204.81 | 205.61                            | 206.09 | 205.15            | 205.12 | 205.02 | 204.91 | 204.77 | 204.66 |        |
| 11                               | 204.69 | 204.81 | 204.81      | 204.81 | 206.15                            | 206.28 | 205.13            | 205.11 | 205.02 | 204.91 | 204.77 | 204.66 |        |
| 12                               | 204.70 | 204.81 | 204.81      | 204.81 | 206.70                            | 205.75 | 205.10            | 205.12 | 205.02 | 204.89 | 204.78 | 204.66 |        |
| 13                               | 204.71 | 204.81 | 204.81      | 204.81 | 206.11                            | 205.58 | 205.09            | 205.10 | 205.02 | 204.87 | 204.77 | 204.65 |        |
| 14                               | 204.71 | 204.81 | 204.81      | 204.81 | 205.50                            | 205.56 | 205.08            | 205.10 | 205.01 | 204.87 | 204.76 | 204.65 |        |
| 15                               | 204.72 | 204.81 | 204.81      | 204.81 | 205.20                            | 205.57 | 205.07            | 205.10 | 205.01 | 204.87 | 204.76 | 204.65 |        |
| 16                               | 204.73 | 204.81 | 204.81      | 204.81 | 205.17                            | 205.50 | 205.07            | 205.10 | 205.01 | 204.86 | 204.76 | 204.64 |        |
| 17                               | 204.73 | 204.81 | 204.81      | 204.81 | 205.14                            | 205.57 | 205.10            | 205.09 | 205.00 | 204.84 | 204.76 | 204.64 |        |
| 18                               | 204.74 | 204.81 | 204.81      | 204.81 | 205.12                            | 205.42 | 206.23            | 205.08 | 204.98 | 204.83 | 204.77 | 204.65 |        |
| 19                               | 204.74 | 204.81 | 204.81      | 204.81 | 205.08                            | 205.47 | 209.22            | 205.08 | 204.97 | 204.82 | 204.76 | 204.69 |        |
| 20                               | 204.75 | 204.81 | 204.81      | 204.81 | 205.04                            | 205.58 | 208.12            | 205.10 | 204.97 | 204.81 | 204.77 | 204.68 |        |
| 21                               | 204.76 | 204.81 | 204.81      | 204.81 | 205.06                            | 205.26 | 207.45            | 205.10 | 204.96 | 204.81 | 204.76 | 204.71 |        |
| 22                               | 204.77 | 204.81 | 204.81      | 204.81 | 205.33                            | 205.12 | 208.37            | 205.11 | 204.96 | 204.82 | 204.75 | 204.82 |        |
| 23                               | 204.77 | 204.81 | 204.81      | 204.81 | 205.76                            | 205.11 | 207.88            | 205.10 | 204.97 | 204.82 | 204.74 | 204.78 |        |
| 24                               | 204.78 | 204.81 | 204.81      | 204.81 | 205.39                            | 205.10 | 207.19            | 205.08 | 204.97 | 204.83 | 204.74 | 204.77 |        |
| 25                               | 204.79 | 204.81 | 204.81      | 204.81 | 205.30                            | 205.09 | 207.03            | 205.07 | 204.96 | 204.83 | 204.74 | 204.75 |        |
| 26                               | 204.80 | 204.81 | 204.81      | 204.81 | 205.16                            | 205.61 | 206.68            | 205.07 | 204.96 | 204.84 | 204.71 | 204.72 |        |
| 27                               | 204.81 | 204.81 | 204.81      | 204.81 | 205.15                            | 206.87 | 206.14            | 205.06 | 204.97 | 204.84 | 204.71 | 204.70 |        |
| 28                               | 204.81 | 204.81 | 204.81      | 204.81 | 205.15                            | 207.58 | 205.74            | 205.06 | 204.97 | 204.84 | 204.70 | 204.70 |        |
| 29                               | 204.81 | 204.81 | 204.81      | 204.81 | 205.13                            | 206.74 | 205.49            | 205.06 | 204.96 | 204.82 |        | 204.69 |        |
| 30                               | 204.81 | 204.81 | 204.81      | 204.81 | 205.10                            | 206.21 | 205.45            | 205.09 | 204.96 | 204.84 |        | 204.69 |        |
| 31                               |        | 204.81 |             | 204.81 | 205.21                            |        | 205.65            |        | 204.97 | 204.84 |        | 204.68 |        |
| Mean                             | 204.75 | 204.81 | 204.81      | 204.81 | 205.34                            | 205.60 | 206.19            | 205.15 | 205.00 | 204.87 | 204.77 | 204.69 |        |
| Max                              | 204.81 | 204.81 | 204.81      | 204.81 | 206.70                            | 207.58 | 209.22            | 205.75 | 205.15 | 204.97 | 204.84 | 204.82 | 209.22 |
| Min                              | 204.69 | 204.81 | 204.81      | 204.81 | 204.91                            | 205.07 | 205.07            | 205.06 | 204.96 | 204.81 | 204.70 | 204.64 | 204.64 |
| Annual Max Momentary Gage Height |        | 209.50 | m. (MSL.) , |        | at 10.00 Hours , on Oct 19 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 204.92 | m. (MSL.) , |        | River Bed                         | 204.78 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        | 213.03 | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        | 213.08 | m. (MSL.) , |        | Drainage Area                     | 371    | Square Kilometers |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun  | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec   | Jan   | Feb  | Mar  | Annual  |        |
|----------------|-------------------------------------------------------------------|--------------------------|------|----------------------|--------|---------|--------|--------------------------|-------|-------|------|------|---------|--------|
| 1              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.39   | 6.54    | 29.40  | 11.55                    | 1.85  | 0.46  | 0.30 | 0.00 |         |        |
| 2              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 2.29   | 7.31    | 39.54  | 8.24                     | 0.98  | 0.45  | 0.30 | 0.00 |         |        |
| 3              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 4.34   | 1.63    | 25.80  | 4.50                     | 0.90  | 0.44  | 0.29 | 0.00 |         |        |
| 4              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 2.29   | 1.30    | 35.66  | 2.18                     | 0.82  | 0.44  | 0.29 | 0.00 |         |        |
| 5              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.52   | 1.22    | 14.58  | 2.29                     | 0.82  | 0.44  | 0.29 | 0.00 |         |        |
| 6              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.52   | 1.06    | 11.76  | 1.96                     | 0.74  | 0.43  | 0.30 | 0.00 |         |        |
| 7              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.41   | 1.14    | 21.02  | 1.96                     | 0.74  | 0.43  | 0.00 | 0.00 |         |        |
| 8              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 2.66   | 1.14    | 5.76   | 1.63                     | 0.66  | 0.41  | 0.00 | 0.00 |         |        |
| 9              | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 9.45   | 4.02    | 2.53   | 1.52                     | 0.66  | 0.39  | 0.00 | 0.00 |         |        |
| 10             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 8.61   | 19.78   | 1.85   | 1.52                     | 0.66  | 0.39  | 0.00 | 0.00 |         |        |
| 11             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 21.26  | 24.90   | 1.63   | 1.41                     | 0.66  | 0.39  | 0.00 | 0.00 |         |        |
| 12             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 38.37  | 11.55   | 1.30   | 1.52                     | 0.66  | 0.36  | 0.00 | 0.00 |         |        |
| 13             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 20.27  | 8.09    | 1.22   | 1.30                     | 0.66  | 0.34  | 0.00 | 0.00 |         |        |
| 14             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 6.85   | 7.78    | 1.14   | 1.30                     | 0.58  | 0.34  | 0.00 | 0.00 |         |        |
| 15             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 2.40   | 7.94    | 1.06   | 1.30                     | 0.58  | 0.34  | 0.00 | 0.00 |         |        |
| 16             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 2.07   | 6.85    | 1.06   | 1.30                     | 0.58  | 0.32  | 0.00 | 0.00 |         |        |
| 17             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.74   | 7.94    | 1.30   | 1.22                     | 0.50  | 0.30  | 0.00 | 0.00 |         |        |
| 18             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.52   | 5.61    | 23.40  | 1.14                     | 0.47  | 0.29  | 0.00 | 0.00 |         |        |
| 19             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.14   | 6.39    | 179.60 | 1.14                     | 0.46  | 0.28  | 0.00 | 0.00 |         |        |
| 20             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.82   | 8.09    | 106.80 | 1.30                     | 0.46  | 0.26  | 0.00 | 0.00 |         |        |
| 21             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.98   | 3.18    | 70.50  | 1.30                     | 0.45  | 0.26  | 0.00 | 0.00 |         |        |
| 22             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 4.18   | 1.52    | 123.05 | 1.41                     | 0.45  | 0.28  | 0.00 | 0.00 |         |        |
| 23             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 11.76  | 1.41    | 92.40  | 1.30                     | 0.46  | 0.28  | 0.00 | 0.00 |         |        |
| 24             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 5.14   | 1.30    | 58.55  | 1.14                     | 0.46  | 0.29  | 0.00 | 0.00 |         |        |
| 25             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 3.70   | 1.22    | 51.35  | 1.06                     | 0.45  | 0.29  | 0.00 | 0.00 |         |        |
| 26             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.96   | 8.61    | 37.60  | 1.06                     | 0.45  | 0.30  | 0.00 | 0.00 |         |        |
| 27             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.85   | 44.96   | 21.02  | 0.98                     | 0.46  | 0.30  | 0.00 | 0.00 |         |        |
| 28             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.85   | 77.00   | 11.34  | 0.98                     | 0.46  | 0.30  | 0.00 | 0.00 |         |        |
| 29             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.63   | 39.93   | 6.70   | 0.98                     | 0.45  | 0.28  |      | 0.00 |         |        |
| 30             | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 1.30   | 22.80   | 6.08   | 1.22                     | 0.45  | 0.30  |      | 0.00 |         |        |
| 31             |                                                                   | 0.00                     |      | 0.00                 | 2.53   |         | 9.45   |                          | 0.46  | 0.30  |      | 0.00 |         |        |
| Total          | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 167.80 | 342.21  | 994.45 | 61.71                    | 19.44 | 10.68 | 1.77 | 0.00 | 1598.06 | CMSDAY |
| Mean           | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 5.41   | 11.41   | 32.08  | 2.06                     | 0.63  | 0.34  | 0.06 | 0.00 | 4.38    | CMS    |
| Max            | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 38.37  | 77.00   | 179.60 | 11.55                    | 1.85  | 0.46  | 0.30 | 0.00 | 179.60  | CMS    |
| Min            | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 0.39   | 1.06    | 1.06   | 0.98                     | 0.45  | 0.26  | 0.00 | 0.00 | 0.00    | CMS    |
| Runoff         | 0.00                                                              | 0.00                     | 0.00 | 0.00                 | 14.50  | 29.57   | 85.92  | 5.33                     | 1.68  | 0.92  | 0.15 | 0.00 | 138.07  | MCM    |
| Momentary Peak | 202.00 CMS. at 209.50 m. (MSL.) at 10.00 Hours , on oct 19 , 2013 |                          |      |                      |        |         |        |                          |       |       |      |      |         |        |
| Runoff Yield   | 11.80                                                             | Liters/Second/Square KM. |      | Momentary Peak Yield |        | 544.474 |        | Liters/Second/Square KM. |       |       |      |      |         |        |

**WATER YEAR : 2013**

## WANG RIVER BASIN

**Nam Mae Tui at Ban Tha Lo , Lampang (W.20)**

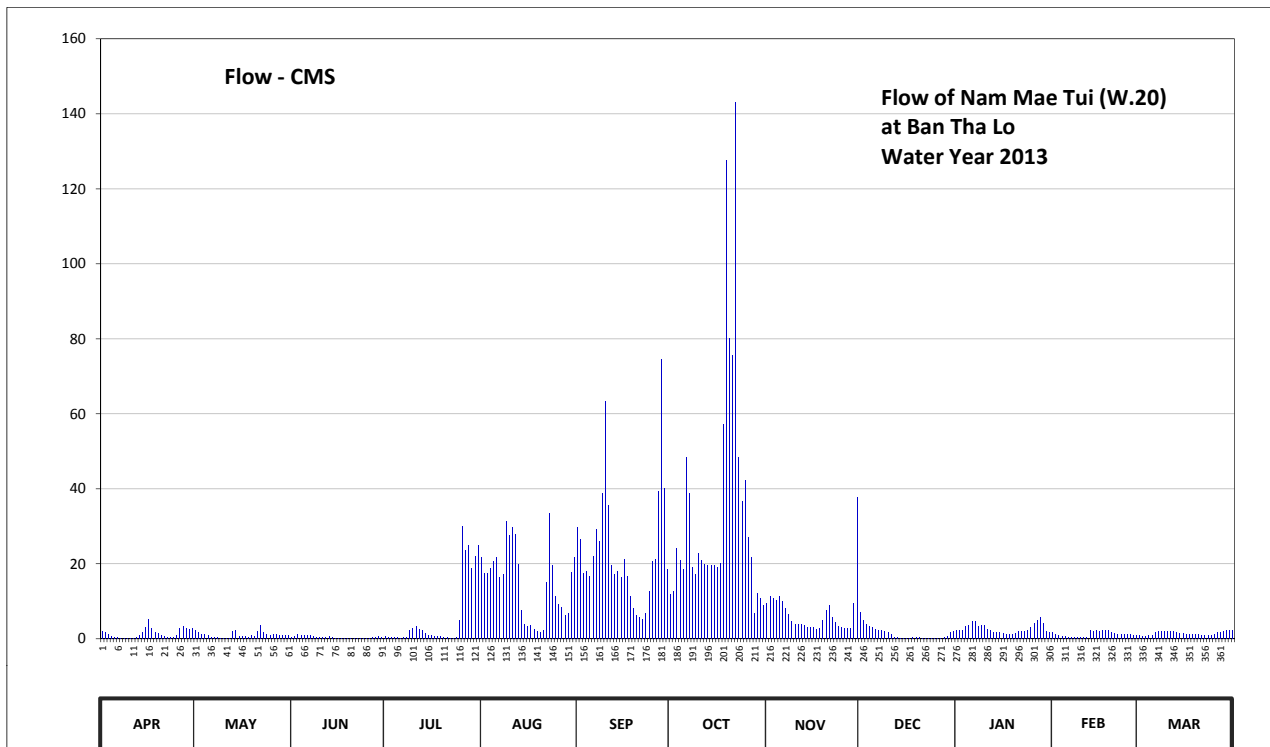
Lat 18 - 18 - 34 N      Long 99 - 27 - 40 E

**Location : on left bank at the bridge of Lampang - Hang Chat Highway.**

|                                         |                                                                                              |           |               |        |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                   | Tha Lo    | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Lampang            |
| <b>Drainage Area</b>                    | 941                                                                                          | sq.km.    |               |        |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                       |           |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +230.420                                                                                     | m. (MSL.) |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                    |           |               |        |                  |                    |
| <b>Location BM</b>                      | On left bank at the approach of the bridge.                                                  |           |               |        | <b>Elevation</b> | +237.644 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                    |           |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings.                                                              |           |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1993 to date                                                                                 |           |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                              |           |               |        |                  |                    |
| <b>Period of Rating</b>                 | 1993 to date                                                                                 |           |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                            |           |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1993 to date                                                                                 |           |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                               |           |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                            |           |               |        |                  |                    |
| <b>General Description</b>              | Records fair.Flow effected by the local weir about 200 meters downstream from the gage site. |           |               |        |                  |                    |
|                                         | Stage-discharge relation defined by 47 discharge measurements made in 2013.                  |           |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 230.66 | 230.68 | 229.87                                          | 229.89 | 230.84 | 231.05 | 230.56 | 230.93 | 230.87 | 230.68 | 230.64 | 230.57 |        |
|                                  | 2  | 230.65 | 230.64 | 229.91                                          | 229.87 | 230.72 | 230.97 | 230.58 | 230.97 | 230.80 | 230.69 | 230.62 | 230.56 |        |
|                                  | 3  | 230.62 | 230.62 | 229.98                                          | 229.83 | 230.72 | 230.72 | 230.91 | 230.96 | 230.76 | 230.69 | 230.58 | 230.56 |        |
|                                  | 4  | 230.55 | 230.62 | 229.94                                          | 229.82 | 230.76 | 230.74 | 230.82 | 230.95 | 230.74 | 230.73 | 230.56 | 230.57 |        |
|                                  | 5  | 230.35 | 230.57 | 229.94                                          | 229.82 | 230.81 | 230.70 | 230.75 | 230.97 | 230.72 | 230.75 | 230.53 | 230.60 |        |
|                                  | 6  | 230.30 | 230.45 | 229.94                                          | 229.81 | 230.84 | 230.85 | 231.47 | 230.94 | 230.70 | 230.79 | 230.48 | 230.65 |        |
|                                  | 7  | 230.19 | 230.37 | 229.93                                          | 229.82 | 230.69 | 231.04 | 231.26 | 230.90 | 230.69 | 230.79 | 230.39 | 230.67 |        |
|                                  | 8  | 230.22 | 230.27 | 229.90                                          | 229.84 | 230.71 | 230.96 | 230.77 | 230.85 | 230.68 | 230.74 | 230.37 | 230.67 |        |
|                                  | 9  | 230.21 | 230.11 | 229.87                                          | 230.09 | 231.09 | 231.26 | 230.71 | 230.79 | 230.67 | 230.75 | 230.33 | 230.66 |        |
|                                  | 10 | 230.01 | 229.97 | 229.84                                          | 230.13 | 231.00 | 231.77 | 230.87 | 230.76 | 230.65 | 230.75 | 230.31 | 230.67 |        |
|                                  | 11 | 230.14 | 229.87 | 229.84                                          | 230.15 | 231.05 | 231.19 | 230.82 | 230.76 | 230.62 | 230.70 | 230.31 | 230.67 |        |
|                                  | 12 | 230.37 | 229.82 | 229.85                                          | 230.10 | 231.01 | 230.78 | 230.79 | 230.76 | 230.51 | 230.68 | 230.38 | 230.67 |        |
|                                  | 13 | 230.57 | 230.06 | 229.89                                          | 230.08 | 230.79 | 230.71 | 230.78 | 230.75 | 230.32 | 230.65 | 230.68 | 230.65 |        |
|                                  | 14 | 230.65 | 230.07 | 229.84                                          | 230.00 | 230.39 | 230.74 | 230.78 | 230.72 | 230.22 | 230.64 | 230.66 | 230.63 |        |
|                                  | 15 | 230.72 | 229.89 | 229.80                                          | 229.95 | 230.20 | 230.69 | 230.78 | 230.72 | 230.18 | 230.64 | 230.68 | 230.63 |        |
|                                  | 16 | 230.81 | 229.89 | 229.79                                          | 229.94 | 230.16 | 230.83 | 230.77 | 230.72 | 230.14 | 230.63 | 230.67 | 230.62 |        |
|                                  | 17 | 230.71 | 229.90 | 229.78                                          | 229.92 | 230.18 | 230.70 | 230.80 | 230.70 | 230.21 | 230.62 | 230.68 | 230.62 |        |
|                                  | 18 | 230.65 | 229.88 | 229.78                                          | 229.89 | 230.11 | 230.54 | 231.65 | 230.71 | 230.32 | 230.61 | 230.69 | 230.61 |        |
|                                  | 19 | 230.63 | 229.95 | 229.77                                          | 229.91 | 230.06 | 230.42 | 232.87 | 230.80 | 230.32 | 230.61 | 230.68 | 230.61 |        |
|                                  | 20 | 230.60 | 229.91 | 229.77                                          | 229.83 | 230.03 | 230.32 | 232.08 | 230.88 | 230.29 | 230.63 | 230.65 | 230.61 |        |
|                                  | 21 | 230.55 | 230.06 | 229.77                                          | 229.82 | 230.07 | 230.30 | 232.00 | 230.92 | 230.17 | 230.67 | 230.63 | 230.60 |        |
|                                  | 22 | 230.45 | 230.18 | 229.78                                          | 229.80 | 230.65 | 230.27 | 233.11 | 230.83 | 230.10 | 230.67 | 230.62 | 230.60 |        |
|                                  | 23 | 230.38 | 230.03 | 229.76                                          | 229.79 | 231.14 | 230.35 | 231.47 | 230.78 | 230.08 | 230.66 | 230.62 | 230.59 |        |
|                                  | 24 | 230.38 | 229.96 | 229.76                                          | 229.84 | 230.78 | 230.58 | 231.21 | 230.74 | 230.02 | 230.68 | 230.62 | 230.59 |        |
|                                  | 25 | 230.58 | 229.93 | 229.77                                          | 230.26 | 230.54 | 230.81 | 231.34 | 230.72 | 229.99 | 230.72 | 230.61 | 230.62 |        |
|                                  | 26 | 230.71 | 229.96 | 229.78                                          | 231.06 | 230.46 | 230.83 | 230.99 | 230.71 | 229.98 | 230.77 | 230.61 | 230.64 |        |
|                                  | 27 | 230.74 | 229.99 | 229.85                                          | 230.89 | 230.43 | 231.27 | 230.84 | 230.71 | 230.03 | 230.80 | 230.60 | 230.65 |        |
|                                  | 28 | 230.71 | 229.95 | 229.88                                          | 230.93 | 230.32 | 231.98 | 230.86 | 230.71 | 230.35 | 230.83 | 230.59 | 230.66 |        |
|                                  | 29 | 230.70 | 229.94 | 229.89                                          | 230.76 | 230.35 | 231.29 | 230.99 | 230.93 | 230.53 | 230.77 |        | 230.68 |        |
|                                  | 30 | 230.71 | 229.95 | 229.87                                          | 230.85 | 230.73 | 230.75 | 230.96 | 231.34 | 230.64 | 230.66 |        | 230.68 |        |
|                                  | 31 |        | 229.93 |                                                 | 230.93 | 230.84 |        | 230.92 |        | 230.66 | 230.65 |        | 230.69 |        |
| Mean                             |    | 230.52 | 230.11 | 229.84                                          | 230.12 | 230.60 | 230.85 | 231.15 | 230.83 | 230.42 | 230.70 | 230.56 | 230.63 |        |
| Max                              |    | 230.81 | 230.68 | 229.98                                          | 231.06 | 231.14 | 231.98 | 233.11 | 231.34 | 230.87 | 230.83 | 230.69 | 230.69 | 233.11 |
| Min                              |    | 230.01 | 229.82 | 229.76                                          | 229.79 | 230.03 | 230.27 | 230.56 | 230.70 | 229.98 | 230.61 | 230.31 | 230.56 | 229.76 |
| Annual Max Momentary Gage Height |    |        | 233.72 | m. (MSL.) , at 06.00 Hours , on Oct 22 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 230.42 | m. (MSL.) , River Bed 229.41 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 238.02 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 238.07 | m. (MSL.) , Drainage Area 941 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 1.90                                                              | 2.20                     | 0.48  | 0.56                 | 21.66  | 29.65   | 12.00                    | 9.49   | 7.18  | 2.20  | 1.60  | 0.82  |                |
| 2              | 1.75                                                              | 1.60                     | 0.68  | 0.48                 | 17.40  | 26.41   | 12.60                    | 11.21  | 4.80  | 2.35  | 1.30  | 0.76  |                |
| 3              | 1.30                                                              | 1.30                     | 1.24  | 0.32                 | 17.40  | 17.40   | 24.22                    | 10.78  | 3.88  | 2.35  | 0.88  | 0.76  |                |
| 4              | 0.70                                                              | 1.30                     | 0.92  | 0.28                 | 18.80  | 18.10   | 20.93                    | 10.35  | 3.42  | 3.19  | 0.76  | 0.82  |                |
| 5              | 0.33                                                              | 0.82                     | 0.92  | 0.28                 | 20.56  | 16.70   | 18.45                    | 11.21  | 2.96  | 3.65  | 0.58  | 1.00  |                |
| 6              | 0.30                                                              | 0.37                     | 0.92  | 0.24                 | 21.66  | 22.03   | 48.40                    | 9.92   | 2.50  | 4.57  | 0.39  | 1.75  |                |
| 7              | 0.25                                                              | 0.33                     | 0.84  | 0.28                 | 16.35  | 29.22   | 38.77                    | 8.20   | 2.35  | 4.57  | 0.34  | 2.05  |                |
| 8              | 0.26                                                              | 0.29                     | 0.60  | 0.36                 | 17.05  | 26.04   | 19.15                    | 6.50   | 2.20  | 3.42  | 0.33  | 2.05  |                |
| 9              | 0.26                                                              | 0.21                     | 0.48  | 2.39                 | 31.37  | 38.77   | 17.05                    | 4.57   | 2.05  | 3.65  | 0.32  | 1.90  |                |
| 10             | 0.15                                                              | 0.14                     | 0.36  | 2.92                 | 27.50  | 63.37   | 22.75                    | 3.88   | 1.75  | 3.65  | 0.30  | 2.05  |                |
| 11             | 0.22                                                              | 0.08                     | 0.36  | 3.20                 | 29.65  | 35.67   | 20.93                    | 3.88   | 1.30  | 2.50  | 0.30  | 2.05  |                |
| 12             | 0.33                                                              | 0.06                     | 0.40  | 2.50                 | 27.93  | 19.50   | 19.85                    | 3.88   | 0.46  | 2.20  | 0.34  | 2.05  |                |
| 13             | 0.82                                                              | 2.06                     | 0.56  | 2.28                 | 19.85  | 17.05   | 19.50                    | 3.65   | 0.31  | 1.75  | 2.20  | 1.75  |                |
| 14             | 1.75                                                              | 2.17                     | 0.36  | 1.40                 | 7.51   | 18.10   | 19.50                    | 2.96   | 0.26  | 1.60  | 1.90  | 1.45  |                |
| 15             | 2.96                                                              | 0.56                     | 0.20  | 1.00                 | 3.90   | 16.35   | 19.50                    | 2.96   | 0.24  | 1.60  | 2.20  | 1.45  |                |
| 16             | 5.14                                                              | 0.56                     | 0.18  | 0.92                 | 3.34   | 21.29   | 19.15                    | 2.96   | 0.22  | 1.45  | 2.05  | 1.30  |                |
| 17             | 2.73                                                              | 0.60                     | 0.16  | 0.76                 | 3.62   | 16.70   | 20.20                    | 2.50   | 0.26  | 1.30  | 2.20  | 1.30  |                |
| 18             | 1.75                                                              | 0.52                     | 0.16  | 0.56                 | 2.64   | 11.40   | 57.25                    | 2.73   | 0.31  | 1.15  | 2.35  | 1.15  |                |
| 19             | 1.45                                                              | 1.00                     | 0.14  | 0.68                 | 2.06   | 8.20    | 127.68                   | 4.80   | 0.31  | 1.15  | 2.20  | 1.15  |                |
| 20             | 1.00                                                              | 0.68                     | 0.14  | 0.32                 | 1.73   | 6.18    | 79.98                    | 7.52   | 0.29  | 1.45  | 1.75  | 1.15  |                |
| 21             | 0.70                                                              | 2.06                     | 0.14  | 0.28                 | 2.17   | 5.80    | 75.50                    | 9.06   | 0.23  | 2.05  | 1.45  | 1.00  |                |
| 22             | 0.37                                                              | 3.62                     | 0.16  | 0.20                 | 14.95  | 5.23    | 143.15                   | 5.82   | 0.20  | 2.05  | 1.30  | 1.00  |                |
| 23             | 0.34                                                              | 1.73                     | 0.12  | 0.18                 | 33.52  | 6.75    | 48.40                    | 4.34   | 0.19  | 1.90  | 1.30  | 0.94  |                |
| 24             | 0.34                                                              | 1.08                     | 0.12  | 0.36                 | 19.50  | 12.60   | 36.55                    | 3.42   | 0.16  | 2.20  | 1.30  | 0.94  |                |
| 25             | 0.88                                                              | 0.84                     | 0.14  | 5.04                 | 11.40  | 20.56   | 42.33                    | 2.96   | 0.15  | 2.96  | 1.15  | 1.30  |                |
| 26             | 2.73                                                              | 1.08                     | 0.16  | 30.08                | 9.20   | 21.29   | 27.14                    | 2.73   | 0.14  | 4.11  | 1.15  | 1.60  |                |
| 27             | 3.42                                                              | 1.32                     | 0.40  | 23.48                | 8.45   | 39.22   | 21.66                    | 2.73   | 0.17  | 4.80  | 1.00  | 1.75  |                |
| 28             | 2.73                                                              | 1.00                     | 0.52  | 24.94                | 6.18   | 74.44   | 6.84                     | 2.73   | 0.33  | 5.82  | 0.94  | 1.90  |                |
| 29             | 2.50                                                              | 0.92                     | 0.56  | 18.80                | 6.75   | 40.10   | 12.07                    | 9.49   | 0.58  | 4.11  |       | 2.20  |                |
| 30             | 2.73                                                              | 1.00                     | 0.48  | 22.03                | 17.75  | 18.45   | 10.78                    | 37.80  | 1.60  | 1.90  |       | 2.20  |                |
| 31             |                                                                   | 0.84                     |       | 24.94                | 21.66  |         | 9.06                     |        | 1.90  | 1.75  |       | 2.35  |                |
| Total          | 42.09                                                             | 32.34                    | 12.90 | 172.06               | 463.51 | 702.57  | 1071.34                  | 205.03 | 42.70 | 83.40 | 33.88 | 45.94 | 2907.76 CMSDAY |
| Mean           | 1.40                                                              | 1.04                     | 0.43  | 5.55                 | 14.95  | 23.42   | 34.56                    | 6.83   | 1.38  | 2.69  | 1.21  | 1.48  | 7.97 CMS       |
| Max            | 5.14                                                              | 3.62                     | 1.24  | 30.08                | 33.52  | 74.44   | 143.15                   | 37.80  | 7.18  | 5.82  | 2.35  | 2.35  | 143.15 CMS     |
| Min            | 0.15                                                              | 0.06                     | 0.12  | 0.18                 | 1.73   | 5.23    | 6.84                     | 2.50   | 0.14  | 1.15  | 0.30  | 0.76  | 0.06 CMS       |
| Runoff         | 3.64                                                              | 2.79                     | 1.12  | 14.87                | 40.05  | 60.70   | 92.56                    | 17.72  | 3.69  | 7.21  | 2.93  | 3.97  | 251.23 MCM     |
| Momentary Peak | 183.64 CMS. at 233.72 m. (MSL.) at 06.00 Hours , on Oct 22 , 2013 |                          |       |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 8.47                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 195.154 | Liters/Second/Square KM. |        |       |       |       |       |                |

## WATER YEAR : 2013

## WANG RIVER BASIN

## Wang River at Ban Tha Dua , Lampang (W.21)

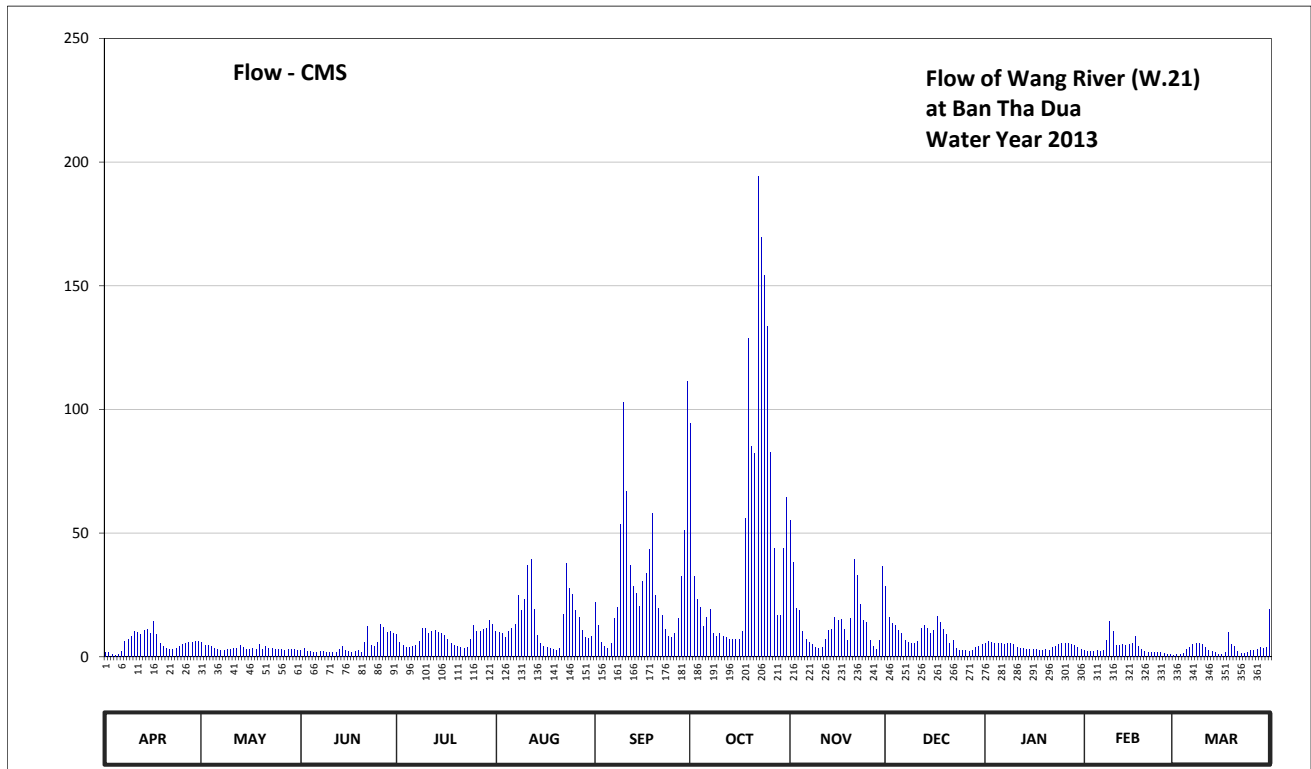
Lat 18 - 20 - 18 N Long 99 - 32 - 27 E

Location : on left bank at the bridge on highway.

|                                         |                                                                                          |         |        |        |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|---------|--------|--------|------------------|--------------------|
|                                         | Ban                                                                                      | Tha Dua | Amphoe | Mueang | Changwat         | Lampang            |
| <b>Drainge Area</b>                     | 3,367                                                                                    | sq.km.  |        |        |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |         |        |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +232.000 m. (MSL.)                                                                       |         |        |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |         |        |        |                  |                    |
| <b>Location BM</b>                      | On left bank about 5 meters from the top staff gage.                                     |         |        |        | <b>Elevation</b> | +236.495 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |         |        |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings.                                                          |         |        |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                             |         |        |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |         |        |        |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                             |         |        |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |         |        |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                             |         |        |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                               |         |        |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |         |        |        |                  |                    |
| <b>General Description</b>              | Records fair.Stage-discharge relation defined by 47 discharge measurements made in 2013. |         |        |        |                  |                    |

## Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 231.76 | 232.01 | 231.80      | 232.13 | 232.17                            | 232.52 | 233.96            | 233.26 | 232.68 | 231.99 | 231.80 | 231.63 |        |
| 2                                | 231.74 | 231.95 | 231.86      | 232.00 | 232.16                            | 232.25 | 232.78            | 232.91 | 232.35 | 232.02 | 231.78 | 231.64 |        |
| 3                                | 231.64 | 231.94 | 231.78      | 231.95 | 232.14                            | 232.00 | 232.55            | 232.46 | 232.28 | 232.00 | 231.77 | 231.66 |        |
| 4                                | 231.63 | 231.92 | 231.77      | 231.91 | 232.09                            | 231.92 | 232.47            | 232.43 | 232.25 | 231.98 | 231.78 | 231.71 |        |
| 5                                | 231.64 | 231.86 | 231.76      | 231.91 | 232.17                            | 231.86 | 232.24            | 232.17 | 232.19 | 231.98 | 231.81 | 231.85 |        |
| 6                                | 231.77 | 231.84 | 231.76      | 231.93 | 232.21                            | 231.99 | 232.35            | 232.05 | 232.14 | 231.98 | 231.79 | 231.90 |        |
| 7                                | 232.02 | 231.82 | 231.77      | 231.95 | 232.26                            | 232.34 | 232.44            | 232.00 | 232.04 | 231.97 | 231.82 | 231.97 |        |
| 8                                | 232.06 | 231.82 | 231.77      | 232.02 | 232.59                            | 232.47 | 232.15            | 231.96 | 232.00 | 231.98 | 232.04 | 231.99 |        |
| 9                                | 232.11 | 231.84 | 231.75      | 232.21 | 232.43                            | 233.23 | 232.11            | 231.89 | 231.98 | 231.98 | 232.30 | 231.99 |        |
| 10                               | 232.17 | 231.85 | 231.74      | 232.22 | 232.55                            | 234.09 | 232.14            | 231.86 | 231.99 | 231.96 | 232.18 | 231.96 |        |
| 11                               | 232.16 | 231.86 | 231.74      | 232.14 | 232.88                            | 233.47 | 232.11            | 231.91 | 232.02 | 231.91 | 231.95 | 231.91 |        |
| 12                               | 232.13 | 231.87 | 231.73      | 232.17 | 232.93                            | 232.88 | 232.08            | 232.05 | 232.21 | 231.88 | 231.95 | 231.82 |        |
| 13                               | 232.19 | 231.95 | 231.84      | 232.19 | 232.44                            | 232.68 | 232.06            | 232.19 | 232.25 | 231.86 | 231.96 | 231.77 |        |
| 14                               | 232.20 | 231.91 | 231.93      | 232.16 | 232.12                            | 232.61 | 232.05            | 232.20 | 232.21 | 231.84 | 231.95 | 231.73 |        |
| 15                               | 232.14 | 231.84 | 231.80      | 232.14 | 231.98                            | 232.48 | 232.06            | 232.35 | 232.14 | 231.84 | 231.96 | 231.67 |        |
| 16                               | 232.30 | 231.84 | 231.79      | 232.12 | 231.92                            | 232.73 | 232.05            | 232.32 | 232.19 | 231.84 | 231.99 | 231.66 |        |
| 17                               | 232.13 | 231.87 | 231.74      | 232.05 | 231.89                            | 232.81 | 232.17            | 232.33 | 232.37 | 231.83 | 232.10 | 231.76 |        |
| 18                               | 231.98 | 231.85 | 231.78      | 231.98 | 231.86                            | 233.02 | 233.27            | 232.20 | 232.29 | 231.82 | 231.93 | 232.16 |        |
| 19                               | 231.93 | 231.96 | 231.82      | 231.95 | 231.83                            | 233.31 | 234.47            | 232.03 | 232.20 | 231.82 | 231.83 | 231.97 |        |
| 20                               | 231.88 | 231.85 | 231.74      | 231.93 | 231.81                            | 232.59 | 233.80            | 232.34 | 232.13 | 231.83 | 231.78 | 231.93 |        |
| 21                               | 231.85 | 231.93 | 232.00      | 231.91 | 231.88                            | 232.45 | 233.75            | 232.93 | 231.99 | 231.82 | 231.74 | 231.77 |        |
| 22                               | 231.85 | 231.87 | 232.24      | 231.88 | 232.39                            | 232.38 | 235.32            | 232.79 | 232.04 | 231.89 | 231.73 | 231.72 |        |
| 23                               | 231.87 | 231.87 | 231.95      | 231.90 | 232.90                            | 232.20 | 235.02            | 232.50 | 231.87 | 231.93 | 231.74 | 231.70 |        |
| 24                               | 231.93 | 231.83 | 231.93      | 232.06 | 232.66                            | 232.10 | 234.83            | 232.32 | 231.82 | 231.96 | 231.75 | 231.73 |        |
| 25                               | 231.97 | 231.84 | 232.00      | 232.25 | 232.60                            | 232.08 | 234.54            | 232.29 | 231.82 | 231.98 | 231.75 | 231.80 |        |
| 26                               | 231.99 | 231.85 | 232.26      | 232.17 | 232.43                            | 232.14 | 233.76            | 232.04 | 231.80 | 231.98 | 231.71 | 231.80 |        |
| 27                               | 232.01 | 231.82 | 232.23      | 232.17 | 232.35                            | 232.34 | 233.03            | 231.92 | 231.79 | 231.98 | 231.65 | 231.85 |        |
| 28                               | 232.01 | 231.84 | 232.16      | 232.20 | 232.19                            | 232.78 | 232.38            | 231.84 | 231.81 | 231.96 | 231.64 | 231.89 |        |
| 29                               | 232.02 | 231.83 | 232.17      | 232.21 | 232.09                            | 233.18 | 232.38            | 232.04 | 231.89 | 231.94 |        | 231.88 |        |
| 30                               | 232.02 | 231.83 | 232.15      | 232.32 | 232.07                            | 234.22 | 232.03            | 232.87 | 231.93 | 231.90 |        | 231.90 |        |
| 31                               |        | 231.82 |             | 232.27 | 232.10                            |        | 233.43            |        | 231.96 | 231.83 |        | 232.44 |        |
| Mean                             | 231.97 | 231.87 | 231.89      | 232.08 | 232.26                            | 232.64 | 232.99            | 232.28 | 232.08 | 231.92 | 231.86 | 231.84 |        |
| Max                              | 232.30 | 232.01 | 232.26      | 232.32 | 232.93                            | 234.22 | 235.32            | 233.26 | 232.68 | 232.02 | 232.30 | 232.44 | 235.32 |
| Min                              | 231.63 | 231.82 | 231.73      | 231.88 | 231.81                            | 231.86 | 232.05            | 231.84 | 231.79 | 231.82 | 231.64 | 231.63 | 231.63 |
| Annual Max Momentary Gage Height | 235.46 |        | m. (MSL.) , |        | at 09.00 Hours , on Oct 22 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 232.00 |        | m. (MSL.) , |        | River Bed                         | 230.47 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 239.84 |        | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 240.72 |        | m. (MSL.) , |        | Drainage Area                     | 3367   | Square Kilometers |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                        | Jun    | Jul    | Aug    | Sep                  | Oct     | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual  |        |
|----------------|--------|------------------------------------------------------------|--------|--------|--------|----------------------|---------|--------|--------------------------|--------|--------|--------|---------|--------|
| 1              | 2.02   | 6.04                                                       | 2.50   | 9.04   | 10.16  | 22.12                | 94.60   | 55.30  | 28.44                    | 5.60   | 2.50   | 0.74   |         |        |
| 2              | 1.78   | 4.80                                                       | 3.28   | 5.80   | 9.88   | 12.60                | 32.49   | 38.36  | 15.85                    | 6.28   | 2.26   | 0.82   |         |        |
| 3              | 0.82   | 4.60                                                       | 2.26   | 4.80   | 9.32   | 5.80                 | 23.28   | 19.81  | 13.56                    | 5.80   | 2.14   | 0.98   |         |        |
| 4              | 0.74   | 4.20                                                       | 2.14   | 4.00   | 7.96   | 4.20                 | 20.20   | 18.65  | 12.60                    | 5.40   | 2.26   | 1.42   |         |        |
| 5              | 0.82   | 3.28                                                       | 2.02   | 4.00   | 10.16  | 3.28                 | 12.28   | 10.16  | 10.72                    | 5.40   | 2.63   | 3.15   |         |        |
| 6              | 2.14   | 3.02                                                       | 2.02   | 4.40   | 11.32  | 5.60                 | 15.85   | 7.00   | 9.32                     | 5.40   | 2.38   | 3.80   |         |        |
| 7              | 6.28   | 2.76                                                       | 2.14   | 4.80   | 12.92  | 15.52                | 19.04   | 5.80   | 6.76                     | 5.20   | 2.76   | 5.20   |         |        |
| 8              | 7.24   | 2.76                                                       | 2.14   | 6.28   | 24.81  | 20.20                | 9.60    | 5.00   | 5.80                     | 5.40   | 6.76   | 5.60   |         |        |
| 9              | 8.48   | 3.02                                                       | 1.90   | 11.32  | 18.65  | 53.65                | 8.48    | 3.67   | 5.40                     | 5.40   | 14.20  | 5.60   |         |        |
| 10             | 10.16  | 3.15                                                       | 1.78   | 11.64  | 23.28  | 102.85               | 9.32    | 3.28   | 5.60                     | 5.00   | 10.44  | 5.00   |         |        |
| 11             | 9.88   | 3.28                                                       | 1.78   | 9.32   | 36.98  | 66.85                | 8.48    | 4.00   | 6.28                     | 4.00   | 4.80   | 4.00   |         |        |
| 12             | 9.04   | 3.41                                                       | 1.66   | 10.16  | 39.28  | 36.98                | 7.72    | 7.00   | 11.32                    | 3.54   | 4.80   | 2.76   |         |        |
| 13             | 10.72  | 4.80                                                       | 3.02   | 10.72  | 19.04  | 28.44                | 7.24    | 10.72  | 12.60                    | 3.28   | 5.00   | 2.14   |         |        |
| 14             | 11.00  | 4.00                                                       | 4.40   | 9.88   | 8.76   | 25.60                | 7.00    | 11.00  | 11.32                    | 3.02   | 4.80   | 1.66   |         |        |
| 15             | 9.32   | 3.02                                                       | 2.50   | 9.32   | 5.40   | 20.58                | 7.24    | 15.85  | 9.32                     | 3.02   | 5.00   | 1.06   |         |        |
| 16             | 14.20  | 3.02                                                       | 2.38   | 8.76   | 4.20   | 30.46                | 7.00    | 14.86  | 10.72                    | 3.02   | 5.60   | 0.98   |         |        |
| 17             | 9.04   | 3.41                                                       | 1.78   | 7.00   | 3.67   | 33.76                | 10.16   | 15.19  | 16.51                    | 2.89   | 8.20   | 2.02   |         |        |
| 18             | 5.40   | 3.15                                                       | 2.26   | 5.40   | 3.28   | 43.45                | 55.85   | 11.00  | 13.88                    | 2.76   | 4.40   | 9.88   |         |        |
| 19             | 4.40   | 5.00                                                       | 2.76   | 4.80   | 2.89   | 58.05                | 128.90  | 6.52   | 11.00                    | 2.76   | 2.89   | 5.20   |         |        |
| 20             | 3.54   | 3.15                                                       | 1.78   | 4.40   | 2.63   | 24.81                | 85.00   | 15.52  | 9.04                     | 2.89   | 2.26   | 4.40   |         |        |
| 21             | 3.15   | 4.40                                                       | 5.80   | 4.00   | 3.54   | 19.43                | 82.25   | 39.28  | 5.60                     | 2.76   | 1.78   | 2.14   |         |        |
| 22             | 3.15   | 3.41                                                       | 12.28  | 3.54   | 17.17  | 16.84                | 194.20  | 32.89  | 6.76                     | 3.67   | 1.66   | 1.54   |         |        |
| 23             | 3.41   | 3.41                                                       | 4.80   | 3.80   | 37.90  | 11.00                | 169.60  | 21.35  | 3.41                     | 4.40   | 1.78   | 1.30   |         |        |
| 24             | 4.40   | 2.89                                                       | 4.40   | 7.24   | 27.63  | 8.20                 | 154.40  | 14.86  | 2.76                     | 5.00   | 1.90   | 1.66   |         |        |
| 25             | 5.20   | 3.02                                                       | 5.80   | 12.60  | 25.20  | 7.72                 | 133.80  | 13.88  | 2.76                     | 5.40   | 1.90   | 2.50   |         |        |
| 26             | 5.60   | 3.15                                                       | 12.92  | 10.16  | 18.65  | 9.32                 | 82.80   | 6.76   | 2.50                     | 5.40   | 1.42   | 2.50   |         |        |
| 27             | 6.04   | 2.76                                                       | 11.96  | 10.16  | 15.85  | 15.52                | 43.92   | 4.20   | 2.38                     | 5.40   | 0.90   | 3.15   |         |        |
| 28             | 6.04   | 3.02                                                       | 9.88   | 11.00  | 10.72  | 32.49                | 16.84   | 3.02   | 2.63                     | 5.00   | 0.82   | 3.67   |         |        |
| 29             | 6.28   | 2.89                                                       | 10.16  | 11.32  | 7.96   | 51.05                | 16.84   | 6.76   | 3.67                     | 4.60   |        | 3.54   |         |        |
| 30             | 6.28   | 2.89                                                       | 9.60   | 14.86  | 7.48   | 111.40               | 43.92   | 36.52  | 4.40                     | 3.80   |        | 3.80   |         |        |
| 31             |        | 2.76                                                       |        | 13.24  | 8.20   |                      | 64.65   |        | 5.00                     | 2.89   |        | 19.04  |         |        |
| Total          | 176.57 | 108.47                                                     | 134.10 | 247.76 | 444.89 | 897.77               | 1572.95 | 458.21 | 267.91                   | 134.38 | 108.24 | 111.25 | 4662.50 | CMSDAY |
| Mean           | 5.89   | 3.50                                                       | 4.47   | 7.99   | 14.35  | 29.93                | 50.74   | 15.27  | 8.64                     | 4.33   | 3.87   | 3.59   | 12.77   | CMS    |
| Max            | 14.20  | 6.04                                                       | 12.92  | 14.86  | 39.28  | 111.40               | 194.20  | 55.30  | 28.44                    | 6.28   | 14.20  | 19.04  | 194.20  | CMS    |
| Min            | 0.74   | 2.76                                                       | 1.66   | 3.54   | 2.63   | 3.28                 | 7.00    | 3.02   | 2.38                     | 2.76   | 0.82   | 0.74   | 0.74    | CMS    |
| Runoff         | 15.26  | 9.37                                                       | 11.59  | 21.41  | 38.44  | 77.57                | 135.90  | 39.59  | 23.15                    | 11.61  | 9.35   | 9.61   | 402.84  | MCM    |
| Momentary Peak | 206.10 | CMS. at 235.46 m. (MSL.) at 09.00 Hours , on Oct 22 , 2013 |        |        |        |                      |         |        |                          |        |        |        |         |        |
| Runoff Yield   | 3.79   | Liters/Second/Square KM.                                   |        |        |        | Momentary Peak Yield |         | 61.212 | Liters/Second/Square KM. |        |        |        |         |        |

**WATER YEAR : 2013****WANG RIVER BASIN****Nam Mae Chang at Ban Wang Phrao , Lampang (W.22)**

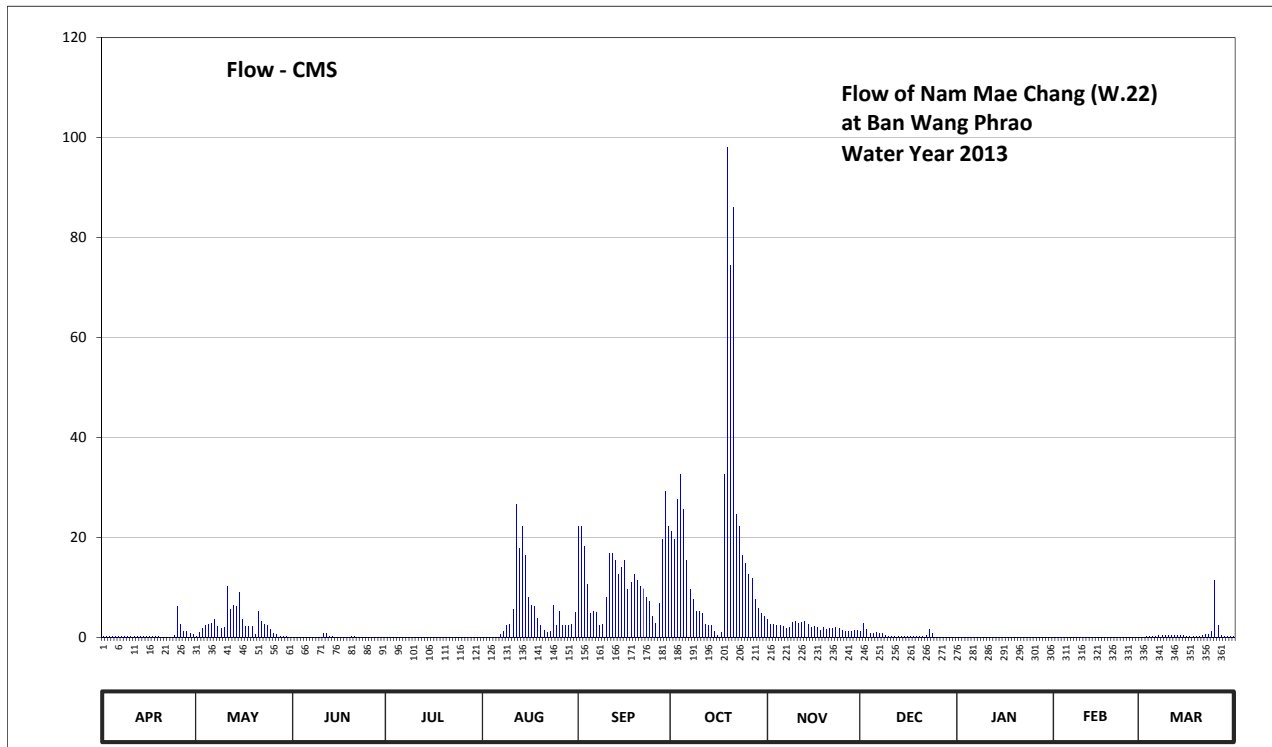
Lat 18 - 08 - 35 N Long 99 - 24 - 48 E

Location : on right bank at the bridge.

|                                         |                                                                                          |                   |               |               |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|-------------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | <b>Wang Phrao</b> | <b>Amphoe</b> | <b>Ko Kha</b> | <b>Changwat</b>  | <b>Lampang</b>     |
| <b>Drainage Area</b>                    | 1,549                                                                                    | sq.km.            |               |               |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |                   |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +215.161                                                                                 | m. (MSL.)         |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |                   |               |               |                  |                    |
| <b>Location BM</b>                      | On right bank at the approach of the bridge.                                             |                   |               |               | <b>Elevation</b> | +221.137 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |                   |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings.                                                          |                   |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 2001 to date                                                                             |                   |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |                   |               |               |                  |                    |
| <b>Period of Rating</b>                 | 2001 to date                                                                             |                   |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |                   |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                             |                   |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Rather unstable because of backwater effect.                                             |                   |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                   |               |               |                  |                    |
| <b>General Description</b>              | Records fair.Stage-discharge relation defined by 42 discharge measurements made in 2013. |                   |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 214.94 | 214.96 | 214.89      | 214.84 | 214.79 | 215.67        | 215.65                            | 215.21            | 215.07 | 214.86 | 214.81 | 214.86 |        |
| 2                                | 214.96 | 215.05 | 214.88      | 214.84 | 214.81 | 215.67        | 215.62                            | 215.16            | 215.17 | 214.87 | 214.80 | 214.90 |        |
| 3                                | 214.96 | 215.11 | 214.86      | 214.84 | 214.83 | 215.59        | 215.78                            | 215.16            | 215.09 | 214.87 | 214.77 | 214.96 |        |
| 4                                | 214.97 | 215.14 | 214.84      | 214.82 | 214.82 | 215.42        | 215.87                            | 215.15            | 215.04 | 214.88 | 214.76 | 214.95 |        |
| 5                                | 214.97 | 215.16 | 214.80      | 214.82 | 214.82 | 215.25        | 215.74                            | 215.15            | 215.04 | 214.89 | 214.75 | 214.95 |        |
| 6                                | 214.97 | 215.17 | 214.82      | 214.82 | 214.83 | 215.27        | 215.53                            | 215.13            | 215.05 | 214.90 | 214.74 | 214.95 |        |
| 7                                | 214.97 | 215.21 | 214.83      | 214.81 | 215.01 | 215.26        | 215.40                            | 215.11            | 215.04 | 214.86 | 214.76 | 214.98 |        |
| 8                                | 214.97 | 215.13 | 214.85      | 214.81 | 215.06 | 215.15        | 215.34                            | 215.12            | 215.04 | 214.84 | 214.80 | 214.99 |        |
| 9                                | 214.97 | 215.11 | 214.79      | 214.76 | 215.14 | 215.16        | 215.27                            | 215.18            | 215.00 | 214.83 | 214.78 | 215.00 |        |
| 10                               | 214.96 | 215.12 | 214.76      | 214.76 | 215.16 | 215.35        | 215.27                            | 215.19            | 214.96 | 214.81 | 214.81 | 215.00 |        |
| 11                               | 214.95 | 215.41 | 215.03      | 214.77 | 215.28 | 215.56        | 215.25                            | 215.17            | 214.96 | 214.81 | 214.81 | 215.00 |        |
| 12                               | 214.94 | 215.28 | 215.03      | 214.76 | 215.76 | 215.56        | 215.16                            | 215.18            | 214.96 | 214.84 | 214.81 | 215.00 |        |
| 13                               | 214.94 | 215.31 | 214.96      | 214.76 | 215.58 | 215.53        | 215.14                            | 215.19            | 214.96 | 214.84 | 214.81 | 215.00 |        |
| 14                               | 214.94 | 215.30 | 214.94      | 214.75 | 215.67 | 215.47        | 215.14                            | 215.16            | 214.96 | 214.84 | 214.82 | 215.00 |        |
| 15                               | 214.94 | 215.38 | 214.93      | 214.76 | 215.55 | 215.50        | 215.06                            | 215.12            | 214.96 | 214.84 | 214.82 | 214.99 |        |
| 16                               | 214.94 | 215.21 | 214.80      | 214.76 | 215.35 | 215.53        | 215.00                            | 215.13            | 214.96 | 214.83 | 214.82 | 214.97 |        |
| 17                               | 214.95 | 215.13 | 214.76      | 214.76 | 215.31 | 215.40        | 215.05                            | 215.12            | 214.96 | 214.83 | 214.83 | 214.97 |        |
| 18                               | 214.95 | 215.13 | 214.91      | 214.77 | 215.30 | 215.43        | 215.87                            | 215.08            | 214.96 | 214.84 | 214.83 | 214.97 |        |
| 19                               | 214.94 | 215.13 | 214.86      | 214.78 | 215.22 | 215.47        | 216.70                            | 215.12            | 214.96 | 214.85 | 214.83 | 214.97 |        |
| 20                               | 214.93 | 215.02 | 214.97      | 214.78 | 215.15 | 215.44        | 216.46                            | 215.10            | 214.97 | 214.85 | 214.83 | 214.97 |        |
| 21                               | 214.93 | 215.27 | 214.95      | 214.78 | 215.08 | 215.41        | 216.59                            | 215.11            | 214.97 | 214.83 | 214.84 | 214.99 |        |
| 22                               | 214.93 | 215.20 | 214.84      | 214.78 | 215.05 | 215.40        | 215.72                            | 215.11            | 215.00 | 214.81 | 214.84 | 215.02 |        |
| 23                               | 214.92 | 215.16 | 214.79      | 214.76 | 215.07 | 215.35        | 215.67                            | 215.12            | 215.09 | 214.80 | 214.84 | 215.01 |        |
| 24                               | 214.99 | 215.15 | 214.84      | 214.72 | 215.31 | 215.33        | 215.55                            | 215.11            | 215.04 | 214.80 | 214.85 | 215.07 |        |
| 25                               | 215.30 | 215.10 | 214.86      | 214.71 | 215.15 | 215.23        | 215.52                            | 215.08            | 214.84 | 214.80 | 214.85 | 215.44 |        |
| 26                               | 215.16 | 215.03 | 214.84      | 214.85 | 215.27 | 215.17        | 215.47                            | 215.06            | 214.82 | 214.79 | 214.85 | 215.15 |        |
| 27                               | 215.07 | 215.02 | 214.85      | 214.79 | 215.15 | 215.32        | 215.45                            | 215.06            | 214.86 | 214.79 | 214.86 | 215.00 |        |
| 28                               | 215.07 | 214.97 | 214.84      | 214.77 | 215.14 | 215.62        | 215.34                            | 215.06            | 214.86 | 214.79 | 214.86 | 214.95 |        |
| 29                               | 215.03 | 214.96 | 214.85      | 214.75 | 215.15 | 215.81        | 215.29                            | 215.08            | 214.84 | 214.80 |        | 214.97 |        |
| 30                               | 215.02 | 214.95 | 214.85      | 214.73 | 215.16 | 215.67        | 215.25                            | 215.08            | 214.84 | 214.80 |        | 214.96 |        |
| 31                               |        | 214.91 |             | 214.79 | 215.26 |               | 215.23                            |                   | 214.86 | 214.80 |        | 214.94 |        |
| Mean                             | 214.98 | 215.13 | 214.87      | 214.78 | 215.17 | 215.43        | 215.53                            | 215.13            | 214.97 | 214.83 | 214.81 | 215.00 |        |
| Max                              | 215.30 | 215.41 | 215.03      | 214.85 | 215.76 | 215.81        | 216.70                            | 215.21            | 215.17 | 214.90 | 214.86 | 215.44 | 216.70 |
| Min                              | 214.92 | 214.91 | 214.76      | 214.71 | 214.79 | 215.15        | 215.00                            | 215.06            | 214.82 | 214.79 | 214.74 | 214.86 | 214.71 |
| Annual Max Momentary Gage Height |        | 216.88 | m. (MSL.) , |        |        |               | at 05.00 Hours , on Oct 21 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 215.16 | m. (MSL.) , |        |        | River Bed     | 213.46                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 221.11 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 221.22 | m. (MSL.) , |        |        | Drainage Area | 1549                              | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun  | Jul                  | Aug    | Sep    | Oct    | Nov                      | Dec   | Jan  | Feb  | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|------|----------------------|--------|--------|--------|--------------------------|-------|------|------|-------|----------------|
| 1              | 0.23                                                              | 0.32                     | 0.05 | 0.04                 | 0.03   | 22.23  | 21.25  | 3.68                     | 1.34  | 0.04 | 0.03 | 0.04  |                |
| 2              | 0.32                                                              | 1.10                     | 0.05 | 0.04                 | 0.03   | 22.23  | 19.78  | 2.72                     | 2.89  | 0.04 | 0.03 | 0.05  |                |
| 3              | 0.32                                                              | 1.87                     | 0.04 | 0.04                 | 0.04   | 18.32  | 27.70  | 2.72                     | 1.58  | 0.04 | 0.02 | 0.32  |                |
| 4              | 0.37                                                              | 2.38                     | 0.04 | 0.03                 | 0.03   | 10.64  | 32.76  | 2.55                     | 0.98  | 0.05 | 0.02 | 0.28  |                |
| 5              | 0.37                                                              | 2.72                     | 0.03 | 0.03                 | 0.03   | 4.80   | 25.70  | 2.55                     | 0.98  | 0.05 | 0.02 | 0.28  |                |
| 6              | 0.37                                                              | 2.89                     | 0.03 | 0.03                 | 0.04   | 5.36   | 15.44  | 2.21                     | 1.10  | 0.05 | 0.02 | 0.28  |                |
| 7              | 0.37                                                              | 3.68                     | 0.04 | 0.03                 | 0.62   | 5.08   | 9.80   | 1.87                     | 0.98  | 0.04 | 0.02 | 0.41  |                |
| 8              | 0.37                                                              | 2.21                     | 0.04 | 0.03                 | 1.22   | 2.55   | 7.64   | 2.04                     | 0.98  | 0.04 | 0.03 | 0.46  |                |
| 9              | 0.37                                                              | 1.87                     | 0.03 | 0.02                 | 2.38   | 2.72   | 5.36   | 3.06                     | 0.50  | 0.04 | 0.03 | 0.50  |                |
| 10             | 0.32                                                              | 2.04                     | 0.02 | 0.02                 | 2.72   | 8.00   | 5.36   | 3.23                     | 0.32  | 0.03 | 0.03 | 0.50  |                |
| 11             | 0.28                                                              | 10.22                    | 0.86 | 0.02                 | 5.64   | 16.88  | 4.80   | 2.89                     | 0.32  | 0.03 | 0.03 | 0.50  |                |
| 12             | 0.23                                                              | 5.64                     | 0.86 | 0.02                 | 26.70  | 16.88  | 2.72   | 3.06                     | 0.32  | 0.04 | 0.03 | 0.50  |                |
| 13             | 0.23                                                              | 6.56                     | 0.32 | 0.02                 | 17.84  | 15.44  | 2.38   | 3.23                     | 0.32  | 0.04 | 0.03 | 0.50  |                |
| 14             | 0.23                                                              | 6.20                     | 0.23 | 0.02                 | 22.23  | 12.74  | 2.38   | 2.72                     | 0.32  | 0.04 | 0.03 | 0.50  |                |
| 15             | 0.23                                                              | 9.08                     | 0.18 | 0.02                 | 16.40  | 14.00  | 1.22   | 2.04                     | 0.32  | 0.04 | 0.03 | 0.46  |                |
| 16             | 0.23                                                              | 3.68                     | 0.03 | 0.02                 | 8.00   | 15.44  | 0.50   | 2.21                     | 0.32  | 0.04 | 0.03 | 0.37  |                |
| 17             | 0.28                                                              | 2.21                     | 0.02 | 0.02                 | 6.56   | 9.80   | 1.10   | 2.04                     | 0.32  | 0.04 | 0.04 | 0.37  |                |
| 18             | 0.28                                                              | 2.21                     | 0.10 | 0.02                 | 6.20   | 11.06  | 32.76  | 1.46                     | 0.32  | 0.04 | 0.04 | 0.37  |                |
| 19             | 0.23                                                              | 2.21                     | 0.04 | 0.03                 | 3.96   | 12.74  | 98.00  | 2.04                     | 0.32  | 0.04 | 0.04 | 0.37  |                |
| 20             | 0.18                                                              | 0.74                     | 0.37 | 0.03                 | 2.55   | 11.48  | 74.40  | 1.70                     | 0.37  | 0.04 | 0.04 | 0.37  |                |
| 21             | 0.18                                                              | 5.36                     | 0.28 | 0.03                 | 1.46   | 10.22  | 86.10  | 1.87                     | 0.37  | 0.04 | 0.04 | 0.46  |                |
| 22             | 0.18                                                              | 3.40                     | 0.04 | 0.03                 | 1.10   | 9.80   | 24.70  | 1.87                     | 0.50  | 0.03 | 0.04 | 0.74  |                |
| 23             | 0.14                                                              | 2.72                     | 0.03 | 0.02                 | 1.34   | 8.00   | 22.23  | 2.04                     | 1.58  | 0.03 | 0.04 | 0.62  |                |
| 24             | 0.46                                                              | 2.55                     | 0.04 | 0.01                 | 6.56   | 7.28   | 16.40  | 1.87                     | 0.98  | 0.03 | 0.04 | 1.34  |                |
| 25             | 6.20                                                              | 1.70                     | 0.04 | 0.01                 | 2.55   | 4.24   | 14.96  | 1.46                     | 0.04  | 0.03 | 0.04 | 11.48 |                |
| 26             | 2.72                                                              | 0.86                     | 0.04 | 0.04                 | 5.36   | 2.89   | 12.74  | 1.22                     | 0.03  | 0.03 | 0.04 | 2.55  |                |
| 27             | 1.34                                                              | 0.74                     | 0.04 | 0.03                 | 2.55   | 6.92   | 11.90  | 1.22                     | 0.04  | 0.03 | 0.04 | 0.50  |                |
| 28             | 1.34                                                              | 0.37                     | 0.04 | 0.02                 | 2.38   | 19.78  | 7.64   | 1.22                     | 0.04  | 0.03 | 0.04 | 0.28  |                |
| 29             | 0.86                                                              | 0.32                     | 0.04 | 0.02                 | 2.55   | 29.28  | 5.92   | 1.46                     | 0.04  | 0.03 |      | 0.37  |                |
| 30             | 0.74                                                              | 0.28                     | 0.04 | 0.02                 | 2.72   | 22.23  | 4.80   | 1.46                     | 0.04  | 0.03 |      | 0.32  |                |
| 31             |                                                                   | 0.10                     |      | 0.03                 | 5.08   |        | 4.24   |                          | 0.04  | 0.03 |      | 0.23  |                |
| Total          | 19.97                                                             | 88.23                    | 4.01 | 0.79                 | 156.87 | 359.03 | 602.68 | 65.71                    | 18.60 | 1.15 | 0.91 | 26.32 | 1344.27 CMSDAY |
| Mean           | 0.67                                                              | 2.85                     | 0.13 | 0.03                 | 5.06   | 11.97  | 19.44  | 2.19                     | 0.60  | 0.04 | 0.03 | 0.85  | 3.68 CMS       |
| Max            | 6.20                                                              | 10.22                    | 0.86 | 0.04                 | 26.70  | 29.28  | 98.00  | 3.68                     | 2.89  | 0.05 | 0.04 | 11.48 | 98.00 CMS      |
| Min            | 0.14                                                              | 0.10                     | 0.02 | 0.01                 | 0.03   | 2.55   | 0.50   | 1.22                     | 0.03  | 0.03 | 0.02 | 0.04  | 0.01 CMS       |
| Runoff         | 1.73                                                              | 7.62                     | 0.35 | 0.07                 | 13.55  | 31.02  | 52.07  | 5.68                     | 1.61  | 0.10 | 0.08 | 2.27  | 116.15 MCM     |
| Momentary Peak | 119.40 CMS. at 216.88 m. (MSL.) at 05.00 Hours , on Oct 21 , 2013 |                          |      |                      |        |        |        |                          |       |      |      |       |                |
| Runoff Yield   | 2.38                                                              | Liters/Second/Square KM. |      | Momentary Peak Yield |        |        | 77.082 | Liters/Second/Square KM. |       |      |      |       |                |

**WATER YEAR : 2013****WANG RIVER BASIN****Wang River at Ban Chiang Rai , Tak (W.23)**

Lat 17 - 22 - 01 N Long 99 - 06 - 55 E

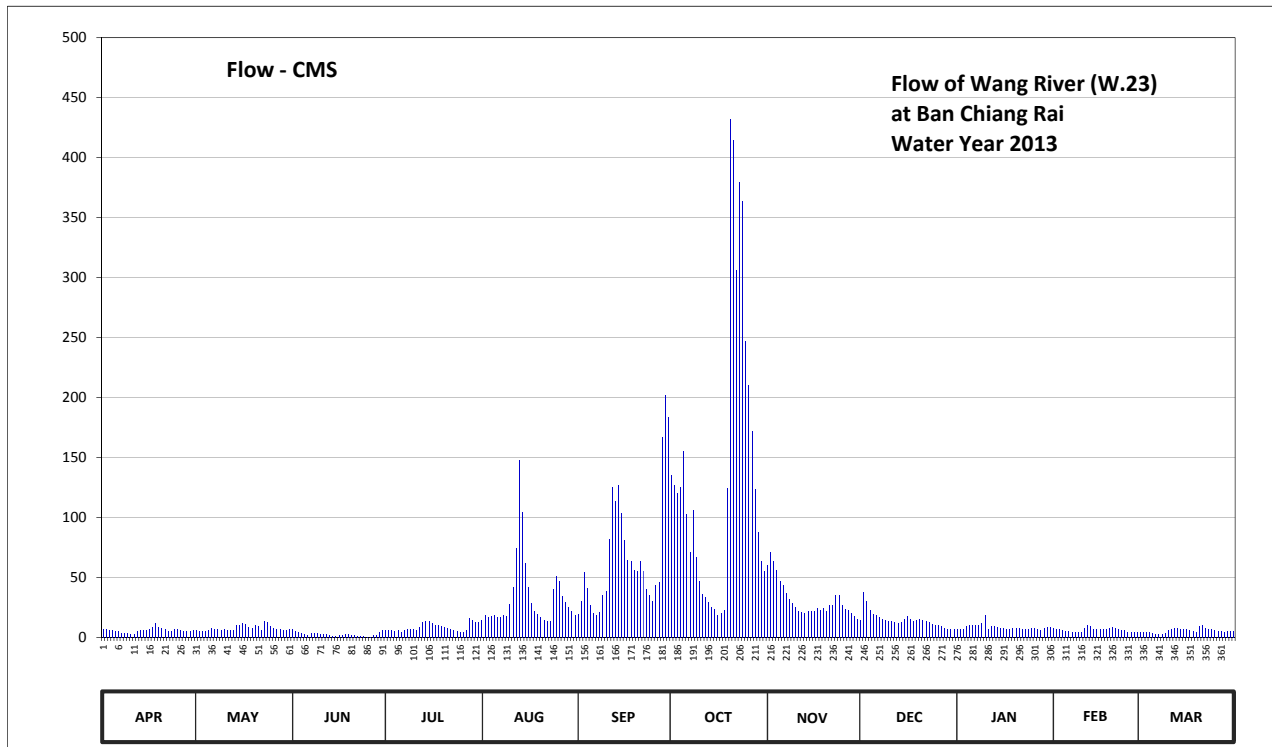
Location : on left bank at Amphoe Sam Ngao.

|                                         |                                                                                               |                   |               |                 |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-------------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                    | <b>Chiang Rai</b> | <b>Amphoe</b> | <b>Sam Ngao</b> | <b>Changwat</b>  | <b>Tak</b>         |
| <b>Drainage Area</b>                    | 9,930                                                                                         | sq.km.            |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                    |                   |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +141.291                                                                                      | m. (MSL.)         |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                     |                   |               |                 |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                              |                   |               |                 | <b>Elevation</b> | +148.844 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                          |                   |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings.                                                                |                   |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 2001 to date                                                                                  |                   |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                                               |                   |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 2001 to date                                                                                  |                   |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                             |                   |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                                  |                   |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                       |                   |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                             |                   |               |                 |                  |                    |
| <b>General Description</b>              | Records very good.Stage-discharge relation defined by 20 discharge measurements made in 2013. |                   |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 142.13 | 142.09      | 142.17 | 142.11 | 142.42 | 142.59        | 144.38                            | 143.37            | 142.42 | 142.14 | 142.21 | 142.04 |        |
| 2                                | 142.14 | 142.06      | 142.05 | 142.11 | 142.55 | 142.84        | 144.28                            | 143.54            | 142.98 | 142.14 | 142.14 | 142.04 |        |
| 3                                | 142.12 | 142.07      | 142.03 | 142.09 | 142.50 | 143.28        | 144.19                            | 143.43            | 142.85 | 142.14 | 142.13 | 142.04 |        |
| 4                                | 142.11 | 142.07      | 142.00 | 142.08 | 142.52 | 143.04        | 144.26                            | 143.30            | 142.68 | 142.26 | 142.09 | 142.01 |        |
| 5                                | 142.08 | 142.09      | 141.94 | 142.09 | 142.56 | 142.77        | 144.59                            | 143.14            | 142.59 | 142.29 | 142.08 | 141.99 |        |
| 6                                | 142.05 | 142.20      | 141.89 | 142.03 | 142.51 | 142.61        | 143.97                            | 143.09            | 142.56 | 142.29 | 142.07 | 141.94 |        |
| 7                                | 142.00 | 142.16      | 142.00 | 142.11 | 142.49 | 142.55        | 143.54                            | 142.96            | 142.50 | 142.29 | 142.04 | 141.93 |        |
| 8                                | 141.98 | 142.14      | 142.00 | 142.17 | 142.56 | 142.64        | 144.02                            | 142.88            | 142.45 | 142.29 | 142.04 | 141.91 |        |
| 9                                | 141.95 | 142.12      | 141.96 | 142.13 | 142.54 | 142.94        | 143.48                            | 142.82            | 142.42 | 142.33 | 142.04 | 141.97 |        |
| 10                               | 141.93 | 142.13      | 141.93 | 142.13 | 142.79 | 143.00        | 143.15                            | 142.74            | 142.39 | 142.55 | 142.04 | 142.12 |        |
| 11                               | 141.92 | 142.09      | 141.93 | 142.10 | 143.06 | 143.70        | 142.95                            | 142.66            | 142.39 | 142.14 | 142.19 | 142.14 |        |
| 12                               | 142.08 | 142.10      | 141.91 | 142.23 | 143.60 | 144.26        | 142.91                            | 142.63            | 142.37 | 142.24 | 142.28 | 142.19 |        |
| 13                               | 142.11 | 142.10      | 141.87 | 142.37 | 144.51 | 144.11        | 142.83                            | 142.61            | 142.34 | 142.24 | 142.26 | 142.20 |        |
| 14                               | 142.12 | 142.27      | 141.84 | 142.38 | 144.00 | 144.28        | 142.74                            | 142.65            | 142.36 | 142.23 | 142.17 | 142.17 |        |
| 15                               | 142.12 | 142.29      | 141.84 | 142.39 | 143.40 | 143.98        | 142.69                            | 142.65            | 142.44 | 142.19 | 142.13 | 142.15 |        |
| 16                               | 142.15 | 142.34      | 141.86 | 142.34 | 143.05 | 143.69        | 142.56                            | 142.65            | 142.52 | 142.18 | 142.13 | 142.13 |        |
| 17                               | 142.23 | 142.31      | 141.87 | 142.29 | 142.82 | 143.44        | 142.60                            | 142.72            | 142.45 | 142.17 | 142.13 | 142.11 |        |
| 18                               | 142.33 | 142.22      | 141.94 | 142.28 | 142.65 | 143.43        | 142.68                            | 142.67            | 142.40 | 142.17 | 142.14 | 142.07 |        |
| 19                               | 142.23 | 142.20      | 141.90 | 142.25 | 142.58 | 143.30        | 144.24                            | 142.71            | 142.43 | 142.18 | 142.20 | 142.04 |        |
| 20                               | 142.19 | 142.27      | 141.89 | 142.23 | 142.50 | 143.29        | 146.93                            | 142.65            | 142.45 | 142.19 | 142.23 | 142.26 |        |
| 21                               | 142.13 | 142.24      | 141.85 | 142.19 | 142.43 | 143.43        | 146.80                            | 142.77            | 142.42 | 142.19 | 142.19 | 142.27 |        |
| 22                               | 142.08 | 142.12      | 141.84 | 142.13 | 142.40 | 143.29        | 145.99                            | 142.78            | 142.38 | 142.17 | 142.15 | 142.18 |        |
| 23                               | 142.07 | 142.40      | 141.82 | 142.10 | 142.39 | 143.03        | 146.55                            | 142.94            | 142.35 | 142.16 | 142.11 | 142.14 |        |
| 24                               | 142.16 | 142.37      | 141.80 | 142.05 | 143.02 | 142.93        | 146.43                            | 142.94            | 142.32 | 142.17 | 142.09 | 142.14 |        |
| 25                               | 142.14 | 142.24      | 141.75 | 142.04 | 143.22 | 142.85        | 145.49                            | 142.78            | 142.29 | 142.19 | 142.04 | 142.11 |        |
| 26                               | 142.11 | 142.19      | 141.75 | 142.03 | 143.14 | 143.09        | 145.15                            | 142.69            | 142.29 | 142.19 | 142.04 | 142.05 |        |
| 27                               | 142.07 | 142.14      | 141.87 | 142.10 | 142.92 | 143.13        | 144.77                            | 142.67            | 142.24 | 142.17 | 142.04 | 142.05 |        |
| 28                               | 142.07 | 142.17      | 141.85 | 142.46 | 142.83 | 144.72        | 144.23                            | 142.61            | 142.19 | 142.09 | 142.04 | 142.04 |        |
| 29                               | 142.08 | 142.09      | 142.01 | 142.42 | 142.73 | 145.07        | 143.79                            | 142.54            | 142.15 | 142.20 |        | 142.07 |        |
| 30                               | 142.11 | 142.09      | 142.11 | 142.36 | 142.65 | 144.89        | 143.43                            | 142.45            | 142.15 | 142.22 |        | 142.08 |        |
| 31                               |        | 142.17      |        | 142.37 | 142.56 |               | 143.29                            |                   | 142.15 | 142.23 |        | 142.08 |        |
| Mean                             | 142.10 | 142.18      | 141.92 | 142.20 | 142.84 | 143.41        | 144.16                            | 142.83            | 142.42 | 142.21 | 142.12 | 142.09 |        |
| Max                              | 142.33 | 142.40      | 142.17 | 142.46 | 144.51 | 145.07        | 146.93                            | 143.54            | 142.98 | 142.55 | 142.28 | 142.27 | 146.93 |
| Min                              | 141.92 | 142.06      | 141.75 | 142.03 | 142.39 | 142.55        | 142.56                            | 142.45            | 142.15 | 142.09 | 142.04 | 141.91 | 141.75 |
| Annual Max Momentary Gage Height | 147.11 | m. (MSL.) , |        |        |        |               | at 18.00 Hours , on Oct 20 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 141.29 | m. (MSL.) , |        |        |        | River Bed     | 139.23                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 148.96 | m. (MSL.) , |        |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             | 149.27 | m. (MSL.) , |        |        |        | Drainage Area | 9930                              | Square Kilometers |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                        | Jun   | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|------------------------------------------------------------|-------|--------|----------------------|---------|---------|--------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 6.60   | 5.80                                                       | 7.40  | 6.20   | 14.60                | 19.70   | 135.40  | 60.20  | 14.60                    | 6.80   | 8.30   | 4.80   |          |        |
| 2              | 6.80   | 5.20                                                       | 5.00  | 6.20   | 18.50                | 30.20   | 127.40  | 71.10  | 37.90                    | 6.80   | 6.80   | 4.80   |          |        |
| 3              | 6.40   | 5.40                                                       | 4.60  | 5.80   | 17.00                | 54.80   | 120.20  | 63.95  | 30.75                    | 6.80   | 6.60   | 4.80   |          |        |
| 4              | 6.20   | 5.40                                                       | 4.00  | 5.60   | 17.60                | 41.20   | 125.80  | 56.00  | 23.20                    | 9.80   | 5.80   | 4.20   |          |        |
| 5              | 5.60   | 5.80                                                       | 3.10  | 5.80   | 18.80                | 26.80   | 155.05  | 46.70  | 19.70                    | 10.70  | 5.60   | 3.85   |          |        |
| 6              | 5.00   | 8.00                                                       | 2.35  | 4.60   | 17.30                | 20.40   | 102.60  | 43.95  | 18.80                    | 10.70  | 5.40   | 3.10   |          |        |
| 7              | 4.00   | 7.20                                                       | 4.00  | 6.20   | 16.70                | 18.50   | 71.10   | 36.80  | 17.00                    | 10.70  | 4.80   | 2.95   |          |        |
| 8              | 3.70   | 6.80                                                       | 4.00  | 7.40   | 18.80                | 21.60   | 106.60  | 32.40  | 15.50                    | 10.70  | 4.80   | 2.65   |          |        |
| 9              | 3.25   | 6.40                                                       | 3.40  | 6.60   | 18.20                | 35.70   | 67.20   | 29.10  | 14.60                    | 11.90  | 4.80   | 3.55   |          |        |
| 10             | 2.95   | 6.60                                                       | 2.95  | 6.60   | 27.60                | 39.00   | 47.25   | 25.60  | 13.70                    | 18.50  | 4.80   | 6.40   |          |        |
| 11             | 2.80   | 5.80                                                       | 2.95  | 6.00   | 42.30                | 82.00   | 36.25   | 22.40  | 13.70                    | 6.80   | 7.80   | 6.80   |          |        |
| 12             | 5.60   | 6.00                                                       | 2.65  | 8.90   | 75.00                | 125.80  | 34.05   | 21.20  | 13.10                    | 9.20   | 10.40  | 7.80   |          |        |
| 13             | 6.20   | 6.00                                                       | 2.05  | 13.10  | 147.45               | 113.80  | 29.65   | 20.40  | 12.20                    | 9.20   | 9.80   | 8.00   |          |        |
| 14             | 6.40   | 10.10                                                      | 1.60  | 13.40  | 105.00               | 127.40  | 25.60   | 22.00  | 12.80                    | 8.90   | 7.40   | 7.40   |          |        |
| 15             | 6.40   | 10.70                                                      | 1.60  | 13.70  | 62.00                | 103.40  | 23.60   | 22.00  | 15.20                    | 7.80   | 6.60   | 7.00   |          |        |
| 16             | 7.00   | 12.20                                                      | 1.90  | 12.20  | 41.75                | 81.30   | 18.80   | 22.00  | 17.60                    | 7.60   | 6.60   | 6.60   |          |        |
| 17             | 8.90   | 11.30                                                      | 2.05  | 10.70  | 29.10                | 64.60   | 20.00   | 24.80  | 15.50                    | 7.40   | 6.60   | 6.20   |          |        |
| 18             | 11.90  | 8.60                                                       | 3.10  | 10.40  | 22.00                | 63.95   | 23.20   | 22.80  | 14.00                    | 7.40   | 6.80   | 5.40   |          |        |
| 19             | 8.90   | 8.00                                                       | 2.50  | 9.50   | 19.40                | 56.00   | 124.20  | 24.40  | 14.90                    | 7.60   | 8.00   | 4.80   |          |        |
| 20             | 7.80   | 10.10                                                      | 2.35  | 8.90   | 17.00                | 55.40   | 432.20  | 22.00  | 15.50                    | 7.80   | 8.90   | 9.80   |          |        |
| 21             | 6.60   | 9.20                                                       | 1.75  | 7.80   | 14.90                | 63.95   | 414.00  | 26.80  | 14.60                    | 7.80   | 7.80   | 10.10  |          |        |
| 22             | 5.60   | 6.40                                                       | 1.60  | 6.60   | 14.00                | 55.40   | 305.80  | 27.20  | 13.40                    | 7.40   | 7.00   | 7.60   |          |        |
| 23             | 5.40   | 14.00                                                      | 1.30  | 6.00   | 13.70                | 40.65   | 379.25  | 35.70  | 12.50                    | 7.20   | 6.20   | 6.80   |          |        |
| 24             | 7.20   | 13.10                                                      | 1.00  | 5.00   | 40.10                | 35.15   | 363.05  | 35.70  | 11.60                    | 7.40   | 5.80   | 6.80   |          |        |
| 25             | 6.80   | 9.20                                                       | 0.75  | 4.80   | 51.20                | 30.75   | 246.90  | 27.20  | 10.70                    | 7.80   | 4.80   | 6.20   |          |        |
| 26             | 6.20   | 7.80                                                       | 0.75  | 4.60   | 46.70                | 43.95   | 210.00  | 23.60  | 10.70                    | 7.80   | 4.80   | 5.00   |          |        |
| 27             | 5.40   | 6.80                                                       | 2.05  | 6.00   | 34.60                | 46.15   | 172.15  | 22.80  | 9.20                     | 7.40   | 4.80   | 5.00   |          |        |
| 28             | 5.40   | 7.40                                                       | 1.75  | 15.80  | 29.65                | 167.40  | 123.40  | 20.40  | 7.80                     | 5.80   | 4.80   | 4.80   |          |        |
| 29             | 5.60   | 5.80                                                       | 4.20  | 14.60  | 25.20                | 202.00  | 88.30   | 18.20  | 7.00                     | 8.00   |        | 5.40   |          |        |
| 30             | 6.20   | 5.80                                                       | 6.20  | 12.80  | 22.00                | 184.00  | 63.95   | 15.50  | 7.00                     | 8.60   |        | 5.60   |          |        |
| 31             |        | 7.40                                                       |       | 13.10  | 18.80                |         | 55.40   |        | 7.00                     | 8.90   |        | 5.60   |          |        |
| Total          | 182.80 | 244.30                                                     | 84.90 | 264.90 | 1056.95              | 2050.95 | 4248.35 | 942.90 | 461.75                   | 267.20 | 182.60 | 179.80 | 10167.40 | CMSDAY |
| Mean           | 6.09   | 7.88                                                       | 2.83  | 8.55   | 34.10                | 68.37   | 137.04  | 31.43  | 14.90                    | 8.62   | 6.52   | 5.80   | 27.86    | CMS    |
| Max            | 11.90  | 14.00                                                      | 7.40  | 15.80  | 147.45               | 202.00  | 432.20  | 71.10  | 37.90                    | 18.50  | 10.40  | 10.10  | 432.20   | CMS    |
| Min            | 2.80   | 5.20                                                       | 0.75  | 4.60   | 13.70                | 18.50   | 18.80   | 15.50  | 7.00                     | 5.80   | 4.80   | 2.65   | 0.75     | CMS    |
| Runoff         | 15.79  | 21.11                                                      | 7.34  | 22.89  | 91.32                | 177.20  | 367.06  | 81.47  | 39.90                    | 23.09  | 15.78  | 15.54  | 878.46   | MCM    |
| Momentary Peak | 458.50 | CMS. at 147.11 m. (MSL.) at 18.00 Hours , on Oct 20 , 2013 |       |        |                      |         |         |        |                          |        |        |        |          |        |
| Runoff Yield   | 2.81   | Liters/Second/Square KM.                                   |       |        | Momentary Peak Yield |         |         | 46.173 | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013****WANG RIVER BASIN****Wang River at Ban Tha Phai , Tak (W.24)**

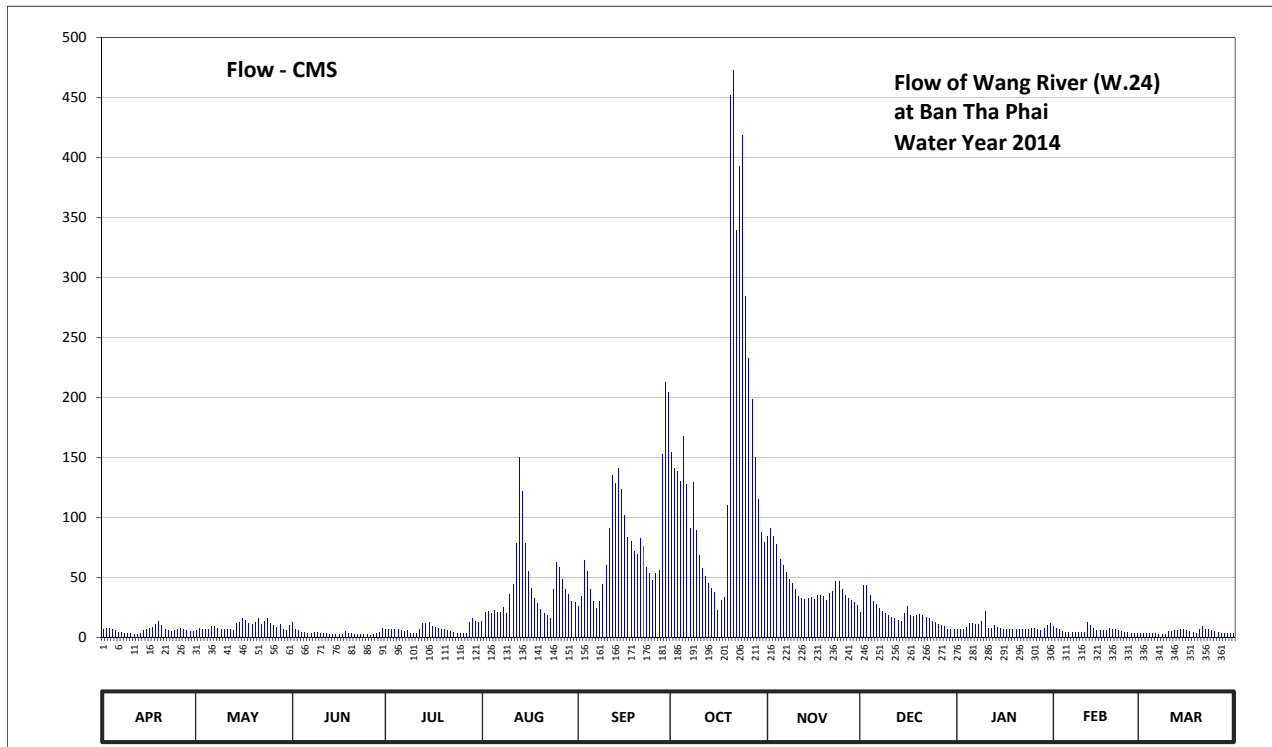
Lat 17 - 19 - 11 N Long 99 - 04 - 51 E

**Location : on left bank at Ban Tha Phai**

|                                         |                                                                                          |                 |               |                 |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | <b>Tha Phai</b> | <b>Amphoe</b> | <b>Sam Ngao</b> | <b>Changwat</b>  | <b>Tak</b>         |
| <b>Drainage Area</b>                    | -                                                                                        | sq.km.          |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                    | gage            |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +135.430                                                                                 | m. (MSL.)       |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |                 |               |                 |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                         |                 |               |                 | <b>Elevation</b> | +146.049 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                     |                 |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings.                                                           |                 |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 2010 to date                                                                             |                 |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |                 |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 2010 to date                                                                             |                 |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |                 |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 2010 to date                                                                             |                 |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                           |                 |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                 |               |                 |                  |                    |
| <b>General Description</b>              | Records good.Stage-discharge relation defined by 23 discharge measurements made in 2013. |                 |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

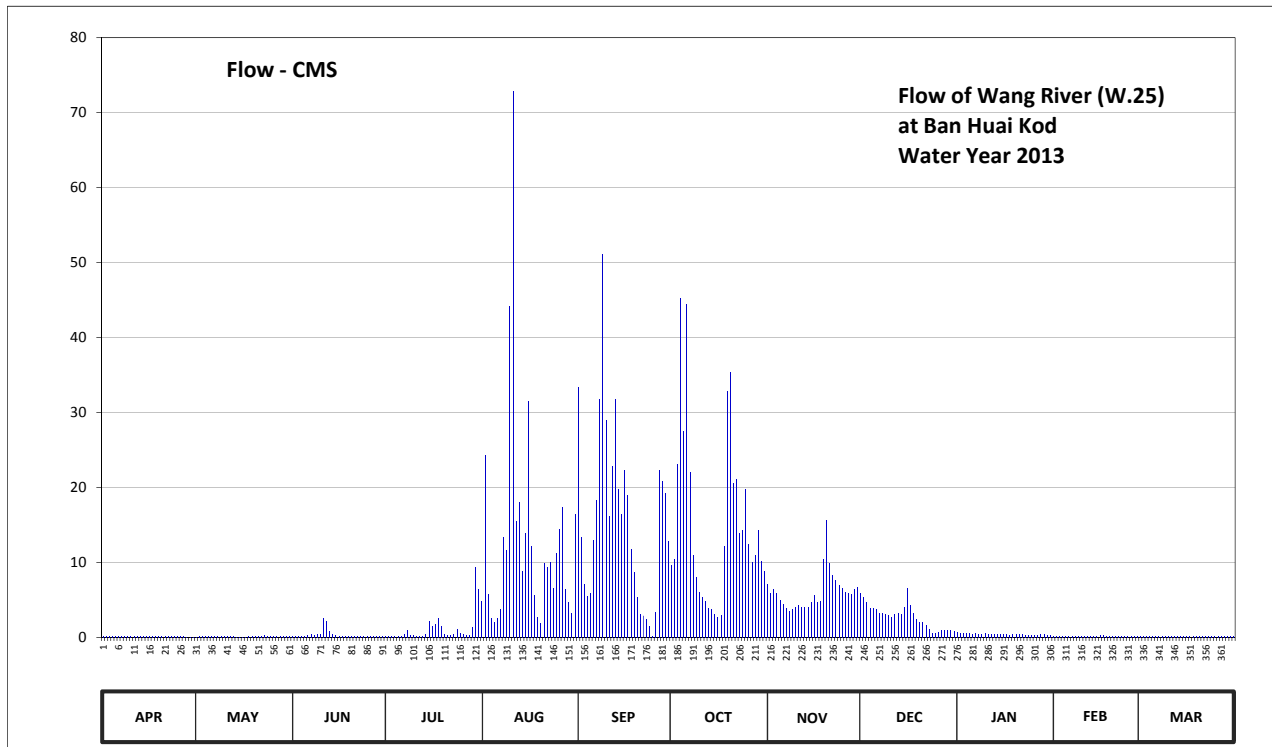
| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 137.16 | 137.12 | 137.35      | 137.14 | 137.40 | 137.70        | 140.00                            | 138.88 | 137.59            | 137.13 | 137.25 | 136.99 |        |
| 2                                | 137.19 | 137.18 | 137.17      | 137.15 | 137.58 | 137.91        | 139.81                            | 139.01 | 138.10            | 137.13 | 137.18 | 136.99 |        |
| 3                                | 137.18 | 137.15 | 137.09      | 137.15 | 137.61 | 138.51        | 139.76                            | 138.88 | 138.10            | 137.14 | 137.13 | 136.98 |        |
| 4                                | 137.14 | 137.15 | 137.04      | 137.14 | 137.57 | 138.33        | 139.64                            | 138.76 | 137.92            | 137.23 | 137.06 | 136.98 |        |
| 5                                | 137.09 | 137.16 | 137.04      | 137.13 | 137.63 | 138.03        | 140.18                            | 138.53 | 137.80            | 137.33 | 137.03 | 136.97 |        |
| 6                                | 137.04 | 137.25 | 136.96      | 137.10 | 137.58 | 137.81        | 139.60                            | 138.43 | 137.75            | 137.33 | 137.04 | 136.96 |        |
| 7                                | 137.02 | 137.25 | 137.00      | 137.07 | 137.58 | 137.66        | 139.01                            | 138.31 | 137.67            | 137.31 | 137.01 | 136.94 |        |
| 8                                | 137.00 | 137.18 | 137.03      | 137.09 | 137.69 | 137.81        | 139.63                            | 138.20 | 137.60            | 137.32 | 137.01 | 136.93 |        |
| 9                                | 136.98 | 137.16 | 137.01      | 136.98 | 137.56 | 138.11        | 138.98                            | 138.12 | 137.57            | 137.39 | 137.01 | 136.93 |        |
| 10                               | 136.95 | 137.14 | 137.00      | 136.95 | 137.93 | 138.42        | 138.59                            | 138.03 | 137.52            | 137.61 | 137.01 | 137.05 |        |
| 11                               | 136.92 | 137.14 | 136.99      | 137.00 | 138.11 | 139.00        | 138.38                            | 137.91 | 137.48            | 137.21 | 137.02 | 137.08 |        |
| 12                               | 136.90 | 137.17 | 136.98      | 137.13 | 138.77 | 139.71        | 138.25                            | 137.86 | 137.46            | 137.21 | 137.35 | 137.09 |        |
| 13                               | 136.97 | 137.09 | 136.94      | 137.34 | 139.93 | 139.61        | 138.13                            | 137.84 | 137.42            | 137.27 | 137.29 | 137.12 |        |
| 14                               | 137.09 | 137.34 | 136.94      | 137.33 | 139.51 | 139.80        | 138.05                            | 137.86 | 137.40            | 137.22 | 137.18 | 137.14 |        |
| 15                               | 137.16 | 137.37 | 136.94      | 137.36 | 138.78 | 139.53        | 137.97                            | 137.89 | 137.56            | 137.19 | 137.09 | 137.13 |        |
| 16                               | 137.19 | 137.45 | 136.94      | 137.26 | 138.33 | 139.18        | 137.62                            | 137.85 | 137.70            | 137.16 | 137.10 | 137.11 |        |
| 17                               | 137.22 | 137.42 | 136.93      | 137.22 | 138.04 | 138.86        | 137.82                            | 137.92 | 137.52            | 137.16 | 137.10 | 137.08 |        |
| 18                               | 137.31 | 137.33 | 137.07      | 137.20 | 137.87 | 138.80        | 137.88                            | 137.92 | 137.49            | 137.16 | 137.11 | 137.04 |        |
| 19                               | 137.39 | 137.31 | 136.98      | 137.16 | 137.76 | 138.66        | 139.32                            | 137.91 | 137.51            | 137.16 | 137.18 | 137.00 |        |
| 20                               | 137.29 | 137.35 | 136.95      | 137.14 | 137.65 | 138.61        | 142.77                            | 137.83 | 137.54            | 137.17 | 137.17 | 137.15 |        |
| 21                               | 137.16 | 137.45 | 136.94      | 137.09 | 137.56 | 138.85        | 142.89                            | 137.96 | 137.52            | 137.17 | 137.14 | 137.26 |        |
| 22                               | 137.10 | 137.31 | 136.93      | 137.05 | 137.51 | 138.73        | 141.98                            | 138.00 | 137.48            | 137.16 | 137.12 | 137.14 |        |
| 23                               | 137.07 | 137.40 | 136.91      | 137.01 | 137.46 | 138.39        | 142.39                            | 138.17 | 137.46            | 137.16 | 137.08 | 137.14 |        |
| 24                               | 137.10 | 137.45 | 136.91      | 136.99 | 138.02 | 138.29        | 142.56                            | 138.16 | 137.38            | 137.17 | 137.04 | 137.11 |        |
| 25                               | 137.15 | 137.33 | 136.90      | 136.96 | 138.48 | 138.18        | 141.51                            | 138.02 | 137.36            | 137.19 | 137.02 | 137.07 |        |
| 26                               | 137.19 | 137.27 | 136.89      | 136.95 | 138.39 | 138.30        | 140.97                            | 137.92 | 137.30            | 137.18 | 137.00 | 137.01 |        |
| 27                               | 137.15 | 137.23 | 136.92      | 136.96 | 138.20 | 138.35        | 140.57                            | 137.86 | 137.28            | 137.17 | 136.99 | 137.00 |        |
| 28                               | 137.09 | 137.31 | 137.00      | 137.37 | 138.02 | 139.97        | 139.93                            | 137.82 | 137.25            | 137.10 | 136.99 | 136.99 |        |
| 29                               | 137.05 | 137.15 | 137.04      | 137.46 | 137.94 | 140.74        | 139.41                            | 137.78 | 137.15            | 137.21 |        | 136.98 |        |
| 30                               | 137.08 | 137.12 | 137.19      | 137.38 | 137.81 | 140.64        | 138.95                            | 137.72 | 137.14            | 137.28 |        | 136.97 |        |
| 31                               |        | 137.28 |             | 137.36 | 137.78 |               | 138.79                            |        | 137.14            | 137.33 |        | 136.96 |        |
| Mean                             | 137.11 | 137.26 | 137.00      | 137.15 | 138.00 | 138.75        | 139.72                            | 138.11 | 137.52            | 137.22 | 137.10 | 137.04 |        |
| Max                              | 137.39 | 137.45 | 137.35      | 137.46 | 139.93 | 140.74        | 142.89                            | 139.01 | 138.10            | 137.61 | 137.35 | 137.26 | 142.89 |
| Min                              | 136.90 | 137.09 | 136.89      | 136.95 | 137.40 | 137.66        | 137.62                            | 137.72 | 137.14            | 137.10 | 136.99 | 136.93 | 136.89 |
| Annual Max Momentary Gage Height | 143.08 |        | m. (MSL.) , |        |        |               | at 18.00 Hours , on Oct 20 , 2013 |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 135.43 |        | m. (MSL.) , |        |        | River Bed     | 136.74                            |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 146.15 |        | m. (MSL.) , |        |        |               |                                   |        |                   |        |        |        |        |
| Right Bank Elevation             | 146.15 |        | m. (MSL.) , |        |        | Drainage Area |                                   |        | Square Kilometers |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 7.20                                                              | 6.40                     | 12.50  | 6.80   | 14.00                | 26.00   | 155.00  | 84.40   | 21.60                    | 6.60   | 9.50   | 3.85   |          |        |
| 2              | 7.80                                                              | 7.60                     | 7.40   | 7.00   | 21.20                | 34.95   | 141.70  | 91.60   | 44.00                    | 6.60   | 7.60   | 3.85   |          |        |
| 3              | 7.60                                                              | 7.00                     | 5.80   | 7.00   | 22.40                | 64.50   | 138.40  | 84.40   | 44.00                    | 6.80   | 6.60   | 3.70   |          |        |
| 4              | 6.80                                                              | 7.00                     | 4.80   | 6.80   | 20.80                | 55.50   | 130.60  | 77.80   | 35.40                    | 8.90   | 5.20   | 3.70   |          |        |
| 5              | 5.80                                                              | 7.20                     | 4.80   | 6.60   | 23.20                | 40.50   | 167.60  | 65.50   | 30.00                    | 11.90  | 4.60   | 3.55   |          |        |
| 6              | 4.80                                                              | 9.50                     | 3.40   | 6.00   | 21.20                | 30.45   | 128.00  | 60.50   | 28.00                    | 11.90  | 4.80   | 3.40   |          |        |
| 7              | 4.40                                                              | 9.50                     | 4.00   | 5.40   | 21.20                | 24.40   | 91.60   | 54.50   | 24.80                    | 11.30  | 4.20   | 3.10   |          |        |
| 8              | 4.00                                                              | 7.60                     | 4.60   | 5.80   | 25.60                | 30.45   | 129.95  | 49.00   | 22.00                    | 11.60  | 4.20   | 2.95   |          |        |
| 9              | 3.70                                                              | 7.20                     | 4.20   | 3.70   | 20.40                | 44.50   | 89.90   | 45.00   | 20.80                    | 13.70  | 4.20   | 2.95   |          |        |
| 10             | 3.25                                                              | 6.80                     | 4.00   | 3.25   | 35.85                | 60.00   | 68.50   | 40.50   | 18.80                    | 22.40  | 4.20   | 5.00   |          |        |
| 11             | 2.80                                                              | 6.80                     | 3.85   | 4.00   | 44.50                | 91.00   | 58.00   | 34.95   | 17.20                    | 8.30   | 4.40   | 5.60   |          |        |
| 12             | 2.50                                                              | 7.40                     | 3.70   | 6.60   | 78.35                | 135.15  | 51.50   | 32.70   | 16.40                    | 8.30   | 12.50  | 5.80   |          |        |
| 13             | 3.55                                                              | 5.80                     | 3.10   | 12.20  | 150.10               | 128.65  | 45.50   | 31.80   | 14.80                    | 10.10  | 10.70  | 6.40   |          |        |
| 14             | 5.80                                                              | 12.20                    | 3.10   | 11.90  | 122.15               | 141.00  | 41.50   | 32.70   | 14.00                    | 8.60   | 7.60   | 6.80   |          |        |
| 15             | 7.20                                                              | 13.10                    | 3.10   | 12.80  | 78.90                | 123.45  | 37.65   | 34.05   | 20.40                    | 7.80   | 5.80   | 6.60   |          |        |
| 16             | 7.80                                                              | 16.00                    | 3.10   | 9.80   | 55.50                | 101.80  | 22.80   | 32.25   | 26.00                    | 7.20   | 6.00   | 6.20   |          |        |
| 17             | 8.60                                                              | 14.80                    | 2.95   | 8.60   | 41.00                | 83.30   | 30.90   | 35.40   | 18.80                    | 7.20   | 6.00   | 5.60   |          |        |
| 18             | 11.30                                                             | 11.90                    | 5.40   | 8.00   | 33.15                | 80.00   | 33.60   | 35.40   | 17.60                    | 7.20   | 6.20   | 4.80   |          |        |
| 19             | 13.70                                                             | 11.30                    | 3.70   | 7.20   | 28.40                | 72.30   | 110.20  | 34.95   | 18.40                    | 7.20   | 7.60   | 4.00   |          |        |
| 20             | 10.70                                                             | 12.50                    | 3.25   | 6.80   | 24.00                | 69.55   | 452.20  | 31.35   | 19.60                    | 7.40   | 7.40   | 7.00   |          |        |
| 21             | 7.20                                                              | 16.00                    | 3.10   | 5.80   | 20.40                | 82.75   | 472.75  | 37.20   | 18.80                    | 7.40   | 6.80   | 9.80   |          |        |
| 22             | 6.00                                                              | 11.30                    | 2.95   | 5.00   | 18.40                | 76.15   | 339.50  | 39.00   | 17.20                    | 7.20   | 6.40   | 6.80   |          |        |
| 23             | 5.40                                                              | 14.00                    | 2.65   | 4.20   | 16.40                | 58.50   | 392.70  | 47.50   | 16.40                    | 7.20   | 5.60   | 6.80   |          |        |
| 24             | 6.00                                                              | 16.00                    | 2.65   | 3.85   | 40.00                | 53.50   | 418.80  | 47.00   | 13.40                    | 7.40   | 4.80   | 6.20   |          |        |
| 25             | 7.00                                                              | 11.90                    | 2.50   | 3.40   | 63.00                | 48.00   | 284.00  | 40.00   | 12.80                    | 7.80   | 4.40   | 5.40   |          |        |
| 26             | 7.80                                                              | 10.10                    | 2.35   | 3.25   | 58.50                | 54.00   | 232.30  | 35.40   | 11.00                    | 7.60   | 4.00   | 4.20   |          |        |
| 27             | 7.00                                                              | 8.90                     | 2.80   | 3.40   | 49.00                | 56.50   | 198.60  | 32.70   | 10.40                    | 7.40   | 3.85   | 4.00   |          |        |
| 28             | 5.80                                                              | 11.30                    | 4.00   | 13.10  | 40.00                | 152.90  | 150.10  | 30.90   | 9.50                     | 6.00   | 3.85   | 3.85   |          |        |
| 29             | 5.00                                                              | 7.00                     | 4.80   | 16.40  | 36.30                | 212.20  | 115.65  | 29.20   | 7.00                     | 8.30   |        | 3.70   |          |        |
| 30             | 5.60                                                              | 6.40                     | 7.80   | 13.40  | 30.45                | 204.20  | 88.25   | 26.80   | 6.80                     | 10.40  |        | 3.55   |          |        |
| 31             |                                                                   | 10.40                    |        | 12.80  | 29.20                |         | 79.45   |         | 6.80                     | 11.90  |        | 3.40   |          |        |
| Total          | 192.10                                                            | 310.90                   | 126.35 | 230.85 | 1283.55              | 2436.15 | 4897.20 | 1354.45 | 602.70                   | 279.60 | 169.00 | 152.55 | 12035.40 | CMSDAY |
| Mean           | 6.40                                                              | 10.03                    | 4.21   | 7.45   | 41.40                | 81.21   | 157.97  | 45.15   | 19.44                    | 9.02   | 6.04   | 4.92   | 32.97    | CMS    |
| Max            | 13.70                                                             | 16.00                    | 12.50  | 16.40  | 150.10               | 212.20  | 472.75  | 91.60   | 44.00                    | 22.40  | 12.50  | 9.80   | 472.75   | CMS    |
| Min            | 2.50                                                              | 5.80                     | 2.35   | 3.25   | 14.00                | 24.40   | 22.80   | 26.80   | 6.80                     | 6.00   | 3.85   | 2.95   | 2.35     | CMS    |
| Runoff         | 16.60                                                             | 26.86                    | 10.92  | 19.95  | 110.90               | 210.48  | 423.12  | 117.02  | 52.07                    | 24.16  | 14.60  | 13.18  | 1039.86  | MCM    |
| Momentary Peak | 506.00 CMS. at 143.08 m. (MSL.) at 18.00 Hours , on Oct 20 , 2013 |                          |        |        |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | *****                                                             | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | *****   | Liters/Second/Square KM. |        |        |        |          |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|------|------|----------------|
| 1              | 0.16                                                              | 0.12                     | 0.14  | 0.18                 | 4.82   | 33.40   | 9.72                     | 7.17   | 5.98  | 0.74  | 0.26 | 0.26 |                |
| 2              | 0.18                                                              | 0.14                     | 0.16  | 0.18                 | 24.40  | 13.47   | 10.40                    | 5.98   | 5.40  | 0.60  | 0.26 | 0.26 |                |
| 3              | 0.18                                                              | 0.14                     | 0.14  | 0.18                 | 5.84   | 7.17    | 23.13                    | 6.42   | 4.68  | 0.60  | 0.26 | 0.26 |                |
| 4              | 0.18                                                              | 0.14                     | 0.14  | 0.18                 | 2.60   | 5.55    | 45.24                    | 5.98   | 3.88  | 0.60  | 0.24 | 0.26 |                |
| 5              | 0.18                                                              | 0.14                     | 0.14  | 0.18                 | 2.00   | 5.98    | 27.59                    | 4.97   | 3.88  | 0.56  | 0.26 | 0.26 |                |
| 6              | 0.18                                                              | 0.14                     | 0.30  | 0.18                 | 2.60   | 13.06   | 44.47                    | 4.53   | 3.77  | 0.42  | 0.26 | 0.26 |                |
| 7              | 0.18                                                              | 0.14                     | 0.40  | 0.40                 | 3.77   | 18.34   | 22.11                    | 3.88   | 3.33  | 0.54  | 0.26 | 0.26 |                |
| 8              | 0.18                                                              | 0.14                     | 0.36  | 1.02                 | 13.47  | 31.80   | 11.01                    | 3.55   | 3.22  | 0.48  | 0.26 | 0.26 |                |
| 9              | 0.18                                                              | 0.14                     | 0.40  | 0.34                 | 11.63  | 51.02   | 8.02                     | 3.77   | 3.11  | 0.48  | 0.24 | 0.26 |                |
| 10             | 0.18                                                              | 0.14                     | 0.42  | 0.28                 | 44.08  | 29.04   | 6.13                     | 4.10   | 3.00  | 0.52  | 0.24 | 0.26 |                |
| 11             | 0.16                                                              | 0.14                     | 2.60  | 0.26                 | 72.80  | 16.18   | 5.40                     | 4.39   | 2.80  | 0.46  | 0.22 | 0.26 |                |
| 12             | 0.16                                                              | 0.14                     | 2.20  | 0.26                 | 15.46  | 22.87   | 4.82                     | 4.10   | 3.11  | 0.48  | 0.20 | 0.26 |                |
| 13             | 0.16                                                              | 0.14                     | 0.88  | 0.26                 | 18.10  | 31.80   | 3.99                     | 4.10   | 3.22  | 0.44  | 0.20 | 0.26 |                |
| 14             | 0.16                                                              | 0.12                     | 0.42  | 0.46                 | 8.87   | 19.81   | 3.77                     | 4.10   | 3.11  | 0.44  | 0.20 | 0.26 |                |
| 15             | 0.16                                                              | 0.12                     | 0.28  | 2.20                 | 13.89  | 16.42   | 3.11                     | 4.68   | 4.10  | 0.50  | 0.24 | 0.26 |                |
| 16             | 0.16                                                              | 0.12                     | 0.26  | 1.58                 | 31.48  | 22.36   | 2.80                     | 5.69   | 6.57  | 0.46  | 0.28 | 0.26 |                |
| 17             | 0.16                                                              | 0.12                     | 0.26  | 1.79                 | 12.24  | 19.06   | 3.00                     | 4.68   | 4.39  | 0.40  | 0.28 | 0.26 |                |
| 18             | 0.16                                                              | 0.14                     | 0.24  | 2.60                 | 5.69   | 11.84   | 12.24                    | 4.82   | 3.33  | 0.36  | 0.26 | 0.26 |                |
| 19             | 0.14                                                              | 0.14                     | 0.22  | 1.51                 | 2.80   | 8.70    | 32.76                    | 10.40  | 2.50  | 0.42  | 0.26 | 0.24 |                |
| 20             | 0.14                                                              | 0.14                     | 0.22  | 0.44                 | 1.93   | 5.40    | 35.32                    | 15.70  | 2.10  | 0.44  | 0.26 | 0.24 |                |
| 21             | 0.14                                                              | 0.14                     | 0.20  | 0.34                 | 9.89   | 3.11    | 20.58                    | 9.89   | 2.00  | 0.48  | 0.26 | 0.24 |                |
| 22             | 0.14                                                              | 0.22                     | 0.20  | 0.32                 | 9.38   | 2.90    | 21.09                    | 8.36   | 1.65  | 0.42  | 0.26 | 0.24 |                |
| 23             | 0.14                                                              | 0.32                     | 0.20  | 0.42                 | 10.06  | 2.40    | 13.89                    | 7.68   | 1.09  | 0.38  | 0.26 | 0.24 |                |
| 24             | 0.14                                                              | 0.24                     | 0.20  | 1.16                 | 6.57   | 1.58    | 14.29                    | 7.00   | 0.58  | 0.38  | 0.24 | 0.24 |                |
| 25             | 0.14                                                              | 0.22                     | 0.20  | 0.58                 | 11.22  | 0.22    | 19.81                    | 6.57   | 0.58  | 0.30  | 0.24 | 0.24 |                |
| 26             | 0.14                                                              | 0.20                     | 0.20  | 0.48                 | 14.50  | 3.44    | 12.45                    | 6.13   | 0.67  | 0.32  | 0.26 | 0.26 |                |
| 27             | 0.14                                                              | 0.18                     | 0.20  | 0.34                 | 17.38  | 22.36   | 10.06                    | 5.98   | 0.95  | 0.38  | 0.26 | 0.26 |                |
| 28             | 0.12                                                              | 0.16                     | 0.20  | 0.36                 | 6.42   | 20.83   | 11.01                    | 5.84   | 0.95  | 0.50  | 0.26 | 0.26 |                |
| 29             | 0.12                                                              | 0.16                     | 0.18  | 1.44                 | 4.68   | 19.30   | 14.29                    | 6.42   | 0.95  | 0.40  |      | 0.26 |                |
| 30             | 0.12                                                              | 0.16                     | 0.18  | 9.38                 | 3.33   | 12.86   | 10.23                    | 6.71   | 0.95  | 0.28  |      | 0.24 |                |
| 31             |                                                                   | 0.16                     |       | 6.42                 | 16.42  |         | 8.87                     |        | 0.88  | 0.28  |      | 0.24 |                |
| Total          | 4.68                                                              | 4.86                     | 12.14 | 35.72                | 408.32 | 472.27  | 471.60                   | 183.59 | 86.73 | 14.06 | 6.98 | 7.88 | 1708.83 CMSDAY |
| Mean           | 0.16                                                              | 0.16                     | 0.40  | 1.15                 | 13.17  | 15.74   | 15.21                    | 6.12   | 2.80  | 0.45  | 0.25 | 0.25 | 4.68 CMS       |
| Max            | 0.18                                                              | 0.32                     | 2.60  | 9.38                 | 72.80  | 51.02   | 45.24                    | 15.70  | 6.57  | 0.74  | 0.28 | 0.26 | 72.80 CMS      |
| Min            | 0.12                                                              | 0.12                     | 0.14  | 0.18                 | 1.93   | 0.22    | 2.80                     | 3.55   | 0.58  | 0.28  | 0.20 | 0.24 | 0.12 CMS       |
| Runoff         | 0.40                                                              | 0.42                     | 1.05  | 3.09                 | 35.28  | 40.80   | 40.75                    | 15.86  | 7.49  | 1.22  | 0.60 | 0.68 | 147.64 MCM     |
| Momentary Peak | 105.46 CMS. at 384.97 m. (MSL.) at 04.00 Hours , on Aug 11 , 2013 |                          |       |                      |        |         |                          |        |       |       |      |      |                |
| Runoff Yield   | 6.14                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 138.399 | Liters/Second/Square KM. |        |       |       |      |      |                |

## WATER YEAR : 2013

## WANG RIVER BASIN

**Nam Mae Ta at Ban Huai Mae Ta , Lampang (W.26**

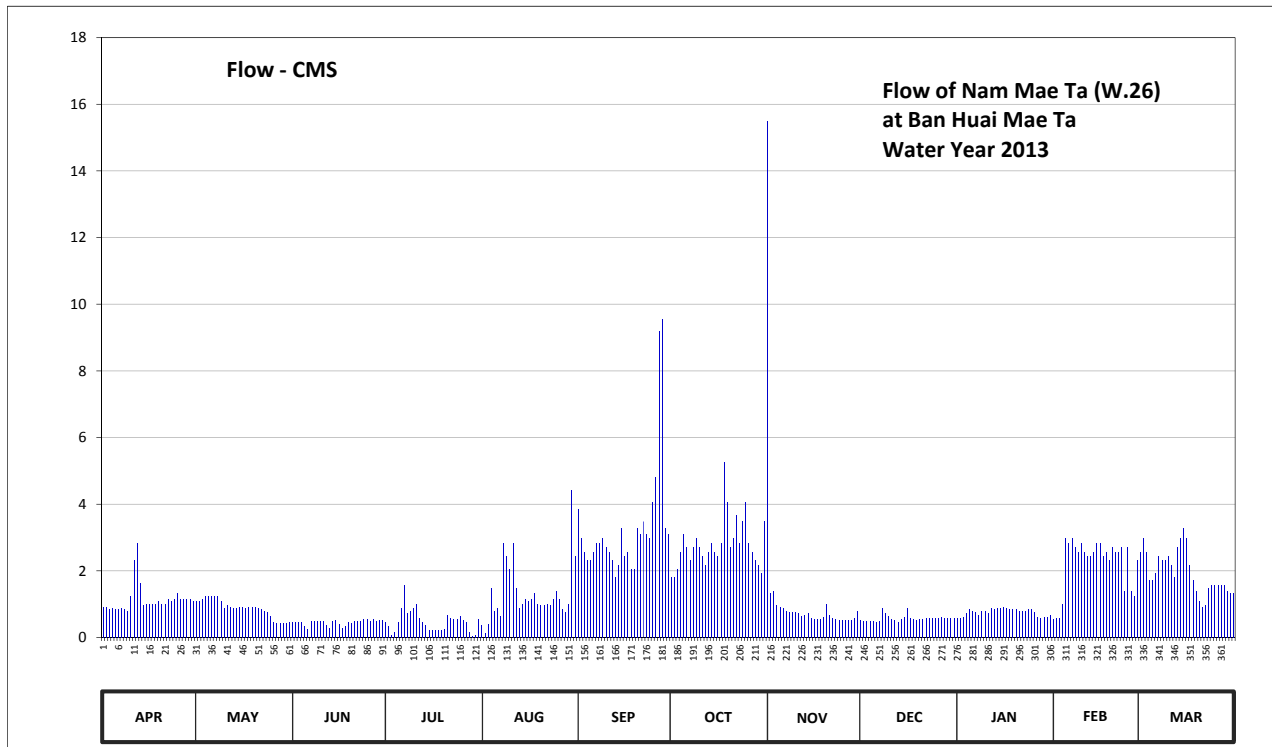
Lat 18 - 36 - 26 N Long 99 - 37 - 44 E

**Location :** on left bank at Ban Huai Mae Ta

|                                         |                                                                                          |             |               |          |                  |                    |
|-----------------------------------------|------------------------------------------------------------------------------------------|-------------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                               | Huai Mae Ta | <b>Amphoe</b> | Chae Hom | <b>Changwat</b>  | Lampang            |
| <b>Drainage Area</b>                    | 150                                                                                      | sq.km.      |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |             |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +286.470                                                                                 | m. (MSL.)   |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |             |               |          |                  |                    |
| <b>Location BM</b>                      | On left bank at the approach of the bridge.                                              |             |               |          | <b>Elevation</b> | +290.173 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |             |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings.                                                          |             |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                             |             |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                          |             |               |          |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                             |             |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                        |             |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                             |             |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                               |             |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |             |               |          |                  |                    |
| <b>General Description</b>              | Records fair.Stage-discharge relation defined by 44 discharge measurements made in 2013. |             |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 286.58 | 286.61 | 286.35                                          | 286.35 | 286.27 | 286.84 | 286.70 | 287.20 | 286.42 | 286.47 | 286.46 | 286.76 |        |
| 2                                | 286.58 | 286.61 | 286.35                                          | 286.24 | 286.05 | 286.79 | 286.70 | 286.64 | 286.40 | 286.48 | 286.47 | 286.79 |        |
| 3                                | 286.56 | 286.62 | 286.35                                          | 285.97 | 286.30 | 286.76 | 286.72 | 286.65 | 286.39 | 286.50 | 286.48 | 286.76 |        |
| 4                                | 286.57 | 286.63 | 286.36                                          | 286.06 | 286.66 | 286.74 | 286.76 | 286.59 | 286.38 | 286.53 | 286.60 | 286.69 |        |
| 5                                | 286.56 | 286.63 | 286.23                                          | 286.37 | 286.55 | 286.74 | 286.80 | 286.58 | 286.38 | 286.56 | 286.79 | 286.69 |        |
| 6                                | 286.56 | 286.63 | 286.17                                          | 286.57 | 286.57 | 286.76 | 286.77 | 286.57 | 286.36 | 286.55 | 286.78 | 286.71 |        |
| 7                                | 286.57 | 286.63 | 286.41                                          | 286.67 | 286.51 | 286.78 | 286.74 | 286.55 | 286.40 | 286.54 | 286.79 | 286.75 |        |
| 8                                | 286.56 | 286.63 | 286.41                                          | 286.53 | 286.78 | 286.78 | 286.77 | 286.54 | 286.57 | 286.52 | 286.77 | 286.74 |        |
| 9                                | 286.55 | 286.61 | 286.40                                          | 286.55 | 286.75 | 286.79 | 286.79 | 286.54 | 286.53 | 286.55 | 286.76 | 286.74 |        |
| 10                               | 286.63 | 286.57 | 286.40                                          | 286.57 | 286.72 | 286.77 | 286.77 | 286.54 | 286.51 | 286.55 | 286.78 | 286.75 |        |
| 11                               | 286.74 | 286.59 | 286.41                                          | 286.60 | 286.78 | 286.76 | 286.75 | 286.53 | 286.45 | 286.53 | 286.76 | 286.73 |        |
| 12                               | 286.78 | 286.58 | 286.27                                          | 286.47 | 286.66 | 286.74 | 286.73 | 286.51 | 286.43 | 286.57 | 286.75 | 286.70 |        |
| 13                               | 286.68 | 286.57 | 286.18                                          | 286.37 | 286.57 | 286.70 | 286.76 | 286.52 | 286.35 | 286.56 | 286.75 | 286.77 |        |
| 14                               | 286.59 | 286.57 | 286.39                                          | 286.26 | 286.60 | 286.73 | 286.78 | 286.53 | 286.44 | 286.57 | 286.76 | 286.79 |        |
| 15                               | 286.60 | 286.58 | 286.42                                          | 286.13 | 286.62 | 286.81 | 286.76 | 286.49 | 286.50 | 286.57 | 286.78 | 286.81 |        |
| 16                               | 286.60 | 286.58 | 286.30                                          | 286.13 | 286.61 | 286.75 | 286.75 | 286.46 | 286.57 | 286.58 | 286.78 | 286.79 |        |
| 17                               | 286.60 | 286.57 | 286.18                                          | 286.13 | 286.62 | 286.76 | 286.78 | 286.45 | 286.49 | 286.57 | 286.75 | 286.73 |        |
| 18                               | 286.60 | 286.58 | 286.23                                          | 286.12 | 286.64 | 286.72 | 286.91 | 286.44 | 286.44 | 286.56 | 286.76 | 286.69 |        |
| 19                               | 286.61 | 286.58 | 286.36                                          | 286.11 | 286.60 | 286.72 | 286.85 | 286.50 | 286.43 | 286.56 | 286.74 | 286.65 |        |
| 20                               | 286.60 | 286.58 | 286.34                                          | 286.17 | 286.59 | 286.81 | 286.77 | 286.60 | 286.44 | 286.56 | 286.77 | 286.61 |        |
| 21                               | 286.60 | 286.57 | 286.38                                          | 286.52 | 286.59 | 286.80 | 286.79 | 286.52 | 286.45 | 286.55 | 286.76 | 286.58 |        |
| 22                               | 286.62 | 286.56 | 286.39                                          | 286.47 | 286.60 | 286.82 | 286.83 | 286.47 | 286.47 | 286.55 | 286.76 | 286.59 |        |
| 23                               | 286.61 | 286.55 | 286.39                                          | 286.45 | 286.59 | 286.80 | 286.78 | 286.45 | 286.47 | 286.55 | 286.77 | 286.66 |        |
| 24                               | 286.62 | 286.54 | 286.44                                          | 286.46 | 286.62 | 286.79 | 286.82 | 286.43 | 286.47 | 286.56 | 286.65 | 286.67 |        |
| 25                               | 286.64 | 286.51 | 286.46                                          | 286.51 | 286.65 | 286.85 | 286.85 | 286.42 | 286.48 | 286.56 | 286.77 | 286.67 |        |
| 26                               | 286.62 | 286.35 | 286.38                                          | 286.42 | 286.62 | 286.89 | 286.78 | 286.42 | 286.48 | 286.54 | 286.65 | 286.67 |        |
| 27                               | 286.62 | 286.34 | 286.46                                          | 286.36 | 286.56 | 287.04 | 286.76 | 286.42 | 286.50 | 286.50 | 286.63 | 286.67 |        |
| 28                               | 286.62 | 286.33 | 286.39                                          | 286.07 | 286.54 | 287.05 | 286.74 | 286.43 | 286.49 | 286.49 | 286.74 | 286.67 |        |
| 29                               | 286.62 | 286.33 | 286.42                                          | 285.94 | 286.60 | 286.81 | 286.73 | 286.49 | 286.48 | 286.50 |        | 286.65 |        |
| 30                               | 286.61 | 286.34 | 286.42                                          | 285.96 | 286.87 | 286.80 | 286.71 | 286.55 | 286.48 | 286.50 |        | 286.64 |        |
| 31                               |        | 286.35 |                                                 | 286.44 | 286.75 |        | 286.82 |        | 286.48 | 286.52 |        | 286.64 |        |
| Mean                             | 286.61 | 286.54 | 286.35                                          | 286.32 | 286.59 | 286.80 | 286.77 | 286.53 | 286.46 | 286.54 | 286.71 | 286.70 |        |
| Max                              | 286.78 | 286.63 | 286.46                                          | 286.67 | 286.87 | 287.05 | 286.91 | 287.20 | 286.57 | 286.58 | 286.79 | 286.81 | 287.20 |
| Min                              | 286.55 | 286.33 | 286.17                                          | 285.94 | 286.05 | 286.70 | 286.70 | 286.42 | 286.35 | 286.47 | 286.46 | 286.58 | 285.94 |
| Annual Max Momentary Gage Height |        | 287.42 | m. (MSL.) , at 06.00 Hours , on Nov 1 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 286.47 | m. (MSL.) , River Bed 285.50 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 291.23 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 291.27 | m. (MSL.) , Drainage Area 150 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 0.92                                                            | 1.08                     | 0.45  | 0.45                 | 0.37  | 3.86    | 1.80                     | 15.50 | 0.52  | 0.57  | 0.56  | 2.58  |               |
| 2              | 0.92                                                            | 1.08                     | 0.45  | 0.34                 | 0.15  | 2.97    | 1.80                     | 1.32  | 0.50  | 0.58  | 0.57  | 2.97  |               |
| 3              | 0.84                                                            | 1.16                     | 0.45  | 0.07                 | 0.40  | 2.58    | 2.06                     | 1.40  | 0.49  | 0.60  | 0.58  | 2.58  |               |
| 4              | 0.88                                                            | 1.24                     | 0.46  | 0.16                 | 1.48  | 2.32    | 2.58                     | 0.96  | 0.48  | 0.72  | 1.00  | 1.72  |               |
| 5              | 0.84                                                            | 1.24                     | 0.33  | 0.47                 | 0.80  | 2.32    | 3.10                     | 0.92  | 0.48  | 0.84  | 2.97  | 1.72  |               |
| 6              | 0.84                                                            | 1.24                     | 0.27  | 0.88                 | 0.88  | 2.58    | 2.71                     | 0.88  | 0.46  | 0.80  | 2.84  | 1.93  |               |
| 7              | 0.88                                                            | 1.24                     | 0.51  | 1.56                 | 0.64  | 2.84    | 2.32                     | 0.80  | 0.50  | 0.76  | 2.97  | 2.45  |               |
| 8              | 0.84                                                            | 1.24                     | 0.51  | 0.72                 | 2.84  | 2.84    | 2.71                     | 0.76  | 0.88  | 0.68  | 2.71  | 2.32  |               |
| 9              | 0.80                                                            | 1.08                     | 0.50  | 0.80                 | 2.45  | 2.97    | 2.97                     | 0.76  | 0.72  | 0.80  | 2.58  | 2.32  |               |
| 10             | 1.24                                                            | 0.88                     | 0.50  | 0.88                 | 2.06  | 2.71    | 2.71                     | 0.76  | 0.64  | 0.80  | 2.84  | 2.45  |               |
| 11             | 2.32                                                            | 0.96                     | 0.51  | 1.00                 | 2.84  | 2.58    | 2.45                     | 0.72  | 0.55  | 0.72  | 2.58  | 2.19  |               |
| 12             | 2.84                                                            | 0.92                     | 0.37  | 0.57                 | 1.48  | 2.32    | 2.19                     | 0.64  | 0.53  | 0.88  | 2.45  | 1.80  |               |
| 13             | 1.64                                                            | 0.88                     | 0.28  | 0.47                 | 0.88  | 1.80    | 2.58                     | 0.68  | 0.45  | 0.84  | 2.45  | 2.71  |               |
| 14             | 0.96                                                            | 0.88                     | 0.49  | 0.36                 | 1.00  | 2.19    | 2.84                     | 0.72  | 0.54  | 0.88  | 2.58  | 2.97  |               |
| 15             | 1.00                                                            | 0.92                     | 0.52  | 0.23                 | 1.16  | 3.29    | 2.58                     | 0.59  | 0.60  | 0.88  | 2.84  | 3.29  |               |
| 16             | 1.00                                                            | 0.92                     | 0.40  | 0.23                 | 1.08  | 2.45    | 2.45                     | 0.56  | 0.88  | 0.92  | 2.84  | 2.97  |               |
| 17             | 1.00                                                            | 0.88                     | 0.28  | 0.23                 | 1.16  | 2.58    | 2.84                     | 0.55  | 0.59  | 0.88  | 2.45  | 2.19  |               |
| 18             | 1.00                                                            | 0.92                     | 0.33  | 0.22                 | 1.32  | 2.06    | 5.27                     | 0.54  | 0.54  | 0.84  | 2.58  | 1.72  |               |
| 19             | 1.08                                                            | 0.92                     | 0.46  | 0.21                 | 1.00  | 2.06    | 4.05                     | 0.60  | 0.53  | 0.84  | 2.32  | 1.40  |               |
| 20             | 1.00                                                            | 0.92                     | 0.44  | 0.27                 | 0.96  | 3.29    | 2.71                     | 1.00  | 0.54  | 0.84  | 2.71  | 1.08  |               |
| 21             | 1.00                                                            | 0.88                     | 0.48  | 0.68                 | 0.96  | 3.10    | 2.97                     | 0.68  | 0.55  | 0.80  | 2.58  | 0.92  |               |
| 22             | 1.16                                                            | 0.84                     | 0.49  | 0.57                 | 1.00  | 3.48    | 3.67                     | 0.57  | 0.57  | 0.80  | 2.58  | 0.96  |               |
| 23             | 1.08                                                            | 0.80                     | 0.49  | 0.55                 | 0.96  | 3.10    | 2.84                     | 0.55  | 0.57  | 0.80  | 2.71  | 1.48  |               |
| 24             | 1.16                                                            | 0.76                     | 0.54  | 0.56                 | 1.16  | 2.97    | 3.48                     | 0.53  | 0.57  | 0.84  | 1.40  | 1.56  |               |
| 25             | 1.32                                                            | 0.64                     | 0.56  | 0.64                 | 1.40  | 4.05    | 4.05                     | 0.52  | 0.58  | 0.84  | 2.71  | 1.56  |               |
| 26             | 1.16                                                            | 0.45                     | 0.48  | 0.52                 | 1.16  | 4.81    | 2.84                     | 0.52  | 0.58  | 0.76  | 1.40  | 1.56  |               |
| 27             | 1.16                                                            | 0.44                     | 0.56  | 0.46                 | 0.84  | 9.18    | 2.58                     | 0.52  | 0.60  | 0.60  | 1.24  | 1.56  |               |
| 28             | 1.16                                                            | 0.43                     | 0.49  | 0.17                 | 0.76  | 9.55    | 2.32                     | 0.53  | 0.59  | 0.59  | 2.32  | 1.56  |               |
| 29             | 1.16                                                            | 0.43                     | 0.52  | 0.04                 | 1.00  | 3.29    | 2.19                     | 0.59  | 0.58  | 0.60  |       | 1.40  |               |
| 30             | 1.08                                                            | 0.44                     | 0.52  | 0.06                 | 4.43  | 3.10    | 1.93                     | 0.80  | 0.58  | 0.60  |       | 1.32  |               |
| 31             |                                                                 | 0.45                     |       | 0.54                 | 2.45  |         | 3.48                     |       | 0.58  | 0.68  |       | 1.32  |               |
| Total          | 34.28                                                           | 27.16                    | 13.64 | 14.91                | 41.07 | 99.24   | 87.07                    | 36.47 | 17.77 | 23.58 | 62.36 | 60.56 | 518.11 CMSDAY |
| Mean           | 1.14                                                            | 0.88                     | 0.45  | 0.48                 | 1.32  | 3.31    | 2.81                     | 1.22  | 0.57  | 0.76  | 2.23  | 1.95  | 1.42 CMS      |
| Max            | 2.84                                                            | 1.24                     | 0.56  | 1.56                 | 4.43  | 9.55    | 5.27                     | 15.50 | 0.88  | 0.92  | 2.97  | 3.29  | 15.50 CMS     |
| Min            | 0.80                                                            | 0.43                     | 0.27  | 0.04                 | 0.15  | 1.80    | 1.80                     | 0.52  | 0.45  | 0.57  | 0.56  | 0.92  | 0.04 CMS      |
| Runoff         | 2.96                                                            | 2.35                     | 1.18  | 1.29                 | 3.55  | 8.57    | 7.52                     | 3.15  | 1.54  | 2.04  | 5.39  | 5.23  | 44.77 MCM     |
| Momentary Peak | 25.80 CMS. at 287.42 m. (MSL.) at 06.00 Hours , on Nov 1 , 2013 |                          |       |                      |       |         |                          |       |       |       |       |       |               |
| Runoff Yield   | 9.46                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 172.000 | Liters/Second/Square KM. |       |       |       |       |       |               |

**WATER YEAR : 2013**

## YOM RIVER BASIN

**Yom River at Ban Nam Khong , Phrae (Y.1C)**

Lat 18 - 07 - 57 N    Long 100 - 07 - 42 E

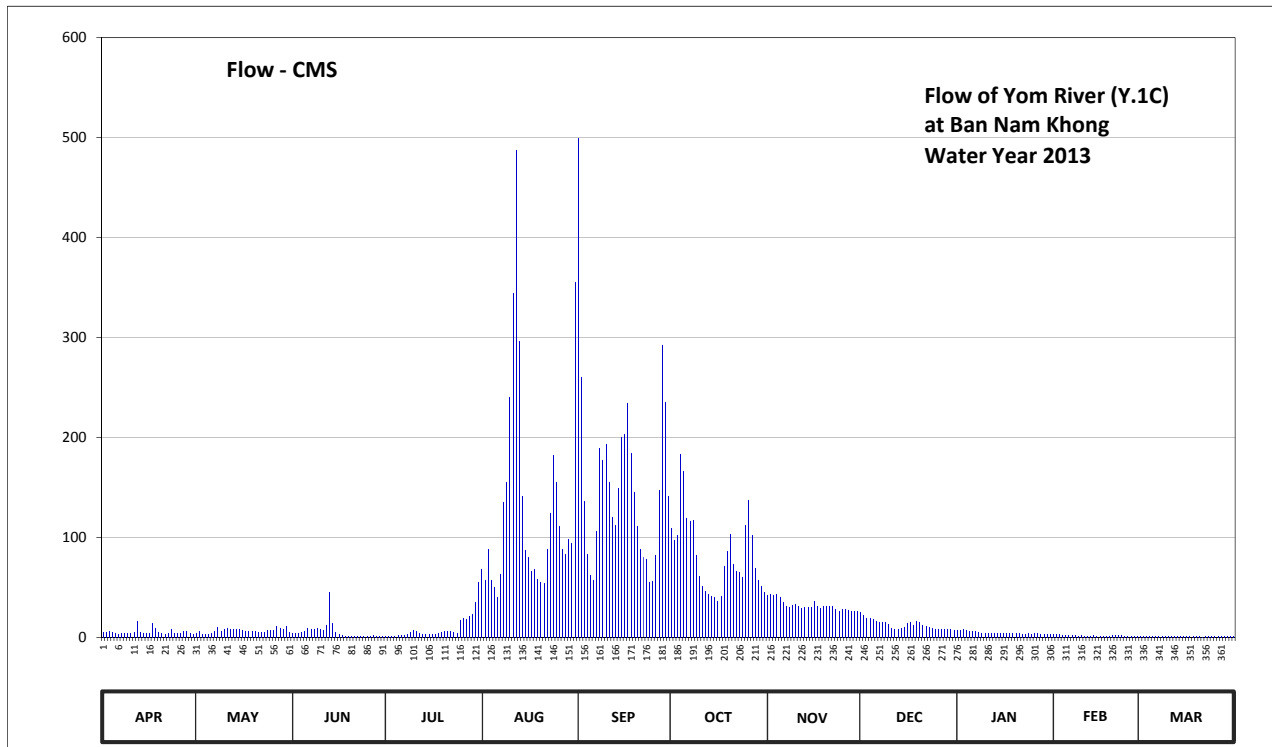
**Location : on right bank about 5 meters downstream from Phathana Phak Nua 8 Bridge**

|                                         |                                                                             |           |               |        |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|--------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Nam Khong | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Phrae              |
| <b>Drainage Area</b>                    | 7,749                                                                       | sq.km.    |               |        |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                     |           |               |        |                  |                    |
| <b>Zero Gage at Bottom</b>              | +143.500                                                                    | m. (MSL.) |               |        |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |        |                  |                    |
| <b>Location BM</b>                      | In front of the station office                                              |           |               |        | <b>Elevation</b> | +153.972 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |        |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |        |                  |                    |
| <b>Period of Available Gage Records</b> | 1979 to date                                                                |           |               |        |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |           |               |        |                  |                    |
| <b>Period of Rating</b>                 | 1979 to date                                                                |           |               |        |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |        |                  |                    |
| <b>Rated by Current Meter</b>           | 1979 to date                                                                |           |               |        |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                         |           |               |        |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |        |                  |                    |
| <b>General Description</b>              | Records good. Mae yom weir situated about 76 kilometers above gage site.    |           |               |        |                  |                    |
|                                         | Stage-discharge relation defined by 44 discharge measurements made in 2013. |           |               |        |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                           | Jul         | Aug    | Sep           | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |  |
|----------------------------------|--------|--------|-----------------------------------------------|-------------|--------|---------------|--------|-------------------|--------|--------|--------|--------|--------|--|
| 1                                | 144.35 | 144.32 | 144.32                                        | 144.18      | 144.99 | 148.60        | 145.43 | 144.71            | 144.50 | 144.21 | 144.08 | 143.97 |        |  |
| 2                                | 144.36 | 144.38 | 144.32                                        | 144.19      | 144.88 | 146.80        | 145.30 | 144.72            | 144.46 | 144.21 | 144.07 | 143.97 |        |  |
| 3                                | 144.38 | 144.31 | 144.33                                        | 144.20      | 145.21 | 145.69        | 145.35 | 144.71            | 144.43 | 144.23 | 144.06 | 143.97 |        |  |
| 4                                | 144.35 | 144.30 | 144.35                                        | 144.22      | 144.88 | 145.15        | 146.15 | 144.72            | 144.42 | 144.21 | 144.04 | 143.97 |        |  |
| 5                                | 144.33 | 144.30 | 144.39                                        | 144.24      | 144.80 | 144.93        | 146.00 | 144.68            | 144.41 | 144.19 | 144.02 | 143.96 |        |  |
| 6                                | 144.31 | 144.32 | 144.45                                        | 144.25      | 144.68 | 144.88        | 145.52 | 144.62            | 144.39 | 144.19 | 144.03 | 143.96 |        |  |
| 7                                | 144.33 | 144.39 | 144.43                                        | 144.27      | 144.94 | 145.39        | 145.50 | 144.57            | 144.37 | 144.18 | 144.03 | 143.96 |        |  |
| 8                                | 144.34 | 144.48 | 144.44                                        | 144.29      | 145.68 | 146.20        | 145.51 | 144.56            | 144.37 | 144.16 | 144.04 | 143.96 |        |  |
| 9                                | 144.34 | 144.38 | 144.45                                        | 144.36      | 145.88 | 146.10        | 145.14 | 144.59            | 144.36 | 144.13 | 143.99 | 143.96 |        |  |
| 10                               | 144.33 | 144.43 | 144.43                                        | 144.42      | 146.64 | 146.24        | 144.92 | 144.60            | 144.34 | 144.13 | 144.01 | 143.96 |        |  |
| 11                               | 144.37 | 144.45 | 144.42                                        | 144.39      | 147.46 | 145.88        | 144.82 | 144.57            | 144.25 | 144.12 | 144.00 | 143.96 |        |  |
| 12                               | 144.58 | 144.43 | 144.52                                        | 144.32      | 148.52 | 145.54        | 144.76 | 144.55            | 144.23 | 144.13 | 144.00 | 143.96 |        |  |
| 13                               | 144.37 | 144.44 | 144.78                                        | 144.31      | 147.09 | 145.46        | 144.72 | 144.56            | 144.22 | 144.12 | 144.00 | 143.95 |        |  |
| 14                               | 144.32 | 144.43 | 144.54                                        | 144.30      | 145.74 | 145.83        | 144.70 | 144.56            | 144.25 | 144.12 | 144.01 | 143.95 |        |  |
| 15                               | 144.32 | 144.43 | 144.36                                        | 144.28      | 145.19 | 146.30        | 144.68 | 144.56            | 144.27 | 144.10 | 144.00 | 143.95 |        |  |
| 16                               | 144.32 | 144.42 | 144.28                                        | 144.28      | 145.12 | 146.33        | 144.64 | 144.64            | 144.35 | 144.11 | 144.00 | 143.95 |        |  |
| 17                               | 144.55 | 144.40 | 144.24                                        | 144.29      | 144.97 | 146.59        | 144.70 | 144.58            | 144.36 | 144.12 | 144.00 | 143.95 |        |  |
| 18                               | 144.45 | 144.38 | 144.21                                        | 144.34      | 145.00 | 146.16        | 145.03 | 144.55            | 144.31 | 144.12 | 144.00 | 143.96 |        |  |
| 19                               | 144.35 | 144.39 | 144.19                                        | 144.37      | 144.89 | 145.78        | 145.18 | 144.58            | 144.39 | 144.12 | 144.00 | 143.96 |        |  |
| 20                               | 144.33 | 144.38 | 144.18                                        | 144.38      | 144.86 | 145.44        | 145.36 | 144.58            | 144.36 | 144.10 | 144.05 | 143.96 |        |  |
| 21                               | 144.31 | 144.36 | 144.18                                        | 144.38      | 144.85 | 145.20        | 145.05 | 144.58            | 144.31 | 144.11 | 144.05 | 143.93 |        |  |
| 22                               | 144.34 | 144.36 | 144.18                                        | 144.39      | 145.21 | 145.12        | 144.97 | 144.58            | 144.29 | 144.09 | 144.03 | 143.95 |        |  |
| 23                               | 144.44 | 144.35 | 144.17                                        | 144.35      | 145.57 | 145.10        | 144.96 | 144.54            | 144.28 | 144.09 | 144.02 | 143.96 |        |  |
| 24                               | 144.34 | 144.41 | 144.16                                        | 144.32      | 146.14 | 144.86        | 144.91 | 144.51            | 144.26 | 144.10 | 144.00 | 143.97 |        |  |
| 25                               | 144.33 | 144.42 | 144.17                                        | 144.40      | 145.88 | 144.87        | 145.45 | 144.54            | 144.24 | 144.09 | 144.00 | 143.97 |        |  |
| 26                               | 144.32 | 144.41 | 144.21                                        | 144.43      | 145.44 | 145.14        | 145.71 | 144.54            | 144.23 | 144.10 | 144.00 | 143.96 |        |  |
| 27                               | 144.38 | 144.49 | 144.23                                        | 144.41      | 145.21 | 145.80        | 145.35 | 144.53            | 144.24 | 144.10 | 143.99 | 143.96 |        |  |
| 28                               | 144.40 | 144.46 | 144.21                                        | 144.45      | 145.15 | 147.06        | 145.01 | 144.51            | 144.24 | 144.09 | 143.97 | 143.96 |        |  |
| 29                               | 144.34 | 144.43 | 144.20                                        | 144.48      | 145.31 | 146.60        | 144.88 | 144.52            | 144.24 | 144.09 |        | 143.95 |        |  |
| 30                               | 144.31 | 144.50 | 144.19                                        | 144.62      | 145.27 | 145.74        | 144.81 | 144.51            | 144.22 | 144.08 |        | 143.96 |        |  |
| 31                               |        | 144.37 |                                               | 144.86      | 147.55 |               | 144.75 |                   | 144.21 | 144.08 |        | 143.95 |        |  |
| Mean                             | 144.36 | 144.40 | 144.32                                        | 144.35      | 145.58 | 145.83        | 145.14 | 144.59            | 144.32 | 144.13 | 144.02 | 143.96 |        |  |
| Max                              | 144.58 | 144.50 | 144.78                                        | 144.86      | 148.52 | 148.60        | 146.15 | 144.72            | 144.50 | 144.23 | 144.08 | 143.97 | 148.60 |  |
| Min                              | 144.31 | 144.30 | 144.16                                        | 144.18      | 144.68 | 144.86        | 144.64 | 144.51            | 144.21 | 144.08 | 143.97 | 143.93 | 143.93 |  |
| Annual Max Momentary Gage Height |        | 149.45 | m. (MSL.) , at 23.00 Hours , on Aug 31 , 2013 |             |        |               |        |                   |        |        |        |        |        |  |
| Zero Gage at Bottom Elevation    |        |        | 143.50                                        | m. (MSL.) , |        | River Bed     | 142.83 | m. (MSL.)         |        |        |        |        |        |  |
| Left Bank Elevation              |        |        | 154.00                                        | m. (MSL.) , |        |               |        |                   |        |        |        |        |        |  |
| Right Bank Elevation             |        |        | 154.03                                        | m. (MSL.) , |        | Drainage Area | 7749   | Square Kilometers |        |        |        |        |        |  |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan    | Feb   | Mar   | Annual          |
|----------------|--------|-----------------------------------------------------------|--------|--------|----------------------|---------|---------|--------|--------------------------|--------|-------|-------|-----------------|
| 1              | 5.20   | 4.18                                                      | 4.18   | 1.36   | 68.05                | 499.00  | 110.00  | 42.58  | 25.20                    | 7.45   | 3.56  | 1.41  |                 |
| 2              | 5.54   | 6.22                                                      | 4.18   | 1.43   | 57.60                | 260.00  | 97.50   | 43.40  | 22.12                    | 7.45   | 3.34  | 1.41  |                 |
| 3              | 6.22   | 3.84                                                      | 4.52   | 1.50   | 88.95                | 136.00  | 102.25  | 42.58  | 19.81                    | 8.35   | 3.12  | 1.41  |                 |
| 4              | 5.20   | 3.50                                                      | 5.20   | 1.90   | 57.60                | 83.25   | 183.50  | 43.40  | 19.04                    | 7.45   | 2.68  | 1.41  |                 |
| 5              | 4.52   | 3.50                                                      | 6.56   | 2.30   | 50.00                | 62.35   | 167.00  | 40.10  | 18.27                    | 6.70   | 2.24  | 1.28  |                 |
| 6              | 3.84   | 4.18                                                      | 9.20   | 2.50   | 40.10                | 57.60   | 119.00  | 35.15  | 16.90                    | 6.70   | 2.46  | 1.28  |                 |
| 7              | 4.52   | 6.56                                                      | 8.28   | 2.90   | 63.30                | 106.05  | 117.00  | 31.01  | 15.70                    | 6.40   | 2.46  | 1.28  |                 |
| 8              | 4.86   | 10.58                                                     | 8.74   | 3.30   | 135.00               | 189.00  | 118.00  | 30.18  | 15.70                    | 5.80   | 2.68  | 1.28  |                 |
| 9              | 4.86   | 6.22                                                      | 9.20   | 5.54   | 155.00               | 178.00  | 82.30   | 32.67  | 15.10                    | 4.90   | 1.67  | 1.28  |                 |
| 10             | 4.52   | 8.28                                                      | 8.28   | 7.82   | 240.00               | 193.60  | 61.40   | 33.50  | 13.90                    | 4.90   | 2.02  | 1.28  |                 |
| 11             | 5.88   | 9.20                                                      | 7.82   | 6.56   | 343.80               | 155.00  | 51.90   | 31.01  | 9.25                     | 4.60   | 1.80  | 1.28  |                 |
| 12             | 16.70  | 8.28                                                      | 12.80  | 4.18   | 487.40               | 121.00  | 46.70   | 29.35  | 8.35                     | 4.90   | 1.80  | 1.28  |                 |
| 13             | 5.88   | 8.74                                                      | 45.60  | 3.84   | 296.25               | 113.00  | 43.40   | 30.18  | 7.90                     | 4.60   | 1.80  | 1.15  |                 |
| 14             | 4.18   | 8.28                                                      | 14.10  | 3.50   | 141.00               | 150.00  | 41.75   | 30.18  | 9.25                     | 4.60   | 2.02  | 1.15  |                 |
| 15             | 4.18   | 8.28                                                      | 5.54   | 3.10   | 87.05                | 200.50  | 40.10   | 30.18  | 10.15                    | 4.00   | 1.80  | 1.15  |                 |
| 16             | 4.18   | 7.82                                                      | 3.10   | 3.10   | 80.40                | 203.95  | 36.80   | 36.80  | 14.50                    | 4.30   | 1.80  | 1.15  |                 |
| 17             | 14.75  | 6.90                                                      | 2.30   | 3.30   | 66.15                | 233.85  | 41.75   | 31.84  | 15.10                    | 4.60   | 1.80  | 1.15  |                 |
| 18             | 9.20   | 6.22                                                      | 1.70   | 4.86   | 69.00                | 184.60  | 71.85   | 29.35  | 12.10                    | 4.60   | 1.80  | 1.28  |                 |
| 19             | 5.20   | 6.56                                                      | 1.43   | 5.88   | 58.55                | 145.00  | 86.10   | 31.84  | 16.90                    | 4.60   | 1.80  | 1.28  |                 |
| 20             | 4.52   | 6.22                                                      | 1.36   | 6.22   | 55.70                | 111.00  | 103.20  | 31.84  | 15.10                    | 4.00   | 2.90  | 1.28  |                 |
| 21             | 3.84   | 5.54                                                      | 1.36   | 6.22   | 54.75                | 88.00   | 73.75   | 31.84  | 12.10                    | 4.30   | 2.90  | 0.89  |                 |
| 22             | 4.86   | 5.54                                                      | 1.36   | 6.56   | 88.95                | 80.40   | 66.15   | 31.84  | 11.05                    | 3.78   | 2.46  | 1.15  |                 |
| 23             | 8.74   | 5.20                                                      | 1.29   | 5.20   | 124.00               | 78.50   | 65.20   | 28.52  | 10.60                    | 3.78   | 2.24  | 1.28  |                 |
| 24             | 4.86   | 7.36                                                      | 1.22   | 4.18   | 182.40               | 55.70   | 60.45   | 26.03  | 9.70                     | 4.00   | 1.80  | 1.41  |                 |
| 25             | 4.52   | 7.82                                                      | 1.29   | 17.50  | 155.00               | 56.65   | 112.00  | 28.52  | 8.80                     | 3.78   | 1.80  | 1.41  |                 |
| 26             | 4.18   | 7.36                                                      | 1.70   | 19.81  | 111.00               | 82.30   | 138.00  | 28.52  | 8.35                     | 4.00   | 1.80  | 1.28  |                 |
| 27             | 6.22   | 11.04                                                     | 2.10   | 18.27  | 88.95                | 147.00  | 102.25  | 27.69  | 8.80                     | 4.00   | 1.67  | 1.28  |                 |
| 28             | 6.90   | 9.66                                                      | 1.70   | 21.35  | 83.25                | 292.50  | 69.95   | 26.03  | 8.80                     | 3.78   | 1.41  | 1.28  |                 |
| 29             | 4.86   | 8.28                                                      | 1.50   | 23.66  | 98.45                | 235.00  | 57.60   | 26.86  | 8.80                     | 3.78   |       | 1.15  |                 |
| 30             | 3.84   | 11.50                                                     | 1.43   | 35.15  | 94.65                | 141.00  | 50.95   | 26.03  | 7.90                     | 3.56   |       | 1.28  |                 |
| 31             |        | 5.88                                                      |        | 55.70  | 355.50               |         | 45.87   |        | 7.45                     | 3.56   |       | 1.15  |                 |
| Total          | 176.77 | 218.74                                                    | 179.04 | 288.69 | 4077.80              | 4639.80 | 2563.67 | 969.02 | 402.69                   | 153.22 | 61.63 | 39.03 | 13770.10 CMSDAY |
| Mean           | 5.89   | 7.06                                                      | 5.97   | 9.31   | 131.54               | 154.66  | 82.70   | 32.30  | 12.99                    | 4.94   | 2.20  | 1.26  | 37.73 CMS       |
| Max            | 16.70  | 11.50                                                     | 45.60  | 55.70  | 487.40               | 499.00  | 183.50  | 43.40  | 25.20                    | 8.35   | 3.56  | 1.41  | 499.00 CMS      |
| Min            | 3.84   | 3.50                                                      | 1.22   | 1.36   | 40.10                | 55.70   | 36.80   | 26.03  | 7.45                     | 3.56   | 1.41  | 0.89  | 0.89 CMS        |
| Runoff         | 15.27  | 18.90                                                     | 15.47  | 24.94  | 352.32               | 400.88  | 221.50  | 83.72  | 34.79                    | 13.24  | 5.33  | 3.37  | 1189.74 MCM     |
| Momentary Peak | 622.25 | CMS. at 149.45 m. (MSL.) at 23.00 Hours , on Aug 31, 2013 |        |        |                      |         |         |        |                          |        |       |       |                 |
| Runoff Yield   | 4.87   | Liters/Second/Square KM.                                  |        |        | Momentary Peak Yield |         |         | 80.301 | Liters/Second/Square KM. |        |       |       |                 |

## WATER YEAR : 2013

## YOM RIVER BASIN

**Yom River at Ban Wang Mai Khon , Sukhothai (Y.3A)**

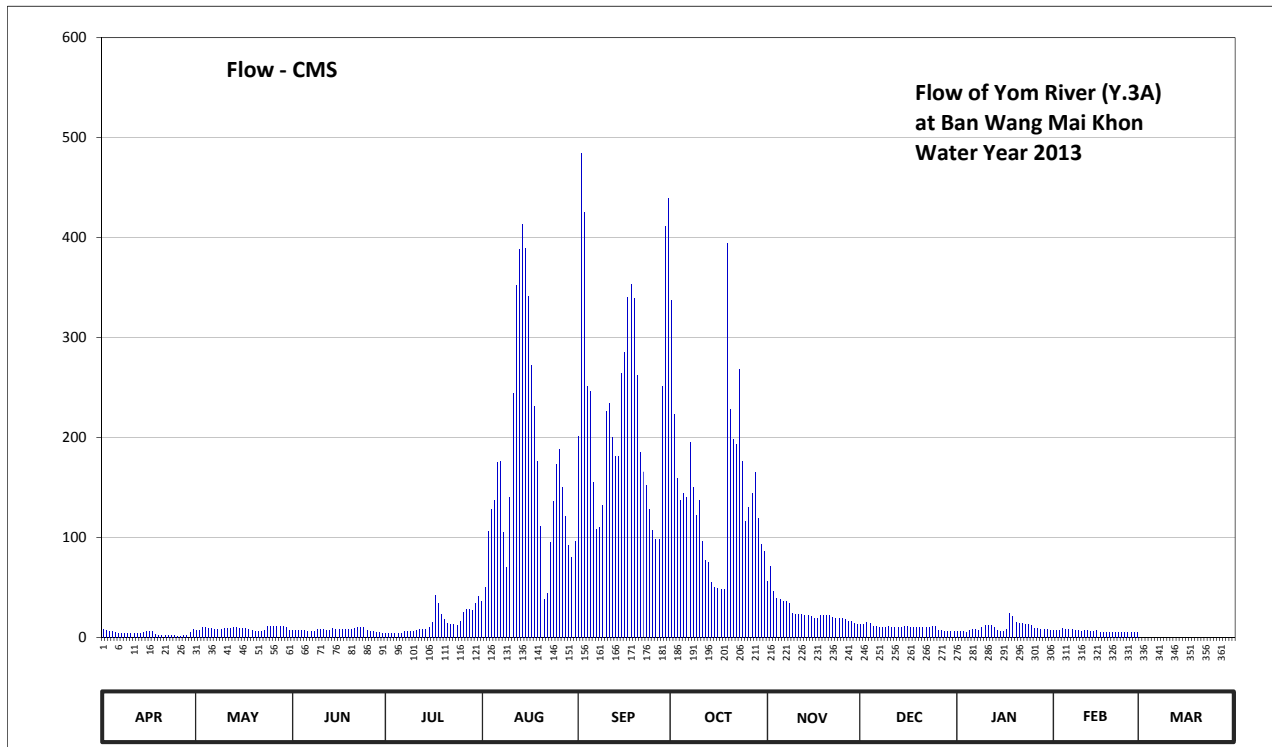
Lat 17 - 18 - 28 N      Long 99 - 49 - 44 E

**Location :** on right bank about 100 meters downstream from the bridge on highway.

|                                         |                                                                                           |               |               |             |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Wang Mai Khon | <b>Amphoe</b> | Sawankhalok | <b>Changwat</b>  | Sukhothai         |
| <b>Drainage Area</b>                    | 13,331                                                                                    | sq.km.        |               |             |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |               |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +51.000                                                                                   | m. (MSL.)     |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |               |             |                  |                   |
| <b>Location BM</b>                      | In front of automatic gage building.                                                      |               |               |             | <b>Elevation</b> | +65.350 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |               |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |               |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 1967 to date                                                                              |               |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |               |               |             |                  |                   |
| <b>Period of Rating</b>                 | 1967 to date                                                                              |               |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 1967 to date                                                                              |               |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |               |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 24 discharge measurements made in 2013. |               |               |             |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

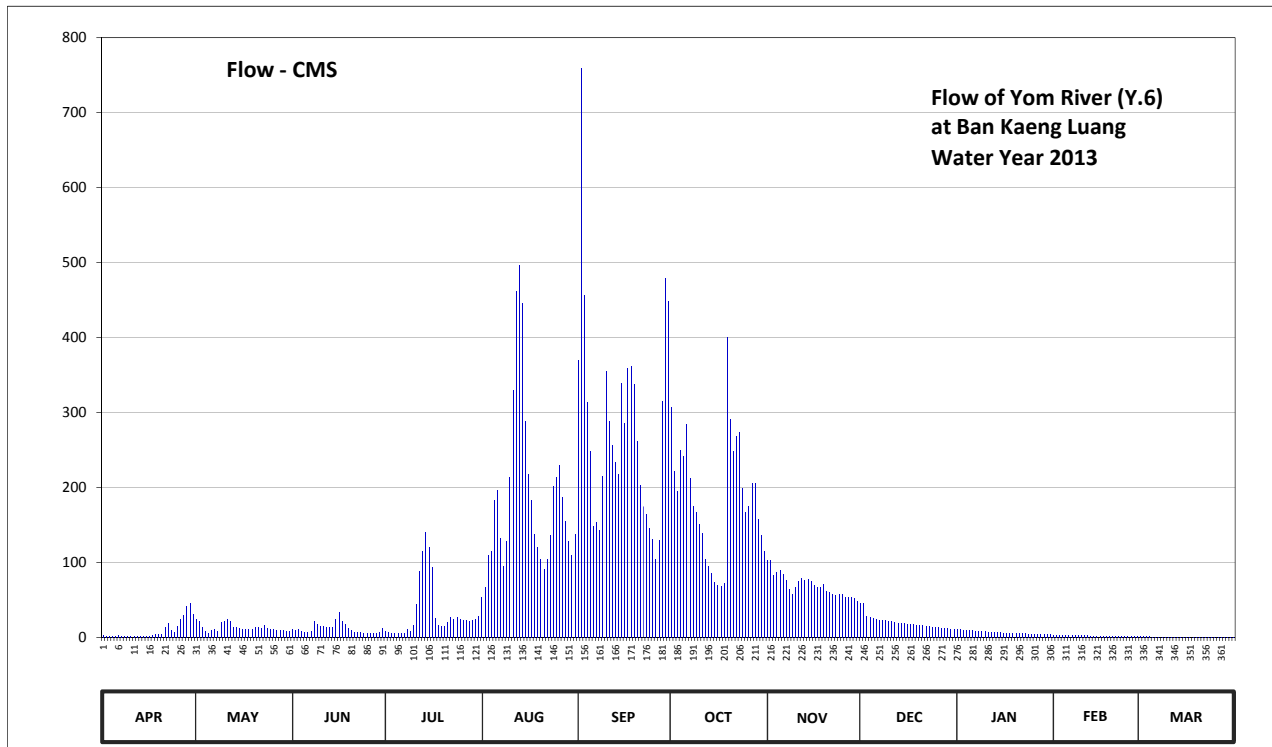
| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 50.88 | 50.85 | 50.85                                             | 50.75 | 51.60 | 54.22 | 55.85 | 51.99 | 51.04 | 50.82 | 50.85 | 50.36 |        |
| 2                                | 50.84 | 50.85 | 50.86                                             | 50.73 | 51.87 | 57.46 | 54.49 | 52.26 | 51.04 | 50.80 | 50.84 | 50.36 |        |
| 3                                | 50.82 | 50.94 | 50.85                                             | 50.72 | 52.86 | 56.83 | 53.65 | 51.78 | 51.10 | 50.80 | 50.86 | 50.36 |        |
| 4                                | 50.81 | 50.95 | 50.85                                             | 50.73 | 53.20 | 54.84 | 53.34 | 51.64 | 51.08 | 50.78 | 50.92 | 50.36 |        |
| 5                                | 50.79 | 50.93 | 50.84                                             | 50.73 | 53.34 | 54.78 | 53.43 | 51.63 | 50.97 | 50.84 | 50.90 | 50.36 |        |
| 6                                | 50.75 | 50.91 | 50.80                                             | 50.73 | 53.87 | 53.59 | 53.38 | 51.59 | 50.97 | 50.89 | 50.89 | 50.36 |        |
| 7                                | 50.75 | 50.90 | 50.80                                             | 50.80 | 53.88 | 52.89 | 54.14 | 51.58 | 50.96 | 50.87 | 50.87 | 50.35 |        |
| 8                                | 50.75 | 50.90 | 50.82                                             | 50.80 | 52.84 | 52.93 | 53.52 | 51.55 | 50.95 | 50.86 | 50.85 | 50.35 |        |
| 9                                | 50.72 | 50.90 | 50.88                                             | 50.82 | 52.24 | 53.26 | 53.11 | 51.34 | 50.96 | 50.94 | 50.84 | 50.35 |        |
| 10                               | 50.70 | 50.91 | 50.87                                             | 50.83 | 53.38 | 54.53 | 53.33 | 51.30 | 50.97 | 51.02 | 50.81 | 50.35 |        |
| 11                               | 50.70 | 50.93 | 50.87                                             | 50.85 | 54.75 | 54.62 | 52.70 | 51.30 | 50.96 | 51.02 | 50.86 | 50.35 |        |
| 12                               | 50.75 | 50.93 | 50.85                                             | 50.88 | 56.02 | 54.21 | 52.36 | 51.30 | 50.96 | 51.01 | 50.85 | 50.35 |        |
| 13                               | 50.75 | 50.94 | 50.86                                             | 50.87 | 56.42 | 53.95 | 52.32 | 51.29 | 50.96 | 50.96 | 50.83 | 50.35 |        |
| 14                               | 50.77 | 50.95 | 50.92                                             | 50.88 | 56.70 | 53.96 | 51.97 | 51.29 | 50.96 | 50.84 | 50.80 | 50.35 |        |
| 15                               | 50.80 | 50.92 | 50.88                                             | 50.94 | 56.43 | 55.00 | 51.86 | 51.27 | 50.98 | 50.83 | 50.84 | 50.34 |        |
| 16                               | 50.80 | 50.92 | 50.88                                             | 51.11 | 55.90 | 55.26 | 51.85 | 51.22 | 50.98 | 50.82 | 50.79 | 50.34 |        |
| 17                               | 50.80 | 50.92 | 50.88                                             | 51.71 | 55.10 | 55.88 | 51.84 | 51.21 | 50.96 | 50.89 | 50.77 | 50.34 |        |
| 18                               | 50.65 | 50.90 | 50.88                                             | 51.54 | 54.59 | 56.03 | 51.82 | 51.28 | 50.94 | 51.34 | 50.77 | 50.34 |        |
| 19                               | 50.61 | 50.84 | 50.90                                             | 51.30 | 53.89 | 55.87 | 56.49 | 51.29 | 50.96 | 51.26 | 50.77 | 50.33 |        |
| 20                               | 50.61 | 50.80 | 50.90                                             | 51.18 | 52.94 | 54.98 | 54.56 | 51.28 | 50.96 | 51.11 | 50.77 | 50.33 |        |
| 21                               | 50.64 | 50.80 | 50.92                                             | 51.07 | 51.63 | 54.01 | 54.18 | 51.28 | 50.95 | 51.07 | 50.77 | 50.33 |        |
| 22                               | 50.64 | 50.80 | 50.95                                             | 51.05 | 51.74 | 53.74 | 54.12 | 51.25 | 50.95 | 51.07 | 50.77 | 50.33 |        |
| 23                               | 50.62 | 50.85 | 50.95                                             | 51.04 | 52.67 | 53.55 | 55.05 | 51.22 | 50.96 | 51.06 | 50.77 | 50.33 |        |
| 24                               | 50.60 | 50.99 | 50.95                                             | 51.01 | 53.32 | 53.20 | 53.88 | 51.20 | 50.98 | 51.06 | 50.78 | 50.33 |        |
| 25                               | 50.58 | 50.99 | 50.85                                             | 51.14 | 53.84 | 52.87 | 53.03 | 51.20 | 50.98 | 51.00 | 50.78 | 50.33 |        |
| 26                               | 50.58 | 50.99 | 50.83                                             | 51.37 | 54.04 | 52.73 | 53.24 | 51.18 | 50.85 | 50.93 | 50.79 | 50.33 |        |
| 27                               | 50.60 | 50.99 | 50.83                                             | 51.42 | 53.52 | 52.72 | 53.44 | 51.13 | 50.84 | 50.91 | 50.78 | 50.33 |        |
| 28                               | 50.64 | 50.99 | 50.79                                             | 51.43 | 53.10 | 54.84 | 53.74 | 51.14 | 50.83 | 50.89 | 50.77 | 50.33 |        |
| 29                               | 50.78 | 50.98 | 50.76                                             | 51.40 | 52.63 | 56.67 | 53.07 | 51.08 | 50.82 | 50.88 |       | 50.33 |        |
| 30                               | 50.87 | 50.94 | 50.75                                             | 51.55 | 52.42 | 56.98 | 52.64 | 51.05 | 50.83 | 50.88 |       | 50.33 |        |
| 31                               |       | 50.85 |                                                   | 51.69 | 52.69 |       | 52.53 |       | 50.82 | 50.86 |       | 50.33 |        |
| Mean                             | 50.72 | 50.91 | 50.86                                             | 51.07 | 53.66 | 54.55 | 53.38 | 51.37 | 50.95 | 50.95 | 50.82 | 50.34 |        |
| Max                              | 50.88 | 50.99 | 50.95                                             | 51.71 | 56.70 | 57.46 | 56.49 | 52.26 | 51.10 | 51.34 | 50.92 | 50.36 | 57.46  |
| Min                              | 50.58 | 50.80 | 50.75                                             | 50.72 | 51.60 | 52.72 | 51.82 | 51.05 | 50.82 | 50.78 | 50.77 | 50.33 | 50.33  |
| Annual Max Momentary Gage Height | 57.66 |       | m. (MSL.) , at 18.00 Hours , on Sep 2 , 2013      |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 51.00 |       | m. (MSL.) , River Bed 49.67 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 62.45 |       | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 61.06 |       | m. (MSL.) , Drainage Area 13331 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar  | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|------|-----------------|
| 1              | 8.40                                                            | 7.50                     | 7.50   | 5.00                 | 37.00   | 201.60  | 337.00                   | 56.95  | 13.20  | 6.60   | 7.50   | 0.00 |                 |
| 2              | 7.20                                                            | 7.50                     | 7.80   | 4.60                 | 50.50   | 484.20  | 223.20                   | 71.80  | 13.20  | 6.00   | 7.20   | 0.00 |                 |
| 3              | 6.60                                                            | 10.20                    | 7.50   | 4.40                 | 106.60  | 425.20  | 159.50                   | 46.00  | 15.00  | 6.00   | 7.80   | 0.00 |                 |
| 4              | 6.30                                                            | 10.50                    | 7.50   | 4.60                 | 128.00  | 251.20  | 137.80                   | 39.00  | 14.40  | 5.60   | 9.60   | 0.00 |                 |
| 5              | 5.80                                                            | 9.90                     | 7.20   | 4.60                 | 137.80  | 246.40  | 144.10                   | 38.50  | 11.10  | 7.20   | 9.00   | 0.00 |                 |
| 6              | 5.00                                                            | 9.30                     | 6.00   | 4.60                 | 175.25  | 155.30  | 140.60                   | 36.50  | 11.10  | 8.70   | 8.70   | 0.00 |                 |
| 7              | 5.00                                                            | 9.00                     | 6.00   | 6.00                 | 176.00  | 108.40  | 195.50                   | 36.00  | 10.80  | 8.10   | 8.10   | 0.00 |                 |
| 8              | 5.00                                                            | 9.00                     | 6.60   | 6.00                 | 105.40  | 110.80  | 150.40                   | 34.50  | 10.50  | 7.80   | 7.50   | 0.00 |                 |
| 9              | 4.40                                                            | 9.00                     | 8.40   | 6.60                 | 70.70   | 132.20  | 122.15                   | 24.60  | 10.80  | 10.20  | 7.20   | 0.00 |                 |
| 10             | 4.00                                                            | 9.30                     | 8.10   | 6.90                 | 140.60  | 226.40  | 137.10                   | 23.00  | 11.10  | 12.60  | 6.30   | 0.00 |                 |
| 11             | 4.00                                                            | 9.90                     | 8.10   | 7.50                 | 244.00  | 233.60  | 97.00                    | 23.00  | 10.80  | 12.60  | 7.80   | 0.00 |                 |
| 12             | 5.00                                                            | 9.90                     | 7.50   | 8.40                 | 352.30  | 200.80  | 77.30                    | 23.00  | 10.80  | 12.30  | 7.50   | 0.00 |                 |
| 13             | 5.00                                                            | 10.20                    | 7.80   | 8.10                 | 388.30  | 181.25  | 75.10                    | 22.60  | 10.80  | 10.80  | 6.90   | 0.00 |                 |
| 14             | 5.40                                                            | 10.50                    | 9.60   | 8.40                 | 413.50  | 182.00  | 55.85                    | 22.60  | 10.80  | 7.20   | 6.00   | 0.00 |                 |
| 15             | 6.00                                                            | 9.60                     | 8.40   | 10.20                | 389.20  | 264.00  | 50.00                    | 21.80  | 11.40  | 6.90   | 7.20   | 0.00 |                 |
| 16             | 6.00                                                            | 9.60                     | 8.40   | 15.40                | 341.50  | 285.60  | 49.50                    | 19.80  | 11.40  | 6.60   | 5.80   | 0.00 |                 |
| 17             | 6.00                                                            | 9.60                     | 8.40   | 42.50                | 272.00  | 339.70  | 49.00                    | 19.40  | 10.80  | 8.70   | 5.40   | 0.00 |                 |
| 18             | 3.00                                                            | 9.00                     | 8.40   | 34.00                | 231.20  | 353.20  | 48.00                    | 22.20  | 10.20  | 24.60  | 5.40   | 0.00 |                 |
| 19             | 2.20                                                            | 7.20                     | 9.00   | 23.00                | 176.75  | 338.80  | 394.60                   | 22.60  | 10.80  | 21.40  | 5.40   | 0.00 |                 |
| 20             | 2.20                                                            | 6.00                     | 9.00   | 18.20                | 111.40  | 262.40  | 228.80                   | 22.20  | 10.80  | 15.40  | 5.40   | 0.00 |                 |
| 21             | 2.80                                                            | 6.00                     | 9.60   | 14.10                | 38.50   | 185.75  | 198.50                   | 22.20  | 10.50  | 14.10  | 5.40   | 0.00 |                 |
| 22             | 2.80                                                            | 6.00                     | 10.50  | 13.50                | 44.00   | 165.80  | 194.00                   | 21.00  | 10.50  | 14.10  | 5.40   | 0.00 |                 |
| 23             | 2.40                                                            | 7.50                     | 10.50  | 13.20                | 95.20   | 152.50  | 268.00                   | 19.80  | 10.80  | 13.80  | 5.40   | 0.00 |                 |
| 24             | 2.00                                                            | 11.70                    | 10.50  | 12.30                | 136.40  | 128.00  | 176.00                   | 19.00  | 11.40  | 13.80  | 5.60   | 0.00 |                 |
| 25             | 1.80                                                            | 11.70                    | 7.50   | 16.60                | 173.00  | 107.20  | 116.95                   | 19.00  | 11.40  | 12.00  | 5.60   | 0.00 |                 |
| 26             | 1.80                                                            | 11.70                    | 6.90   | 25.80                | 188.00  | 98.80   | 130.80                   | 18.20  | 7.50   | 9.90   | 5.80   | 0.00 |                 |
| 27             | 2.00                                                            | 11.70                    | 6.90   | 28.00                | 150.40  | 98.20   | 144.80                   | 16.20  | 7.20   | 9.30   | 5.60   | 0.00 |                 |
| 28             | 2.80                                                            | 11.70                    | 5.80   | 28.50                | 121.50  | 251.20  | 165.80                   | 16.60  | 6.90   | 8.70   | 5.40   | 0.00 |                 |
| 29             | 5.60                                                            | 11.40                    | 5.20   | 27.00                | 92.80   | 410.80  | 119.55                   | 14.40  | 6.60   | 8.40   |        | 0.00 |                 |
| 30             | 8.10                                                            | 10.20                    | 5.00   | 34.50                | 80.60   | 438.70  | 93.40                    | 13.50  | 6.90   | 8.40   |        | 0.00 |                 |
| 31             |                                                                 | 7.50                     |        | 41.50                | 96.40   |         | 86.80                    |        | 6.60   | 7.80   |        | 0.00 |                 |
| Total          | 134.60                                                          | 289.80                   | 235.60 | 484.00               | 5264.80 | 7020.00 | 4567.10                  | 805.95 | 326.10 | 325.60 | 185.90 | 0.00 | 19639.45 CMSDAY |
| Mean           | 4.49                                                            | 9.35                     | 7.85   | 15.61                | 169.83  | 234.00  | 147.33                   | 26.87  | 10.52  | 10.50  | 6.64   | 0.00 | 53.81 CMS       |
| Max            | 8.40                                                            | 11.70                    | 10.50  | 42.50                | 413.50  | 484.20  | 394.60                   | 71.80  | 15.00  | 24.60  | 9.60   | 0.00 | 484.20 CMS      |
| Min            | 1.80                                                            | 6.00                     | 5.00   | 4.40                 | 37.00   | 98.20   | 48.00                    | 13.50  | 6.60   | 5.60   | 5.40   | 0.00 | 0.00 CMS        |
| Runoff         | 11.63                                                           | 25.04                    | 20.36  | 41.82                | 454.88  | 606.53  | 394.60                   | 69.63  | 28.18  | 28.13  | 16.06  | 0.00 | 1696.85 MCM     |
| Momentary Peak | 503.20 CMS. at 57.66 m. (MSL.) at 18.00 Hours , on Sep 2 , 2013 |                          |        |                      |         |         |                          |        |        |        |        |      |                 |
| Runoff Yield   | 4.04                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 37.747  | Liters/Second/Square KM. |        |        |        |        |      |                 |

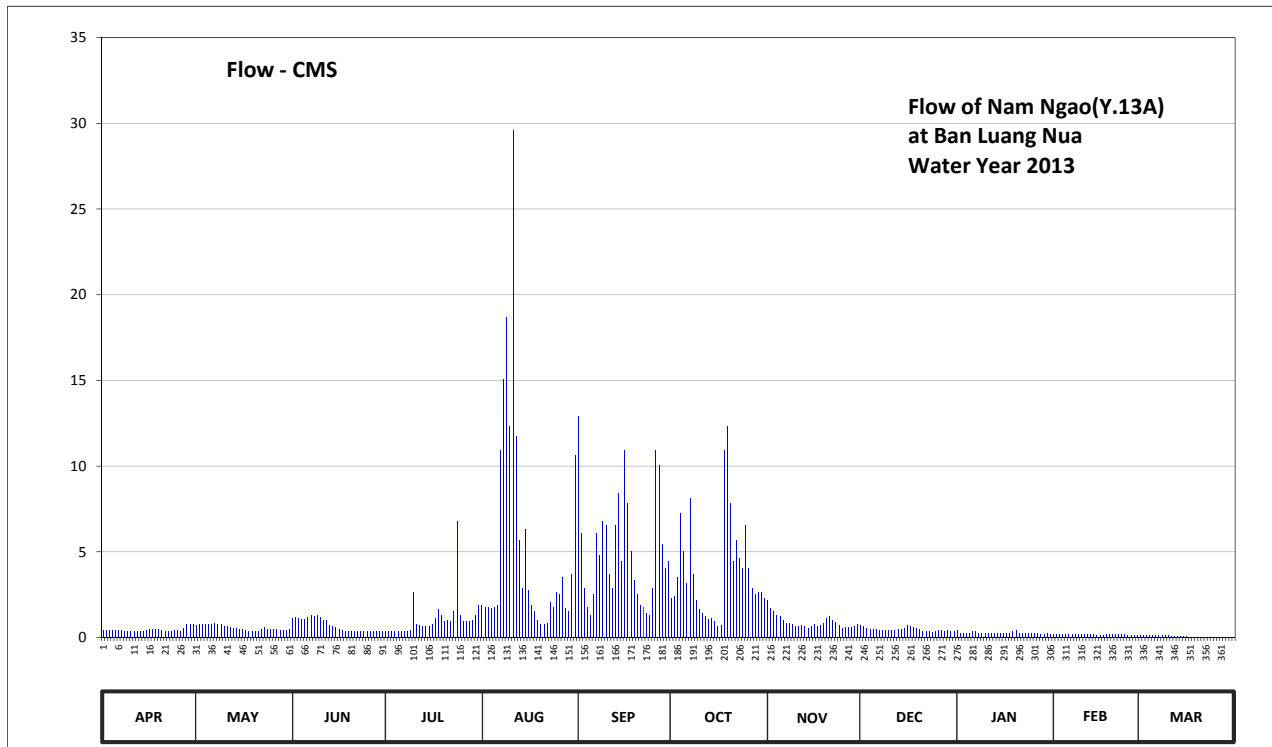




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun    | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb   | Mar   | Annual   |        |
|----------------|--------|----------------------------------------------------------|--------|---------|----------------------|---------|---------|---------|--------------------------|--------|-------|-------|----------|--------|
| 1              | 3.00   | 24.60                                                    | 11.00  | 9.20    | 53.80                | 369.30  | 307.80  | 103.00  | 46.50                    | 11.00  | 3.88  | 1.52  |          |        |
| 2              | 2.60   | 21.40                                                    | 9.50   | 7.80    | 66.80                | 758.60  | 222.50  | 103.00  | 45.50                    | 10.64  | 3.75  | 1.46  |          |        |
| 3              | 2.30   | 14.00                                                    | 11.90  | 6.20    | 110.30               | 456.80  | 195.50  | 83.40   | 28.60                    | 10.29  | 3.63  | 1.41  |          |        |
| 4              | 2.60   | 8.60                                                     | 8.60   | 5.60    | 115.80               | 313.20  | 250.20  | 87.00   | 27.00                    | 9.95   | 3.51  | 1.36  |          |        |
| 5              | 2.40   | 6.60                                                     | 7.40   | 5.40    | 182.80               | 248.60  | 242.20  | 90.00   | 25.40                    | 9.62   | 3.39  | 1.32  |          |        |
| 6              | 2.70   | 10.10                                                    | 6.80   | 5.40    | 197.00               | 149.20  | 284.60  | 85.20   | 24.60                    | 9.30   | 3.28  | 1.28  |          |        |
| 7              | 2.60   | 11.90                                                    | 9.20   | 5.60    | 132.40               | 154.00  | 212.00  | 76.40   | 23.80                    | 8.99   | 3.17  | 1.24  |          |        |
| 8              | 2.50   | 9.20                                                     | 22.20  | 10.70   | 95.00                | 143.20  | 174.80  | 64.40   | 23.40                    | 8.69   | 3.07  | 1.20  |          |        |
| 9              | 2.40   | 21.00                                                    | 18.60  | 8.30    | 128.80               | 215.00  | 167.00  | 58.50   | 23.00                    | 8.40   | 2.97  | 1.16  |          |        |
| 10             | 2.60   | 22.20                                                    | 14.90  | 16.10   | 213.50               | 355.00  | 151.60  | 67.60   | 22.60                    | 8.12   | 2.87  | 1.12  |          |        |
| 11             | 2.50   | 24.60                                                    | 14.90  | 44.50   | 329.70               | 288.00  | 139.60  | 74.80   | 21.40                    | 7.85   | 2.78  | 1.08  |          |        |
| 12             | 2.40   | 21.40                                                    | 14.00  | 89.00   | 461.20               | 256.60  | 105.00  | 78.90   | 20.20                    | 7.59   | 2.69  | 1.04  |          |        |
| 13             | 2.40   | 13.40                                                    | 13.70  | 115.80  | 496.40               | 234.50  | 95.00   | 77.20   | 19.80                    | 7.34   | 2.60  | 1.01  |          |        |
| 14             | 2.30   | 13.70                                                    | 14.00  | 140.80  | 445.80               | 218.00  | 86.10   | 78.00   | 19.40                    | 7.10   | 2.51  | 0.98  |          |        |
| 15             | 2.30   | 13.10                                                    | 24.20  | 120.40  | 288.00               | 339.20  | 74.00   | 74.80   | 19.00                    | 6.87   | 2.43  | 0.95  |          |        |
| 16             | 2.40   | 11.90                                                    | 34.00  | 94.00   | 218.00               | 286.30  | 70.00   | 70.00   | 18.60                    | 6.64   | 2.35  | 0.92  |          |        |
| 17             | 3.70   | 11.00                                                    | 22.60  | 25.40   | 182.80               | 359.00  | 68.40   | 67.60   | 18.20                    | 6.42   | 2.27  | 0.89  |          |        |
| 18             | 4.80   | 10.70                                                    | 17.80  | 17.00   | 138.40               | 361.00  | 73.20   | 66.80   | 17.60                    | 6.21   | 2.20  | 0.86  |          |        |
| 19             | 4.20   | 10.70                                                    | 12.50  | 15.50   | 120.40               | 337.30  | 400.80  | 70.80   | 17.02                    | 6.01   | 2.13  | 0.83  |          |        |
| 20             | 4.60   | 14.00                                                    | 9.50   | 15.20   | 105.00               | 261.40  | 291.60  | 62.00   | 16.46                    | 5.81   | 2.06  | 0.80  |          |        |
| 21             | 14.00  | 13.70                                                    | 7.80   | 20.60   | 91.00                | 203.00  | 248.60  | 60.60   | 15.92                    | 5.62   | 1.99  | 0.77  |          |        |
| 22             | 19.80  | 12.20                                                    | 7.80   | 27.80   | 105.00               | 174.80  | 269.40  | 57.80   | 15.39                    | 5.43   | 1.92  | 0.74  |          |        |
| 23             | 9.80   | 16.70                                                    | 7.20   | 25.00   | 137.20               | 164.40  | 274.40  | 57.10   | 14.88                    | 5.25   | 1.86  | 0.72  |          |        |
| 24             | 7.20   | 12.80                                                    | 6.00   | 27.00   | 201.50               | 145.60  | 200.00  | 58.50   | 14.39                    | 5.08   | 1.80  | 0.70  |          |        |
| 25             | 15.20  | 11.00                                                    | 6.00   | 24.20   | 213.50               | 131.20  | 167.00  | 57.80   | 13.92                    | 4.91   | 1.74  | 0.68  |          |        |
| 26             | 24.60  | 10.70                                                    | 6.40   | 23.40   | 230.00               | 105.00  | 174.80  | 53.80   | 13.46                    | 4.75   | 1.68  | 0.66  |          |        |
| 27             | 30.50  | 10.10                                                    | 5.60   | 23.00   | 187.00               | 130.00  | 206.00  | 53.80   | 13.02                    | 4.59   | 1.62  | 0.64  |          |        |
| 28             | 41.50  | 9.50                                                     | 5.40   | 22.60   | 155.30               | 315.00  | 206.00  | 54.40   | 12.59                    | 4.44   | 1.57  | 0.62  |          |        |
| 29             | 45.50  | 9.80                                                     | 7.00   | 23.00   | 128.80               | 478.80  | 157.90  | 52.00   | 12.17                    | 4.29   |       | 0.60  |          |        |
| 30             | 31.50  | 8.90                                                     | 12.50  | 24.20   | 110.30               | 448.00  | 137.20  | 48.00   | 11.77                    | 4.15   |       | 0.58  |          |        |
| 31             |        | 8.90                                                     |        | 29.00   | 138.40               |         | 114.70  |         | 11.38                    | 4.01   |       | 0.56  |          |        |
| Total          | 296.90 | 418.40                                                   | 369.00 | 1027.70 | 5779.90              | 8400.00 | 5767.90 | 2093.20 | 626.97                   | 215.36 | 71.72 | 29.70 | 25096.75 | CMSDAY |
| Mean           | 9.90   | 13.50                                                    | 12.30  | 33.15   | 186.45               | 280.00  | 186.06  | 69.77   | 20.22                    | 6.95   | 2.56  | 0.96  | 68.76    | CMS    |
| Max            | 45.50  | 24.60                                                    | 34.00  | 140.80  | 496.40               | 758.60  | 400.80  | 103.00  | 46.50                    | 11.00  | 3.88  | 1.52  | 758.60   | CMS    |
| Min            | 2.30   | 6.60                                                     | 5.40   | 5.40    | 53.80                | 105.00  | 68.40   | 48.00   | 11.38                    | 4.01   | 1.57  | 0.56  | 0.56     | CMS    |
| Runoff         | 25.65  | 36.15                                                    | 31.88  | 88.79   | 499.38               | 725.76  | 498.35  | 180.85  | 54.17                    | 18.61  | 6.20  | 2.57  | 2168.36  | MCM    |
| Momentary Peak | 781.00 | CMS. at 64.75 m. (MSL.) at 09.00 Hours , on Sep 2 , 2013 |        |         |                      |         |         |         |                          |        |       |       |          |        |
| Runoff Yield   | 5.38   | Liters/Second/Square KM.                                 |        |         | Momentary Peak Yield |         |         | 61.164  | Liters/Second/Square KM. |        |       |       |          |        |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 268.91 | 269.25 | 269.44      | 268.87 | 269.21                            | 269.71 | 269.24            | 269.23    | 269.03 | 268.94 | 268.81 | 268.72 |        |
| 2                                | 268.94 | 269.26 | 269.46      | 268.85 | 269.20                            | 269.46 | 269.25            | 269.19    | 269.01 | 268.88 | 268.80 | 268.72 |        |
| 3                                | 268.95 | 269.29 | 269.45      | 268.86 | 269.20                            | 269.29 | 269.33            | 269.17    | 268.98 | 268.84 | 268.81 | 268.68 |        |
| 4                                | 268.94 | 269.30 | 269.42      | 268.88 | 269.19                            | 269.20 | 269.51            | 269.14    | 268.97 | 268.83 | 268.80 | 268.67 |        |
| 5                                | 268.94 | 269.27 | 269.43      | 268.86 | 269.20                            | 269.14 | 269.41            | 269.13    | 268.96 | 268.86 | 268.78 | 268.67 |        |
| 6                                | 268.94 | 269.29 | 269.46      | 268.86 | 269.21                            | 269.26 | 269.31            | 269.10    | 268.96 | 268.92 | 268.77 | 268.67 |        |
| 7                                | 268.92 | 269.31 | 269.50      | 268.87 | 269.64                            | 269.46 | 269.54            | 269.06    | 268.95 | 268.93 | 268.77 | 268.66 |        |
| 8                                | 268.90 | 269.29 | 269.49      | 268.88 | 269.78                            | 269.40 | 269.34            | 269.06    | 268.95 | 268.89 | 268.77 | 268.66 |        |
| 9                                | 268.90 | 269.27 | 269.50      | 268.91 | 269.89                            | 269.49 | 269.23            | 269.04    | 268.95 | 268.88 | 268.76 | 268.67 |        |
| 10                               | 268.89 | 269.17 | 269.46      | 269.27 | 269.69                            | 269.48 | 269.18            | 269.02    | 268.95 | 268.87 | 268.77 | 268.64 |        |
| 11                               | 268.90 | 269.18 | 269.41      | 269.05 | 270.19                            | 269.34 | 269.15            | 269.02    | 268.95 | 268.88 | 268.77 | 268.60 |        |
| 12                               | 268.89 | 269.13 | 269.40      | 269.03 | 269.67                            | 269.29 | 269.13            | 269.03    | 268.95 | 268.88 | 268.76 | 268.60 |        |
| 13                               | 268.89 | 269.06 | 269.25      | 269.02 | 269.44                            | 269.48 | 269.11            | 269.02    | 268.96 | 268.86 | 268.75 | 268.56 |        |
| 14                               | 268.90 | 269.06 | 269.16      | 269.02 | 269.29                            | 269.55 | 269.12            | 268.99    | 268.96 | 268.84 | 268.76 | 268.51 |        |
| 15                               | 268.95 | 269.01 | 269.09      | 269.02 | 269.47                            | 269.38 | 269.09            | 269.02    | 268.98 | 268.83 | 268.73 | 268.51 |        |
| 16                               | 268.98 | 268.96 | 269.01      | 269.04 | 269.28                            | 269.64 | 269.02            | 269.04    | 269.03 | 268.85 | 268.72 | 268.51 |        |
| 17                               | 268.98 | 268.92 | 268.94      | 269.12 | 269.21                            | 269.53 | 269.03            | 269.02    | 269.01 | 268.86 | 268.71 | 268.50 |        |
| 18                               | 268.98 | 268.89 | 268.89      | 269.18 | 269.17                            | 269.41 | 269.64            | 269.03    | 269.00 | 268.89 | 268.77 | 268.47 |        |
| 19                               | 268.96 | 268.87 | 268.89      | 269.14 | 269.10                            | 269.32 | 269.69            | 269.06    | 268.99 | 268.93 | 268.79 | 268.46 |        |
| 20                               | 268.92 | 268.86 | 268.89      | 269.09 | 269.05                            | 269.26 | 269.53            | 269.12    | 268.97 | 268.94 | 268.81 | 268.48 |        |
| 21                               | 268.90 | 268.88 | 268.89      | 269.10 | 269.04                            | 269.21 | 269.38            | 269.13    | 268.93 | 268.87 | 268.80 | 268.47 |        |
| 22                               | 268.90 | 268.97 | 268.90      | 269.09 | 269.06                            | 269.20 | 269.44            | 269.10    | 268.93 | 268.86 | 268.79 | 268.46 |        |
| 23                               | 268.90 | 269.09 | 268.90      | 269.17 | 269.22                            | 269.15 | 269.39            | 269.07    | 268.92 | 268.84 | 268.80 | 268.45 |        |
| 24                               | 268.91 | 269.02 | 268.89      | 269.49 | 269.20                            | 269.14 | 269.36            | 269.03    | 268.91 | 268.85 | 268.76 | 268.44 |        |
| 25                               | 268.91 | 268.96 | 268.87      | 269.14 | 269.27                            | 269.29 | 269.48            | 268.99    | 268.92 | 268.85 | 268.71 | 268.47 |        |
| 26                               | 268.90 | 268.98 | 268.87      | 269.09 | 269.26                            | 269.64 | 269.36            | 269.00    | 268.94 | 268.84 | 268.72 | 268.47 |        |
| 27                               | 269.06 | 268.96 | 268.86      | 269.09 | 269.33                            | 269.61 | 269.29            | 269.00    | 268.94 | 268.83 | 268.71 | 268.48 |        |
| 28                               | 269.27 | 268.95 | 268.86      | 269.09 | 269.19                            | 269.43 | 269.26            | 269.00    | 268.93 | 268.82 | 268.71 | 268.47 |        |
| 29                               | 269.27 | 268.94 | 268.89      | 269.10 | 269.17                            | 269.36 | 269.27            | 269.02    | 268.94 | 268.82 |        | 268.48 |        |
| 30                               | 269.26 | 268.93 | 268.89      | 269.14 | 269.34                            | 269.38 | 269.27            | 269.05    | 268.93 | 268.83 |        | 268.47 |        |
| 31                               |        | 268.99 |             | 269.21 | 269.63                            |        | 269.24            |           | 268.93 | 268.82 |        | 268.46 |        |
| Mean                             | 268.96 | 269.07 | 269.15      | 269.05 | 269.35                            | 269.38 | 269.31            | 269.06    | 268.96 | 268.87 | 268.76 | 268.55 |        |
| Max                              | 269.27 | 269.31 | 269.50      | 269.49 | 270.19                            | 269.71 | 269.69            | 269.23    | 269.03 | 268.94 | 268.81 | 268.72 | 270.19 |
| Min                              | 268.89 | 268.86 | 268.86      | 268.85 | 269.04                            | 269.14 | 269.02            | 268.99    | 268.91 | 268.82 | 268.71 | 268.44 | 268.44 |
| Annual Max Momentary Gage Height | 270.56 |        | m. (MSL.) , |        | at 10.00 Hours , on Aug 11 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 268.30 |        | m. (MSL.) , |        | River Bed                         | 268.40 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 274.81 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 274.81 |        | m. (MSL.) , |        | Drainage Area                     | 381    | Square Kilometers |           |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun   | Jul   | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual |        |
|----------------|------------------------------------------------------------------|--------------------------|-------|-------|----------------------|--------|--------|---------|--------------------------|------|------|------|--------|--------|
| 1              | 0.41                                                             | 0.75                     | 1.12  | 0.37  | 1.92                 | 12.91  | 2.28   | 2.16    | 0.72                     | 0.42 | 0.21 | 0.16 |        |        |
| 2              | 0.44                                                             | 0.76                     | 1.18  | 0.35  | 1.80                 | 6.12   | 2.40   | 1.72    | 0.64                     | 0.28 | 0.20 | 0.16 |        |        |
| 3              | 0.45                                                             | 0.79                     | 1.15  | 0.36  | 1.80                 | 2.88   | 3.54   | 1.56    | 0.54                     | 0.24 | 0.21 | 0.14 |        |        |
| 4              | 0.44                                                             | 0.80                     | 1.06  | 0.38  | 1.72                 | 1.80   | 7.28   | 1.32    | 0.51                     | 0.23 | 0.20 | 0.14 |        |        |
| 5              | 0.44                                                             | 0.77                     | 1.09  | 0.36  | 1.80                 | 1.32   | 5.02   | 1.24    | 0.48                     | 0.26 | 0.19 | 0.14 |        |        |
| 6              | 0.44                                                             | 0.79                     | 1.18  | 0.36  | 1.92                 | 2.52   | 3.18   | 1.00    | 0.48                     | 0.36 | 0.19 | 0.14 |        |        |
| 7              | 0.42                                                             | 0.82                     | 1.30  | 0.37  | 10.92                | 6.12   | 8.12   | 0.84    | 0.45                     | 0.39 | 0.19 | 0.13 |        |        |
| 8              | 0.40                                                             | 0.79                     | 1.27  | 0.38  | 15.08                | 4.80   | 3.72   | 0.84    | 0.45                     | 0.29 | 0.19 | 0.13 |        |        |
| 9              | 0.40                                                             | 0.77                     | 1.30  | 0.41  | 18.67                | 6.78   | 2.16   | 0.76    | 0.45                     | 0.28 | 0.18 | 0.14 |        |        |
| 10             | 0.39                                                             | 0.67                     | 1.18  | 2.64  | 12.32                | 6.56   | 1.64   | 0.68    | 0.45                     | 0.27 | 0.19 | 0.12 |        |        |
| 11             | 0.40                                                             | 0.68                     | 1.03  | 0.80  | 29.61                | 3.72   | 1.40   | 0.68    | 0.45                     | 0.28 | 0.19 | 0.10 |        |        |
| 12             | 0.39                                                             | 0.63                     | 1.00  | 0.72  | 11.76                | 2.88   | 1.24   | 0.72    | 0.45                     | 0.28 | 0.18 | 0.10 |        |        |
| 13             | 0.39                                                             | 0.56                     | 0.75  | 0.68  | 5.68                 | 6.56   | 1.08   | 0.68    | 0.48                     | 0.26 | 0.18 | 0.08 |        |        |
| 14             | 0.40                                                             | 0.56                     | 0.66  | 0.68  | 2.88                 | 8.40   | 1.16   | 0.57    | 0.48                     | 0.24 | 0.18 | 0.06 |        |        |
| 15             | 0.45                                                             | 0.51                     | 0.59  | 0.68  | 6.34                 | 4.44   | 0.96   | 0.68    | 0.54                     | 0.23 | 0.17 | 0.06 |        |        |
| 16             | 0.48                                                             | 0.46                     | 0.51  | 0.76  | 2.76                 | 10.92  | 0.68   | 0.76    | 0.72                     | 0.25 | 0.16 | 0.06 |        |        |
| 17             | 0.48                                                             | 0.42                     | 0.44  | 1.16  | 1.92                 | 7.84   | 0.72   | 0.68    | 0.64                     | 0.26 | 0.16 | 0.05 |        |        |
| 18             | 0.48                                                             | 0.39                     | 0.39  | 1.64  | 1.56                 | 5.02   | 10.92  | 0.72    | 0.60                     | 0.29 | 0.19 | 0.04 |        |        |
| 19             | 0.46                                                             | 0.37                     | 0.39  | 1.32  | 1.00                 | 3.36   | 12.32  | 0.84    | 0.57                     | 0.39 | 0.20 | 0.03 |        |        |
| 20             | 0.42                                                             | 0.36                     | 0.39  | 0.96  | 0.80                 | 2.52   | 7.84   | 1.16    | 0.51                     | 0.42 | 0.21 | 0.04 |        |        |
| 21             | 0.40                                                             | 0.38                     | 0.39  | 1.00  | 0.76                 | 1.92   | 4.44   | 1.24    | 0.39                     | 0.27 | 0.20 | 0.04 |        |        |
| 22             | 0.40                                                             | 0.47                     | 0.40  | 0.96  | 0.84                 | 1.80   | 5.68   | 1.00    | 0.39                     | 0.26 | 0.20 | 0.03 |        |        |
| 23             | 0.40                                                             | 0.59                     | 0.40  | 1.56  | 2.04                 | 1.40   | 4.62   | 0.88    | 0.36                     | 0.24 | 0.20 | 0.03 |        |        |
| 24             | 0.41                                                             | 0.52                     | 0.39  | 6.78  | 1.80                 | 1.32   | 4.08   | 0.72    | 0.33                     | 0.25 | 0.18 | 0.02 |        |        |
| 25             | 0.41                                                             | 0.46                     | 0.37  | 1.32  | 2.64                 | 2.88   | 6.56   | 0.57    | 0.36                     | 0.25 | 0.16 | 0.04 |        |        |
| 26             | 0.40                                                             | 0.48                     | 0.37  | 0.96  | 2.52                 | 10.92  | 4.08   | 0.60    | 0.42                     | 0.24 | 0.16 | 0.04 |        |        |
| 27             | 0.56                                                             | 0.46                     | 0.36  | 0.96  | 3.54                 | 10.08  | 2.88   | 0.60    | 0.42                     | 0.23 | 0.16 | 0.04 |        |        |
| 28             | 0.77                                                             | 0.45                     | 0.36  | 0.96  | 1.72                 | 5.46   | 2.52   | 0.60    | 0.39                     | 0.22 | 0.16 | 0.04 |        |        |
| 29             | 0.77                                                             | 0.44                     | 0.39  | 1.00  | 1.56                 | 4.08   | 2.64   | 0.68    | 0.42                     | 0.22 |      | 0.04 |        |        |
| 30             | 0.76                                                             | 0.43                     | 0.39  | 1.32  | 3.72                 | 4.44   | 2.64   | 0.80    | 0.39                     | 0.23 |      | 0.04 |        |        |
| 31             |                                                                  | 0.49                     |       | 1.92  | 10.64                |        | 2.28   |         | 0.39                     | 0.22 |      | 0.03 |        |        |
| Total          | 13.86                                                            | 17.82                    | 21.80 | 34.12 | 164.04               | 151.77 | 120.08 | 27.30   | 14.87                    | 8.55 | 5.19 | 2.41 | 581.81 | CMSDAY |
| Mean           | 0.46                                                             | 0.57                     | 0.73  | 1.10  | 5.29                 | 5.06   | 3.87   | 0.91    | 0.48                     | 0.28 | 0.19 | 0.08 | 1.59   | CMS    |
| Max            | 0.77                                                             | 0.82                     | 1.30  | 6.78  | 29.61                | 12.91  | 12.32  | 2.16    | 0.72                     | 0.42 | 0.21 | 0.16 | 29.61  | CMS    |
| Min            | 0.39                                                             | 0.36                     | 0.36  | 0.35  | 0.76                 | 1.32   | 0.68   | 0.57    | 0.33                     | 0.22 | 0.16 | 0.02 | 0.02   | CMS    |
| Runoff         | 1.20                                                             | 1.54                     | 1.88  | 2.95  | 14.17                | 13.11  | 10.38  | 2.36    | 1.29                     | 0.74 | 0.45 | 0.21 | 50.27  | MCM    |
| Momentary Peak | 46.70 CMS. at 270.56 m. (MSL.) at 10.00 Hours , on Aug 11 , 2013 |                          |       |       |                      |        |        |         |                          |      |      |      |        |        |
| Runoff Yield   | 4.18                                                             | Liters/Second/Square KM. |       |       | Momentary Peak Yield |        |        | 122.572 | Liters/Second/Square KM. |      |      |      |        |        |

## WATER YEAR : 2013

## YOM RIVER BASIN

**Yom River at Ban Don Rabiang , Sukhothai (Y.14**

Lat 17 - 35 - 42 N      Long 99 - 43 - 06 W

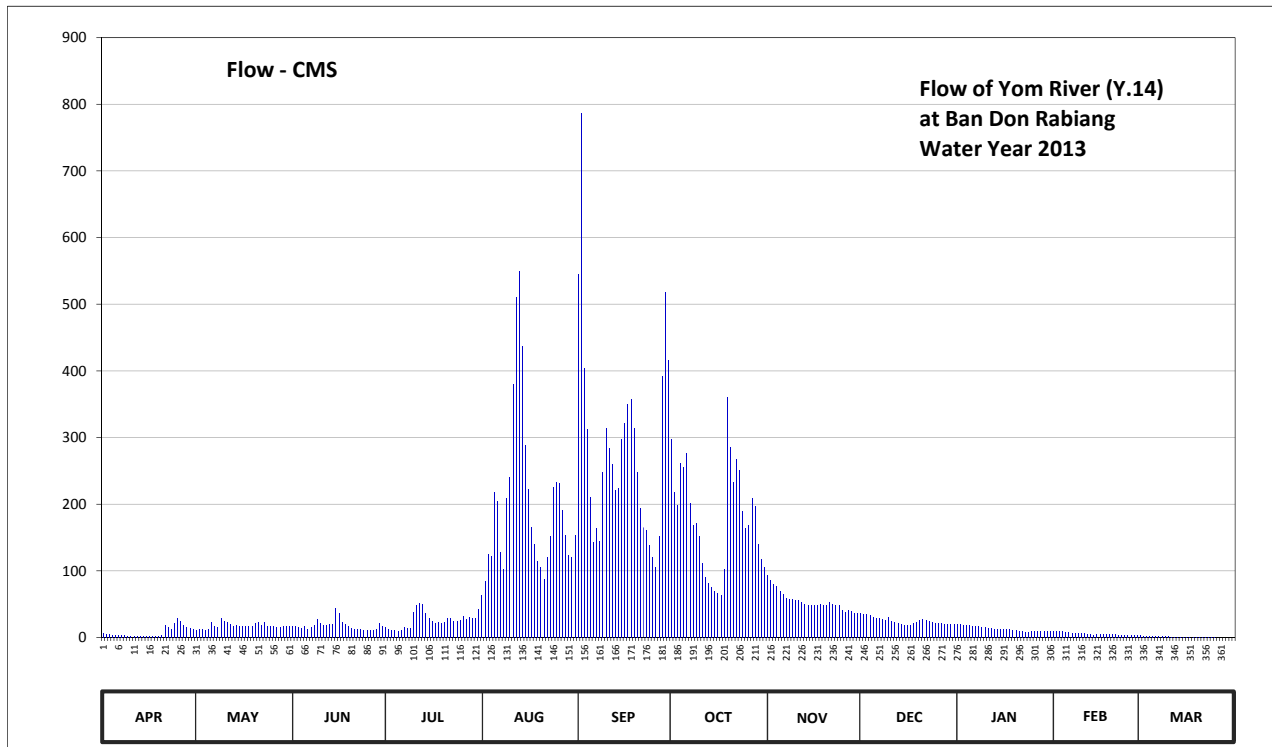
**Location :** on left bank about 50 meters from Si Satchanalai - Den Chai Highway No.101 at guidepost 44 th

|                                         |                                                                                           |             |               |                |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Don Rabiang | <b>Amphoe</b> | Si Satchanalai | <b>Changwat</b>  | Sukhothai         |
| <b>Drainage Area</b>                    | 12,100                                                                                    | sq.km.      |               |                |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |             |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +65.100                                                                                   | m. (MSL.)   |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |                |                  |                   |
| <b>Location BM</b>                      | In front of gage observer's house.                                                        |             |               |                | <b>Elevation</b> | +78.363 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |             |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |             |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 1964 to date                                                                              |             |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |             |               |                |                  |                   |
| <b>Period of Rating</b>                 | 1964 to date                                                                              |             |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 1964 to date                                                                              |             |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |             |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |                |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |             |               |                |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 65.88 | 66.01 | 66.11                                             | 66.08 | 66.91 | 70.42 | 69.00 | 67.27 | 66.49 | 66.19 | 65.97 | 65.80 |        |
|                                  | 2  | 65.85 | 66.05 | 66.12                                             | 66.05 | 67.18 | 71.43 | 68.40 | 67.19 | 66.47 | 66.18 | 65.97 | 65.79 |        |
|                                  | 3  | 65.86 | 66.03 | 66.10                                             | 66.00 | 67.60 | 69.70 | 68.24 | 67.11 | 66.46 | 66.16 | 65.96 | 65.78 |        |
|                                  | 4  | 65.81 | 66.01 | 66.06                                             | 66.00 | 67.57 | 69.10 | 68.73 | 67.07 | 66.44 | 66.16 | 65.95 | 65.77 |        |
|                                  | 5  | 65.80 | 66.04 | 66.11                                             | 65.97 | 68.40 | 68.34 | 68.68 | 66.99 | 66.38 | 66.16 | 65.93 | 65.76 |        |
|                                  | 6  | 65.80 | 66.23 | 66.05                                             | 66.01 | 68.29 | 67.76 | 68.84 | 66.93 | 66.36 | 66.13 | 65.93 | 65.76 |        |
|                                  | 7  | 65.80 | 66.11 | 66.08                                             | 66.10 | 67.63 | 67.95 | 68.26 | 66.85 | 66.35 | 66.13 | 65.91 | 65.76 |        |
|                                  | 8  | 65.80 | 66.10 | 66.14                                             | 66.06 | 67.37 | 67.78 | 67.99 | 66.83 | 66.34 | 66.12 | 65.90 | 65.75 |        |
|                                  | 9  | 65.79 | 66.35 | 66.34                                             | 66.07 | 68.33 | 68.62 | 68.02 | 66.83 | 66.30 | 66.09 | 65.90 | 65.75 |        |
|                                  | 10 | 65.79 | 66.29 | 66.22                                             | 66.52 | 68.57 | 69.11 | 67.85 | 66.81 | 66.38 | 66.09 | 65.89 | 65.73 |        |
|                                  | 11 | 65.78 | 66.23 | 66.16                                             | 66.70 | 69.55 | 68.90 | 67.46 | 66.80 | 66.27 | 66.07 | 65.89 | 65.72 |        |
|                                  | 12 | 65.77 | 66.18 | 66.16                                             | 66.74 | 70.26 | 68.72 | 67.25 | 66.76 | 66.25 | 66.07 | 65.86 | 65.69 |        |
|                                  | 13 | 65.78 | 66.12 | 66.18                                             | 66.72 | 70.44 | 68.42 | 67.14 | 66.72 | 66.22 | 66.05 | 65.85 | 65.68 |        |
|                                  | 14 | 65.76 | 66.15 | 66.18                                             | 66.50 | 69.89 | 68.44 | 67.06 | 66.70 | 66.19 | 66.04 | 65.83 | 65.68 |        |
|                                  | 15 | 65.75 | 66.13 | 66.63                                             | 66.36 | 68.93 | 69.00 | 66.99 | 66.70 | 66.17 | 66.03 | 65.86 | 65.66 |        |
|                                  | 16 | 65.76 | 66.12 | 66.49                                             | 66.28 | 68.43 | 69.17 | 66.94 | 66.70 | 66.15 | 66.03 | 65.85 | 65.66 |        |
|                                  | 17 | 65.78 | 66.12 | 66.25                                             | 66.22 | 67.96 | 69.35 | 66.91 | 66.69 | 66.17 | 66.02 | 65.85 | 65.66 |        |
|                                  | 18 | 65.78 | 66.11 | 66.19                                             | 66.23 | 67.74 | 69.40 | 67.38 | 66.72 | 66.22 | 66.02 | 65.87 | 65.66 |        |
|                                  | 19 | 65.75 | 66.13 | 66.13                                             | 66.21 | 67.50 | 69.12 | 69.42 | 66.70 | 66.24 | 66.00 | 65.87 | 65.66 |        |
|                                  | 20 | 65.80 | 66.22 | 66.07                                             | 66.24 | 67.41 | 68.63 | 68.91 | 66.70 | 66.30 | 65.99 | 65.85 | 65.65 |        |
|                                  | 21 | 66.14 | 66.23 | 66.05                                             | 66.35 | 67.20 | 68.20 | 68.51 | 66.76 | 66.32 | 65.96 | 65.84 | 65.65 |        |
|                                  | 22 | 66.08 | 66.17 | 66.05                                             | 66.37 | 67.56 | 67.96 | 68.78 | 66.71 | 66.30 | 65.95 | 65.83 | 65.65 |        |
|                                  | 23 | 66.02 | 66.25 | 66.03                                             | 66.29 | 67.85 | 67.93 | 68.65 | 66.69 | 66.26 | 65.93 | 65.83 | 65.63 |        |
|                                  | 24 | 66.20 | 66.13 | 66.00                                             | 66.29 | 68.45 | 67.72 | 68.16 | 66.69 | 66.23 | 65.93 | 65.83 | 65.63 |        |
|                                  | 25 | 66.35 | 66.12 | 66.00                                             | 66.31 | 68.51 | 67.56 | 67.95 | 66.58 | 66.22 | 65.98 | 65.83 | 65.63 |        |
|                                  | 26 | 66.28 | 66.11 | 66.00                                             | 66.41 | 68.50 | 67.41 | 67.99 | 66.53 | 66.20 | 65.97 | 65.82 | 65.60 |        |
|                                  | 27 | 66.17 | 66.09 | 65.99                                             | 66.33 | 68.18 | 67.85 | 68.32 | 66.58 | 66.20 | 65.97 | 65.81 | 65.60 |        |
|                                  | 28 | 66.10 | 66.08 | 66.02                                             | 66.40 | 67.86 | 69.62 | 68.23 | 66.55 | 66.19 | 65.95 | 65.80 | 65.59 |        |
|                                  | 29 | 66.06 | 66.11 | 66.20                                             | 66.35 | 67.59 | 70.30 | 67.74 | 66.49 | 66.19 | 65.95 |       | 65.59 |        |
|                                  | 30 | 66.02 | 66.11 | 66.12                                             | 66.36 | 67.55 | 69.77 | 67.53 | 66.50 | 66.19 | 65.95 |       | 65.59 |        |
|                                  | 31 |       | 66.13 |                                                   | 66.59 | 67.86 |       | 67.41 |       | 66.19 | 65.96 |       | 65.58 |        |
| Mean                             |    | 65.91 | 66.14 | 66.14                                             | 66.29 | 68.16 | 68.79 | 68.02 | 66.77 | 66.28 | 66.04 | 65.87 | 65.68 |        |
| Max                              |    | 66.35 | 66.35 | 66.63                                             | 66.74 | 70.44 | 71.43 | 69.42 | 67.27 | 66.49 | 66.19 | 65.97 | 65.80 | 71.43  |
| Min                              |    | 65.75 | 66.01 | 65.99                                             | 65.97 | 66.91 | 67.41 | 66.91 | 66.49 | 66.15 | 65.93 | 65.80 | 65.58 | 65.58  |
| Annual Max Momentary Gage Height |    |       | 71.65 | m. (MSL.) , at 09.00 Hours , on Sep 2 , 2013      |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 65.10 | m. (MSL.) , River Bed 63.09 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 78.34 | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 74.63 | m. (MSL.) , Drainage Area 12100 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec    | Jan    | Feb    | Mar   | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|---------|--------|--------|--------|-------|-----------------|
| 1              | 6.20                                                            | 11.50                    | 16.50  | 15.00                | 63.80   | 544.60  | 298.00                   | 93.30   | 36.40  | 20.50  | 9.80   | 3.00  |                 |
| 2              | 5.00                                                            | 13.50                    | 17.00  | 13.50                | 85.40   | 785.80  | 219.00                   | 86.20   | 35.20  | 20.00  | 9.80   | 2.80  |                 |
| 3              | 5.40                                                            | 12.50                    | 16.00  | 11.00                | 125.00  | 404.00  | 198.80                   | 79.80   | 34.60  | 19.00  | 9.40   | 2.60  |                 |
| 4              | 3.40                                                            | 11.50                    | 14.00  | 11.00                | 122.00  | 312.00  | 261.90                   | 76.60   | 33.40  | 19.00  | 9.00   | 2.40  |                 |
| 5              | 3.00                                                            | 13.00                    | 16.50  | 9.80                 | 219.00  | 211.20  | 255.40                   | 70.20   | 30.00  | 19.00  | 8.20   | 2.20  |                 |
| 6              | 3.00                                                            | 22.50                    | 13.50  | 11.50                | 204.80  | 142.60  | 276.20                   | 65.40   | 29.00  | 17.50  | 8.20   | 2.20  |                 |
| 7              | 3.00                                                            | 16.50                    | 15.00  | 16.00                | 128.30  | 164.00  | 201.20                   | 59.50   | 28.50  | 17.50  | 7.40   | 2.20  |                 |
| 8              | 3.00                                                            | 16.00                    | 18.00  | 14.00                | 102.30  | 144.80  | 168.80                   | 58.10   | 28.00  | 17.00  | 7.00   | 2.00  |                 |
| 9              | 2.80                                                            | 28.50                    | 28.00  | 14.50                | 209.90  | 247.60  | 172.40                   | 58.10   | 26.00  | 15.50  | 7.00   | 2.00  |                 |
| 10             | 2.80                                                            | 25.50                    | 22.00  | 38.20                | 241.10  | 313.50  | 152.50                   | 56.70   | 30.00  | 15.50  | 6.60   | 1.60  |                 |
| 11             | 2.60                                                            | 22.50                    | 19.00  | 49.00                | 380.00  | 284.00  | 111.00                   | 56.00   | 24.50  | 14.50  | 6.60   | 1.40  |                 |
| 12             | 2.40                                                            | 20.00                    | 19.00  | 51.80                | 509.60  | 260.60  | 91.50                    | 53.20   | 23.50  | 14.50  | 5.40   | 0.90  |                 |
| 13             | 2.60                                                            | 17.00                    | 20.00  | 50.40                | 549.20  | 221.60  | 82.20                    | 50.40   | 22.00  | 13.50  | 5.00   | 0.80  |                 |
| 14             | 2.20                                                            | 18.50                    | 20.00  | 37.00                | 437.20  | 224.20  | 75.80                    | 49.00   | 20.50  | 13.00  | 4.20   | 0.80  |                 |
| 15             | 2.00                                                            | 17.50                    | 44.80  | 29.00                | 288.20  | 298.00  | 70.20                    | 49.00   | 19.50  | 12.50  | 5.40   | 0.60  |                 |
| 16             | 2.20                                                            | 17.00                    | 36.40  | 25.00                | 222.90  | 322.50  | 66.20                    | 49.00   | 18.50  | 12.50  | 5.00   | 0.60  |                 |
| 17             | 2.60                                                            | 17.00                    | 23.50  | 22.00                | 165.20  | 349.50  | 63.80                    | 48.40   | 19.50  | 12.00  | 5.00   | 0.60  |                 |
| 18             | 2.60                                                            | 16.50                    | 20.50  | 22.50                | 140.40  | 357.00  | 103.20                   | 50.40   | 22.00  | 12.00  | 5.80   | 0.60  |                 |
| 19             | 2.00                                                            | 17.50                    | 17.50  | 21.50                | 115.00  | 315.00  | 360.00                   | 49.00   | 23.00  | 11.00  | 5.80   | 0.60  |                 |
| 20             | 3.00                                                            | 22.00                    | 14.50  | 23.00                | 106.00  | 248.90  | 285.40                   | 49.00   | 26.00  | 10.60  | 5.00   | 0.50  |                 |
| 21             | 18.00                                                           | 22.50                    | 13.50  | 28.50                | 87.00   | 194.00  | 233.30                   | 53.20   | 27.00  | 9.40   | 4.60   | 0.50  |                 |
| 22             | 15.00                                                           | 19.50                    | 13.50  | 29.50                | 121.00  | 165.20  | 268.40                   | 49.70   | 26.00  | 9.00   | 4.20   | 0.50  |                 |
| 23             | 12.00                                                           | 23.50                    | 12.50  | 25.50                | 152.50  | 161.60  | 251.50                   | 48.40   | 24.00  | 8.20   | 4.20   | 0.30  |                 |
| 24             | 21.00                                                           | 17.50                    | 11.00  | 25.50                | 225.50  | 138.20  | 189.20                   | 48.40   | 22.50  | 8.20   | 4.20   | 0.30  |                 |
| 25             | 28.50                                                           | 17.00                    | 11.00  | 26.50                | 233.30  | 121.00  | 164.00                   | 41.80   | 22.00  | 10.20  | 4.20   | 0.30  |                 |
| 26             | 25.00                                                           | 16.50                    | 11.00  | 31.60                | 232.00  | 106.00  | 168.80                   | 38.80   | 21.00  | 9.80   | 3.80   | 0.00  |                 |
| 27             | 19.50                                                           | 15.50                    | 10.60  | 27.50                | 191.60  | 152.50  | 208.60                   | 41.80   | 21.00  | 9.80   | 3.40   | 0.00  |                 |
| 28             | 16.00                                                           | 15.00                    | 12.00  | 31.00                | 153.60  | 391.20  | 197.60                   | 40.00   | 20.50  | 9.00   | 3.00   | 0.00  |                 |
| 29             | 14.00                                                           | 16.50                    | 21.00  | 28.50                | 124.00  | 518.00  | 140.40                   | 36.40   | 20.50  | 9.00   |        | 0.00  |                 |
| 30             | 12.00                                                           | 16.50                    | 17.00  | 29.00                | 120.00  | 415.90  | 118.00                   | 37.00   | 20.50  | 9.00   |        | 0.00  |                 |
| 31             |                                                                 | 17.50                    |        | 42.40                | 153.60  |         | 106.00                   |         | 20.50  | 9.40   |        | 0.00  |                 |
| Total          | 242.80                                                          | 554.00                   | 544.80 | 811.20               | 6209.40 | 8515.00 | 5559.30                  | 1642.80 | 775.60 | 407.60 | 167.20 | 32.30 | 25462.00 CMSDAY |
| Mean           | 8.09                                                            | 17.87                    | 18.16  | 26.17                | 200.30  | 283.83  | 179.33                   | 54.76   | 25.02  | 13.15  | 5.97   | 1.04  | 69.76 CMS       |
| Max            | 28.50                                                           | 28.50                    | 44.80  | 51.80                | 549.20  | 785.80  | 360.00                   | 93.30   | 36.40  | 20.50  | 9.80   | 3.00  | 785.80 CMS      |
| Min            | 2.00                                                            | 11.50                    | 10.60  | 9.80                 | 63.80   | 106.00  | 63.80                    | 36.40   | 18.50  | 8.20   | 3.00   | 0.00  | 0.00 CMS        |
| Runoff         | 20.98                                                           | 47.87                    | 47.07  | 70.09                | 536.49  | 735.70  | 480.32                   | 141.94  | 67.01  | 35.22  | 14.45  | 2.79  | 2199.92 MCM     |
| Momentary Peak | 843.50 CMS. at 71.65 m. (MSL.) at 09.00 Hours , on Sep 2 , 2013 |                          |        |                      |         |         |                          |         |        |        |        |       |                 |
| Runoff Yield   | 5.77                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 69.711  | Liters/Second/Square KM. |         |        |        |        |       |                 |

**WATER YEAR : 2013**

## YOM RIVER BASIN

### Yom River at Ban Kong , Sukhothai (Y.15)

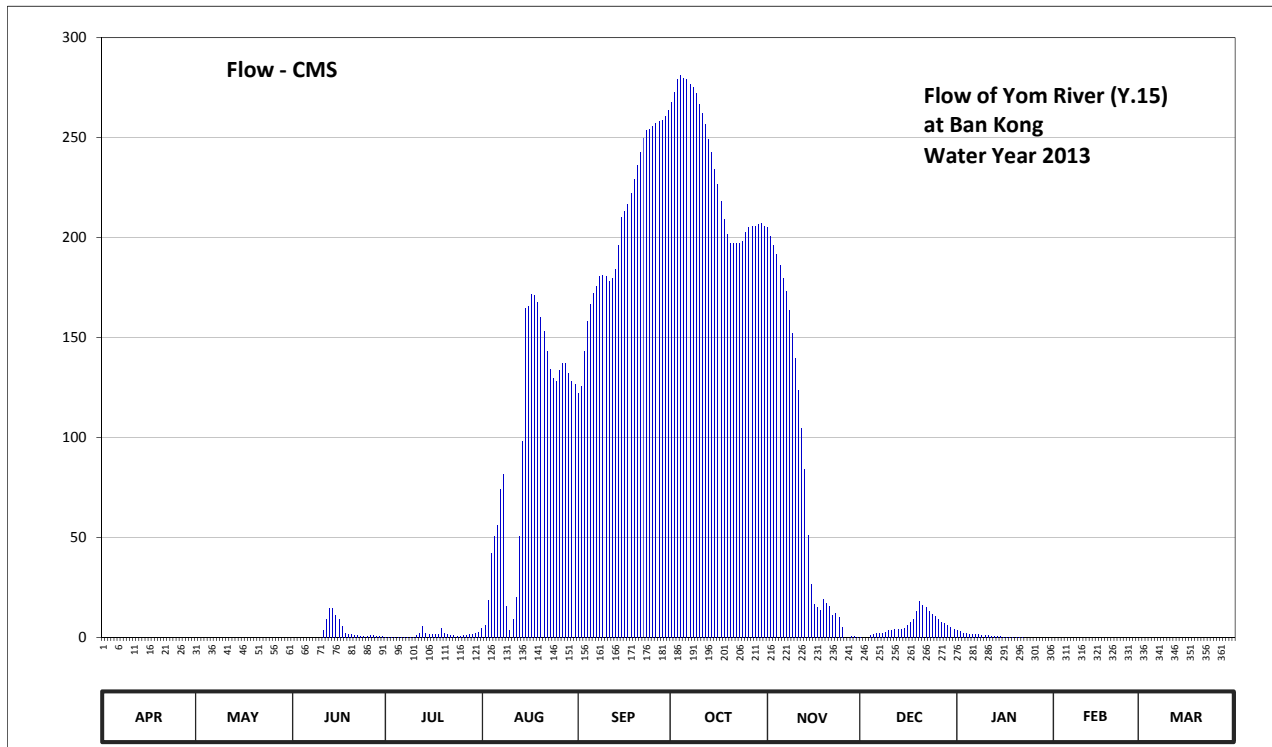
Lat 16 - 55 - 47 N    Long 99 - 57 - 41 E

**Location : on left bank at Ban Kong.**

|                                         |                                                                                           |                            |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------------------|------------------|-------------------|
|                                         | <b>Ban Kong</b>                                                                           | <b>Amphoe Kong Krailat</b> | <b>Changwat</b>  | <b>Sukhothai</b>  |
| <b>Drainage Area</b>                    | 19,936                                                                                    | sq.km.                     |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +35.320                                                                                   | m. (MSL.)                  |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                            |                  |                   |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |                            | <b>Elevation</b> | +42.320 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                            |                  |                   |
| <b>Period of Available Gage Records</b> | 2010 to date                                                                              |                            |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                            |                  |                   |
| <b>Period of Rating</b>                 | 2010 to date                                                                              |                            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                            |                  |                   |
| <b>Rated by Current Meter</b>           | 2010 to date                                                                              |                            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                            |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                            |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 13 discharge measurements made in 2013. |                            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 38.16 | 35.35 | 35.62                                             | 39.41 | 40.46 | 41.29 | 43.47 | 42.62 | 39.19 | 40.39 | 38.40 | 35.97 |        |
| 2                                | 38.00 | 35.37 | 35.61                                             | 39.25 | 40.57 | 41.36 | 43.54 | 42.56 | 38.81 | 40.35 | 38.34 | 35.92 |        |
| 3                                | 37.90 | 35.39 | 35.62                                             | 39.19 | 40.93 | 41.67 | 43.62 | 42.49 | 39.01 | 40.28 | 38.27 | 35.89 |        |
| 4                                | 37.84 | 35.41 | 35.64                                             | 39.14 | 41.28 | 41.93 | 43.65 | 42.43 | 39.79 | 40.22 | 38.16 | 35.87 |        |
| 5                                | 37.81 | 35.42 | 35.69                                             | 39.12 | 41.37 | 42.06 | 43.63 | 42.35 | 40.02 | 40.14 | 38.08 | 35.85 |        |
| 6                                | 37.70 | 35.59 | 35.72                                             | 39.06 | 41.42 | 42.15 | 43.62 | 42.26 | 40.20 | 40.08 | 37.99 | 35.83 |        |
| 7                                | 37.60 | 36.18 | 35.76                                             | 39.03 | 41.56 | 42.20 | 43.59 | 42.16 | 40.22 | 40.00 | 37.93 | 35.82 |        |
| 8                                | 37.42 | 36.29 | 36.04                                             | 39.03 | 41.61 | 42.27 | 43.57 | 42.02 | 40.25 | 39.94 | 37.83 | 35.78 |        |
| 9                                | 37.22 | 36.51 | 36.35                                             | 39.11 | 40.87 | 42.28 | 43.53 | 41.82 | 40.33 | 39.86 | 37.72 | 35.73 |        |
| 10                               | 37.06 | 36.53 | 37.19                                             | 39.40 | 40.40 | 42.27 | 43.46 | 41.61 | 40.39 | 39.78 | 37.62 | 35.67 |        |
| 11                               | 36.89 | 36.52 | 40.39                                             | 39.82 | 40.68 | 42.24 | 43.40 | 41.32 | 40.41 | 39.70 | 37.53 | 35.59 |        |
| 12                               | 36.69 | 36.46 | 40.68                                             | 40.21 | 40.96 | 42.26 | 43.33 | 40.95 | 40.42 | 39.65 | 37.40 | 35.55 |        |
| 13                               | 36.48 | 36.41 | 40.84                                             | 40.53 | 41.37 | 42.32 | 43.23 | 40.54 | 40.43 | 39.58 | 37.31 | 35.52 |        |
| 14                               | 36.32 | 36.37 | 40.84                                             | 40.23 | 41.71 | 42.49 | 43.14 | 39.73 | 40.42 | 39.54 | 37.23 | 35.47 |        |
| 15                               | 36.11 | 36.30 | 40.75                                             | 39.99 | 42.03 | 42.69 | 43.02 | 38.95 | 40.47 | 39.45 | 37.12 | 35.46 |        |
| 16                               | 35.92 | 36.22 | 40.68                                             | 40.02 | 42.05 | 42.73 | 42.92 | 38.52 | 40.56 | 39.41 | 37.03 | 35.46 |        |
| 17                               | 35.66 | 36.15 | 40.52                                             | 40.02 | 42.14 | 42.78 | 42.80 | 38.42 | 40.63 | 39.36 | 36.94 | 35.45 |        |
| 18                               | 35.49 | 36.08 | 40.29                                             | 40.15 | 42.13 | 42.86 | 42.68 | 38.32 | 40.68 | 39.31 | 36.85 | 35.44 |        |
| 19                               | 35.42 | 35.98 | 40.10                                             | 40.47 | 42.08 | 42.95 | 42.57 | 38.63 | 40.80 | 39.28 | 36.77 | 35.43 |        |
| 20                               | 35.39 | 35.93 | 39.99                                             | 40.26 | 41.96 | 43.05 | 42.51 | 38.53 | 40.92 | 39.22 | 36.68 | 35.42 |        |
| 21                               | 35.36 | 35.78 | 39.87                                             | 40.07 | 41.84 | 43.14 | 42.51 | 38.46 | 40.88 | 39.15 | 36.58 | 35.41 |        |
| 22                               | 35.35 | 35.60 | 39.73                                             | 39.88 | 41.67 | 43.24 | 42.51 | 38.17 | 40.85 | 39.08 | 36.47 | 35.40 |        |
| 23                               | 35.33 | 35.50 | 39.62                                             | 39.70 | 41.51 | 43.29 | 42.51 | 38.23 | 40.81 | 39.00 | 36.35 | 35.40 |        |
| 24                               | 35.30 | 35.45 | 39.63                                             | 39.61 | 41.43 | 43.30 | 42.52 | 38.10 | 40.76 | 38.89 | 36.24 | 35.40 |        |
| 25                               | 35.27 | 35.43 | 39.67                                             | 39.60 | 41.40 | 43.32 | 42.59 | 37.68 | 40.73 | 38.80 | 36.22 | 35.40 |        |
| 26                               | 35.25 | 35.45 | 39.72                                             | 39.72 | 41.50 | 43.34 | 42.62 | 37.94 | 40.68 | 38.70 | 36.19 | 35.40 |        |
| 27                               | 35.22 | 35.41 | 39.70                                             | 39.86 | 41.56 | 43.35 | 42.63 | 38.98 | 40.63 | 38.64 | 36.12 | 35.37 |        |
| 28                               | 35.20 | 35.40 | 39.67                                             | 39.99 | 41.56 | 43.36 | 42.63 | 39.57 | 40.60 | 38.59 | 36.01 | 35.35 |        |
| 29                               | 35.16 | 35.39 | 39.64                                             | 40.12 | 41.47 | 43.38 | 42.64 | 39.56 | 40.56 | 38.54 |       | 35.35 |        |
| 30                               | 35.12 | 35.38 | 39.55                                             | 40.19 | 41.40 | 43.42 | 42.65 | 39.40 | 40.50 | 38.49 |       | 35.34 |        |
| 31                               |       | 35.38 |                                                   | 40.32 | 41.37 |       | 42.63 |       | 40.45 | 38.42 |       | 35.34 |        |
| Mean                             | 36.32 | 35.83 | 38.70                                             | 39.76 | 41.43 | 42.63 | 43.02 | 40.08 | 40.37 | 39.41 | 37.19 | 35.56 |        |
| Max                              | 38.16 | 36.53 | 40.84                                             | 40.53 | 42.14 | 43.42 | 43.65 | 42.62 | 40.92 | 40.39 | 38.40 | 35.97 | 43.65  |
| Min                              | 35.12 | 35.35 | 35.61                                             | 39.03 | 40.40 | 41.29 | 42.51 | 37.68 | 38.81 | 38.42 | 36.01 | 35.34 | 35.12  |
| Annual Max Momentary Gage Height |       | 43.65 | m. (MSL.) , at 06.00 Hours , on Oct 4 , 2013      |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 35.32 | m. (MSL.) , River Bed 34.33 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 44.94 | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 44.86 | m. (MSL.) , Drainage Area 19936 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec    | Jan   | Feb  | Mar  | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|---------|---------|--------------------------|---------|--------|-------|------|------|-----------------|
| 1              | 0.00                                                            | 0.00                     | 0.00  | 0.42                 | 4.65    | 121.98  | 267.43                   | 204.95  | 0.19   | 3.62  | 0.00 | 0.00 |                 |
| 2              | 0.00                                                            | 0.00                     | 0.00  | 0.25                 | 6.48    | 125.80  | 272.85                   | 200.70  | 0.00   | 3.12  | 0.00 | 0.00 |                 |
| 3              | 0.00                                                            | 0.00                     | 0.00  | 0.19                 | 18.57   | 143.27  | 279.05                   | 195.80  | 0.01   | 2.40  | 0.00 | 0.00 |                 |
| 4              | 0.00                                                            | 0.00                     | 0.00  | 0.14                 | 42.35   | 158.30  | 281.38                   | 191.60  | 1.18   | 2.10  | 0.00 | 0.00 |                 |
| 5              | 0.00                                                            | 0.00                     | 0.00  | 0.12                 | 51.00   | 166.40  | 279.83                   | 186.00  | 1.64   | 1.88  | 0.00 | 0.00 |                 |
| 6              | 0.00                                                            | 0.00                     | 0.00  | 0.06                 | 56.40   | 172.25  | 279.05                   | 179.70  | 2.00   | 1.76  | 0.00 | 0.00 |                 |
| 7              | 0.00                                                            | 0.00                     | 0.00  | 0.03                 | 74.40   | 175.50  | 276.73                   | 172.90  | 2.10   | 1.60  | 0.00 | 0.00 |                 |
| 8              | 0.00                                                            | 0.00                     | 0.00  | 0.03                 | 81.60   | 180.40  | 275.18                   | 163.80  | 2.25   | 1.48  | 0.00 | 0.00 |                 |
| 9              | 0.00                                                            | 0.00                     | 0.00  | 0.11                 | 15.80   | 181.10  | 272.07                   | 151.90  | 2.88   | 1.32  | 0.00 | 0.00 |                 |
| 10             | 0.00                                                            | 0.00                     | 0.00  | 0.40                 | 3.75    | 180.40  | 266.65                   | 139.83  | 3.62   | 1.16  | 0.00 | 0.00 |                 |
| 11             | 0.00                                                            | 0.00                     | 3.62  | 1.24                 | 9.20    | 178.30  | 262.00                   | 123.60  | 3.90   | 1.00  | 0.00 | 0.00 |                 |
| 12             | 0.00                                                            | 0.00                     | 9.20  | 2.05                 | 20.15   | 179.70  | 256.58                   | 104.50  | 4.05   | 0.90  | 0.00 | 0.00 |                 |
| 13             | 0.00                                                            | 0.00                     | 14.60 | 5.77                 | 51.00   | 183.90  | 249.18                   | 84.15   | 4.20   | 0.76  | 0.00 | 0.00 |                 |
| 14             | 0.00                                                            | 0.00                     | 14.60 | 2.15                 | 98.35   | 195.80  | 242.65                   | 51.05   | 4.05   | 0.68  | 0.00 | 0.00 |                 |
| 15             | 0.00                                                            | 0.00                     | 11.38 | 1.58                 | 164.45  | 210.03  | 233.95                   | 26.87   | 4.80   | 0.50  | 0.00 | 0.00 |                 |
| 16             | 0.00                                                            | 0.00                     | 9.20  | 1.64                 | 165.75  | 212.93  | 226.70                   | 16.90   | 6.30   | 0.42  | 0.00 | 0.00 |                 |
| 17             | 0.00                                                            | 0.00                     | 5.60  | 1.64                 | 171.60  | 216.55  | 218.00                   | 15.10   | 7.83   | 0.36  | 0.00 | 0.00 |                 |
| 18             | 0.00                                                            | 0.00                     | 2.45  | 1.90                 | 170.95  | 222.35  | 209.30                   | 13.55   | 9.20   | 0.31  | 0.00 | 0.00 |                 |
| 19             | 0.00                                                            | 0.00                     | 1.80  | 4.80                 | 167.70  | 228.88  | 201.40                   | 19.10   | 13.00  | 0.28  | 0.00 | 0.00 |                 |
| 20             | 0.00                                                            | 0.00                     | 1.58  | 2.30                 | 160.10  | 236.13  | 197.20                   | 17.10   | 18.05  | 0.22  | 0.00 | 0.00 |                 |
| 21             | 0.00                                                            | 0.00                     | 1.34  | 1.74                 | 153.05  | 242.65  | 197.20                   | 15.80   | 16.20  | 0.15  | 0.00 | 0.00 |                 |
| 22             | 0.00                                                            | 0.00                     | 1.06  | 1.36                 | 143.27  | 249.90  | 197.20                   | 11.30   | 15.00  | 0.08  | 0.00 | 0.00 |                 |
| 23             | 0.00                                                            | 0.00                     | 0.84  | 1.00                 | 134.07  | 253.53  | 197.20                   | 12.20   | 13.40  | 0.00  | 0.00 | 0.00 |                 |
| 24             | 0.00                                                            | 0.00                     | 0.86  | 0.82                 | 129.65  | 254.25  | 197.90                   | 10.25   | 11.70  | 0.00  | 0.00 | 0.00 |                 |
| 25             | 0.00                                                            | 0.00                     | 0.94  | 0.80                 | 128.00  | 255.80  | 202.80                   | 5.30    | 10.72  | 0.00  | 0.00 | 0.00 |                 |
| 26             | 0.00                                                            | 0.00                     | 1.04  | 1.04                 | 133.50  | 257.35  | 204.95                   | 0.00    | 9.20   | 0.00  | 0.00 | 0.00 |                 |
| 27             | 0.00                                                            | 0.00                     | 1.00  | 1.32                 | 136.95  | 258.12  | 205.68                   | 0.00    | 7.83   | 0.00  | 0.00 | 0.00 |                 |
| 28             | 0.00                                                            | 0.00                     | 0.94  | 1.58                 | 136.95  | 258.90  | 205.68                   | 0.74    | 7.00   | 0.00  | 0.00 | 0.00 |                 |
| 29             | 0.00                                                            | 0.00                     | 0.88  | 1.84                 | 131.85  | 260.45  | 206.40                   | 0.72    | 6.30   | 0.00  |      | 0.00 |                 |
| 30             | 0.00                                                            | 0.00                     | 0.70  | 1.98                 | 128.00  | 263.55  | 207.13                   | 0.40    | 5.25   | 0.00  |      | 0.00 |                 |
| 31             |                                                                 | 0.00                     |       | 2.75                 | 126.35  |         | 205.68                   |         | 4.50   | 0.00  |      | 0.00 |                 |
| Total          | 0.00                                                            | 0.00                     | 83.63 | 43.05                | 3015.89 | 6224.47 | 7275.00                  | 2315.81 | 198.35 | 26.10 | 0.00 | 0.00 | 19182.30 CMSDAY |
| Mean           | 0.00                                                            | 0.00                     | 2.79  | 1.39                 | 97.29   | 207.48  | 234.68                   | 77.19   | 6.40   | 0.84  | 0.00 | 0.00 | 52.55 CMS       |
| Max            | 0.00                                                            | 0.00                     | 14.60 | 5.77                 | 171.60  | 263.55  | 281.38                   | 204.95  | 18.05  | 3.62  | 0.00 | 0.00 | 281.38 CMS      |
| Min            | 0.00                                                            | 0.00                     | 0.00  | 0.03                 | 3.75    | 121.98  | 197.20                   | 0.00    | 0.00   | 0.00  | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 0.00                                                            | 0.00                     | 7.23  | 3.72                 | 260.57  | 537.79  | 628.56                   | 200.09  | 17.14  | 2.26  | 0.00 | 0.00 | 1657.35 MCM     |
| Momentary Peak | 281.38 CMS. at 43.65 m. (MSL.) at 06.00 Hours , on Oct 4 , 2013 |                          |       |                      |         |         |                          |         |        |       |      |      |                 |
| Runoff Yield   | 2.64                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |         | 14.114  | Liters/Second/Square KM. |         |        |       |      |      |                 |

**WATER YEAR : 2013****YOM RIVER BASIN****Yom River at Ban Bang Rakam , Phitsanulok (Y.16)**

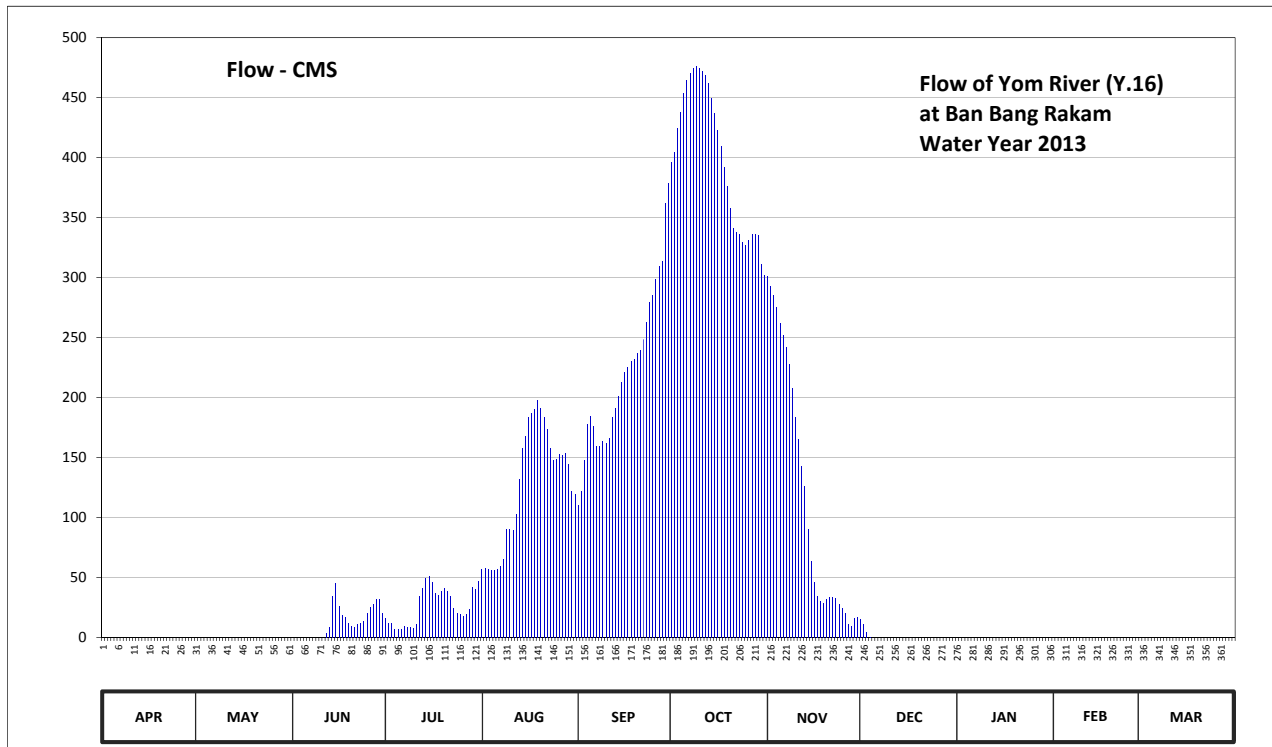
Lat 16 - 45 - 26 N Long 100 - 07 - 15 E

**Location : on right bank about 58 meters upstream from the old staff gage.**

|                                         |                                                                                           |            |               |            |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Bang Rakam | <b>Amphoe</b> | Bang Rakam | <b>Changwat</b>  | Phitsanulok       |
| <b>Drainage Area</b>                    | 20,201                                                                                    | sq.km.     |               |            |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +31.630                                                                                   | m. (MSL.)  |               |            |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |            |                  |                   |
| <b>Location BM</b>                      | On right bank about 13 meters from the top staff gage.                                    |            |               |            | <b>Elevation</b> | +42.630 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |            |               |            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |            |               |            |                  |                   |
| <b>Period of Available Gage Records</b> | 1967 to date                                                                              |            |               |            |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |            |                  |                   |
| <b>Period of Rating</b>                 | 1967 , 1995 to date                                                                       |            |               |            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |            |                  |                   |
| <b>Rated by Current Meter</b>           | 1967 , 1995 to date                                                                       |            |               |            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |            |               |            |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +39.080 m. (MSL.), records are channel flow only.       |            |               |            |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2013. |            |               |            |                  |                   |
| <b>Remark</b>                           | The construction of the stations surveyed volume.                                         |            |               |            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

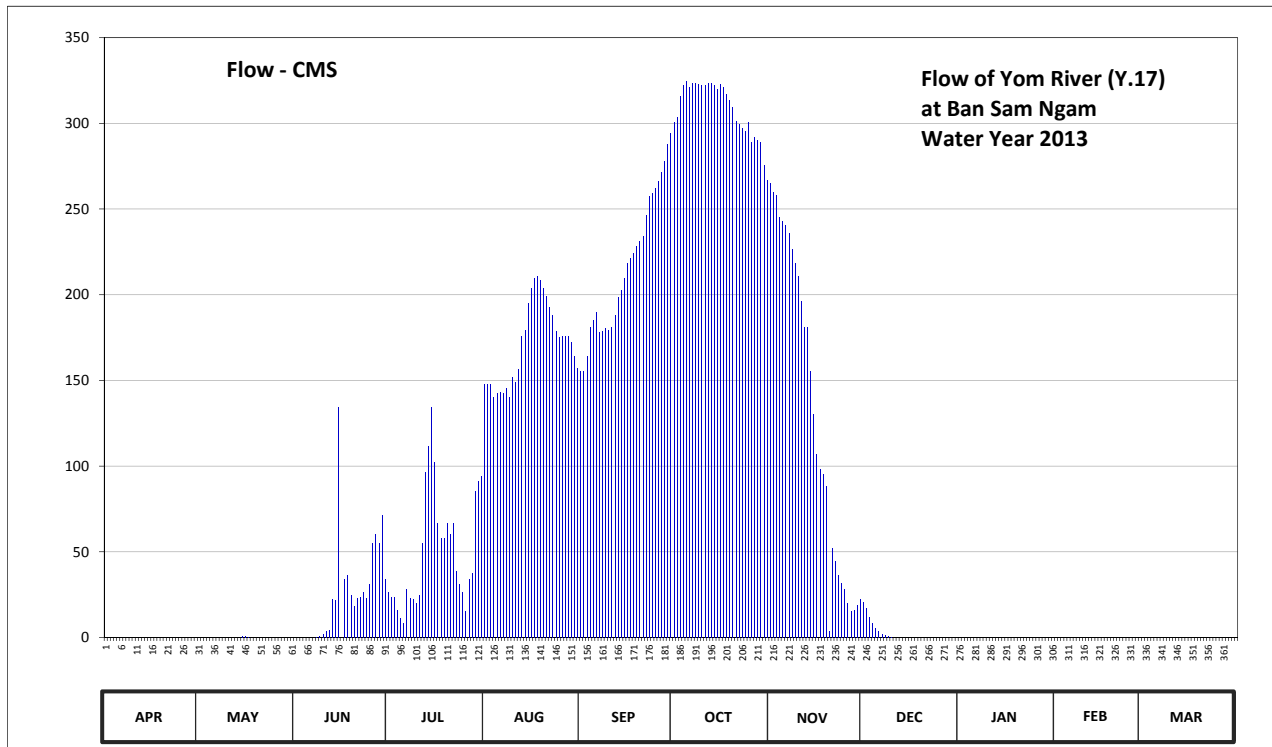
| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep                              | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 32.03 | 31.77 | 32.11       | 33.94 | 35.15 | 36.32                            | 39.39 | 38.63             | 33.90 | 32.16 | 31.85 | 31.85 |        |
| 2                                | 32.00 | 31.78 | 32.14       | 33.78 | 35.18 | 36.53                            | 39.45 | 38.56             | 33.75 | 32.16 | 31.85 | 31.85 |        |
| 3                                | 31.95 | 31.78 | 32.15       | 33.79 | 35.16 | 36.93                            | 39.60 | 38.49             | 33.45 | 32.16 | 31.85 | 31.85 |        |
| 4                                | 31.90 | 31.77 | 32.14       | 33.58 | 35.14 | 37.35                            | 39.70 | 38.40             | 33.24 | 32.15 | 31.85 | 31.85 |        |
| 5                                | 31.88 | 31.81 | 32.14       | 33.56 | 35.14 | 37.43                            | 39.81 | 38.28             | 33.13 | 32.14 | 31.85 | 31.85 |        |
| 6                                | 31.86 | 31.78 | 32.37       | 33.55 | 35.17 | 37.32                            | 39.89 | 38.18             | 33.13 | 32.14 | 31.85 | 31.85 |        |
| 7                                | 31.84 | 31.79 | 32.69       | 33.69 | 35.23 | 37.10                            | 39.93 | 38.08             | 33.10 | 32.03 | 31.85 | 31.93 |        |
| 8                                | 31.82 | 31.97 | 32.90       | 33.66 | 35.37 | 37.10                            | 39.96 | 37.93             | 33.06 | 31.87 | 31.85 | 31.93 |        |
| 9                                | 31.82 | 32.94 | 33.03       | 33.65 | 35.93 | 37.16                            | 39.97 | 37.71             | 33.03 | 31.87 | 31.85 | 31.93 |        |
| 10                               | 31.81 | 33.06 | 33.11       | 33.62 | 35.92 | 37.14                            | 39.96 | 37.42             | 33.00 | 31.87 | 31.85 | 31.93 |        |
| 11                               | 31.81 | 33.08 | 33.19       | 33.76 | 35.91 | 37.20                            | 39.94 | 37.19             | 32.98 | 31.87 | 31.85 | 31.93 |        |
| 12                               | 31.81 | 33.12 | 33.44       | 34.56 | 36.18 | 37.42                            | 39.92 | 36.86             | 32.82 | 31.87 | 31.85 | 31.93 |        |
| 13                               | 31.81 | 33.13 | 33.64       | 34.73 | 36.69 | 37.51                            | 39.87 | 36.60             | 32.67 | 31.87 | 31.85 | 31.95 |        |
| 14                               | 31.81 | 33.16 | 34.55       | 34.96 | 37.08 | 37.63                            | 39.78 | 35.93             | 32.61 | 31.87 | 31.85 | 31.95 |        |
| 15                               | 31.81 | 33.17 | 34.84       | 35.00 | 37.22 | 37.77                            | 39.69 | 35.33             | 32.59 | 31.87 | 31.85 | 31.97 |        |
| 16                               | 31.81 | 33.12 | 34.28       | 34.87 | 37.42 | 37.86                            | 39.59 | 34.87             | 32.55 | 31.87 | 31.85 | 31.97 |        |
| 17                               | 31.82 | 32.98 | 34.03       | 34.62 | 37.46 | 37.91                            | 39.49 | 34.55             | 32.54 | 31.87 | 31.85 | 31.97 |        |
| 18                               | 31.89 | 32.88 | 33.98       | 34.57 | 37.50 | 37.96                            | 39.36 | 34.43             | 32.53 | 31.87 | 31.85 | 31.97 |        |
| 19                               | 31.82 | 32.74 | 33.79       | 34.67 | 37.59 | 37.98                            | 39.24 | 34.36             | 32.53 | 31.87 | 31.85 | 31.97 |        |
| 20                               | 31.81 | 32.61 | 33.68       | 34.73 | 37.52 | 38.03                            | 39.10 | 34.48             | 32.73 | 31.87 | 31.85 | 31.97 |        |
| 21                               | 31.81 | 32.54 | 33.65       | 34.67 | 37.42 | 38.06                            | 38.97 | 34.52             | 32.76 | 31.87 | 31.85 | 31.97 |        |
| 22                               | 31.81 | 32.47 | 33.76       | 34.55 | 37.29 | 38.15                            | 38.94 | 34.51             | 32.75 | 31.87 | 31.85 | 31.97 |        |
| 23                               | 31.81 | 32.38 | 33.78       | 34.23 | 37.08 | 38.29                            | 38.93 | 34.50             | 32.73 | 31.87 | 31.85 | 31.97 |        |
| 24                               | 31.79 | 32.36 | 33.83       | 34.08 | 36.94 | 38.44                            | 38.87 | 34.35             | 32.59 | 31.87 | 31.85 | 31.97 |        |
| 25                               | 31.78 | 32.26 | 34.08       | 34.06 | 36.95 | 38.49                            | 38.85 | 34.24             | 32.57 | 31.87 | 31.85 | 31.97 |        |
| 26                               | 31.77 | 32.20 | 34.27       | 34.00 | 37.01 | 38.61                            | 38.89 | 34.09             | 32.51 | 31.87 | 31.85 | 31.98 |        |
| 27                               | 31.77 | 32.14 | 34.35       | 34.07 | 37.00 | 38.70                            | 38.93 | 33.74             | 32.37 | 31.86 | 31.85 | 31.98 |        |
| 28                               | 31.77 | 32.11 | 34.47       | 34.20 | 37.02 | 38.74                            | 38.93 | 33.69             | 32.30 | 31.85 | 31.85 | 31.98 |        |
| 29                               | 31.77 | 32.07 | 34.46       | 34.76 | 36.88 | 39.13                            | 38.92 | 33.94             | 32.25 | 31.85 |       | 31.98 |        |
| 30                               | 31.77 | 32.08 | 34.11       | 34.71 | 36.52 | 39.26                            | 38.72 | 33.97             | 32.20 | 31.85 |       | 31.98 |        |
| 31                               |       | 32.09 |             | 34.89 | 36.48 |                                  | 38.64 |                   | 32.17 | 31.85 |       | 31.95 |        |
| Mean                             | 31.83 | 32.42 | 33.50       | 34.24 | 36.47 | 37.78                            | 39.39 | 35.93             | 32.79 | 31.93 | 31.85 | 31.94 |        |
| Max                              | 32.03 | 33.17 | 34.84       | 35.00 | 37.59 | 39.26                            | 39.97 | 38.63             | 33.90 | 32.16 | 31.85 | 31.98 | 39.97  |
| Min                              | 31.77 | 31.77 | 32.11       | 33.55 | 35.14 | 36.32                            | 38.64 | 33.69             | 32.17 | 31.85 | 31.85 | 31.85 | 31.77  |
| Annual Max Momentary Gage Height | 39.98 |       | m. (MSL.) , |       |       | at 06.00 Hours , on Oct 9 , 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 31.63 |       | m. (MSL.) , |       |       | River Bed                        | 30.99 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 39.08 |       | m. (MSL.) , |       |       |                                  |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 43.06 |       | m. (MSL.) , |       |       | Drainage Area                    | 20201 | Square Kilometers |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec   | Jan  | Feb  | Mar  | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|---------|-------|------|------|------|-----------------|
| 1              | 0.00                                                            | 0.00                     | 0.00   | 16.10                | 56.63   | 110.60  | 395.92                   | 300.95  | 15.00 | 0.00 | 0.00 | 0.00 |                 |
| 2              | 0.00                                                            | 0.00                     | 0.00   | 12.00                | 57.75   | 122.30  | 403.88                   | 292.90  | 11.25 | 0.00 | 0.00 | 0.00 |                 |
| 3              | 0.00                                                            | 0.00                     | 0.00   | 12.25                | 57.00   | 147.60  | 424.00                   | 284.90  | 4.37  | 0.00 | 0.00 | 0.00 |                 |
| 4              | 0.00                                                            | 0.00                     | 0.00   | 7.30                 | 56.25   | 178.31  | 438.00                   | 275.00  | 0.50  | 0.00 | 0.00 | 0.00 |                 |
| 5              | 0.00                                                            | 0.00                     | 0.00   | 6.85                 | 56.25   | 184.61  | 453.40                   | 261.90  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 6              | 0.00                                                            | 0.00                     | 0.00   | 6.62                 | 57.37   | 175.95  | 464.60                   | 251.50  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 7              | 0.00                                                            | 0.00                     | 0.00   | 9.77                 | 59.70   | 159.50  | 470.20                   | 241.60  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 8              | 0.00                                                            | 0.00                     | 0.00   | 9.10                 | 65.30   | 159.50  | 474.40                   | 227.35  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 9              | 0.00                                                            | 0.00                     | 0.00   | 8.88                 | 90.50   | 163.70  | 475.80                   | 207.40  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 10             | 0.00                                                            | 0.00                     | 0.00   | 8.20                 | 90.00   | 162.30  | 474.40                   | 183.82  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 11             | 0.00                                                            | 0.00                     | 0.00   | 11.50                | 89.50   | 166.50  | 471.60                   | 165.80  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 12             | 0.00                                                            | 0.00                     | 4.15   | 34.95                | 103.00  | 183.82  | 468.80                   | 142.90  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 13             | 0.00                                                            | 0.00                     | 8.65   | 40.87                | 131.90  | 190.91  | 461.80                   | 126.50  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 14             | 0.00                                                            | 0.00                     | 34.63  | 49.50                | 158.10  | 200.55  | 449.20                   | 90.50   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 15             | 0.00                                                            | 0.00                     | 45.00  | 51.00                | 168.08  | 212.80  | 436.60                   | 63.70   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 16             | 0.00                                                            | 0.00                     | 25.90  | 46.12                | 183.82  | 220.90  | 422.65                   | 46.12   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 17             | 0.00                                                            | 0.00                     | 18.57  | 36.95                | 186.97  | 225.45  | 409.18                   | 34.63   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 18             | 0.00                                                            | 0.00                     | 17.20  | 35.28                | 190.13  | 230.20  | 391.95                   | 30.73   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 19             | 0.00                                                            | 0.00                     | 12.25  | 38.70                | 197.21  | 232.10  | 376.20                   | 28.45   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 20             | 0.00                                                            | 0.00                     | 9.55   | 40.87                | 191.70  | 236.85  | 358.00                   | 32.35   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 21             | 0.00                                                            | 0.00                     | 8.88   | 38.70                | 183.82  | 239.70  | 341.25                   | 33.65   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 22             | 0.00                                                            | 0.00                     | 11.50  | 34.63                | 173.59  | 248.50  | 337.50                   | 33.32   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 23             | 0.00                                                            | 0.00                     | 12.00  | 24.40                | 158.10  | 262.95  | 336.25                   | 33.00   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 24             | 0.00                                                            | 0.00                     | 13.25  | 19.95                | 148.30  | 279.40  | 328.90                   | 28.12   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 25             | 0.00                                                            | 0.00                     | 19.95  | 19.40                | 149.00  | 284.90  | 326.50                   | 24.70   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 26             | 0.00                                                            | 0.00                     | 25.60  | 17.75                | 153.20  | 298.65  | 331.30                   | 20.23   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 27             | 0.00                                                            | 0.00                     | 28.12  | 19.68                | 152.50  | 309.00  | 336.25                   | 11.00   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 28             | 0.00                                                            | 0.00                     | 32.03  | 23.50                | 153.90  | 313.60  | 336.25                   | 9.77    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 29             | 0.00                                                            | 0.00                     | 31.70  | 42.00                | 144.20  | 361.90  | 335.00                   | 16.10   | 0.00  | 0.00 |      | 0.00 |                 |
| 30             | 0.00                                                            | 0.00                     | 20.80  | 40.12                | 121.70  | 378.80  | 311.30                   | 16.93   | 0.00  | 0.00 |      | 0.00 |                 |
| 31             |                                                                 | 0.00                     |        | 46.87                | 119.40  |         | 302.10                   |         | 0.00  | 0.00 |      | 0.00 |                 |
| Total          | 0.00                                                            | 0.00                     | 379.73 | 809.81               | 3904.87 | 6641.85 | 12343.18                 | 3515.82 | 31.12 | 0.00 | 0.00 | 0.00 | 27626.38 CMSDAY |
| Mean           | 0.00                                                            | 0.00                     | 12.66  | 26.12                | 125.96  | 221.40  | 398.17                   | 117.19  | 1.00  | 0.00 | 0.00 | 0.00 | 75.69 CMS       |
| Max            | 0.00                                                            | 0.00                     | 45.00  | 51.00                | 197.21  | 378.80  | 475.80                   | 300.95  | 15.00 | 0.00 | 0.00 | 0.00 | 475.80 CMS      |
| Min            | 0.00                                                            | 0.00                     | 0.00   | 6.62                 | 56.25   | 110.60  | 302.10                   | 9.77    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 0.00                                                            | 0.00                     | 32.81  | 69.97                | 337.38  | 573.86  | 1066.45                  | 303.77  | 2.69  | 0.00 | 0.00 | 0.00 | 2386.92 MCM     |
| Momentary Peak | 477.20 CMS. at 39.98 m. (MSL.) at 06.00 Hours , on Oct 9 , 2013 |                          |        |                      |         |         |                          |         |       |      |      |      |                 |
| Runoff Yield   | 3.75                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 23.623  | Liters/Second/Square KM. |         |       |      |      |      |                 |

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 31.90 | 30.63 | 32.19       | 33.74 | 34.33                            | 34.45 | 36.38             | 35.94 | 33.67 | 32.34 | 30.89 | 30.89 |        |
| 2                                | 31.63 | 30.63 | 32.21       | 33.71 | 34.33                            | 34.45 | 36.42             | 35.87 | 33.62 | 32.34 | 30.89 | 30.89 |        |
| 3                                | 31.50 | 30.62 | 32.19       | 33.71 | 34.33                            | 34.59 | 36.57             | 35.85 | 33.53 | 32.34 | 30.89 | 30.89 |        |
| 4                                | 31.38 | 30.62 | 32.21       | 33.60 | 34.20                            | 34.84 | 36.65             | 35.69 | 33.46 | 32.34 | 30.89 | 30.89 |        |
| 5                                | 31.30 | 30.62 | 32.17       | 33.52 | 34.24                            | 34.90 | 36.68             | 35.66 | 33.38 | 32.24 | 30.89 | 30.89 |        |
| 6                                | 31.28 | 30.63 | 32.29       | 33.46 | 34.25                            | 34.96 | 36.64             | 35.63 | 33.33 | 31.99 | 30.89 | 30.89 |        |
| 7                                | 31.19 | 30.63 | 32.69       | 33.76 | 34.24                            | 34.80 | 36.67             | 35.57 | 33.26 | 31.97 | 30.89 | 30.89 |        |
| 8                                | 31.12 | 30.63 | 33.07       | 33.70 | 34.29                            | 34.81 | 36.67             | 35.45 | 33.21 | 31.89 | 30.89 | 30.89 |        |
| 9                                | 30.89 | 30.63 | 33.17       | 33.69 | 34.20                            | 34.83 | 36.66             | 35.34 | 33.19 | 31.89 | 30.89 | 30.89 |        |
| 10                               | 30.79 | 30.63 | 33.24       | 33.66 | 34.40                            | 34.82 | 36.65             | 35.24 | 33.02 | 31.84 | 30.89 | 30.89 |        |
| 11                               | 30.77 | 30.63 | 33.32       | 33.72 | 34.35                            | 34.84 | 36.65             | 35.05 | 32.91 | 31.77 | 30.89 | 30.89 |        |
| 12                               | 30.77 | 30.76 | 33.35       | 33.98 | 34.47                            | 34.94 | 36.67             | 34.84 | 32.85 | 31.16 | 30.89 | 30.89 |        |
| 13                               | 30.77 | 30.79 | 33.69       | 34.16 | 34.77                            | 35.08 | 36.67             | 34.84 | 32.78 | 31.07 | 30.89 | 30.89 |        |
| 14                               | 30.77 | 32.53 | 33.68       | 34.21 | 34.82                            | 35.13 | 36.65             | 34.45 | 32.73 | 31.04 | 30.89 | 30.89 |        |
| 15                               | 30.77 | 33.13 | 34.27       | 34.27 | 35.03                            | 35.23 | 36.62             | 34.04 | 32.69 | 31.04 | 30.89 | 30.89 |        |
| 16                               | 30.77 | 33.14 | 33.00       | 34.18 | 35.15                            | 35.34 | 36.66             | 33.63 | 32.74 | 30.89 | 30.89 | 30.89 |        |
| 17                               | 30.77 | 33.09 | 33.82       | 34.04 | 35.23                            | 35.38 | 36.64             | 33.47 | 32.81 | 30.89 | 30.89 | 30.89 |        |
| 18                               | 30.77 | 32.99 | 33.84       | 34.00 | 35.24                            | 35.42 | 36.59             | 33.42 | 32.82 | 30.89 | 30.89 | 30.89 |        |
| 19                               | 30.77 | 32.89 | 33.72       | 34.00 | 35.21                            | 35.47 | 36.54             | 33.29 | 32.87 | 30.89 | 30.89 | 30.89 |        |
| 20                               | 30.77 | 32.77 | 33.63       | 34.04 | 35.15                            | 35.51 | 36.49             | 33.33 | 32.88 | 30.89 | 30.89 | 30.89 |        |
| 21                               | 30.77 | 32.69 | 33.70       | 34.01 | 35.09                            | 35.55 | 36.39             | 33.96 | 32.84 | 30.89 | 30.89 | 30.89 |        |
| 22                               | 30.77 | 32.49 | 33.71       | 34.04 | 35.00                            | 35.70 | 36.37             | 33.91 | 32.83 | 30.89 | 30.89 | 30.89 |        |
| 23                               | 30.77 | 32.42 | 33.74       | 33.86 | 34.94                            | 35.84 | 36.34             | 33.84 | 32.78 | 30.89 | 30.89 | 30.89 |        |
| 24                               | 30.77 | 32.39 | 33.70       | 33.79 | 34.81                            | 35.86 | 36.32             | 33.80 | 32.71 | 30.89 | 30.89 | 30.91 |        |
| 25                               | 30.77 | 32.36 | 33.79       | 33.74 | 34.76                            | 35.90 | 36.38             | 33.76 | 32.62 | 30.89 | 30.89 | 30.96 |        |
| 26                               | 30.64 | 32.21 | 33.98       | 33.59 | 34.77                            | 35.95 | 36.24             | 33.66 | 32.53 | 30.89 | 30.89 | 30.98 |        |
| 27                               | 30.64 | 32.19 | 34.01       | 33.82 | 34.77                            | 36.02 | 36.27             | 33.59 | 32.49 | 30.89 | 30.89 | 30.98 |        |
| 28                               | 30.64 | 32.17 | 33.98       | 33.85 | 34.77                            | 36.10 | 36.25             | 33.60 | 32.44 | 30.89 | 30.89 | 30.98 |        |
| 29                               | 30.63 | 32.16 | 34.06       | 34.12 | 34.72                            | 36.22 | 36.24             | 33.64 | 32.44 | 30.89 |       | 30.98 |        |
| 30                               | 30.63 | 32.09 | 33.82       | 34.14 | 34.59                            | 36.30 | 36.07             | 33.69 | 32.44 | 30.89 |       | 30.98 |        |
| 31                               |       | 32.13 |             | 34.15 | 34.48                            |       | 35.96             |       | 32.45 | 30.89 |       | 30.98 |        |
| Mean                             | 30.92 | 31.75 | 33.34       | 33.88 | 34.68                            | 35.31 | 36.48             | 34.47 | 32.91 | 31.34 | 30.89 | 30.91 |        |
| Max                              | 31.90 | 33.14 | 34.27       | 34.27 | 35.24                            | 36.30 | 36.68             | 35.94 | 33.67 | 32.34 | 30.89 | 30.98 | 36.68  |
| Min                              | 30.63 | 30.62 | 32.17       | 33.46 | 34.20                            | 34.45 | 35.96             | 33.29 | 32.44 | 30.89 | 30.89 | 30.89 | 30.62  |
| Annual Max Momentary Gage Height | 36.69 |       | m. (MSL.) , |       | at 12.00 Hours , on Oct 5 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 31.49 |       | m. (MSL.) , |       | River Bed                        | 30.53 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 41.81 |       | m. (MSL.) , |       |                                  |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 41.79 |       | m. (MSL.) , |       | Drainage Area                    | 22034 | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec   | Jan  | Feb  | Mar  | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|---------|--------------------------|-------|------|------|------|-----------------|
| 1              | 0.00                                                            | 0.00                     | 0.00   | 26.60                | 147.80  | 155.00  | 300.40  | 265.20                   | 20.90 | 0.00 | 0.00 | 0.00 |                 |
| 2              | 0.00                                                            | 0.00                     | 0.00   | 23.90                | 147.80  | 155.00  | 303.60  | 259.60                   | 17.40 | 0.00 | 0.00 | 0.00 |                 |
| 3              | 0.00                                                            | 0.00                     | 0.00   | 23.90                | 147.80  | 163.85  | 315.60  | 258.00                   | 11.80 | 0.00 | 0.00 | 0.00 |                 |
| 4              | 0.00                                                            | 0.00                     | 0.00   | 16.00                | 140.00  | 180.80  | 322.00  | 245.20                   | 8.40  | 0.00 | 0.00 | 0.00 |                 |
| 5              | 0.00                                                            | 0.00                     | 0.00   | 11.20                | 142.40  | 185.00  | 324.40  | 242.80                   | 5.40  | 0.00 | 0.00 | 0.00 |                 |
| 6              | 0.00                                                            | 0.00                     | 0.00   | 8.40                 | 143.00  | 189.50  | 321.20  | 240.40                   | 3.90  | 0.00 | 0.00 | 0.00 |                 |
| 7              | 0.00                                                            | 0.00                     | 0.00   | 28.40                | 142.40  | 178.00  | 323.60  | 235.68                   | 2.20  | 0.00 | 0.00 | 0.00 |                 |
| 8              | 0.00                                                            | 0.00                     | 0.35   | 23.00                | 145.40  | 178.70  | 323.60  | 226.38                   | 1.20  | 0.00 | 0.00 | 0.00 |                 |
| 9              | 0.00                                                            | 0.00                     | 0.85   | 22.30                | 140.00  | 180.10  | 322.80  | 218.00                   | 0.95  | 0.00 | 0.00 | 0.00 |                 |
| 10             | 0.00                                                            | 0.00                     | 1.80   | 20.20                | 152.00  | 179.40  | 322.00  | 210.50                   | 0.10  | 0.00 | 0.00 | 0.00 |                 |
| 11             | 0.00                                                            | 0.00                     | 3.60   | 24.80                | 149.00  | 180.80  | 322.00  | 196.25                   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 12             | 0.00                                                            | 0.00                     | 4.50   | 55.00                | 156.20  | 188.00  | 323.60  | 180.80                   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 13             | 0.00                                                            | 0.00                     | 22.30  | 96.80                | 175.90  | 198.50  | 323.60  | 180.80                   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 14             | 0.00                                                            | 0.00                     | 21.60  | 111.80               | 179.40  | 202.25  | 322.00  | 155.00                   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 15             | 0.00                                                            | 0.65                     | 134.60 | 134.60               | 194.75  | 209.75  | 319.60  | 130.40                   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 16             | 0.00                                                            | 0.70                     | 0.00   | 102.40               | 203.75  | 218.00  | 322.80  | 107.15                   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 17             | 0.00                                                            | 0.45                     | 34.20  | 66.80                | 209.75  | 221.00  | 321.20  | 98.35                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 18             | 0.00                                                            | 0.00                     | 36.40  | 58.00                | 210.50  | 224.05  | 317.20  | 95.60                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 19             | 0.00                                                            | 0.00                     | 24.80  | 58.00                | 208.25  | 227.93  | 313.20  | 88.45                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 20             | 0.00                                                            | 0.00                     | 18.10  | 66.80                | 203.75  | 231.02  | 309.20  | 3.90                     | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 21             | 0.00                                                            | 0.00                     | 23.00  | 60.20                | 199.25  | 234.13  | 301.20  | 52.00                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 22             | 0.00                                                            | 0.00                     | 23.90  | 66.80                | 192.50  | 246.00  | 299.60  | 44.50                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 23             | 0.00                                                            | 0.00                     | 26.60  | 38.60                | 188.00  | 257.20  | 297.20  | 36.40                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 24             | 0.00                                                            | 0.00                     | 23.00  | 31.10                | 178.70  | 258.80  | 295.60  | 32.00                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 25             | 0.00                                                            | 0.00                     | 31.10  | 26.60                | 175.20  | 262.00  | 300.40  | 28.40                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 26             | 0.00                                                            | 0.00                     | 55.00  | 15.40                | 175.90  | 266.00  | 289.20  | 20.20                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 27             | 0.00                                                            | 0.00                     | 60.20  | 34.20                | 175.90  | 271.60  | 291.60  | 15.40                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 28             | 0.00                                                            | 0.00                     | 55.00  | 37.50                | 175.90  | 278.00  | 290.00  | 16.00                    | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 29             | 0.00                                                            | 0.00                     | 71.20  | 85.60                | 172.40  | 287.60  | 289.20  | 18.80                    | 0.00  | 0.00 |      | 0.00 |                 |
| 30             | 0.00                                                            | 0.00                     | 34.20  | 91.20                | 163.85  | 294.00  | 275.60  | 22.30                    | 0.00  | 0.00 |      | 0.00 |                 |
| 31             |                                                                 | 0.00                     |        | 94.00                | 156.80  |         | 266.80  |                          | 0.00  | 0.00 |      | 0.00 |                 |
| <hr/>          |                                                                 |                          |        |                      |         |         |         |                          |       |      |      |      |                 |
| Total          | 0.00                                                            | 1.80                     | 706.30 | 1560.10              | 5294.25 | 6501.98 | 9570.00 | 3924.46                  | 72.25 | 0.00 | 0.00 | 0.00 | 27631.14 CMSDAY |
| Mean           | 0.00                                                            | 0.06                     | 23.54  | 50.33                | 170.78  | 216.73  | 308.71  | 130.82                   | 2.33  | 0.00 | 0.00 | 0.00 | 75.70 CMS       |
| Max            | 0.00                                                            | 0.70                     | 134.60 | 134.60               | 210.50  | 294.00  | 324.40  | 265.20                   | 20.90 | 0.00 | 0.00 | 0.00 | 324.40 CMS      |
| Min            | 0.00                                                            | 0.00                     | 0.00   | 8.40                 | 140.00  | 155.00  | 266.80  | 3.90                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 0.00                                                            | 0.16                     | 61.24  | 134.79               | 457.42  | 561.77  | 826.85  | 339.07                   | 6.24  | 0.00 | 0.00 | 0.00 | 2387.33 MCM     |
| Momentary Peak | 325.20 CMS. at 36.69 m. (MSL.) at 12.00 Hours , on Oct 5 , 2013 |                          |        |                      |         |         |         |                          |       |      |      |      |                 |
| Runoff Yield   | 3.44                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 14.759  |         | Liters/Second/Square KM. |       |      |      |      |                 |

**WATER YEAR : 2013**

## YOM RIVER BASIN

## Yom River at Ban Huai Sak , Phrae (Y.20)

Lat 18 - 35 - 06 N      Long 100 - 09 - 16 E

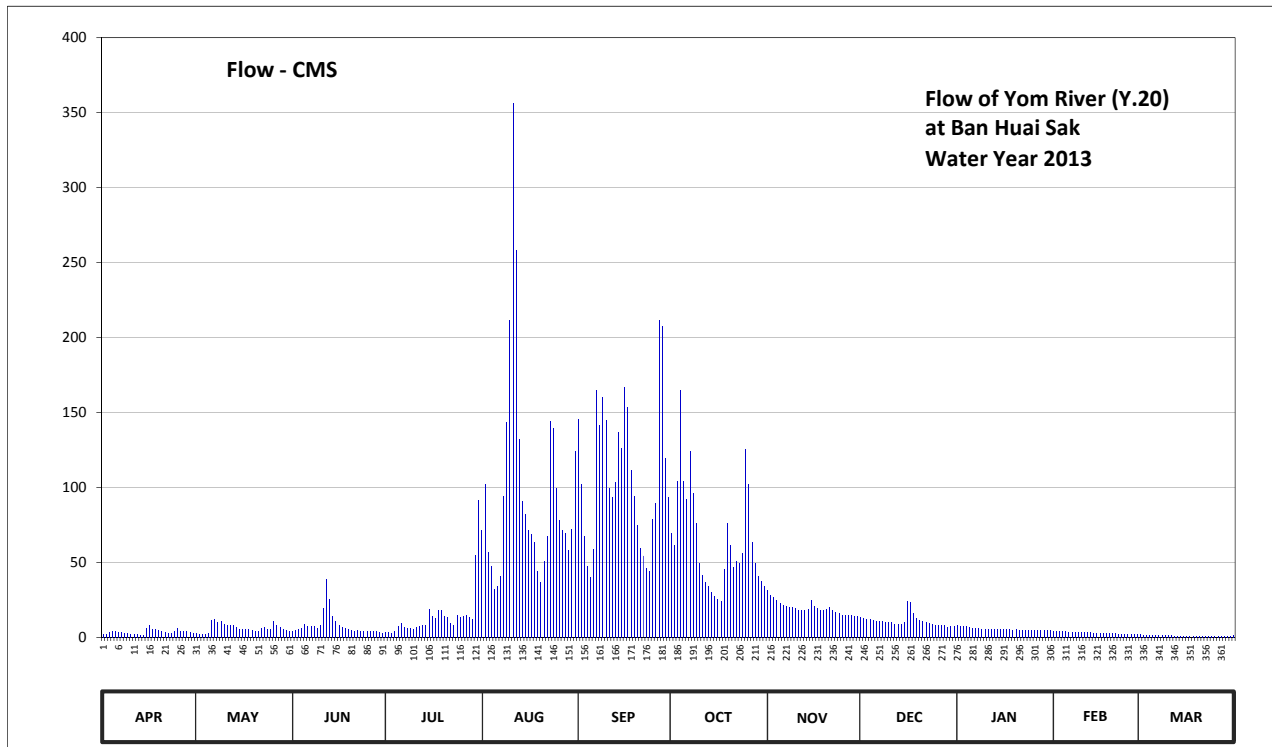
**Location :** on left bank about 1 kilometer downstream from Sop Ngao.

|                                         |                                                                             |           |               |      |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Huai Sak  | <b>Amphoe</b> | Song | <b>Changwat</b>  | Phrae              |
| <b>Drainage Area</b>                    | 5,394                                                                       | sq.km.    |               |      |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |      |                  |                    |
| <b>Zero Gage at Bottom</b>              | +181.000                                                                    | m. (MSL.) |               |      |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |      |                  |                    |
| <b>Location BM</b>                      | Near the automatic gage building.                                           |           |               |      | <b>Elevation</b> | +193.552 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |      |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |      |                  |                    |
| <b>Period of Available Gage Records</b> | 1971 to date                                                                |           |               |      |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |           |               |      |                  |                    |
| <b>Period of Rating</b>                 | 1972 to date                                                                |           |               |      |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |      |                  |                    |
| <b>Rated by Current Meter</b>           | 1972 to date                                                                |           |               |      |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                  |           |               |      |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |      |                  |                    |
| <b>General Description</b>              | Records good. Mae yom weir situated about 15 kilometers above site.         |           |               |      |                  |                    |
|                                         | Stage-discharge relation defined by 44 discharge measurements made in 2013. |           |               |      |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun    | Jul         | Aug                               | Sep           | Oct       | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------|-------------|-----------------------------------|---------------|-----------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 181.66 | 181.68 | 181.78 | 181.72      | 183.25                            | 184.31        | 183.22    | 182.56            | 182.16 | 181.96 | 181.79 | 181.63 |        |
| 2                                | 181.66 | 181.66 | 181.80 | 181.72      | 183.73                            | 183.73        | 183.09    | 182.50            | 182.13 | 181.95 | 181.79 | 181.62 |        |
| 3                                | 181.72 | 181.64 | 181.86 | 181.68      | 183.01                            | 183.19        | 183.76    | 182.46            | 182.12 | 181.94 | 181.76 | 181.61 |        |
| 4                                | 181.79 | 181.65 | 181.89 | 181.77      | 182.86                            | 182.86        | 184.55    | 182.42            | 182.11 | 181.94 | 181.77 | 181.61 |        |
| 5                                | 181.77 | 181.69 | 182.01 | 181.93      | 182.58                            | 182.73        | 183.76    | 182.39            | 182.10 | 181.91 | 181.76 | 181.62 |        |
| 6                                | 181.75 | 182.09 | 181.94 | 182.02      | 182.61                            | 183.04        | 183.57    | 182.36            | 182.07 | 181.89 | 181.75 | 181.62 |        |
| 7                                | 181.72 | 182.11 | 181.95 | 181.92      | 182.74                            | 184.55        | 184.03    | 182.33            | 182.07 | 181.89 | 181.73 | 181.61 |        |
| 8                                | 181.70 | 182.04 | 181.95 | 181.89      | 183.60                            | 184.26        | 183.64    | 182.32            | 182.06 | 181.87 | 181.73 | 181.60 |        |
| 9                                | 181.67 | 182.07 | 181.89 | 181.88      | 184.28                            | 184.49        | 183.32    | 182.32            | 182.04 | 181.86 | 181.74 | 181.60 |        |
| 10                               | 181.65 | 181.99 | 181.96 | 181.86      | 185.07                            | 184.30        | 182.89    | 182.31            | 182.04 | 181.86 | 181.73 | 181.60 |        |
| 11                               | 181.65 | 181.97 | 182.31 | 181.92      | 186.48                            | 183.69        | 182.76    | 182.28            | 182.04 | 181.85 | 181.73 | 181.58 |        |
| 12                               | 181.63 | 181.98 | 182.70 | 181.95      | 185.56                            | 183.59        | 182.67    | 182.28            | 182.01 | 181.84 | 181.72 | 181.57 |        |
| 13                               | 181.61 | 181.96 | 182.44 | 181.98      | 184.14                            | 183.75        | 182.61    | 182.28            | 182.01 | 181.84 | 181.72 | 181.56 |        |
| 14                               | 181.61 | 181.90 | 182.18 | 181.98      | 183.55                            | 184.20        | 182.54    | 182.29            | 182.00 | 181.85 | 181.70 | 181.56 |        |
| 15                               | 181.89 | 181.86 | 182.06 | 182.29      | 183.42                            | 184.06        | 182.48    | 182.42            | 182.04 | 181.84 | 181.70 | 181.57 |        |
| 16                               | 181.97 | 181.83 | 181.96 | 182.18      | 183.25                            | 184.57        | 182.44    | 182.34            | 182.41 | 181.84 | 181.69 | 181.57 |        |
| 17                               | 181.84 | 181.85 | 181.92 | 182.13      | 183.21                            | 184.41        | 182.41    | 182.30            | 182.40 | 181.83 | 181.69 | 181.57 |        |
| 18                               | 181.85 | 181.84 | 181.88 | 182.28      | 183.12                            | 183.86        | 182.83    | 182.28            | 182.23 | 181.83 | 181.70 | 181.57 |        |
| 19                               | 181.81 | 181.80 | 181.84 | 182.28      | 182.80                            | 183.60        | 183.32    | 182.28            | 182.14 | 181.82 | 181.67 | 181.57 |        |
| 20                               | 181.78 | 181.78 | 181.80 | 182.17      | 182.66                            | 183.30        | 183.09    | 182.29            | 182.10 | 181.83 | 181.67 | 181.56 |        |
| 21                               | 181.75 | 181.79 | 181.79 | 182.16      | 182.92                            | 183.06        | 182.85    | 182.32            | 182.06 | 181.82 | 181.67 | 181.55 |        |
| 22                               | 181.71 | 181.87 | 181.80 | 182.02      | 183.19                            | 182.97        | 182.91    | 182.28            | 182.05 | 181.81 | 181.65 | 181.54 |        |
| 23                               | 181.71 | 181.90 | 181.79 | 181.97      | 184.29                            | 182.84        | 182.89    | 182.25            | 182.03 | 181.81 | 181.65 | 181.54 |        |
| 24                               | 181.79 | 181.85 | 181.78 | 182.20      | 184.23                            | 182.80        | 183.00    | 182.22            | 182.00 | 181.80 | 181.64 | 181.55 |        |
| 25                               | 181.87 | 181.86 | 181.78 | 182.15      | 183.69                            | 183.37        | 184.05    | 182.20            | 181.98 | 181.81 | 181.64 | 181.57 |        |
| 26                               | 181.79 | 182.07 | 181.78 | 182.17      | 183.36                            | 183.53        | 183.73    | 182.20            | 181.98 | 181.81 | 181.65 | 181.57 |        |
| 27                               | 181.77 | 181.96 | 181.76 | 182.20      | 183.25                            | 185.07        | 183.12    | 182.19            | 181.98 | 181.81 | 181.64 | 181.56 |        |
| 28                               | 181.78 | 181.91 | 181.77 | 182.16      | 183.22                            | 185.02        | 182.89    | 182.19            | 181.97 | 181.81 | 181.64 | 181.56 |        |
| 29                               | 181.75 | 181.86 | 181.75 | 182.12      | 183.03                            | 183.97        | 182.74    | 182.18            | 181.92 | 181.81 |        | 181.56 |        |
| 30                               | 181.71 | 181.82 | 181.71 | 182.98      | 183.26                            | 183.59        | 182.68    | 182.17            | 181.94 | 181.80 |        | 181.57 |        |
| 31                               |        | 181.78 |        | 183.56      | 184.03                            |               | 182.62    |                   | 181.95 | 181.80 |        | 181.59 |        |
| Mean                             | 181.75 | 181.87 | 181.93 | 182.10      | 183.56                            | 183.76        | 183.11    | 182.31            | 182.07 | 181.85 | 181.70 | 181.58 |        |
| Max                              | 181.97 | 182.11 | 182.70 | 183.56      | 186.48                            | 185.07        | 184.55    | 182.56            | 182.41 | 181.96 | 181.79 | 181.63 | 186.48 |
| Min                              | 181.61 | 181.64 | 181.71 | 181.68      | 182.58                            | 182.73        | 182.41    | 182.17            | 181.92 | 181.80 | 181.64 | 181.54 | 181.54 |
| Annual Max Momentary Gage Height |        |        | 187.36 | m. (MSL.) , | at 14.00 Hours , on Aug 11 , 2013 |               |           |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        |        | 181.00 | m. (MSL.) , | River Bed                         | 179.61        | m. (MSL.) |                   |        |        |        |        |        |
| Left Bank Elevation              |        |        | 193.51 | m. (MSL.) , |                                   |               |           |                   |        |        |        |        |        |
| Right Bank Elevation             |        |        | 193.64 | m. (MSL.) , |                                   | Drainage Area | 5394      | Square Kilometers |        |        |        |        |        |

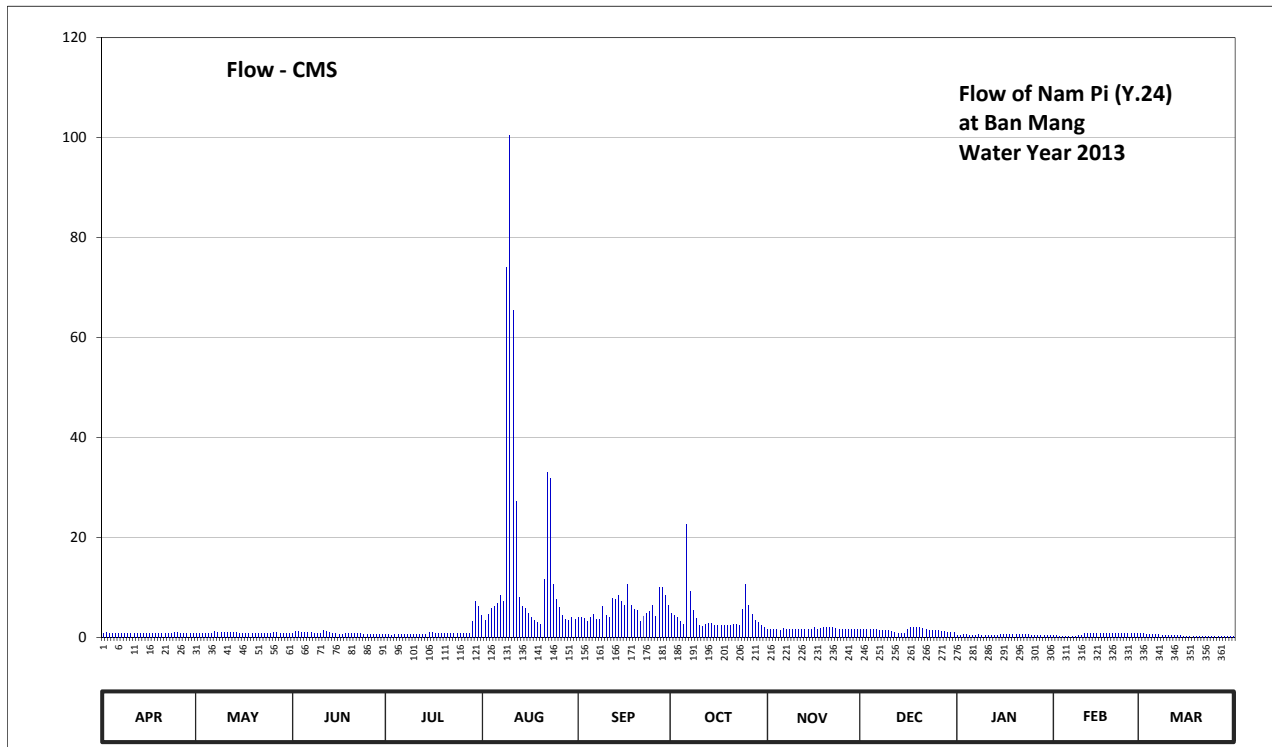




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|-------|-------|----------|--------|
| 1              | 2.50                                                              | 2.80                     | 4.38   | 3.42                 | 71.70   | 145.80  | 69.84                    | 31.54  | 13.74  | 8.08   | 4.54  | 2.05  |          |        |
| 2              | 2.50                                                              | 2.50                     | 4.70   | 3.42                 | 102.45  | 102.45  | 61.78                    | 28.60  | 12.72  | 7.85   | 4.54  | 1.90  |          |        |
| 3              | 3.42                                                              | 2.20                     | 5.90   | 2.80                 | 56.82   | 67.98   | 104.40                   | 26.64  | 12.38  | 7.62   | 4.06  | 1.75  |          |        |
| 4              | 4.54                                                              | 2.35                     | 6.50   | 4.22                 | 47.66   | 47.66   | 165.00                   | 24.68  | 12.04  | 7.62   | 4.22  | 1.75  |          |        |
| 5              | 4.22                                                              | 2.95                     | 9.27   | 7.39                 | 32.52   | 40.32   | 104.40                   | 23.27  | 11.70  | 6.93   | 4.06  | 1.90  |          |        |
| 6              | 3.90                                                              | 11.43                    | 7.62   | 9.54                 | 34.02   | 58.68   | 92.05                    | 21.98  | 10.89  | 6.50   | 3.90  | 1.90  |          |        |
| 7              | 3.42                                                              | 12.04                    | 7.85   | 7.16                 | 40.85   | 165.00  | 124.25                   | 20.69  | 10.89  | 6.50   | 3.58  | 1.75  |          |        |
| 8              | 3.10                                                              | 10.08                    | 7.85   | 6.50                 | 94.00   | 141.80  | 96.60                    | 20.26  | 10.62  | 6.10   | 3.58  | 1.60  |          |        |
| 9              | 2.65                                                              | 10.89                    | 6.50   | 6.30                 | 143.40  | 160.20  | 76.04                    | 20.26  | 10.08  | 5.90   | 3.74  | 1.60  |          |        |
| 10             | 2.35                                                              | 8.77                     | 8.08   | 5.90                 | 211.69  | 145.00  | 49.49                    | 19.83  | 10.08  | 5.90   | 3.58  | 1.60  |          |        |
| 11             | 2.35                                                              | 8.31                     | 19.83  | 7.16                 | 356.20  | 99.85   | 41.90                    | 18.54  | 10.08  | 5.70   | 3.58  | 1.38  |          |        |
| 12             | 2.05                                                              | 8.54                     | 38.75  | 7.85                 | 258.00  | 93.35   | 37.17                    | 18.54  | 9.27   | 5.50   | 3.42  | 1.27  |          |        |
| 13             | 1.75                                                              | 8.08                     | 25.66  | 8.54                 | 132.50  | 103.75  | 34.02                    | 18.54  | 9.27   | 5.50   | 3.42  | 1.16  |          |        |
| 14             | 1.75                                                              | 6.70                     | 14.42  | 8.54                 | 90.75   | 137.00  | 30.56                    | 18.97  | 9.00   | 5.70   | 3.10  | 1.16  |          |        |
| 15             | 6.50                                                              | 5.90                     | 10.62  | 18.97                | 82.30   | 126.50  | 27.62                    | 24.68  | 10.08  | 5.50   | 3.10  | 1.27  |          |        |
| 16             | 8.31                                                              | 5.30                     | 8.08   | 14.42                | 71.70   | 166.60  | 25.66                    | 21.12  | 24.19  | 5.50   | 2.95  | 1.27  |          |        |
| 17             | 5.50                                                              | 5.70                     | 7.16   | 12.72                | 69.22   | 153.80  | 24.19                    | 19.40  | 23.70  | 5.30   | 2.95  | 1.27  |          |        |
| 18             | 5.70                                                              | 5.50                     | 6.30   | 18.54                | 63.64   | 111.50  | 45.83                    | 18.54  | 16.39  | 5.30   | 3.10  | 1.27  |          |        |
| 19             | 4.90                                                              | 4.70                     | 5.50   | 18.54                | 44.00   | 94.00   | 76.04                    | 18.54  | 13.06  | 5.10   | 2.65  | 1.27  |          |        |
| 20             | 4.38                                                              | 4.38                     | 4.70   | 14.08                | 36.65   | 74.80   | 61.78                    | 18.97  | 11.70  | 5.30   | 2.65  | 1.16  |          |        |
| 21             | 3.90                                                              | 4.54                     | 4.54   | 13.74                | 51.32   | 59.92   | 47.05                    | 20.26  | 10.62  | 5.10   | 2.65  | 1.05  |          |        |
| 22             | 3.26                                                              | 6.10                     | 4.70   | 9.54                 | 67.98   | 54.37   | 50.71                    | 18.54  | 10.35  | 4.90   | 2.35  | 0.94  |          |        |
| 23             | 3.26                                                              | 6.70                     | 4.54   | 8.31                 | 144.20  | 46.44   | 49.49                    | 17.25  | 9.81   | 4.90   | 2.35  | 0.94  |          |        |
| 24             | 4.54                                                              | 5.70                     | 4.38   | 15.10                | 139.40  | 44.00   | 56.20                    | 15.96  | 9.00   | 4.70   | 2.20  | 1.05  |          |        |
| 25             | 6.10                                                              | 5.90                     | 4.38   | 13.40                | 99.85   | 79.14   | 125.75                   | 15.10  | 8.54   | 4.90   | 2.20  | 1.27  |          |        |
| 26             | 4.54                                                              | 10.89                    | 4.38   | 14.08                | 78.52   | 89.45   | 102.45                   | 15.10  | 8.54   | 4.90   | 2.35  | 1.27  |          |        |
| 27             | 4.22                                                              | 8.08                     | 4.06   | 15.10                | 71.70   | 211.69  | 63.64                    | 14.76  | 8.54   | 4.90   | 2.20  | 1.16  |          |        |
| 28             | 4.38                                                              | 6.93                     | 4.22   | 13.74                | 69.84   | 207.15  | 49.49                    | 14.76  | 8.31   | 4.90   | 2.20  | 1.16  |          |        |
| 29             | 3.90                                                              | 5.90                     | 3.90   | 12.38                | 58.06   | 119.75  | 40.85                    | 14.42  | 7.16   | 4.90   |       | 1.16  |          |        |
| 30             | 3.26                                                              | 5.10                     | 3.26   | 54.98                | 72.32   | 93.35   | 37.70                    | 14.08  | 7.62   | 4.70   |       | 1.27  |          |        |
| 31             |                                                                   | 4.38                     |        | 91.40                | 124.25  |         | 34.55                    |        | 7.85   | 4.70   |       | 1.49  |          |        |
| Total          | 117.15                                                            | 199.34                   | 252.03 | 447.78               | 3017.51 | 3241.30 | 2006.50                  | 593.82 | 348.22 | 176.90 | 89.22 | 43.04 | 10532.81 | CMSDAY |
| Mean           | 3.90                                                              | 6.43                     | 8.40   | 14.44                | 97.34   | 108.04  | 64.73                    | 19.79  | 11.23  | 5.71   | 3.19  | 1.39  | 28.86    | CMS    |
| Max            | 8.31                                                              | 12.04                    | 38.75  | 91.40                | 356.20  | 211.69  | 165.00                   | 31.54  | 24.19  | 8.08   | 4.54  | 2.05  | 356.20   | CMS    |
| Min            | 1.75                                                              | 2.20                     | 3.26   | 2.80                 | 32.52   | 40.32   | 24.19                    | 14.08  | 7.16   | 4.70   | 2.20  | 0.94  | 0.94     | CMS    |
| Runoff         | 10.12                                                             | 17.22                    | 21.78  | 38.69                | 260.71  | 280.05  | 173.36                   | 51.31  | 30.09  | 15.28  | 7.71  | 3.72  | 910.04   | MCM    |
| Momentary Peak | 458.20 CMS. at 187.36 m. (MSL.) at 14.00 Hours , on Aug 11 , 2013 |                          |        |                      |         |         |                          |        |        |        |       |       |          |        |
| Runoff Yield   | 5.35                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 84.946  | Liters/Second/Square KM. |        |        |        |       |       |          |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|-------|----------------|
| 1              | 1.00                                                              | 0.90                     | 1.00  | 0.60                 | 4.50   | 4.00    | 5.00                     | 1.80  | 1.60  | 0.50  | 0.40  | 0.90  |                |
| 2              | 1.10                                                              | 0.90                     | 1.20  | 0.60                 | 3.50   | 4.00    | 4.50                     | 1.70  | 1.60  | 0.50  | 0.40  | 0.80  |                |
| 3              | 1.00                                                              | 0.90                     | 1.20  | 0.50                 | 4.60   | 3.80    | 4.00                     | 1.60  | 1.60  | 0.60  | 0.30  | 0.60  |                |
| 4              | 1.00                                                              | 0.90                     | 1.10  | 0.60                 | 5.90   | 3.40    | 3.20                     | 1.60  | 1.60  | 0.60  | 0.30  | 0.60  |                |
| 5              | 0.90                                                              | 1.00                     | 1.10  | 0.70                 | 6.30   | 4.00    | 2.70                     | 1.50  | 1.60  | 0.50  | 0.30  | 0.60  |                |
| 6              | 0.90                                                              | 1.00                     | 1.10  | 0.60                 | 6.80   | 4.60    | 22.70                    | 1.90  | 1.60  | 0.50  | 0.20  | 0.60  |                |
| 7              | 0.90                                                              | 1.20                     | 1.10  | 0.60                 | 8.40   | 3.70    | 9.20                     | 1.80  | 1.50  | 0.50  | 0.20  | 0.60  |                |
| 8              | 0.90                                                              | 1.10                     | 1.00  | 0.60                 | 7.30   | 3.70    | 5.50                     | 1.70  | 1.50  | 0.60  | 0.30  | 0.50  |                |
| 9              | 0.80                                                              | 1.10                     | 1.00  | 0.60                 | 74.10  | 6.30    | 3.80                     | 1.60  | 1.50  | 0.50  | 0.40  | 0.50  |                |
| 10             | 0.80                                                              | 1.10                     | 1.00  | 0.60                 | 100.50 | 4.50    | 2.50                     | 1.60  | 1.40  | 0.50  | 0.40  | 0.50  |                |
| 11             | 0.80                                                              | 1.10                     | 1.50  | 0.60                 | 65.40  | 4.20    | 2.30                     | 1.60  | 1.30  | 0.50  | 0.80  | 0.50  |                |
| 12             | 0.80                                                              | 1.10                     | 1.30  | 0.70                 | 27.30  | 7.80    | 2.70                     | 1.80  | 1.10  | 0.50  | 1.00  | 0.40  |                |
| 13             | 0.80                                                              | 1.10                     | 1.10  | 0.70                 | 8.10   | 7.60    | 2.90                     | 1.80  | 0.90  | 0.50  | 1.00  | 0.40  |                |
| 14             | 0.80                                                              | 1.10                     | 1.00  | 0.70                 | 6.30   | 8.40    | 2.80                     | 1.70  | 0.80  | 0.50  | 0.90  | 0.40  |                |
| 15             | 0.80                                                              | 1.00                     | 0.80  | 1.10                 | 5.90   | 7.30    | 2.60                     | 1.60  | 0.90  | 0.60  | 0.90  | 0.30  |                |
| 16             | 0.80                                                              | 1.00                     | 0.70  | 1.10                 | 5.00   | 6.60    | 2.60                     | 2.10  | 1.60  | 0.60  | 0.90  | 0.20  |                |
| 17             | 1.00                                                              | 1.00                     | 0.70  | 1.00                 | 4.00   | 10.70   | 2.50                     | 1.80  | 2.10  | 0.60  | 0.90  | 0.20  |                |
| 18             | 1.00                                                              | 1.00                     | 0.80  | 1.00                 | 3.50   | 6.60    | 2.50                     | 1.90  | 2.10  | 0.60  | 0.90  | 0.20  |                |
| 19             | 1.00                                                              | 1.00                     | 0.90  | 0.90                 | 3.00   | 5.70    | 2.50                     | 2.10  | 2.10  | 0.60  | 0.90  | 0.20  |                |
| 20             | 1.00                                                              | 1.00                     | 0.80  | 0.90                 | 2.70   | 5.50    | 2.40                     | 2.10  | 2.10  | 0.60  | 0.90  | 0.20  |                |
| 21             | 1.00                                                              | 1.00                     | 0.90  | 0.90                 | 11.60  | 3.40    | 2.70                     | 2.00  | 1.90  | 0.60  | 0.90  | 0.20  |                |
| 22             | 1.00                                                              | 1.00                     | 0.90  | 0.80                 | 33.00  | 4.30    | 2.70                     | 2.00  | 1.60  | 0.60  | 0.90  | 0.20  |                |
| 23             | 1.00                                                              | 1.00                     | 0.80  | 0.80                 | 31.90  | 5.00    | 2.50                     | 1.90  | 1.50  | 0.60  | 1.00  | 0.20  |                |
| 24             | 1.10                                                              | 1.00                     | 0.70  | 1.00                 | 10.70  | 5.20    | 5.70                     | 1.80  | 1.40  | 0.60  | 1.00  | 0.20  |                |
| 25             | 1.10                                                              | 1.00                     | 0.70  | 1.00                 | 7.60   | 6.60    | 10.70                    | 1.80  | 1.40  | 0.50  | 1.00  | 0.20  |                |
| 26             | 1.00                                                              | 1.10                     | 0.60  | 1.00                 | 6.10   | 4.30    | 6.60                     | 1.80  | 1.40  | 0.50  | 1.00  | 0.20  |                |
| 27             | 1.00                                                              | 1.10                     | 0.60  | 1.00                 | 4.50   | 10.10   | 4.60                     | 1.80  | 1.30  | 0.50  | 1.00  | 0.20  |                |
| 28             | 1.00                                                              | 1.00                     | 0.60  | 0.90                 | 3.70   | 10.10   | 3.50                     | 1.70  | 1.20  | 0.50  | 1.00  | 0.20  |                |
| 29             | 0.90                                                              | 1.00                     | 0.60  | 3.40                 | 3.50   | 8.40    | 3.00                     | 1.70  | 1.10  | 0.50  |       | 0.20  |                |
| 30             | 0.90                                                              | 1.00                     | 0.60  | 7.30                 | 4.20   | 6.60    | 2.40                     | 1.60  | 1.10  | 0.50  |       | 0.20  |                |
| 31             |                                                                   | 0.90                     |       | 6.30                 | 3.70   |         | 2.10                     |       | 1.10  | 0.50  |       | 0.20  |                |
| Total          | 28.10                                                             | 31.60                    | 27.40 | 39.10                | 473.60 | 176.40  | 135.40                   | 53.40 | 45.50 | 16.80 | 20.10 | 11.40 | 1058.80 CMSDAY |
| Mean           | 0.90                                                              | 1.00                     | 0.90  | 1.30                 | 15.30  | 5.90    | 4.40                     | 1.80  | 1.50  | 0.50  | 0.70  | 0.40  | 6.07 CMS       |
| Max            | 1.10                                                              | 1.20                     | 1.50  | 7.30                 | 100.50 | 10.70   | 22.70                    | 2.10  | 2.10  | 0.60  | 1.00  | 0.90  | 104.10 CMS     |
| Min            | 0.80                                                              | 0.90                     | 0.60  | 0.50                 | 2.70   | 3.40    | 2.10                     | 1.50  | 0.80  | 0.50  | 0.20  | 0.20  | 1.22 CMS       |
| Runoff         | 2.43                                                              | 2.73                     | 2.37  | 3.38                 | 40.92  | 15.24   | 11.70                    | 4.61  | 3.93  | 1.45  | 1.74  | 0.98  | 91.48 MCM      |
| Momentary Peak | 102.30 CMS. at 261.60 m. (MSL.) at 12.00 Hours , on Aug 10 , 2013 |                          |       |                      |        |         |                          |       |       |       |       |       |                |
| Runoff Yield   | 4.92                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 173.390 | Liters/Second/Square KM. |       |       |       |       |       |                |

**WATER YEAR : 2013****YOM RIVER BASIN****Huai Mae Mok at Ban Mae Phu , Lampang (Y.26)**

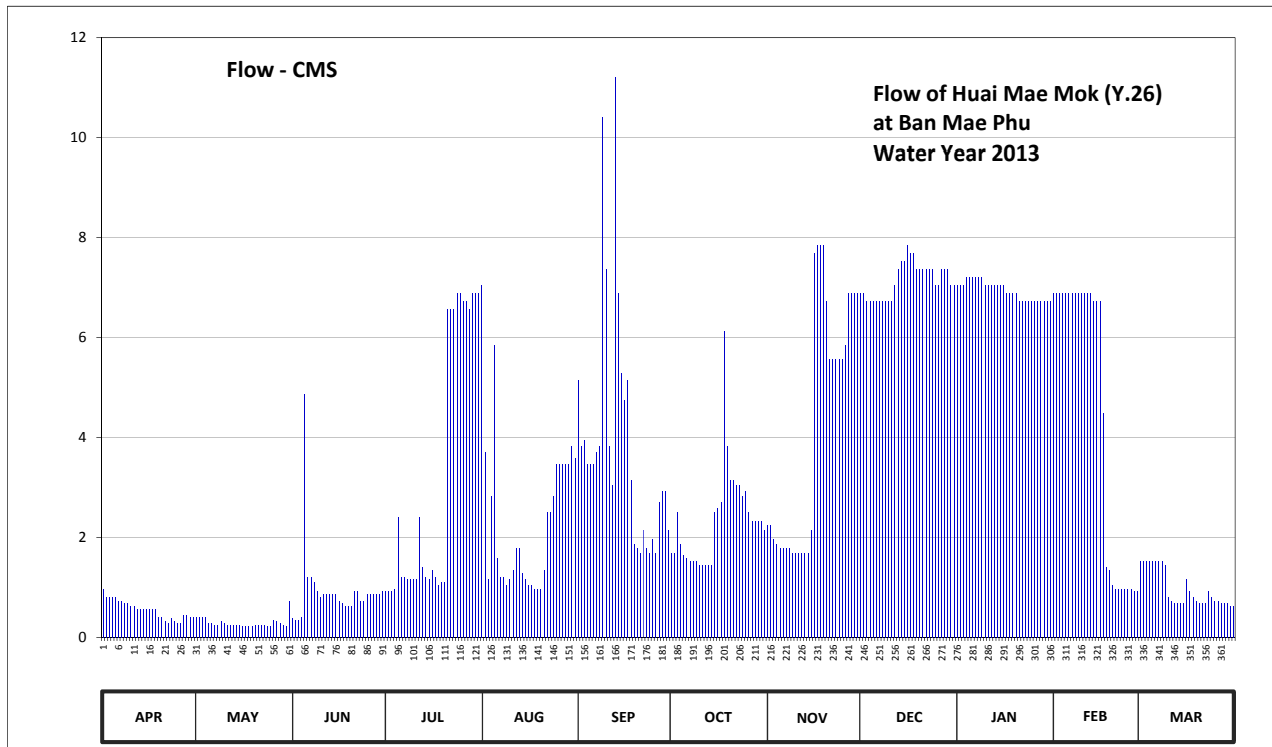
Lat 17 - 19 - 37 N Long 99 - 27 - 42 E

**Location : on left bank downstream from Ban Mae Phu Tambon Wiang Mok.**

|                                         |                                                                                           |                |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Mae Phu</b> | <b>Amphoe</b> | <b>Thoen</b> | <b>Changwat</b>  | <b>Lampang</b>     |
| <b>Drainage Area</b>                    | 784                                                                                       | sq.km.         |               |              |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage           |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +100.380                                                                                  | m. (MSL.)      |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |              |                  |                    |
| <b>Location BM</b>                      | In front of gage observer's house.                                                        |                |               |              | <b>Elevation</b> | +107.081 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 1979 to date                                                                              |                |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |              |                  |                    |
| <b>Period of Rating</b>                 | 1979 to date                                                                              |                |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 1979 to date                                                                              |                |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |              |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2013. |                |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

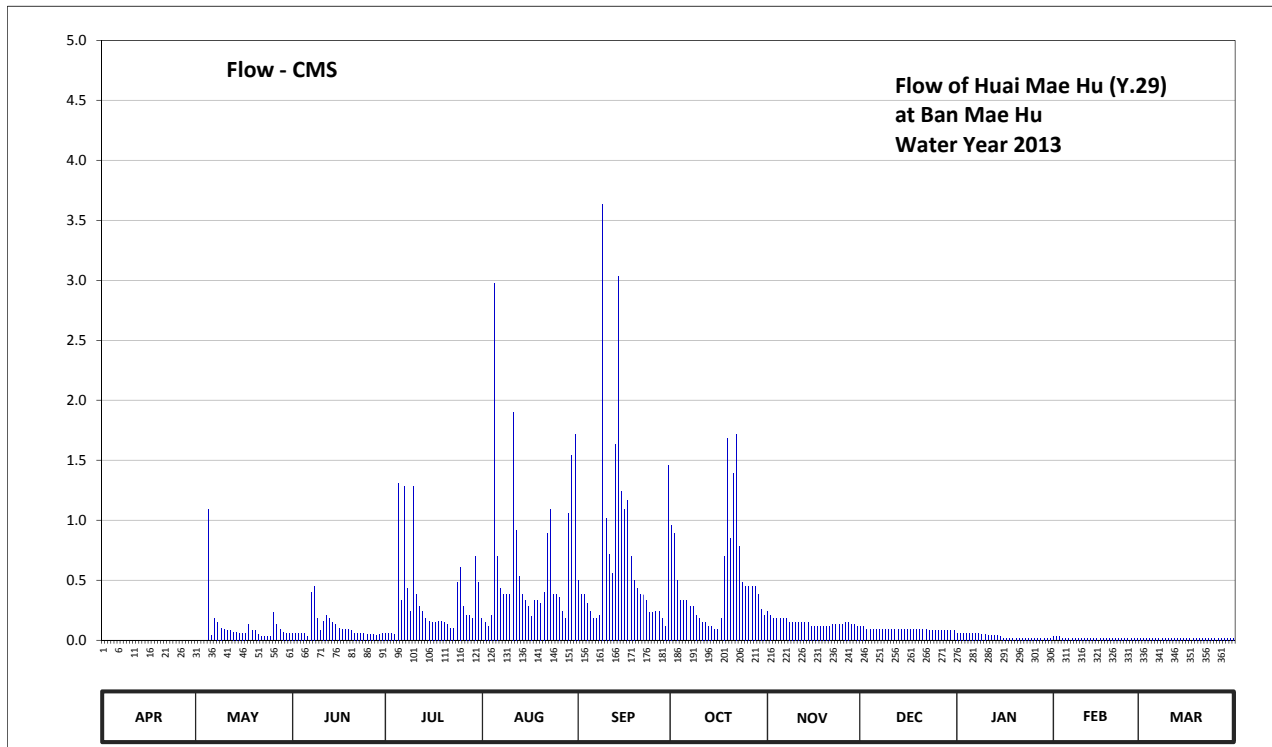
| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep                              | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 100.98 | 100.87 | 100.86      | 100.97 | 101.54 | 101.41                           | 101.10 | 101.16            | 101.53 | 101.54 | 101.53 | 101.07 |        |
| 2                                | 100.95 | 100.87 | 100.85      | 100.97 | 101.30 | 101.31                           | 101.10 | 101.16            | 101.53 | 101.54 | 101.53 | 101.07 |        |
| 3                                | 100.95 | 100.87 | 100.85      | 100.97 | 101.01 | 101.32                           | 101.19 | 101.13            | 101.52 | 101.54 | 101.53 | 101.07 |        |
| 4                                | 100.95 | 100.87 | 100.87      | 100.98 | 101.22 | 101.28                           | 101.12 | 101.12            | 101.52 | 101.55 | 101.53 | 101.07 |        |
| 5                                | 100.95 | 100.83 | 101.39      | 101.18 | 101.46 | 101.28                           | 101.09 | 101.11            | 101.52 | 101.55 | 101.53 | 101.07 |        |
| 6                                | 100.94 | 100.83 | 101.02      | 101.02 | 101.08 | 101.28                           | 101.08 | 101.11            | 101.52 | 101.55 | 101.53 | 101.07 |        |
| 7                                | 100.94 | 100.82 | 101.02      | 101.02 | 101.02 | 101.30                           | 101.07 | 101.11            | 101.52 | 101.55 | 101.53 | 101.07 |        |
| 8                                | 100.93 | 100.82 | 101.00      | 101.01 | 101.02 | 101.31                           | 101.07 | 101.11            | 101.52 | 101.55 | 101.53 | 101.07 |        |
| 9                                | 100.93 | 100.84 | 100.97      | 101.01 | 100.99 | 101.72                           | 101.07 | 101.10            | 101.52 | 101.55 | 101.53 | 101.06 |        |
| 10                               | 100.92 | 100.83 | 100.95      | 101.01 | 101.01 | 101.56                           | 101.06 | 101.10            | 101.52 | 101.54 | 101.53 | 100.95 |        |
| 11                               | 100.92 | 100.82 | 100.96      | 101.01 | 101.04 | 101.31                           | 101.06 | 101.10            | 101.52 | 101.54 | 101.53 | 100.94 |        |
| 12                               | 100.91 | 100.82 | 100.96      | 101.18 | 101.11 | 101.24                           | 101.06 | 101.10            | 101.54 | 101.54 | 101.53 | 100.93 |        |
| 13                               | 100.91 | 100.82 | 100.96      | 101.05 | 101.11 | 101.76                           | 101.06 | 101.10            | 101.56 | 101.54 | 101.53 | 100.93 |        |
| 14                               | 100.91 | 100.82 | 100.96      | 101.02 | 101.03 | 101.53                           | 101.06 | 101.10            | 101.57 | 101.54 | 101.52 | 100.93 |        |
| 15                               | 100.91 | 100.82 | 100.96      | 101.01 | 101.01 | 101.42                           | 101.19 | 101.15            | 101.57 | 101.54 | 101.52 | 100.93 |        |
| 16                               | 100.91 | 100.81 | 100.94      | 101.04 | 100.99 | 101.38                           | 101.20 | 101.58            | 101.59 | 101.54 | 101.52 | 101.01 |        |
| 17                               | 100.91 | 100.81 | 100.93      | 101.02 | 100.99 | 101.41                           | 101.21 | 101.59            | 101.58 | 101.53 | 101.36 | 100.97 |        |
| 18                               | 100.91 | 100.81 | 100.92      | 100.99 | 100.98 | 101.25                           | 101.48 | 101.59            | 101.58 | 101.53 | 101.05 | 100.95 |        |
| 19                               | 100.87 | 100.81 | 100.92      | 101.00 | 100.98 | 101.12                           | 101.31 | 101.59            | 101.56 | 101.53 | 101.04 | 100.94 |        |
| 20                               | 100.87 | 100.82 | 100.92      | 101.00 | 100.98 | 101.11                           | 101.25 | 101.52            | 101.56 | 101.53 | 100.99 | 100.93 |        |
| 21                               | 100.84 | 100.82 | 100.97      | 101.51 | 101.04 | 101.10                           | 101.25 | 101.44            | 101.56 | 101.52 | 100.98 | 100.93 |        |
| 22                               | 100.83 | 100.82 | 100.97      | 101.51 | 101.19 | 101.15                           | 101.24 | 101.44            | 101.56 | 101.52 | 100.98 | 100.93 |        |
| 23                               | 100.86 | 100.82 | 100.94      | 101.51 | 101.19 | 101.11                           | 101.24 | 101.44            | 101.56 | 101.52 | 100.98 | 100.97 |        |
| 24                               | 100.84 | 100.81 | 100.94      | 101.53 | 101.22 | 101.10                           | 101.22 | 101.44            | 101.56 | 101.52 | 100.98 | 100.95 |        |
| 25                               | 100.83 | 100.81 | 100.96      | 101.53 | 101.28 | 101.13                           | 101.23 | 101.44            | 101.54 | 101.52 | 100.98 | 100.94 |        |
| 26                               | 100.83 | 100.85 | 100.96      | 101.52 | 101.28 | 101.10                           | 101.19 | 101.46            | 101.54 | 101.52 | 100.98 | 100.94 |        |
| 27                               | 100.88 | 100.84 | 100.96      | 101.52 | 101.28 | 101.21                           | 101.17 | 101.53            | 101.56 | 101.52 | 100.97 | 100.93 |        |
| 28                               | 100.88 | 100.83 | 100.96      | 101.51 | 101.28 | 101.23                           | 101.17 | 101.53            | 101.56 | 101.52 | 100.97 | 100.93 |        |
| 29                               | 100.87 | 100.82 | 100.96      | 101.53 | 101.28 | 101.23                           | 101.17 | 101.53            | 101.56 | 101.52 |        | 100.93 |        |
| 30                               | 100.87 | 100.81 | 100.97      | 101.53 | 101.31 | 101.15                           | 101.17 | 101.53            | 101.54 | 101.52 |        | 100.92 |        |
| 31                               |        | 100.94 |             | 101.53 | 101.29 |                                  | 101.15 |                   | 101.54 | 101.52 |        | 100.92 |        |
| Mean                             | 100.90 | 100.83 | 100.96      | 101.20 | 101.15 | 101.29                           | 101.16 | 101.31            | 101.55 | 101.53 | 101.31 | 100.98 |        |
| Max                              | 100.98 | 100.94 | 101.39      | 101.53 | 101.54 | 101.76                           | 101.48 | 101.59            | 101.59 | 101.55 | 101.53 | 101.07 | 101.76 |
| Min                              | 100.83 | 100.81 | 100.85      | 100.97 | 100.98 | 101.10                           | 101.06 | 101.10            | 101.52 | 101.52 | 100.97 | 100.92 | 100.81 |
| Annual Max Momentary Gage Height |        | 102.08 | m. (MSL.) , |        |        | at 06.00 Hours , on Sep 9 , 2013 |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 100.38 | m. (MSL.) , |        |        | River Bed                        | 98.89  | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 105.26 | m. (MSL.) , |        |        |                                  |        |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 105.76 | m. (MSL.) , |        |        | Drainage Area                    | 784    | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep    | Oct    | Nov                      | Dec    | Jan    | Feb    | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|--------|--------|--------------------------|--------|--------|--------|-------|----------------|
| 1              | 0.98                                                            | 0.41                     | 0.38  | 0.92                 | 7.04  | 5.14   | 1.70   | 2.24                     | 6.88   | 7.04   | 6.88   | 1.52  |                |
| 2              | 0.80                                                            | 0.41                     | 0.35  | 0.92                 | 3.70  | 3.83   | 1.70   | 2.24                     | 6.88   | 7.04   | 6.88   | 1.52  |                |
| 3              | 0.80                                                            | 0.41                     | 0.35  | 0.92                 | 1.16  | 3.96   | 2.51   | 1.97                     | 6.72   | 7.04   | 6.88   | 1.52  |                |
| 4              | 0.80                                                            | 0.41                     | 0.41  | 0.98                 | 2.82  | 3.48   | 1.88   | 1.88                     | 6.72   | 7.20   | 6.88   | 1.52  |                |
| 5              | 0.80                                                            | 0.29                     | 4.87  | 2.42                 | 5.84  | 3.48   | 1.64   | 1.79                     | 6.72   | 7.20   | 6.88   | 1.52  |                |
| 6              | 0.74                                                            | 0.29                     | 1.22  | 1.22                 | 1.58  | 3.48   | 1.58   | 1.79                     | 6.72   | 7.20   | 6.88   | 1.52  |                |
| 7              | 0.74                                                            | 0.26                     | 1.22  | 1.22                 | 1.22  | 3.70   | 1.52   | 1.79                     | 6.72   | 7.20   | 6.88   | 1.52  |                |
| 8              | 0.68                                                            | 0.26                     | 1.10  | 1.16                 | 1.22  | 3.83   | 1.52   | 1.79                     | 6.72   | 7.20   | 6.88   | 1.52  |                |
| 9              | 0.68                                                            | 0.32                     | 0.92  | 1.16                 | 1.04  | 10.40  | 1.52   | 1.70                     | 6.72   | 7.20   | 6.88   | 1.46  |                |
| 10             | 0.62                                                            | 0.29                     | 0.80  | 1.16                 | 1.16  | 7.36   | 1.46   | 1.70                     | 6.72   | 7.04   | 6.88   | 0.80  |                |
| 11             | 0.62                                                            | 0.26                     | 0.86  | 1.16                 | 1.34  | 3.83   | 1.46   | 1.70                     | 6.72   | 7.04   | 6.88   | 0.74  |                |
| 12             | 0.56                                                            | 0.26                     | 0.86  | 2.42                 | 1.79  | 3.04   | 1.46   | 1.70                     | 7.04   | 7.04   | 6.88   | 0.68  |                |
| 13             | 0.56                                                            | 0.26                     | 0.86  | 1.40                 | 1.79  | 11.20  | 1.46   | 1.70                     | 7.36   | 7.04   | 6.88   | 0.68  |                |
| 14             | 0.56                                                            | 0.26                     | 0.86  | 1.22                 | 1.28  | 6.88   | 1.46   | 1.70                     | 7.52   | 7.04   | 6.72   | 0.68  |                |
| 15             | 0.56                                                            | 0.26                     | 0.86  | 1.16                 | 1.16  | 5.28   | 2.51   | 2.15                     | 7.52   | 7.04   | 6.72   | 0.68  |                |
| 16             | 0.56                                                            | 0.23                     | 0.74  | 1.34                 | 1.04  | 4.74   | 2.60   | 7.68                     | 7.84   | 7.04   | 6.72   | 1.16  |                |
| 17             | 0.56                                                            | 0.23                     | 0.68  | 1.22                 | 1.04  | 5.14   | 2.71   | 7.84                     | 7.68   | 6.88   | 4.48   | 0.92  |                |
| 18             | 0.56                                                            | 0.23                     | 0.62  | 1.04                 | 0.98  | 3.15   | 6.12   | 7.84                     | 7.68   | 6.88   | 1.40   | 0.80  |                |
| 19             | 0.41                                                            | 0.23                     | 0.62  | 1.10                 | 0.98  | 1.88   | 3.83   | 7.84                     | 7.36   | 6.88   | 1.34   | 0.74  |                |
| 20             | 0.41                                                            | 0.26                     | 0.62  | 1.10                 | 0.98  | 1.79   | 3.15   | 6.72                     | 7.36   | 6.88   | 1.04   | 0.68  |                |
| 21             | 0.32                                                            | 0.26                     | 0.92  | 6.56                 | 1.34  | 1.70   | 3.15   | 5.56                     | 7.36   | 6.72   | 0.98   | 0.68  |                |
| 22             | 0.29                                                            | 0.26                     | 0.92  | 6.56                 | 2.51  | 2.15   | 3.04   | 5.56                     | 7.36   | 6.72   | 0.98   | 0.68  |                |
| 23             | 0.38                                                            | 0.26                     | 0.74  | 6.56                 | 2.51  | 1.79   | 3.04   | 5.56                     | 7.36   | 6.72   | 0.98   | 0.92  |                |
| 24             | 0.32                                                            | 0.23                     | 0.74  | 6.88                 | 2.82  | 1.70   | 2.82   | 5.56                     | 7.36   | 6.72   | 0.98   | 0.80  |                |
| 25             | 0.29                                                            | 0.23                     | 0.86  | 6.88                 | 3.48  | 1.97   | 2.93   | 5.56                     | 7.04   | 6.72   | 0.98   | 0.74  |                |
| 26             | 0.29                                                            | 0.35                     | 0.86  | 6.72                 | 3.48  | 1.70   | 2.51   | 5.84                     | 7.04   | 6.72   | 0.98   | 0.74  |                |
| 27             | 0.44                                                            | 0.32                     | 0.86  | 6.72                 | 3.48  | 2.71   | 2.33   | 6.88                     | 7.36   | 6.72   | 0.92   | 0.68  |                |
| 28             | 0.44                                                            | 0.29                     | 0.86  | 6.56                 | 3.48  | 2.93   | 2.33   | 6.88                     | 7.36   | 6.72   | 0.92   | 0.68  |                |
| 29             | 0.41                                                            | 0.26                     | 0.86  | 6.88                 | 3.48  | 2.93   | 2.33   | 6.88                     | 7.36   | 6.72   |        | 0.68  |                |
| 30             | 0.41                                                            | 0.23                     | 0.92  | 6.88                 | 3.83  | 2.15   | 2.33   | 6.88                     | 7.04   | 6.72   |        | 0.62  |                |
| 31             |                                                                 | 0.74                     |       | 6.88                 | 3.59  |        | 2.15   |                          | 7.04   | 6.72   |        | 0.62  |                |
| Total          | 16.59                                                           | 9.26                     | 27.74 | 99.32                | 73.16 | 117.32 | 72.75  | 126.92                   | 221.28 | 215.04 | 125.58 | 30.02 | 1134.98 CMSDAY |
| Mean           | 0.55                                                            | 0.30                     | 0.92  | 3.20                 | 2.36  | 3.91   | 2.35   | 4.23                     | 7.14   | 6.94   | 4.49   | 0.97  | 3.11 CMS       |
| Max            | 0.98                                                            | 0.74                     | 4.87  | 6.88                 | 7.04  | 11.20  | 6.12   | 7.84                     | 7.84   | 7.20   | 6.88   | 1.52  | 11.20 CMS      |
| Min            | 0.29                                                            | 0.23                     | 0.35  | 0.92                 | 0.98  | 1.70   | 1.46   | 1.70                     | 6.72   | 6.72   | 0.92   | 0.62  | 0.23 CMS       |
| Runoff         | 1.43                                                            | 0.80                     | 2.40  | 8.58                 | 6.32  | 10.14  | 6.29   | 10.97                    | 19.12  | 18.58  | 10.85  | 2.59  | 98.06 MCM      |
| Momentary Peak | 18.32 CMS. at 102.08 m. (MSL.) at 06.00 Hours , on Sep 9 , 2013 |                          |       |                      |       |        |        |                          |        |        |        |       |                |
| Runoff Yield   | 3.97                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |       |        | 23.367 | Liters/Second/Square KM. |        |        |        |       |                |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                           | May                      | Jun  | Jul                  | Aug   | Sep     | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |        |
|----------------|---------------------------------------------------------------|--------------------------|------|----------------------|-------|---------|--------------------------|------|------|------|------|------|--------|--------|
| 1              | 0.00                                                          | 0.00                     | 0.06 | 0.06                 | 0.18  | 0.50    | 0.96                     | 0.24 | 0.12 | 0.06 | 0.03 | 0.02 |        |        |
| 2              | 0.00                                                          | 0.00                     | 0.06 | 0.06                 | 0.15  | 0.38    | 0.89                     | 0.21 | 0.12 | 0.06 | 0.03 | 0.02 |        |        |
| 3              | 0.00                                                          | 0.00                     | 0.06 | 0.06                 | 0.12  | 0.38    | 0.50                     | 0.18 | 0.09 | 0.06 | 0.03 | 0.02 |        |        |
| 4              | 0.00                                                          | 0.00                     | 0.06 | 0.05                 | 0.21  | 0.31    | 0.33                     | 0.18 | 0.09 | 0.06 | 0.02 | 0.02 |        |        |
| 5              | 0.00                                                          | 1.09                     | 0.06 | 1.31                 | 2.97  | 0.24    | 0.33                     | 0.18 | 0.09 | 0.06 | 0.02 | 0.02 |        |        |
| 6              | 0.00                                                          | 0.04                     | 0.03 | 0.33                 | 0.70  | 0.18    | 0.33                     | 0.18 | 0.09 | 0.06 | 0.02 | 0.02 |        |        |
| 7              | 0.00                                                          | 0.18                     | 0.40 | 1.28                 | 0.43  | 0.18    | 0.28                     | 0.18 | 0.09 | 0.06 | 0.02 | 0.02 |        |        |
| 8              | 0.00                                                          | 0.15                     | 0.45 | 0.43                 | 0.38  | 0.21    | 0.28                     | 0.15 | 0.09 | 0.06 | 0.02 | 0.02 |        |        |
| 9              | 0.00                                                          | 0.10                     | 0.18 | 0.24                 | 0.38  | 3.63    | 0.21                     | 0.15 | 0.09 | 0.05 | 0.02 | 0.02 |        |        |
| 10             | 0.00                                                          | 0.09                     | 0.08 | 1.28                 | 0.38  | 1.02    | 0.18                     | 0.15 | 0.09 | 0.05 | 0.02 | 0.02 |        |        |
| 11             | 0.00                                                          | 0.08                     | 0.16 | 0.38                 | 1.90  | 0.72    | 0.15                     | 0.15 | 0.09 | 0.04 | 0.02 | 0.02 |        |        |
| 12             | 0.00                                                          | 0.08                     | 0.21 | 0.28                 | 0.92  | 0.56    | 0.15                     | 0.15 | 0.09 | 0.04 | 0.02 | 0.02 |        |        |
| 13             | 0.00                                                          | 0.07                     | 0.18 | 0.24                 | 0.53  | 1.63    | 0.12                     | 0.15 | 0.09 | 0.04 | 0.02 | 0.02 |        |        |
| 14             | 0.00                                                          | 0.07                     | 0.15 | 0.18                 | 0.38  | 3.03    | 0.12                     | 0.15 | 0.09 | 0.04 | 0.02 | 0.02 |        |        |
| 15             | 0.00                                                          | 0.06                     | 0.13 | 0.16                 | 0.33  | 1.24    | 0.09                     | 0.12 | 0.09 | 0.03 | 0.02 | 0.02 |        |        |
| 16             | 0.00                                                          | 0.06                     | 0.10 | 0.15                 | 0.28  | 1.09    | 0.09                     | 0.12 | 0.09 | 0.02 | 0.02 | 0.02 |        |        |
| 17             | 0.00                                                          | 0.06                     | 0.09 | 0.15                 | 0.20  | 1.17    | 0.18                     | 0.12 | 0.09 | 0.02 | 0.02 | 0.02 |        |        |
| 18             | 0.00                                                          | 0.13                     | 0.09 | 0.16                 | 0.33  | 0.70    | 0.70                     | 0.12 | 0.09 | 0.02 | 0.02 | 0.02 |        |        |
| 19             | 0.00                                                          | 0.08                     | 0.09 | 0.16                 | 0.33  | 0.50    | 1.68                     | 0.12 | 0.09 | 0.02 | 0.02 | 0.02 |        |        |
| 20             | 0.00                                                          | 0.08                     | 0.08 | 0.15                 | 0.31  | 0.43    | 0.85                     | 0.12 | 0.09 | 0.02 | 0.02 | 0.02 |        |        |
| 21             | 0.00                                                          | 0.05                     | 0.06 | 0.13                 | 0.40  | 0.38    | 1.39                     | 0.12 | 0.09 | 0.02 | 0.02 | 0.02 |        |        |
| 22             | 0.00                                                          | 0.03                     | 0.06 | 0.10                 | 0.89  | 0.38    | 1.72                     | 0.13 | 0.09 | 0.02 | 0.02 | 0.02 |        |        |
| 23             | 0.00                                                          | 0.03                     | 0.06 | 0.10                 | 1.09  | 0.33    | 0.78                     | 0.13 | 0.08 | 0.02 | 0.02 | 0.02 |        |        |
| 24             | 0.00                                                          | 0.03                     | 0.06 | 0.48                 | 0.38  | 0.23    | 0.48                     | 0.13 | 0.08 | 0.02 | 0.02 | 0.02 |        |        |
| 25             | 0.00                                                          | 0.03                     | 0.05 | 0.61                 | 0.38  | 0.23    | 0.45                     | 0.13 | 0.08 | 0.02 | 0.02 | 0.02 |        |        |
| 26             | 0.00                                                          | 0.23                     | 0.05 | 0.28                 | 0.36  | 0.24    | 0.45                     | 0.15 | 0.08 | 0.02 | 0.02 | 0.02 |        |        |
| 27             | 0.00                                                          | 0.13                     | 0.05 | 0.21                 | 0.24  | 0.24    | 0.45                     | 0.15 | 0.08 | 0.02 | 0.02 | 0.02 |        |        |
| 28             | 0.00                                                          | 0.09                     | 0.04 | 0.21                 | 0.18  | 0.18    | 0.45                     | 0.13 | 0.08 | 0.02 | 0.02 | 0.02 |        |        |
| 29             | 0.00                                                          | 0.07                     | 0.05 | 0.18                 | 1.06  | 0.12    | 0.38                     | 0.13 | 0.08 | 0.02 |      | 0.02 |        |        |
| 30             | 0.00                                                          | 0.06                     | 0.06 | 0.70                 | 1.54  | 1.46    | 0.26                     | 0.12 | 0.08 | 0.02 |      | 0.02 |        |        |
| 31             |                                                               | 0.06                     |      | 0.48                 | 1.72  |         | 0.21                     |      | 0.08 | 0.02 |      | 0.02 |        |        |
| Total          | 0.00                                                          | 3.23                     | 3.26 | 10.59                | 19.65 | 21.89   | 15.44                    | 4.44 | 2.76 | 1.09 | 0.59 | 0.62 | 83.56  | CMSDAY |
| Mean           | 0.00                                                          | 0.10                     | 0.11 | 0.34                 | 0.63  | 0.73    | 0.50                     | 0.15 | 0.09 | 0.04 | 0.02 | 0.02 | 0.23   | CMS    |
| Max            | 0.00                                                          | 1.09                     | 0.45 | 1.31                 | 2.97  | 3.63    | 1.72                     | 0.24 | 0.12 | 0.06 | 0.03 | 0.02 | 3.63   | CMS    |
| Min            | 0.00                                                          | 0.00                     | 0.03 | 0.05                 | 0.12  | 0.12    | 0.09                     | 0.12 | 0.08 | 0.02 | 0.02 | 0.02 | 0.00   | CMS    |
| Runoff         | 0.00                                                          | 0.28                     | 0.28 | 0.92                 | 1.70  | 1.89    | 1.33                     | 0.38 | 0.24 | 0.09 | 0.05 | 0.05 | 7.22   | MCM    |
| Momentary Peak | 5.92 CMS. at 95.14 m. (MSL.) at 12.00 Hours , on Sep 9 , 2013 |                          |      |                      |       |         |                          |      |      |      |      |      |        |        |
| Runoff Yield   | 4.02                                                          | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 103.860 | Liters/Second/Square KM. |      |      |      |      |      |        |        |

## WATER YEAR : 2013

## YOM RIVER BASIN

**Huai Pong at Ban Pong , Lampang (Y.30**

Lat 18 - 42 - 29 N    Long 99 - 57 - 40 E

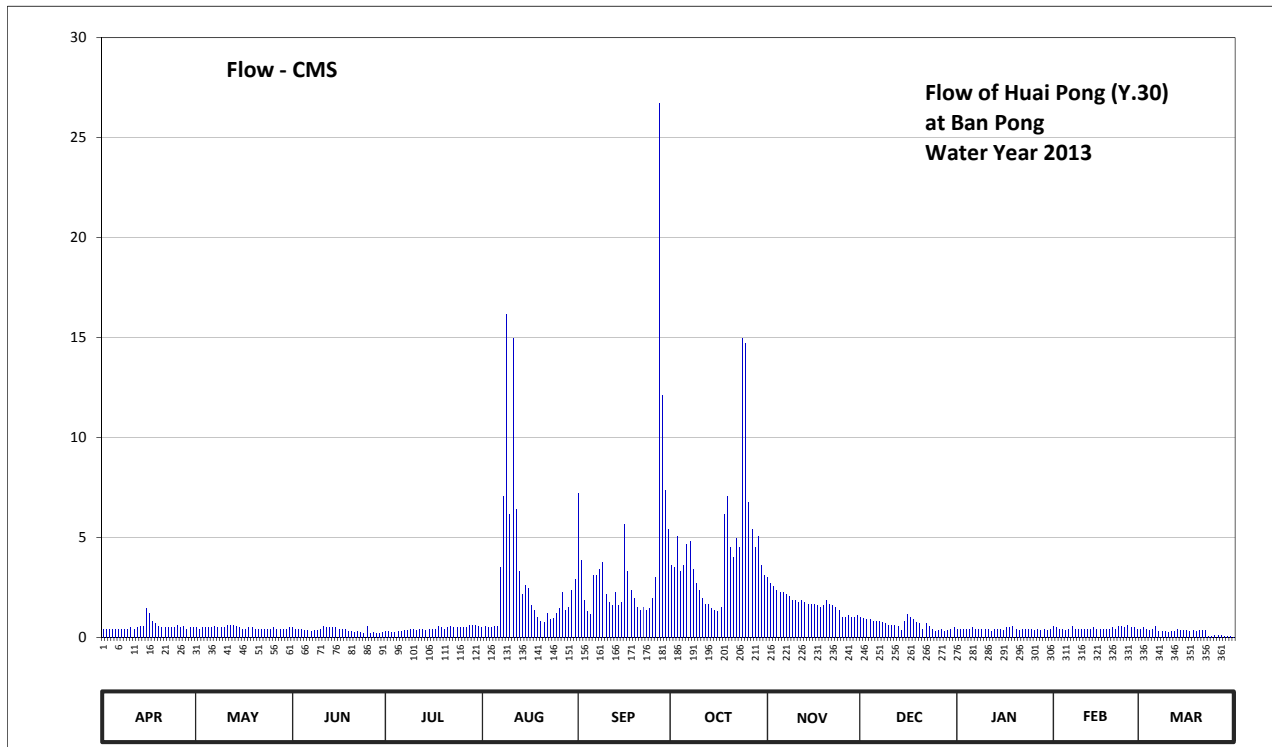
**Location : on right bank at the bridge on highway**

|                                         |                                                                             |           |               |      |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Pong      | <b>Amphoe</b> | Ngao | <b>Changwat</b>  | Lampang            |
| <b>Drainage Area</b>                    | 325                                                                         | sq.km.    |               |      |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |      |                  |                    |
| <b>Zero Gage at Bottom</b>              | +265.630                                                                    | m. (MSL.) |               |      |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |      |                  |                    |
| <b>Location BM</b>                      | On right bank about 25 meters from the top staff gage.                      |           |               |      | <b>Elevation</b> | +271.053 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |      |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |      |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                |           |               |      |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |           |               |      |                  |                    |
| <b>Period of Rating</b>                 | 1983 to date                                                                |           |               |      |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |      |                  |                    |
| <b>Rated by Current Meter</b>           | 1983 to date                                                                |           |               |      |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |           |               |      |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |      |                  |                    |
| <b>General Description</b>              | Records good. The carcass of the bridge is near the gage site.              |           |               |      |                  |                    |
|                                         | Stage-discharge relation defined by 44 discharge measurements made in 2013. |           |               |      |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 265.90 | 265.92 | 265.92                                          | 265.88 | 265.92 | 266.56 | 266.31 | 266.25 | 266.02 | 265.91 | 265.93 | 265.91 |        |
| 2                                | 265.90 | 265.91 | 265.91                                          | 265.88 | 265.93 | 266.33 | 266.30 | 266.22 | 266.01 | 265.91 | 265.92 | 265.92 |        |
| 3                                | 265.90 | 265.92 | 265.90                                          | 265.87 | 265.92 | 266.13 | 266.42 | 266.20 | 266.00 | 265.90 | 265.91 | 265.91 |        |
| 4                                | 265.91 | 265.92 | 265.90                                          | 265.87 | 265.92 | 266.06 | 266.28 | 266.18 | 266.00 | 265.91 | 265.91 | 265.89 |        |
| 5                                | 265.91 | 265.92 | 265.89                                          | 265.88 | 265.93 | 266.04 | 266.31 | 266.17 | 265.99 | 265.91 | 265.89 | 265.91 |        |
| 6                                | 265.91 | 265.92 | 265.89                                          | 265.88 | 265.93 | 266.26 | 266.39 | 266.17 | 265.99 | 265.92 | 265.90 | 265.93 |        |
| 7                                | 265.91 | 265.93 | 265.88                                          | 265.89 | 266.30 | 266.26 | 266.40 | 266.16 | 265.99 | 265.91 | 265.93 | 265.88 |        |
| 8                                | 265.91 | 265.92 | 265.89                                          | 265.89 | 266.55 | 266.29 | 266.29 | 266.15 | 265.97 | 265.90 | 265.91 | 265.88 |        |
| 9                                | 265.91 | 265.92 | 265.89                                          | 265.91 | 266.99 | 266.32 | 266.22 | 266.13 | 265.96 | 265.90 | 265.91 | 265.88 |        |
| 10                               | 265.92 | 265.92 | 265.91                                          | 265.91 | 266.49 | 266.16 | 266.18 | 266.13 | 265.95 | 265.91 | 265.91 | 265.87 |        |
| 11                               | 265.91 | 265.95 | 265.93                                          | 265.89 | 266.94 | 266.12 | 266.14 | 266.12 | 265.94 | 265.91 | 265.91 | 265.88 |        |
| 12                               | 265.92 | 265.95 | 265.92                                          | 265.90 | 266.51 | 266.10 | 266.11 | 266.13 | 265.94 | 265.88 | 265.91 | 265.88 |        |
| 13                               | 265.93 | 265.94 | 265.92                                          | 265.90 | 266.28 | 266.17 | 266.11 | 266.12 | 265.93 | 265.91 | 265.91 | 265.90 |        |
| 14                               | 265.93 | 265.93 | 265.92                                          | 265.89 | 266.16 | 266.10 | 266.08 | 266.11 | 265.89 | 265.90 | 265.92 | 265.89 |        |
| 15                               | 266.08 | 265.92 | 265.92                                          | 265.91 | 266.21 | 266.12 | 266.07 | 266.11 | 265.99 | 265.90 | 265.91 | 265.89 |        |
| 16                               | 266.05 | 265.91 | 265.91                                          | 265.90 | 266.19 | 266.46 | 266.06 | 266.11 | 266.04 | 265.89 | 265.91 | 265.89 |        |
| 17                               | 265.98 | 265.91 | 265.90                                          | 265.91 | 266.10 | 266.28 | 266.09 | 266.10 | 266.02 | 265.92 | 265.91 | 265.88 |        |
| 18                               | 265.96 | 265.92 | 265.91                                          | 265.93 | 266.07 | 266.18 | 266.49 | 266.09 | 266.00 | 265.92 | 265.91 | 265.89 |        |
| 19                               | 265.93 | 265.92 | 265.88                                          | 265.92 | 266.02 | 266.14 | 266.55 | 266.10 | 265.97 | 265.93 | 265.90 | 265.88 |        |
| 20                               | 265.92 | 265.90 | 265.88                                          | 265.91 | 265.98 | 266.09 | 266.38 | 266.13 | 265.96 | 265.91 | 265.92 | 265.89 |        |
| 21                               | 265.92 | 265.90 | 265.87                                          | 265.92 | 265.97 | 266.07 | 266.34 | 266.11 | 265.91 | 265.89 | 265.91 | 265.89 |        |
| 22                               | 265.92 | 265.91 | 265.88                                          | 265.93 | 266.05 | 266.09 | 266.41 | 266.10 | 265.96 | 265.90 | 265.93 | 265.89 |        |
| 23                               | 265.92 | 265.91 | 265.87                                          | 265.92 | 266.00 | 266.07 | 266.38 | 266.09 | 265.93 | 265.90 | 265.93 | 265.91 |        |
| 24                               | 265.92 | 265.91 | 265.85                                          | 265.92 | 266.01 | 266.08 | 266.94 | 266.07 | 265.90 | 265.91 | 265.92 | 265.97 |        |
| 25                               | 265.94 | 265.91 | 265.93                                          | 265.92 | 266.05 | 266.14 | 266.93 | 266.02 | 265.88 | 265.90 | 265.94 | 266.00 |        |
| 26                               | 265.92 | 265.92 | 265.86                                          | 265.92 | 266.08 | 266.25 | 266.53 | 266.02 | 265.89 | 265.89 | 265.92 | 266.00 |        |
| 27                               | 265.93 | 265.91 | 265.87                                          | 265.92 | 266.17 | 267.37 | 266.44 | 266.03 | 265.90 | 265.91 | 265.92 | 266.00 |        |
| 28                               | 265.91 | 265.91 | 265.86                                          | 265.94 | 266.07 | 266.82 | 266.38 | 266.02 | 265.88 | 265.89 | 265.91 | 265.99 |        |
| 29                               | 265.92 | 265.91 | 265.85                                          | 265.94 | 266.09 | 266.57 | 266.42 | 266.02 | 265.89 | 265.91 |        | 265.99 |        |
| 30                               | 265.92 | 265.91 | 265.87                                          | 265.94 | 266.18 | 266.44 | 266.31 | 266.03 | 265.90 | 265.89 |        | 265.93 |        |
| 31                               |        | 265.92 |                                                 | 265.93 | 266.24 |        | 266.26 |        | 265.92 | 265.90 |        | 265.87 |        |
| Mean                             | 265.93 | 265.92 | 265.89                                          | 265.91 | 266.17 | 266.27 | 266.34 | 266.11 | 265.95 | 265.90 | 265.91 | 265.91 |        |
| Max                              | 266.08 | 265.95 | 265.93                                          | 265.94 | 266.99 | 267.37 | 266.94 | 266.25 | 266.04 | 265.93 | 265.94 | 266.00 | 267.37 |
| Min                              | 265.90 | 265.90 | 265.85                                          | 265.87 | 265.92 | 266.04 | 266.06 | 266.02 | 265.88 | 265.88 | 265.89 | 265.87 | 265.85 |
| Annual Max Momentary Gage Height |        | 267.63 | m. (MSL.) , at 18.00 Hours , on Sep 27 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 265.63 | m. (MSL.) , River Bed 265.61 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 273.90 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 273.88 | m. (MSL.) , Drainage Area 325 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

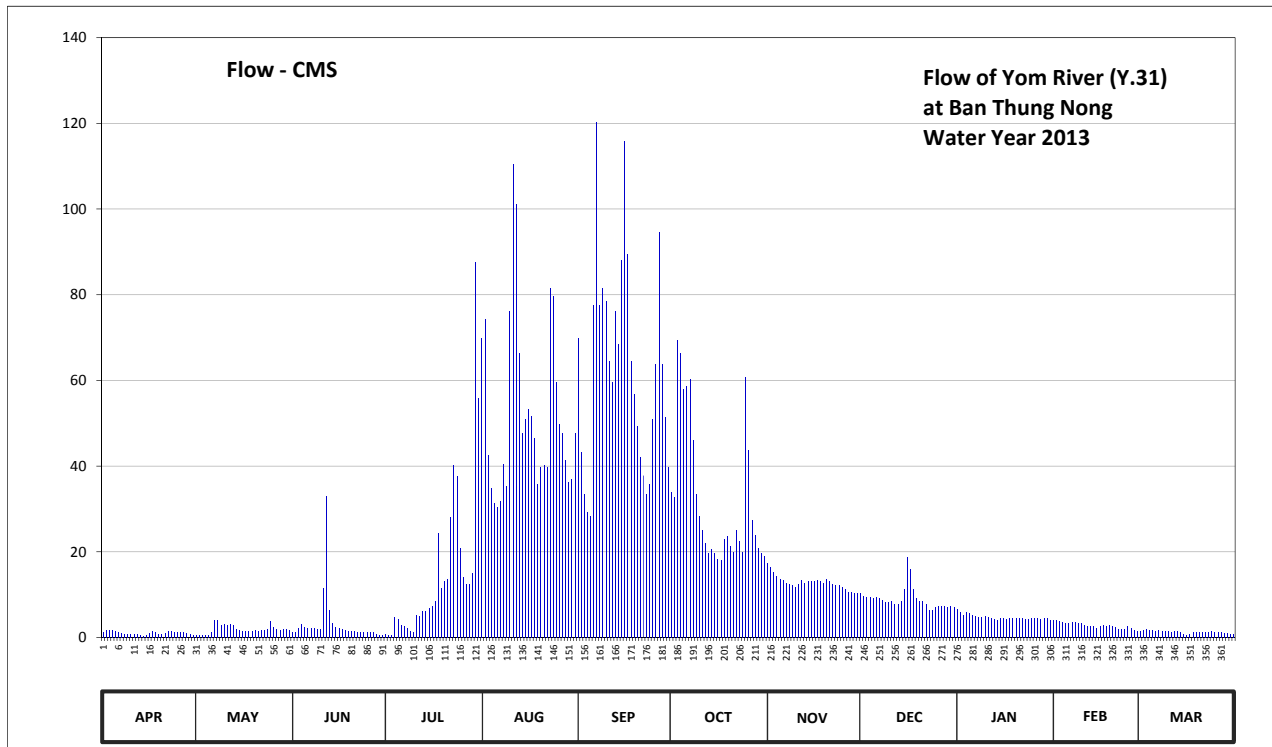




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar  | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|------|---------------|
| 1              | 0.40                                                             | 0.50                     | 0.50  | 0.32                 | 0.50  | 7.20    | 3.63                     | 3.03  | 1.04  | 0.45  | 0.55  | 0.45 |               |
| 2              | 0.40                                                             | 0.45                     | 0.45  | 0.32                 | 0.55  | 3.89    | 3.50                     | 2.74  | 0.97  | 0.45  | 0.50  | 0.50 |               |
| 3              | 0.40                                                             | 0.50                     | 0.40  | 0.28                 | 0.50  | 1.89    | 5.10                     | 2.55  | 0.90  | 0.40  | 0.45  | 0.45 |               |
| 4              | 0.45                                                             | 0.50                     | 0.40  | 0.28                 | 0.50  | 1.32    | 3.31                     | 2.36  | 0.90  | 0.45  | 0.45  | 0.36 |               |
| 5              | 0.45                                                             | 0.50                     | 0.36  | 0.32                 | 0.55  | 1.18    | 3.63                     | 2.27  | 0.85  | 0.45  | 0.36  | 0.45 |               |
| 6              | 0.45                                                             | 0.50                     | 0.36  | 0.32                 | 0.55  | 3.12    | 4.67                     | 2.27  | 0.85  | 0.50  | 0.40  | 0.55 |               |
| 7              | 0.45                                                             | 0.55                     | 0.32  | 0.36                 | 3.50  | 3.12    | 4.80                     | 2.17  | 0.85  | 0.45  | 0.55  | 0.32 |               |
| 8              | 0.45                                                             | 0.50                     | 0.36  | 0.36                 | 7.05  | 3.41    | 3.41                     | 2.07  | 0.75  | 0.40  | 0.45  | 0.32 |               |
| 9              | 0.45                                                             | 0.50                     | 0.36  | 0.45                 | 16.16 | 3.76    | 2.74                     | 1.89  | 0.70  | 0.40  | 0.45  | 0.32 |               |
| 10             | 0.50                                                             | 0.50                     | 0.45  | 0.45                 | 6.15  | 2.17    | 2.36                     | 1.89  | 0.65  | 0.45  | 0.45  | 0.28 |               |
| 11             | 0.45                                                             | 0.65                     | 0.55  | 0.36                 | 14.96 | 1.79    | 1.98                     | 1.79  | 0.60  | 0.45  | 0.45  | 0.32 |               |
| 12             | 0.50                                                             | 0.65                     | 0.50  | 0.40                 | 6.45  | 1.60    | 1.69                     | 1.89  | 0.60  | 0.32  | 0.45  | 0.32 |               |
| 13             | 0.55                                                             | 0.60                     | 0.50  | 0.40                 | 3.31  | 2.27    | 1.69                     | 1.79  | 0.55  | 0.45  | 0.45  | 0.40 |               |
| 14             | 0.55                                                             | 0.55                     | 0.50  | 0.36                 | 2.17  | 1.60    | 1.46                     | 1.69  | 0.36  | 0.40  | 0.50  | 0.36 |               |
| 15             | 1.46                                                             | 0.50                     | 0.50  | 0.45                 | 2.64  | 1.79    | 1.39                     | 1.69  | 0.85  | 0.40  | 0.45  | 0.36 |               |
| 16             | 1.25                                                             | 0.45                     | 0.45  | 0.40                 | 2.46  | 5.70    | 1.32                     | 1.69  | 1.18  | 0.36  | 0.45  | 0.36 |               |
| 17             | 0.80                                                             | 0.45                     | 0.40  | 0.45                 | 1.60  | 3.31    | 1.53                     | 1.60  | 1.04  | 0.50  | 0.45  | 0.32 |               |
| 18             | 0.70                                                             | 0.50                     | 0.45  | 0.55                 | 1.39  | 2.36    | 6.15                     | 1.53  | 0.90  | 0.50  | 0.45  | 0.36 |               |
| 19             | 0.55                                                             | 0.50                     | 0.32  | 0.50                 | 1.04  | 1.98    | 7.05                     | 1.60  | 0.75  | 0.55  | 0.40  | 0.32 |               |
| 20             | 0.50                                                             | 0.40                     | 0.32  | 0.45                 | 0.80  | 1.53    | 4.54                     | 1.89  | 0.70  | 0.45  | 0.50  | 0.36 |               |
| 21             | 0.50                                                             | 0.40                     | 0.28  | 0.50                 | 0.75  | 1.39    | 4.02                     | 1.69  | 0.45  | 0.36  | 0.45  | 0.36 |               |
| 22             | 0.50                                                             | 0.45                     | 0.32  | 0.55                 | 1.25  | 1.53    | 4.95                     | 1.60  | 0.70  | 0.40  | 0.55  | 0.36 |               |
| 23             | 0.50                                                             | 0.45                     | 0.28  | 0.50                 | 0.90  | 1.39    | 4.54                     | 1.53  | 0.55  | 0.40  | 0.55  | 0.06 |               |
| 24             | 0.50                                                             | 0.45                     | 0.20  | 0.50                 | 0.97  | 1.46    | 14.96                    | 1.39  | 0.40  | 0.45  | 0.50  | 0.09 |               |
| 25             | 0.60                                                             | 0.45                     | 0.55  | 0.50                 | 1.25  | 1.98    | 14.72                    | 1.04  | 0.32  | 0.40  | 0.60  | 0.10 |               |
| 26             | 0.50                                                             | 0.50                     | 0.24  | 0.50                 | 1.46  | 3.03    | 6.75                     | 1.04  | 0.36  | 0.36  | 0.50  | 0.10 |               |
| 27             | 0.55                                                             | 0.45                     | 0.28  | 0.50                 | 2.27  | 26.70   | 5.40                     | 1.11  | 0.40  | 0.45  | 0.50  | 0.10 |               |
| 28             | 0.45                                                             | 0.45                     | 0.24  | 0.60                 | 1.39  | 12.08   | 4.54                     | 1.04  | 0.32  | 0.36  | 0.45  | 0.09 |               |
| 29             | 0.50                                                             | 0.45                     | 0.20  | 0.60                 | 1.53  | 7.35    | 5.10                     | 1.04  | 0.36  | 0.45  |       | 0.09 |               |
| 30             | 0.50                                                             | 0.45                     | 0.28  | 0.60                 | 2.36  | 5.40    | 3.63                     | 1.11  | 0.40  | 0.36  |       | 0.06 |               |
| 31             |                                                                  | 0.50                     |       | 0.55                 | 2.93  |         | 3.12                     |       | 0.50  | 0.40  |       | 0.04 |               |
| Total          | 16.81                                                            | 15.25                    | 11.32 | 13.68                | 89.89 | 117.30  | 137.68                   | 52.99 | 20.75 | 13.17 | 13.26 | 8.93 | 511.03 CMSDAY |
| Mean           | 0.56                                                             | 0.49                     | 0.38  | 0.44                 | 2.90  | 3.91    | 4.44                     | 1.77  | 0.67  | 0.42  | 0.47  | 0.29 | 1.40 CMS      |
| Max            | 1.46                                                             | 0.65                     | 0.55  | 0.60                 | 16.16 | 26.70   | 14.96                    | 3.03  | 1.18  | 0.55  | 0.60  | 0.55 | 26.70 CMS     |
| Min            | 0.40                                                             | 0.40                     | 0.20  | 0.28                 | 0.50  | 1.18    | 1.32                     | 1.04  | 0.32  | 0.32  | 0.36  | 0.04 | 0.04 CMS      |
| Runoff         | 1.45                                                             | 1.32                     | 0.98  | 1.18                 | 7.77  | 10.14   | 11.90                    | 4.58  | 1.79  | 1.14  | 1.15  | 0.77 | 44.15 MCM     |
| Momentary Peak | 35.28 CMS. at 267.63 m. (MSL.) at 18.00 Hours , on Sep 27 , 2013 |                          |       |                      |       |         |                          |       |       |       |       |      |               |
| Runoff Yield   | 4.31                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 108.554 | Liters/Second/Square KM. |       |       |       |       |      |               |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|---------|---------|--------------------------|--------|--------|--------|-------|-------|----------------|
| 1              | 1.37                                                             | 0.50                     | 1.17  | 0.70                 | 69.87   | 69.87   | 33.83                    | 17.33  | 10.30  | 6.60   | 4.05  | 1.40  |                |
| 2              | 1.83                                                             | 0.47                     | 1.17  | 0.50                 | 74.15   | 43.40   | 32.66                    | 16.34  | 9.70   | 5.85   | 4.05  | 1.65  |                |
| 3              | 1.83                                                             | 0.63                     | 2.30  | 0.50                 | 42.60   | 33.44   | 69.40                    | 15.35  | 9.40   | 5.35   | 3.84  | 2.10  |                |
| 4              | 1.77                                                             | 0.63                     | 3.10  | 4.68                 | 35.00   | 29.22   | 66.23                    | 14.36  | 9.40   | 5.85   | 3.63  | 1.65  |                |
| 5              | 1.50                                                             | 0.63                     | 2.43  | 4.34                 | 31.49   | 28.47   | 57.80                    | 13.70  | 9.10   | 5.60   | 3.42  | 1.65  |                |
| 6              | 1.17                                                             | 1.30                     | 2.30  | 2.80                 | 30.35   | 77.50   | 58.60                    | 13.39  | 9.40   | 5.35   | 3.42  | 1.50  |                |
| 7              | 0.97                                                             | 4.00                     | 2.23  | 2.65                 | 31.88   | 120.20  | 60.27                    | 12.77  | 9.10   | 5.10   | 3.63  | 1.65  |                |
| 8              | 0.90                                                             | 4.17                     | 2.23  | 2.17                 | 40.60   | 77.50   | 46.20                    | 12.46  | 8.80   | 4.89   | 3.63  | 1.50  |                |
| 9              | 0.90                                                             | 2.95                     | 2.03  | 1.50                 | 35.40   | 81.50   | 33.44                    | 12.15  | 8.20   | 4.89   | 3.42  | 1.50  |                |
| 10             | 0.90                                                             | 3.10                     | 2.03  | 1.37                 | 76.05   | 78.50   | 28.47                    | 11.84  | 8.20   | 5.10   | 3.42  | 1.40  |                |
| 11             | 0.90                                                             | 2.95                     | 11.56 | 5.35                 | 110.30  | 64.52   | 25.10                    | 12.46  | 8.50   | 4.68   | 3.00  | 1.30  |                |
| 12             | 0.90                                                             | 3.10                     | 32.90 | 5.10                 | 101.00  | 59.43   | 21.95                    | 13.39  | 7.90   | 4.47   | 2.55  | 1.40  |                |
| 13             | 0.57                                                             | 2.95                     | 6.39  | 6.10                 | 66.23   | 76.05   | 19.64                    | 12.77  | 7.90   | 4.26   | 2.55  | 1.40  |                |
| 14             | 0.44                                                             | 1.90                     | 3.40  | 6.10                 | 47.80   | 68.45   | 20.63                    | 13.08  | 8.50   | 4.05   | 2.55  | 1.20  |                |
| 15             | 0.50                                                             | 1.77                     | 2.50  | 6.85                 | 51.00   | 88.00   | 19.64                    | 13.08  | 11.22  | 4.47   | 2.25  | 0.90  |                |
| 16             | 0.97                                                             | 1.43                     | 2.30  | 7.35                 | 53.40   | 115.80  | 18.32                    | 13.08  | 18.65  | 4.47   | 2.55  | 0.60  |                |
| 17             | 1.43                                                             | 1.50                     | 1.97  | 8.50                 | 51.80   | 89.50   | 17.99                    | 13.39  | 16.01  | 4.26   | 2.85  | 0.90  |                |
| 18             | 1.30                                                             | 1.50                     | 1.77  | 24.35                | 46.60   | 64.52   | 22.94                    | 13.08  | 11.22  | 4.47   | 2.55  | 1.20  |                |
| 19             | 0.83                                                             | 1.57                     | 1.57  | 11.53                | 35.80   | 56.60   | 23.60                    | 12.77  | 9.10   | 4.47   | 2.85  | 1.30  |                |
| 20             | 0.83                                                             | 1.63                     | 1.43  | 13.08                | 39.80   | 49.40   | 21.29                    | 13.70  | 8.50   | 4.47   | 2.55  | 1.30  |                |
| 21             | 1.10                                                             | 1.43                     | 1.43  | 13.70                | 40.20   | 42.20   | 19.97                    | 13.08  | 8.50   | 4.47   | 2.40  | 1.30  |                |
| 22             | 1.43                                                             | 1.70                     | 1.37  | 28.10                | 39.80   | 37.80   | 25.10                    | 12.46  | 7.90   | 4.47   | 1.95  | 1.30  |                |
| 23             | 1.43                                                             | 1.63                     | 1.37  | 40.20                | 81.50   | 33.44   | 22.61                    | 12.15  | 6.35   | 4.26   | 1.95  | 1.30  |                |
| 24             | 1.23                                                             | 1.97                     | 1.17  | 37.80                | 79.50   | 35.80   | 19.97                    | 12.15  | 6.35   | 4.26   | 2.10  | 1.40  |                |
| 25             | 1.17                                                             | 3.85                     | 1.30  | 20.96                | 59.43   | 51.00   | 60.70                    | 11.84  | 7.10   | 4.47   | 2.55  | 1.30  |                |
| 26             | 1.23                                                             | 2.50                     | 1.30  | 14.03                | 49.80   | 63.68   | 43.80                    | 11.22  | 7.35   | 4.47   | 2.25  | 1.30  |                |
| 27             | 1.23                                                             | 2.10                     | 1.17  | 12.46                | 47.80   | 94.50   | 27.35                    | 10.60  | 7.35   | 4.47   | 1.80  | 1.30  |                |
| 28             | 1.10                                                             | 1.83                     | 0.70  | 12.46                | 41.40   | 63.68   | 23.98                    | 10.60  | 7.35   | 4.26   | 1.40  | 1.10  |                |
| 29             | 0.83                                                             | 2.10                     | 0.50  | 15.02                | 36.20   | 51.40   | 20.96                    | 10.30  | 7.10   | 4.47   |       | 1.00  |                |
| 30             | 0.57                                                             | 2.10                     | 0.57  | 87.50                | 37.00   | 39.80   | 19.64                    | 10.30  | 7.35   | 4.47   |       | 0.90  |                |
| 31             |                                                                  | 1.70                     |       | 55.80                | 47.80   |         | 18.98                    |        | 7.10   | 4.05   |       | 0.90  |                |
| Total          | 33.13                                                            | 61.59                    | 97.66 | 453.55               | 1631.55 | 1885.17 | 1001.06                  | 385.19 | 278.90 | 146.77 | 79.16 | 40.60 | 6094.33 CMSDAY |
| Mean           | 1.10                                                             | 1.99                     | 3.26  | 14.63                | 52.63   | 62.84   | 32.29                    | 12.84  | 9.00   | 4.73   | 2.83  | 1.31  | 16.70 CMS      |
| Max            | 1.83                                                             | 4.17                     | 32.90 | 87.50                | 110.30  | 120.20  | 69.40                    | 17.33  | 18.65  | 6.60   | 4.05  | 2.10  | 120.20 CMS     |
| Min            | 0.44                                                             | 0.47                     | 0.50  | 0.50                 | 30.35   | 28.47   | 17.99                    | 10.30  | 6.35   | 4.05   | 1.40  | 0.60  | 0.44 CMS       |
| Runoff         | 2.86                                                             | 5.32                     | 8.44  | 39.19                | 140.97  | 162.88  | 86.49                    | 33.28  | 24.10  | 12.68  | 6.84  | 3.51  | 526.55 MCM     |
| Momentary Peak | 147.00 CMS. at 261.10 m. (MSL.) at 06.00 Hours , on Sep 7 , 2013 |                          |       |                      |         |         |                          |        |        |        |       |       |                |
| Runoff Yield   | 8.43                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |         | 74.205  | Liters/Second/Square KM. |        |        |        |       |       |                |

**WATER YEAR : 2013****YOM RIVER BASIN****Yom River at Ban Khlong Tan , Sukhothai (Y.33)**

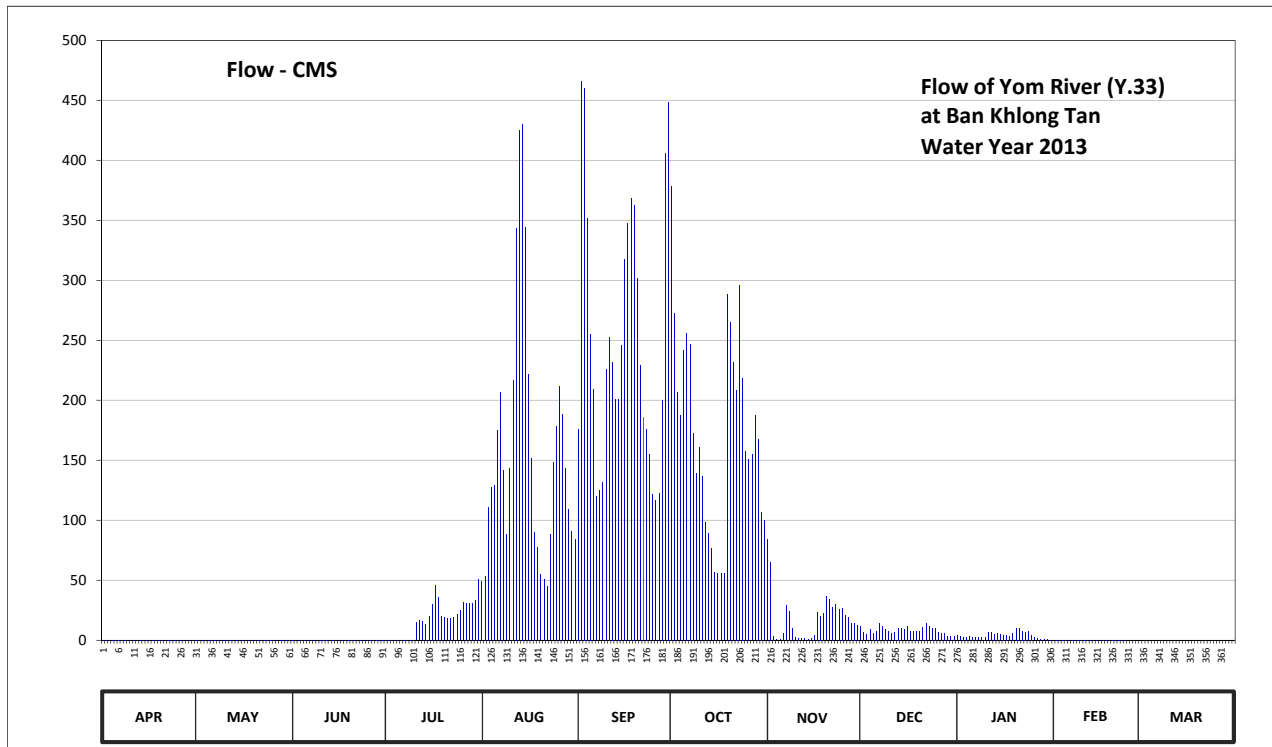
Lat 17 - 10 - 06 N Long 99 - 51 - 52 E

**Location : on left bank at the bridge on road from Tambon Khlong Tan.**

|                                         |                                                                                                                                                                                  |                   |               |                   |                  |                   |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|-------------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                                                                                                       | <b>Khlong Tan</b> | <b>Amphoe</b> | <b>Si Samrong</b> | <b>Changwat</b>  | <b>Sukhothai</b>  |
| <b>Drainage Area</b>                    | 13,948                                                                                                                                                                           | sq.km.            |               |                   |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                                                                                                       |                   |               |                   |                  |                   |
| <b>Zero Gage at Bottom</b>              | +45.820                                                                                                                                                                          | m. (MSL.)         |               |                   |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                                        |                   |               |                   |                  |                   |
| <b>Location BM</b>                      | On left bank about 20.30 meters from the top staff gage.                                                                                                                         |                   |               |                   | <b>Elevation</b> | +55.420 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                                                                                                             |                   |               |                   |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                                                                                                                    |                   |               |                   |                  |                   |
| <b>Period of Available Gage Records</b> | 1990 to date                                                                                                                                                                     |                   |               |                   |                  |                   |
| <b>Rating Operation</b>                 |                                                                                                                                                                                  |                   |               |                   |                  |                   |
| <b>Period of Rating</b>                 | 1990 to date                                                                                                                                                                     |                   |               |                   |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                                |                   |               |                   |                  |                   |
| <b>Rated by Current Meter</b>           | 1990 to date                                                                                                                                                                     |                   |               |                   |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                                                                                                   |                   |               |                   |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                                                |                   |               |                   |                  |                   |
| <b>General Description</b>              | Records good. Flow effected by the temporary weir about 500 meters downstream from the gage site.<br>Stage-discharge relation defined by 19 discharge measurements made in 2013. |                   |               |                   |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May         | Jun   | Jul   | Aug           | Sep                              | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------------|-------|-------|---------------|----------------------------------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 46.93 | 47.15       | 47.15 | 47.05 | 47.97         | 50.21                            | 52.96             | 48.70 | 48.73 | 48.43 | 47.35 | 46.63 |        |
| 2                                | 46.94 | 47.14       | 47.20 | 47.05 | 48.08         | 54.05                            | 51.59             | 48.32 | 48.59 | 48.36 | 47.37 | 46.69 |        |
| 3                                | 47.03 | 47.17       | 47.17 | 47.05 | 49.17         | 53.98                            | 50.66             | 48.38 | 48.49 | 48.34 | 47.35 | 46.68 |        |
| 4                                | 47.02 | 47.18       | 47.16 | 47.05 | 49.44         | 52.62                            | 50.38             | 47.82 | 48.67 | 48.33 | 47.30 | 46.67 |        |
| 5                                | 47.20 | 47.15       | 47.18 | 47.05 | 49.47         | 51.35                            | 51.16             | 47.82 | 48.55 | 48.35 | 47.26 | 46.57 |        |
| 6                                | 47.34 | 47.12       | 47.19 | 47.07 | 50.19         | 50.70                            | 51.36             | 48.52 | 48.62 | 48.31 | 47.39 | 46.46 |        |
| 7                                | 47.34 | 47.12       | 47.20 | 47.08 | 50.66         | 49.32                            | 51.24             | 48.97 | 48.79 | 48.28 | 47.35 | 46.47 |        |
| 8                                | 47.29 | 47.12       | 47.19 | 47.08 | 49.68         | 49.40                            | 50.16             | 48.92 | 48.73 | 48.25 | 47.26 | 46.47 |        |
| 9                                | 47.22 | 47.11       | 47.18 | 47.07 | 48.78         | 49.51                            | 49.63             | 48.69 | 48.68 | 48.22 | 47.12 | 46.42 |        |
| 10                               | 47.10 | 47.12       | 47.18 | 47.07 | 49.71         | 50.94                            | 49.98             | 48.22 | 48.62 | 48.31 | 47.12 | 46.28 |        |
| 11                               | 47.02 | 47.15       | 47.18 | 47.12 | 50.81         | 51.32                            | 49.59             | 48.18 | 48.52 | 48.57 | 47.12 | 46.25 |        |
| 12                               | 47.05 | 47.14       | 47.18 | 47.16 | 52.52         | 51.02                            | 48.95             | 48.12 | 48.58 | 48.60 | 47.17 | 46.23 |        |
| 13                               | 47.01 | 47.15       | 47.19 | 47.15 | 53.54         | 50.58                            | 48.80             | 48.07 | 48.70 | 48.50 | 47.18 | 46.23 |        |
| 14                               | 47.01 | 47.16       | 47.19 | 47.09 | 53.61         | 50.58                            | 48.55             | 48.00 | 48.70 | 48.56 | 47.21 | 46.23 |        |
| 15                               | 47.01 | 47.16       | 47.16 | 47.25 | 52.53         | 51.22                            | 48.15             | 48.08 | 48.66 | 48.48 | 47.20 | 46.23 |        |
| 16                               | 47.00 | 47.09       | 47.14 | 47.50 | 50.88         | 52.18                            | 48.12             | 48.47 | 48.74 | 48.47 | 47.18 | 46.24 |        |
| 17                               | 46.94 | 47.01       | 47.10 | 47.89 | 49.83         | 52.57                            | 48.12             | 48.91 | 48.61 | 48.47 | 47.17 | 46.27 |        |
| 18                               | 46.93 | 46.99       | 47.11 | 47.65 | 48.82         | 52.83                            | 48.12             | 48.87 | 48.62 | 48.40 | 47.17 | 46.27 |        |
| 19                               | 46.96 | 47.01       | 47.16 | 47.26 | 48.57         | 52.76                            | 51.80             | 48.90 | 48.63 | 48.56 | 47.11 | 46.27 |        |
| 20                               | 46.96 | 47.00       | 47.17 | 47.22 | 48.11         | 51.97                            | 51.49             | 49.04 | 48.63 | 48.70 | 47.01 | 46.27 |        |
| 21                               | 46.95 | 47.01       | 47.18 | 47.20 | 48.02         | 50.99                            | 51.02             | 49.02 | 48.72 | 48.70 | 46.97 | 46.27 |        |
| 22                               | 46.97 | 46.99       | 47.16 | 47.21 | 47.87         | 50.36                            | 50.69             | 48.96 | 48.79 | 48.62 | 46.95 | 46.27 |        |
| 23                               | 46.97 | 47.07       | 47.13 | 47.22 | 48.78         | 50.21                            | 51.89             | 48.98 | 48.73 | 48.59 | 46.82 | 46.27 |        |
| 24                               | 46.98 | 47.27       | 47.12 | 47.30 | 49.78         | 49.88                            | 50.83             | 48.94 | 48.70 | 48.61 | 46.82 | 46.27 |        |
| 25                               | 46.96 | 47.30       | 47.11 | 47.37 | 50.24         | 49.35                            | 49.93             | 48.95 | 48.70 | 48.46 | 46.64 | 46.27 |        |
| 26                               | 46.95 | 47.28       | 47.08 | 47.54 | 50.73         | 49.26                            | 49.82             | 48.88 | 48.57 | 48.23 | 46.57 | 46.27 |        |
| 27                               | 46.95 | 47.29       | 47.08 | 47.53 | 50.40         | 49.36                            | 49.88             | 48.85 | 48.56 | 48.08 | 46.57 | 46.26 |        |
| 28                               | 46.97 | 47.28       | 47.04 | 47.52 | 49.70         | 50.57                            | 50.38             | 48.79 | 48.56 | 47.90 | 46.57 | 46.26 |        |
| 29                               | 46.98 | 47.27       | 47.04 | 47.52 | 49.13         | 53.30                            | 50.08             | 48.79 | 48.40 | 47.90 |       | 46.26 |        |
| 30                               | 47.15 | 47.26       | 47.04 | 47.59 | 48.83         | 53.84                            | 49.10             | 48.75 | 48.37 | 47.44 |       | 46.26 |        |
| 31                               |       | 47.16       |       | 48.02 | 48.70         |                                  | 48.98             |       | 48.41 | 47.33 |       | 46.26 |        |
| Mean                             | 47.04 | 47.14       | 47.15 | 47.29 | 49.82         | 51.21                            | 50.11             | 48.60 | 48.62 | 48.33 | 47.08 | 46.35 |        |
| Max                              | 47.34 | 47.30       | 47.20 | 48.02 | 53.61         | 54.05                            | 52.96             | 49.04 | 48.79 | 48.70 | 47.39 | 46.69 | 54.05  |
| Min                              | 46.93 | 46.99       | 47.04 | 47.05 | 47.87         | 49.26                            | 48.12             | 47.82 | 48.37 | 47.33 | 46.57 | 46.23 | 46.23  |
| Annual Max Momentary Gage Height | 54.33 | m. (MSL.) , |       |       |               | at 18.00 Hours , on Sep 2 , 2013 |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 45.82 | m. (MSL.) , |       |       | River Bed     | 43.85                            | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 56.49 | m. (MSL.) , |       |       |               |                                  |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 56.49 | m. (MSL.) , |       |       | Drainage Area | 13948                            | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb  | Mar  | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|------|----------------------|---------|---------|--------------------------|--------|--------|--------|------|------|-----------------|
| 1              | 0.12                                                            | 0.23                     | 0.23 | 0.18                 | 48.80   | 176.15  | 378.30                   | 84.00  | 11.50  | 3.95   | 0.35 | 0.01 |                 |
| 2              | 0.12                                                            | 0.22                     | 0.25 | 0.18                 | 53.60   | 465.87  | 272.75                   | 65.00  | 6.80   | 3.10   | 0.37 | 0.02 |                 |
| 3              | 0.16                                                            | 0.23                     | 0.23 | 0.18                 | 111.20  | 460.10  | 206.20                   | 3.30   | 4.85   | 2.90   | 0.35 | 0.02 |                 |
| 4              | 0.16                                                            | 0.24                     | 0.23 | 0.18                 | 127.40  | 351.30  | 187.20                   | 0.82   | 9.10   | 2.80   | 0.30 | 0.01 |                 |
| 5              | 0.25                                                            | 0.23                     | 0.24 | 0.18                 | 129.20  | 254.75  | 241.20                   | 0.82   | 6.00   | 3.00   | 0.28 | 0.00 |                 |
| 6              | 0.34                                                            | 0.21                     | 0.24 | 0.19                 | 174.85  | 209.00  | 255.50                   | 5.40   | 7.60   | 2.60   | 0.39 | 0.00 |                 |
| 7              | 0.34                                                            | 0.21                     | 0.25 | 0.19                 | 206.20  | 120.20  | 246.80                   | 28.80  | 14.50  | 2.40   | 0.35 | 0.00 |                 |
| 8              | 0.30                                                            | 0.21                     | 0.24 | 0.19                 | 141.80  | 125.00  | 172.90                   | 24.30  | 11.50  | 2.25   | 0.28 | 0.00 |                 |
| 9              | 0.26                                                            | 0.21                     | 0.24 | 0.19                 | 88.00   | 131.60  | 138.80                   | 9.70   | 9.40   | 2.10   | 0.21 | 0.00 |                 |
| 10             | 0.20                                                            | 0.21                     | 0.24 | 0.19                 | 143.65  | 225.80  | 161.20                   | 2.10   | 7.60   | 2.60   | 0.21 | 0.00 |                 |
| 11             | 0.16                                                            | 0.23                     | 0.24 | 14.80                | 216.70  | 252.50  | 136.40                   | 1.90   | 5.40   | 6.40   | 0.21 | 0.00 |                 |
| 12             | 0.18                                                            | 0.22                     | 0.24 | 16.40                | 343.55  | 231.40  | 98.00                    | 1.60   | 6.60   | 7.00   | 0.23 | 0.00 |                 |
| 13             | 0.15                                                            | 0.23                     | 0.24 | 16.00                | 424.70  | 200.60  | 89.00                    | 1.35   | 10.00  | 5.00   | 0.24 | 0.00 |                 |
| 14             | 0.15                                                            | 0.23                     | 0.24 | 13.70                | 430.30  | 200.60  | 76.50                    | 1.00   | 10.00  | 6.20   | 0.25 | 0.00 |                 |
| 15             | 0.15                                                            | 0.23                     | 0.23 | 20.00                | 344.32  | 245.40  | 56.75                    | 1.40   | 8.80   | 4.70   | 0.25 | 0.00 |                 |
| 16             | 0.15                                                            | 0.20                     | 0.22 | 30.00                | 221.60  | 317.20  | 55.40                    | 4.55   | 12.00  | 4.55   | 0.24 | 0.00 |                 |
| 17             | 0.12                                                            | 0.15                     | 0.20 | 45.60                | 151.45  | 347.42  | 55.40                    | 23.40  | 7.30   | 4.55   | 0.23 | 0.00 |                 |
| 18             | 0.12                                                            | 0.15                     | 0.21 | 36.00                | 90.20   | 367.90  | 55.40                    | 20.25  | 7.60   | 3.50   | 0.23 | 0.00 |                 |
| 19             | 0.13                                                            | 0.15                     | 0.23 | 20.40                | 77.50   | 362.30  | 288.50                   | 22.50  | 7.90   | 6.20   | 0.21 | 0.00 |                 |
| 20             | 0.13                                                            | 0.15                     | 0.23 | 18.80                | 54.95   | 301.25  | 265.25                   | 36.50  | 7.90   | 10.00  | 0.15 | 0.00 |                 |
| 21             | 0.13                                                            | 0.15                     | 0.24 | 18.00                | 50.90   | 229.30  | 231.40                   | 34.00  | 11.00  | 10.00  | 0.14 | 0.00 |                 |
| 22             | 0.14                                                            | 0.15                     | 0.23 | 18.40                | 44.80   | 185.90  | 208.30                   | 27.90  | 14.50  | 7.60   | 0.13 | 0.00 |                 |
| 23             | 0.14                                                            | 0.19                     | 0.22 | 18.80                | 88.00   | 176.15  | 295.25                   | 29.70  | 11.50  | 6.80   | 0.06 | 0.00 |                 |
| 24             | 0.14                                                            | 0.29                     | 0.21 | 22.00                | 148.20  | 154.70  | 218.10                   | 26.10  | 10.00  | 7.30   | 0.06 | 0.00 |                 |
| 25             | 0.13                                                            | 0.30                     | 0.21 | 24.80                | 178.10  | 122.00  | 157.95                   | 27.00  | 10.00  | 4.40   | 0.01 | 0.00 |                 |
| 26             | 0.13                                                            | 0.29                     | 0.19 | 31.60                | 211.10  | 116.60  | 150.80                   | 21.00  | 6.40   | 2.15   | 0.00 | 0.00 |                 |
| 27             | 0.13                                                            | 0.30                     | 0.19 | 31.20                | 188.50  | 122.60  | 154.70                   | 18.75  | 6.20   | 1.40   | 0.00 | 0.00 |                 |
| 28             | 0.14                                                            | 0.29                     | 0.17 | 30.80                | 143.00  | 199.90  | 187.20                   | 14.50  | 6.20   | 0.90   | 0.00 | 0.00 |                 |
| 29             | 0.14                                                            | 0.29                     | 0.17 | 30.80                | 108.80  | 405.50  | 167.70                   | 14.50  | 3.50   | 0.90   |      | 0.00 |                 |
| 30             | 0.23                                                            | 0.28                     | 0.17 | 33.60                | 90.80   | 448.70  | 107.00                   | 12.50  | 3.20   | 0.44   |      | 0.00 |                 |
| 31             |                                                                 | 0.23                     |      | 50.90                | 84.00   |         | 99.80                    |        | 3.65   | 0.33   |      | 0.00 |                 |
| Total          | 5.14                                                            | 6.90                     | 6.67 | 544.45               | 4916.17 | 7507.69 | 5415.65                  | 564.64 | 258.50 | 128.02 | 5.73 | 0.06 | 19359.62 CMSDAY |
| Mean           | 0.17                                                            | 0.22                     | 0.22 | 17.56                | 158.59  | 250.26  | 174.70                   | 18.82  | 8.34   | 4.13   | 0.20 | 0.00 | 53.04 CMS       |
| Max            | 0.34                                                            | 0.30                     | 0.25 | 50.90                | 430.30  | 465.87  | 378.30                   | 84.00  | 14.50  | 10.00  | 0.39 | 0.02 | 465.87 CMS      |
| Min            | 0.12                                                            | 0.15                     | 0.17 | 0.18                 | 44.80   | 116.60  | 55.40                    | 0.82   | 3.20   | 0.33   | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 0.44                                                            | 0.60                     | 0.58 | 47.04                | 424.76  | 648.66  | 467.91                   | 48.79  | 22.33  | 11.06  | 0.50 | 0.01 | 1672.67 MCM     |
| Momentary Peak | 489.05 CMS. at 54.33 m. (MSL.) at 18.00 Hours , on Sep 2 , 2013 |                          |      |                      |         |         |                          |        |        |        |      |      |                 |
| Runoff Yield   | 3.80                                                            | Liters/Second/Square KM. |      | Momentary Peak Yield |         | 35.062  | Liters/Second/Square KM. |        |        |        |      |      |                 |

**WATER YEAR : 2013****YOM RIVER BASIN****Nam Khuan at Ban Pa Kha , Phayao (Y.36)**

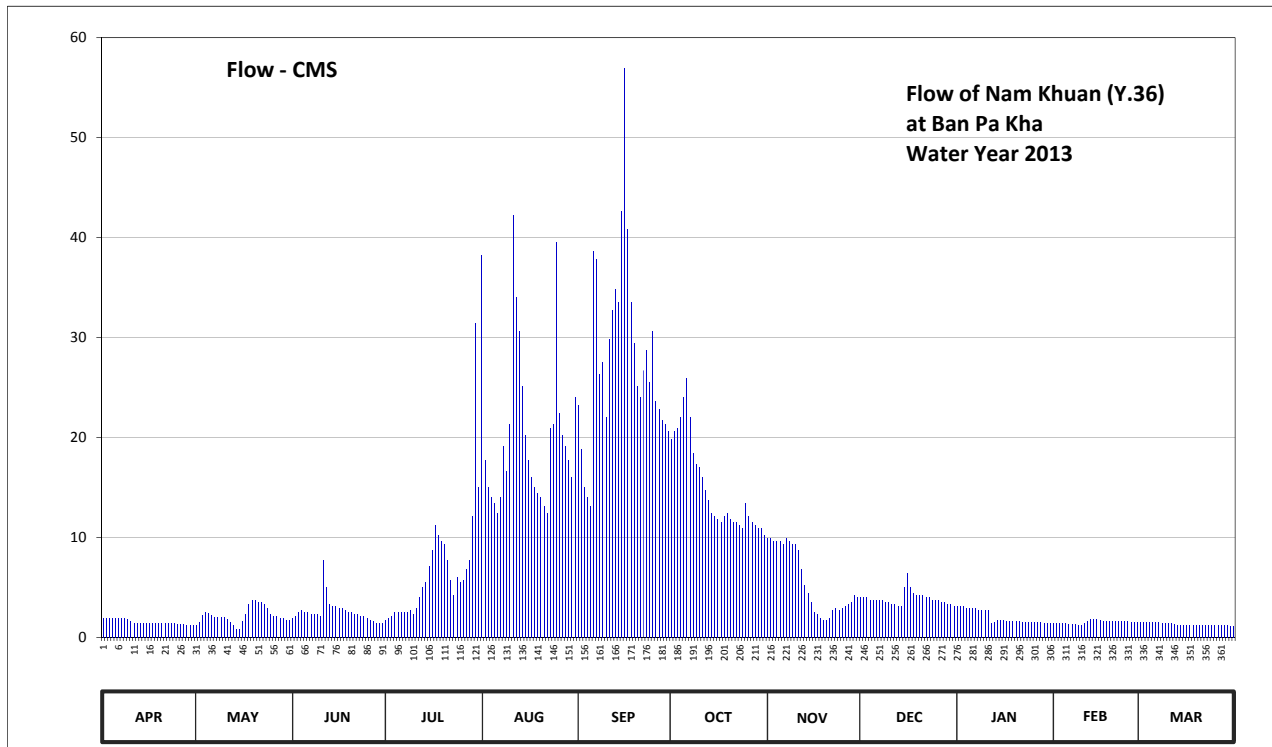
Lat 19 - 09 - 24 N Long 100 - 19 - 36 E

Location : on left bank at the bridge.

|                                         |                                                                             |               |               |             |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|---------------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | <b>Pa Kha</b> | <b>Amphoe</b> | <b>Pong</b> | <b>Changwat</b>  | <b>Phayao</b>      |
| <b>Drainage Area</b>                    | 853                                                                         | sq.km.        |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                  |               |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +298.586                                                                    | m. (MSL.)     |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |               |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank about 20 meters from the abutment of the bridge.               |               |               |             | <b>Elevation</b> | +307.764 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                      |               |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                               |               |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1998 to date                                                                |               |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |               |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1998 to date                                                                |               |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |               |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1998 to date                                                                |               |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |               |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |               |               |             |                  |                    |
| <b>General Description</b>              | Records fair. Flow effected by the islet at the gage site.                  |               |               |             |                  |                    |
|                                         | Stage-discharge relation defined by 34 discharge measurements made in 2013. |               |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul         | Aug    | Sep           | Oct                              | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|-------------|--------|---------------|----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 300.48 | 300.36 | 300.30      | 300.29      | 301.37 | 301.00        | 300.91                           | 300.61            | 300.40 | 300.36 | 300.39 | 300.41 |        |
| 2                                | 300.47 | 300.40 | 300.31      | 300.30      | 300.85 | 300.88        | 300.93                           | 300.61            | 300.40 | 300.36 | 300.39 | 300.41 |        |
| 3                                | 300.47 | 300.53 | 300.33      | 300.31      | 300.77 | 300.77        | 300.94                           | 300.60            | 300.40 | 300.36 | 300.38 | 300.40 |        |
| 4                                | 300.47 | 300.57 | 300.34      | 300.33      | 300.74 | 300.74        | 300.97                           | 300.60            | 300.39 | 300.35 | 300.38 | 300.40 |        |
| 5                                | 300.47 | 300.56 | 300.33      | 300.33      | 300.72 | 300.71        | 301.02                           | 300.60            | 300.39 | 300.35 | 300.38 | 300.40 |        |
| 6                                | 300.47 | 300.53 | 300.33      | 300.33      | 300.69 | 301.38        | 301.07                           | 300.59            | 300.39 | 300.35 | 300.37 | 300.40 |        |
| 7                                | 300.47 | 300.50 | 300.32      | 300.33      | 300.74 | 301.36        | 300.97                           | 300.61            | 300.39 | 300.35 | 300.37 | 300.40 |        |
| 8                                | 300.47 | 300.49 | 300.32      | 300.33      | 300.89 | 301.08        | 300.87                           | 300.60            | 300.39 | 300.34 | 300.37 | 300.39 |        |
| 9                                | 300.46 | 300.49 | 300.32      | 300.34      | 300.82 | 301.11        | 300.84                           | 300.59            | 300.38 | 300.34 | 300.36 | 300.39 |        |
| 10                               | 300.42 | 300.49 | 300.31      | 300.32      | 300.95 | 300.97        | 300.83                           | 300.59            | 300.38 | 300.34 | 300.36 | 300.39 |        |
| 11                               | 300.39 | 300.46 | 300.54      | 300.35      | 301.46 | 301.17        | 300.80                           | 300.57            | 300.37 | 300.34 | 300.38 | 300.38 |        |
| 12                               | 300.39 | 300.41 | 300.44      | 300.40      | 301.27 | 301.24        | 300.76                           | 300.51            | 300.37 | 300.38 | 300.42 | 300.37 |        |
| 13                               | 300.39 | 300.34 | 300.37      | 300.44      | 301.19 | 301.29        | 300.73                           | 300.45            | 300.36 | 300.41 | 300.46 | 300.36 |        |
| 14                               | 300.39 | 300.28 | 300.36      | 300.46      | 301.05 | 301.26        | 300.69                           | 300.42            | 300.36 | 300.44 | 300.46 | 300.36 |        |
| 15                               | 300.39 | 300.27 | 300.36      | 300.52      | 300.92 | 301.47        | 300.68                           | 300.38            | 300.44 | 300.44 | 300.45 | 300.36 |        |
| 16                               | 300.39 | 300.28 | 300.35      | 300.57      | 300.85 | 301.76        | 300.67                           | 300.33            | 300.50 | 300.44 | 300.44 | 300.35 |        |
| 17                               | 300.39 | 300.32 | 300.35      | 300.65      | 300.80 | 301.43        | 300.66                           | 300.32            | 300.44 | 300.43 | 300.43 | 300.35 |        |
| 18                               | 300.39 | 300.37 | 300.34      | 300.62      | 300.77 | 301.26        | 300.68                           | 300.30            | 300.42 | 300.43 | 300.43 | 300.35 |        |
| 19                               | 300.39 | 300.39 | 300.33      | 300.60      | 300.75 | 301.16        | 300.69                           | 300.29            | 300.41 | 300.43 | 300.43 | 300.34 |        |
| 20                               | 300.39 | 300.39 | 300.33      | 300.59      | 300.74 | 301.05        | 300.67                           | 300.29            | 300.41 | 300.42 | 300.43 | 300.34 |        |
| 21                               | 300.38 | 300.38 | 300.32      | 300.54      | 300.71 | 301.02        | 300.66                           | 300.30            | 300.41 | 300.42 | 300.42 | 300.34 |        |
| 22                               | 300.38 | 300.38 | 300.32      | 300.47      | 300.69 | 301.09        | 300.66                           | 300.34            | 300.40 | 300.41 | 300.42 | 300.36 |        |
| 23                               | 300.38 | 300.37 | 300.31      | 300.41      | 300.94 | 301.14        | 300.65                           | 300.35            | 300.40 | 300.41 | 300.42 | 300.35 |        |
| 24                               | 300.38 | 300.35 | 300.31      | 300.48      | 300.95 | 301.06        | 300.64                           | 300.34            | 300.39 | 300.41 | 300.42 | 300.35 |        |
| 25                               | 300.37 | 300.32 | 300.30      | 300.46      | 301.40 | 301.19        | 300.72                           | 300.35            | 300.39 | 300.40 | 300.42 | 300.35 |        |
| 26                               | 300.37 | 300.31 | 300.29      | 300.47      | 300.98 | 301.01        | 300.68                           | 300.36            | 300.39 | 300.40 | 300.41 | 300.34 |        |
| 27                               | 300.37 | 300.31 | 300.28      | 300.51      | 300.92 | 300.99        | 300.66                           | 300.37            | 300.38 | 300.40 | 300.41 | 300.34 |        |
| 28                               | 300.36 | 300.30 | 300.27      | 300.54      | 300.89 | 300.96        | 300.65                           | 300.38            | 300.38 | 300.40 | 300.41 | 300.34 |        |
| 29                               | 300.36 | 300.30 | 300.27      | 300.68      | 300.85 | 300.95        | 300.64                           | 300.41            | 300.37 | 300.39 |        | 300.34 |        |
| 30                               | 300.36 | 300.29 | 300.27      | 301.21      | 300.80 | 300.93        | 300.64                           | 300.40            | 300.37 | 300.39 |        | 300.33 |        |
| 31                               |        | 300.29 |             | 300.77      | 301.02 |               | 300.62                           |                   | 300.36 | 300.39 |        | 300.33 |        |
| Mean                             | 300.41 | 300.39 | 300.33      | 300.48      | 300.92 | 301.11        | 300.76                           | 300.45            | 300.39 | 300.39 | 300.41 | 300.37 |        |
| Max                              | 300.48 | 300.57 | 300.54      | 301.21      | 301.46 | 301.76        | 301.07                           | 300.61            | 300.50 | 300.44 | 300.46 | 300.41 | 301.76 |
| Min                              | 300.36 | 300.27 | 300.27      | 300.29      | 300.69 | 300.71        | 300.62                           | 300.29            | 300.36 | 300.34 | 300.36 | 300.33 | 300.27 |
| Annual Max Momentary Gage Height |        | 301.92 | m. (MSL.) , |             |        |               | at 06.00 Hours , on Sep 16, 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 298.59 | m. (MSL.) , |             |        | River Bed     | 298.89                           | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        |        | 307.38      | m. (MSL.) , |        |               |                                  |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 307.40 | m. (MSL.) , |             |        | Drainage Area | 853                              | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 1.98                                                             | 1.30                     | 1.90  | 1.76                 | 38.22  | 23.20  | 19.87                    | 9.96   | 4.00   | 3.16  | 1.45  | 1.56  |                |
| 2              | 1.92                                                             | 1.50                     | 2.11  | 1.90                 | 17.75  | 18.80  | 20.61                    | 9.96   | 4.00   | 3.16  | 1.45  | 1.56  |                |
| 3              | 1.92                                                             | 2.28                     | 2.53  | 2.11                 | 15.04  | 15.04  | 20.98                    | 9.65   | 4.00   | 3.16  | 1.40  | 1.50  |                |
| 4              | 1.92                                                             | 2.52                     | 2.74  | 2.53                 | 14.08  | 14.08  | 22.09                    | 9.65   | 3.79   | 2.95  | 1.40  | 1.50  |                |
| 5              | 1.92                                                             | 2.46                     | 2.53  | 2.53                 | 13.44  | 13.12  | 23.98                    | 9.65   | 3.79   | 2.95  | 1.40  | 1.50  |                |
| 6              | 1.92                                                             | 2.28                     | 2.53  | 2.53                 | 12.48  | 38.65  | 25.93                    | 9.33   | 3.79   | 2.95  | 1.35  | 1.50  |                |
| 7              | 1.92                                                             | 2.10                     | 2.32  | 2.53                 | 14.08  | 37.80  | 22.09                    | 9.96   | 3.79   | 2.95  | 1.35  | 1.50  |                |
| 8              | 1.92                                                             | 2.04                     | 2.32  | 2.53                 | 19.15  | 26.32  | 18.45                    | 9.65   | 3.79   | 2.74  | 1.35  | 1.45  |                |
| 9              | 1.86                                                             | 2.04                     | 2.32  | 2.74                 | 16.70  | 27.49  | 17.40                    | 9.33   | 3.58   | 2.74  | 1.30  | 1.45  |                |
| 10             | 1.62                                                             | 2.04                     | 2.11  | 2.32                 | 21.35  | 22.09  | 17.05                    | 9.33   | 3.58   | 2.74  | 1.30  | 1.45  |                |
| 11             | 1.45                                                             | 1.86                     | 7.76  | 2.95                 | 42.20  | 29.83  | 16.00                    | 8.71   | 3.37   | 2.74  | 1.40  | 1.40  |                |
| 12             | 1.45                                                             | 1.56                     | 5.00  | 4.00                 | 33.97  | 32.70  | 14.72                    | 6.82   | 3.37   | 1.40  | 1.62  | 1.35  |                |
| 13             | 1.45                                                             | 1.20                     | 3.37  | 5.00                 | 30.61  | 34.83  | 13.76                    | 5.25   | 3.16   | 1.56  | 1.86  | 1.30  |                |
| 14             | 1.45                                                             | 0.90                     | 3.16  | 5.50                 | 25.15  | 33.55  | 12.48                    | 4.50   | 3.16   | 1.74  | 1.86  | 1.30  |                |
| 15             | 1.45                                                             | 0.85                     | 3.16  | 7.13                 | 20.24  | 42.65  | 12.17                    | 3.58   | 5.00   | 1.74  | 1.80  | 1.30  |                |
| 16             | 1.45                                                             | 1.62                     | 2.95  | 8.71                 | 17.75  | 56.90  | 11.86                    | 2.53   | 6.50   | 1.74  | 1.74  | 1.25  |                |
| 17             | 1.45                                                             | 2.32                     | 2.95  | 11.22                | 16.00  | 40.85  | 11.54                    | 2.32   | 5.00   | 1.68  | 1.68  | 1.25  |                |
| 18             | 1.45                                                             | 3.37                     | 2.74  | 10.28                | 15.04  | 33.55  | 12.17                    | 1.90   | 4.50   | 1.68  | 1.68  | 1.25  |                |
| 19             | 1.45                                                             | 3.79                     | 2.53  | 9.65                 | 14.40  | 29.44  | 12.48                    | 1.76   | 4.25   | 1.68  | 1.68  | 1.20  |                |
| 20             | 1.45                                                             | 3.79                     | 2.53  | 9.33                 | 14.08  | 25.15  | 11.86                    | 1.76   | 4.25   | 1.62  | 1.68  | 1.20  |                |
| 21             | 1.40                                                             | 3.58                     | 2.32  | 7.76                 | 13.12  | 23.98  | 11.54                    | 1.90   | 4.25   | 1.62  | 1.62  | 1.20  |                |
| 22             | 1.40                                                             | 3.58                     | 2.32  | 5.75                 | 12.48  | 26.71  | 11.54                    | 2.74   | 4.00   | 1.56  | 1.62  | 1.30  |                |
| 23             | 1.40                                                             | 3.37                     | 2.11  | 4.25                 | 20.98  | 28.66  | 11.22                    | 2.95   | 4.00   | 1.56  | 1.62  | 1.25  |                |
| 24             | 1.40                                                             | 2.95                     | 2.11  | 6.00                 | 21.35  | 25.54  | 10.91                    | 2.74   | 3.79   | 1.56  | 1.62  | 1.25  |                |
| 25             | 1.35                                                             | 2.32                     | 1.90  | 5.50                 | 39.50  | 30.61  | 13.44                    | 2.95   | 3.79   | 1.50  | 1.62  | 1.25  |                |
| 26             | 1.35                                                             | 2.11                     | 1.76  | 5.75                 | 22.46  | 23.59  | 12.17                    | 3.16   | 3.79   | 1.50  | 1.56  | 1.20  |                |
| 27             | 1.35                                                             | 2.11                     | 1.62  | 6.82                 | 20.24  | 22.83  | 11.54                    | 3.37   | 3.58   | 1.50  | 1.56  | 1.20  |                |
| 28             | 1.30                                                             | 1.90                     | 1.48  | 7.76                 | 19.15  | 21.72  | 11.22                    | 3.58   | 3.58   | 1.50  | 1.56  | 1.20  |                |
| 29             | 1.30                                                             | 1.90                     | 1.48  | 12.17                | 17.75  | 21.35  | 10.91                    | 4.25   | 3.37   | 1.45  |       | 1.20  |                |
| 30             | 1.30                                                             | 1.76                     | 1.48  | 31.42                | 16.00  | 20.61  | 10.91                    | 4.00   | 3.37   | 1.45  |       | 1.15  |                |
| 31             |                                                                  | 1.76                     |       | 15.04                | 23.98  |        | 10.28                    |        | 3.16   | 1.45  |       | 1.15  |                |
| Total          | 46.95                                                            | 69.16                    | 78.14 | 205.47               | 638.74 | 841.64 | 463.17                   | 167.24 | 121.35 | 63.73 | 43.53 | 41.12 | 2780.24 CMSDAY |
| Mean           | 1.57                                                             | 2.23                     | 2.60  | 6.63                 | 20.60  | 28.05  | 14.94                    | 5.57   | 3.91   | 2.06  | 1.55  | 1.33  | 7.62 CMS       |
| Max            | 1.98                                                             | 3.79                     | 7.76  | 31.42                | 42.20  | 56.90  | 25.93                    | 9.96   | 6.50   | 3.16  | 1.86  | 1.56  | 56.90 CMS      |
| Min            | 1.30                                                             | 0.85                     | 1.48  | 1.76                 | 12.48  | 13.12  | 10.28                    | 1.76   | 3.16   | 1.40  | 1.30  | 1.15  | 0.85 CMS       |
| Runoff         | 4.06                                                             | 5.98                     | 6.75  | 17.75                | 55.19  | 72.72  | 40.02                    | 14.45  | 10.49  | 5.51  | 3.76  | 3.55  | 240.21 MCM     |
| Momentary Peak | 65.30 CMS. at 301.92 m. (MSL.) at 06.00 Hours , on Sep 16 , 2013 |                          |       |                      |        |        |                          |        |        |       |       |       |                |
| Runoff Yield   | 8.93                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 76.553 | Liters/Second/Square KM. |        |        |       |       |       |                |

**WATER YEAR : 2013**

## YOM RIVER BASIN

## Yom River at Ban Wang Chin , Phrae (Y.37)

Lat 17 - 53 - 48 N    Long 99 - 36 - 28 E

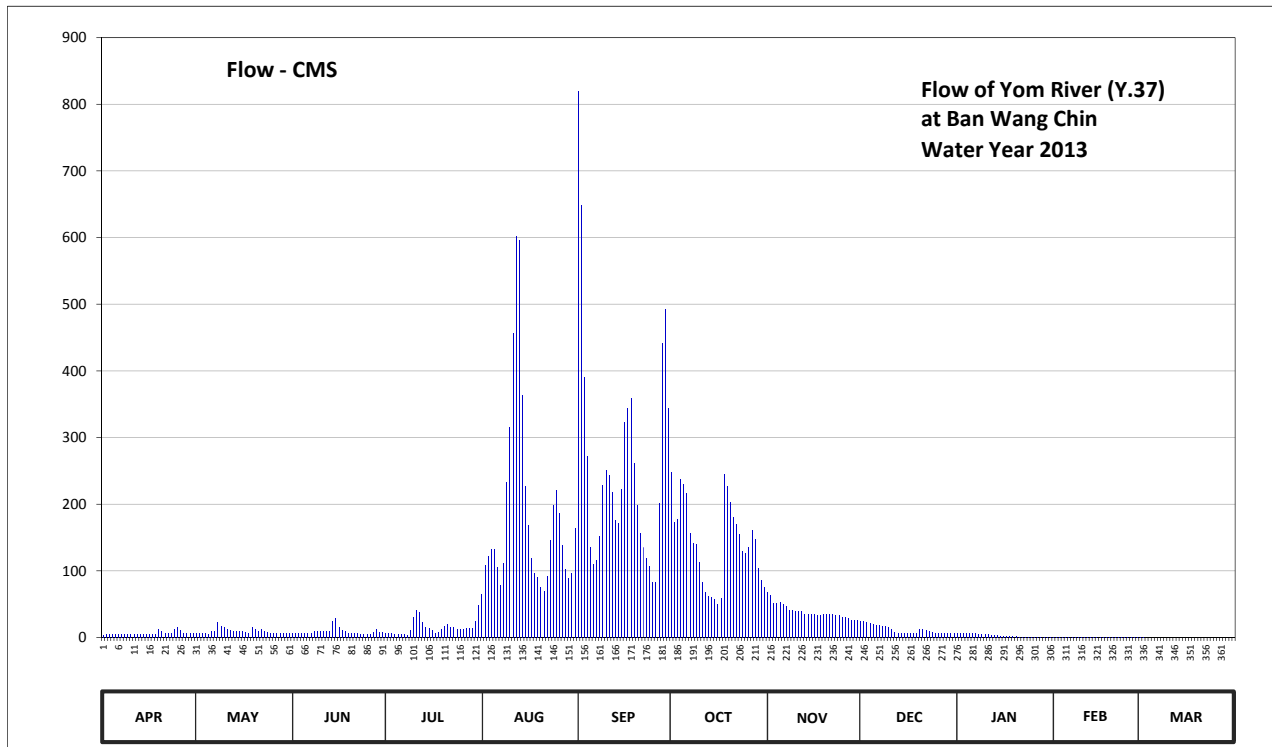
**Location :** on left bank at the bridge on road

|                                         |                                                                                  |           |               |           |                  |                    |
|-----------------------------------------|----------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                       | Wang Chin | <b>Amphoe</b> | Wang Chin | <b>Changwat</b>  | Phrae              |
| <b>Drainage Area</b>                    | 10,305                                                                           | sq.km.    |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                           |           |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +92.280                                                                          | m. (MSL.) |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                        |           |               |           |                  |                    |
| <b>Location BM</b>                      | On left bank about 5 meters from the top staff gage.                             |           |               |           | <b>Elevation</b> | +105.250 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                        |           |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                   |           |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                     |           |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                  |           |               |           |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                     |           |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                |           |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                     |           |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                          |           |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                |           |               |           |                  |                    |
| <b>General Description</b>              | Records good. The weir situated about 1 kilometer downstream from the gage site. |           |               |           |                  |                    |
|                                         | Stage-discharge relation defined by 43 discharge measurements made in 1913.      |           |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May    | Jun         | Jul   | Aug                              | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|--------|-------------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 94.27 | 94.38  | 94.36       | 94.37 | 95.14                            | 99.96 | 96.77             | 95.18 | 94.66 | 94.36 | 94.04 | 93.88 |        |
| 2                                | 94.28 | 94.36  | 94.38       | 94.35 | 95.57                            | 99.11 | 96.19             | 95.13 | 94.65 | 94.35 | 94.05 | 93.89 |        |
| 3                                | 94.28 | 94.35  | 94.38       | 94.33 | 95.70                            | 97.71 | 96.22             | 94.99 | 94.64 | 94.35 | 94.04 | 93.91 |        |
| 4                                | 94.28 | 94.33  | 94.36       | 94.31 | 95.80                            | 96.95 | 96.69             | 94.99 | 94.62 | 94.34 | 94.04 | 94.00 |        |
| 5                                | 94.28 | 94.32  | 94.34       | 94.31 | 95.81                            | 95.83 | 96.64             | 95.00 | 94.60 | 94.33 | 94.04 | 94.06 |        |
| 6                                | 94.28 | 94.43  | 94.34       | 94.28 | 95.55                            | 95.59 | 96.53             | 94.96 | 94.58 | 94.33 | 94.04 | 94.11 |        |
| 7                                | 94.28 | 94.44  | 94.34       | 94.28 | 95.29                            | 95.65 | 96.03             | 94.92 | 94.58 | 94.33 | 94.04 | 94.20 |        |
| 8                                | 94.28 | 94.63  | 94.43       | 94.26 | 95.60                            | 96.00 | 95.89             | 94.86 | 94.56 | 94.31 | 94.03 | 94.30 |        |
| 9                                | 94.29 | 94.56  | 94.44       | 94.46 | 96.66                            | 96.63 | 95.88             | 94.86 | 94.55 | 94.30 | 94.03 | 94.38 |        |
| 10                               | 94.30 | 94.54  | 94.42       | 94.73 | 97.25                            | 96.79 | 95.61             | 94.84 | 94.53 | 94.28 | 94.02 | 94.38 |        |
| 11                               | 94.30 | 94.48  | 94.42       | 94.86 | 98.09                            | 96.74 | 95.33             | 94.84 | 94.48 | 94.28 | 94.00 | 94.41 |        |
| 12                               | 94.30 | 94.46  | 94.43       | 94.82 | 98.87                            | 96.54 | 95.18             | 94.84 | 94.40 | 94.27 | 93.98 | 94.43 |        |
| 13                               | 94.32 | 94.44  | 94.43       | 94.63 | 98.84                            | 96.21 | 95.11             | 94.78 | 94.38 | 94.26 | 93.98 | 94.43 |        |
| 14                               | 94.32 | 94.44  | 94.65       | 94.53 | 97.55                            | 96.17 | 95.09             | 94.78 | 94.38 | 94.24 | 93.98 | 94.41 |        |
| 15                               | 94.30 | 94.43  | 94.71       | 94.51 | 96.62                            | 96.58 | 95.06             | 94.78 | 94.38 | 94.21 | 93.97 | 94.40 |        |
| 16                               | 94.28 | 94.43  | 94.53       | 94.45 | 96.15                            | 97.30 | 94.97             | 94.78 | 94.34 | 94.18 | 93.97 | 94.40 |        |
| 17                               | 94.28 | 94.40  | 94.45       | 94.38 | 95.67                            | 97.43 | 95.07             | 94.77 | 94.35 | 94.18 | 93.97 | 94.40 |        |
| 18                               | 94.32 | 94.38  | 94.43       | 94.41 | 95.46                            | 97.52 | 96.75             | 94.77 | 94.38 | 94.18 | 93.97 | 94.39 |        |
| 19                               | 94.47 | 94.53  | 94.38       | 94.48 | 95.40                            | 96.87 | 96.62             | 94.78 | 94.38 | 94.16 | 93.98 | 94.38 |        |
| 20                               | 94.44 | 94.47  | 94.38       | 94.56 | 95.25                            | 96.39 | 96.42             | 94.78 | 94.47 | 94.15 | 93.97 | 94.38 |        |
| 21                               | 94.38 | 94.44  | 94.36       | 94.61 | 95.19                            | 96.03 | 96.24             | 94.79 | 94.48 | 94.10 | 93.96 | 94.38 |        |
| 22                               | 94.38 | 94.50  | 94.34       | 94.54 | 95.42                            | 95.83 | 96.16             | 94.78 | 94.46 | 94.08 | 93.96 | 94.36 |        |
| 23                               | 94.38 | 94.43  | 94.31       | 94.53 | 95.93                            | 95.68 | 96.02             | 94.76 | 94.44 | 94.10 | 93.95 | 94.36 |        |
| 24                               | 94.48 | 94.40  | 94.28       | 94.48 | 96.39                            | 95.56 | 95.78             | 94.76 | 94.40 | 94.10 | 93.94 | 94.36 |        |
| 25                               | 94.54 | 94.38  | 94.28       | 94.50 | 96.57                            | 95.33 | 95.75             | 94.74 | 94.38 | 94.08 | 93.92 | 94.34 |        |
| 26                               | 94.45 | 94.36  | 94.28       | 94.50 | 96.29                            | 95.33 | 95.84             | 94.73 | 94.38 | 94.08 | 93.90 | 94.34 |        |
| 27                               | 94.38 | 94.36  | 94.40       | 94.52 | 95.86                            | 96.41 | 96.08             | 94.71 | 94.36 | 94.08 | 93.90 | 94.34 |        |
| 28                               | 94.38 | 94.34  | 94.47       | 94.52 | 95.52                            | 98.01 | 95.95             | 94.68 | 94.36 | 94.06 | 93.88 | 94.35 |        |
| 29                               | 94.36 | 94.35  | 94.39       | 94.52 | 95.39                            | 98.29 | 95.53             | 94.68 | 94.38 | 94.05 |       | 94.35 |        |
| 30                               | 94.38 | 94.38  | 94.41       | 94.65 | 95.45                            | 97.43 | 95.36             | 94.68 | 94.37 | 94.04 |       | 94.35 |        |
| 31                               |       | 94.38  |             | 94.95 | 96.10                            |       | 95.26             |       | 94.36 | 94.04 |       | 94.36 |        |
| Mean                             | 94.34 | 94.42  | 94.40       | 94.50 | 96.14                            | 96.73 | 95.87             | 94.83 | 94.46 | 94.20 | 93.98 | 94.29 |        |
| Max                              | 94.54 | 94.63  | 94.71       | 94.95 | 98.87                            | 99.96 | 96.77             | 95.18 | 94.66 | 94.36 | 94.05 | 94.43 | 99.96  |
| Min                              | 94.27 | 94.32  | 94.28       | 94.26 | 95.14                            | 95.33 | 94.97             | 94.68 | 94.34 | 94.04 | 93.88 | 93.88 | 93.88  |
| Annual Max Momentary Gage Height |       | 100.33 | m. (MSL.) , |       | at 17.00 Hours , on Sep 1 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 92.28  | m. (MSL.) , |       | River Bed                        | 92.08 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 105.34 | m. (MSL.) , |       |                                  |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 106.42 | m. (MSL.) , |       | Drainage Area                    | 10305 | Square Kilometers |       |       |       |       |       |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan   | Feb   | Mar  | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|-------|-------|------|-----------------|
| 1              | 4.16                                                            | 7.40                     | 6.80   | 7.10   | 64.96                | 819.00  | 247.95  | 68.32   | 24.80                    | 6.80  | 0.70  | 0.16 |                 |
| 2              | 4.44                                                            | 6.80                     | 7.40   | 6.50   | 108.39               | 649.00  | 173.90  | 64.12   | 24.00                    | 6.50  | 0.75  | 0.18 |                 |
| 3              | 4.44                                                            | 6.50                     | 7.40   | 5.90   | 121.87               | 390.15  | 177.50  | 52.36   | 23.20                    | 6.50  | 0.70  | 0.00 |                 |
| 4              | 4.44                                                            | 5.90                     | 6.80   | 5.30   | 132.25               | 273.00  | 237.15  | 52.36   | 21.60                    | 6.20  | 0.70  | 0.00 |                 |
| 5              | 4.44                                                            | 5.60                     | 6.20   | 5.30   | 133.29               | 135.36  | 230.40  | 53.20   | 20.00                    | 5.90  | 0.70  | 0.00 |                 |
| 6              | 4.44                                                            | 9.65                     | 6.20   | 4.44   | 106.31               | 110.46  | 216.25  | 49.84   | 18.70                    | 5.90  | 0.70  | 0.00 |                 |
| 7              | 4.44                                                            | 10.20                    | 6.20   | 4.44   | 79.34                | 116.69  | 156.30  | 46.48   | 18.70                    | 5.90  | 0.70  | 0.00 |                 |
| 8              | 4.44                                                            | 22.40                    | 9.65   | 3.88   | 111.50               | 153.00  | 141.59  | 41.44   | 17.40                    | 5.30  | 0.65  | 0.00 |                 |
| 9              | 4.72                                                            | 17.40                    | 10.20  | 11.30  | 233.10               | 229.05  | 140.55  | 41.44   | 16.75                    | 5.00  | 0.65  | 0.00 |                 |
| 10             | 5.00                                                            | 16.10                    | 9.10   | 30.52  | 315.75               | 250.65  | 112.54  | 39.76   | 15.45                    | 4.44  | 0.60  | 0.00 |                 |
| 11             | 5.00                                                            | 12.40                    | 9.10   | 41.44  | 455.75               | 243.90  | 83.49   | 39.76   | 12.40                    | 4.44  | 0.50  | 0.00 |                 |
| 12             | 5.00                                                            | 11.30                    | 9.65   | 38.08  | 601.65               | 217.50  | 68.32   | 39.76   | 8.00                     | 4.16  | 0.44  | 0.00 |                 |
| 13             | 5.60                                                            | 10.20                    | 9.65   | 22.40  | 595.80               | 176.25  | 62.44   | 34.72   | 7.40                     | 3.88  | 0.44  | 0.00 |                 |
| 14             | 5.60                                                            | 10.20                    | 24.00  | 15.45  | 363.75               | 171.70  | 60.76   | 34.72   | 7.40                     | 3.32  | 0.44  | 0.00 |                 |
| 15             | 5.00                                                            | 9.65                     | 28.84  | 14.15  | 227.70               | 222.50  | 58.24   | 34.72   | 7.40                     | 2.48  | 0.41  | 0.00 |                 |
| 16             | 4.44                                                            | 9.65                     | 15.45  | 10.75  | 169.50               | 323.50  | 50.68   | 34.72   | 6.20                     | 1.96  | 0.41  | 0.00 |                 |
| 17             | 4.44                                                            | 8.00                     | 10.75  | 7.40   | 118.76               | 343.95  | 59.08   | 33.88   | 6.50                     | 1.96  | 0.41  | 0.00 |                 |
| 18             | 5.60                                                            | 7.40                     | 9.65   | 8.55   | 96.98                | 358.80  | 245.25  | 33.88   | 7.40                     | 1.96  | 0.41  | 0.00 |                 |
| 19             | 11.85                                                           | 15.45                    | 7.40   | 12.40  | 90.75                | 261.80  | 227.70  | 34.72   | 7.40                     | 1.72  | 0.44  | 0.00 |                 |
| 20             | 10.20                                                           | 11.85                    | 7.40   | 17.40  | 75.19                | 198.75  | 202.50  | 34.72   | 11.85                    | 1.60  | 0.41  | 0.00 |                 |
| 21             | 7.40                                                            | 10.20                    | 6.80   | 20.80  | 69.16                | 156.30  | 180.00  | 35.56   | 12.40                    | 1.00  | 0.38  | 0.00 |                 |
| 22             | 7.40                                                            | 13.50                    | 6.20   | 16.10  | 92.83                | 135.36  | 170.60  | 34.72   | 11.30                    | 0.90  | 0.38  | 0.00 |                 |
| 23             | 7.40                                                            | 9.65                     | 5.30   | 15.45  | 145.74               | 119.80  | 155.20  | 33.04   | 10.20                    | 1.00  | 0.35  | 0.00 |                 |
| 24             | 12.40                                                           | 8.00                     | 4.44   | 12.40  | 198.75               | 107.35  | 130.17  | 33.04   | 8.00                     | 1.00  | 0.32  | 0.00 |                 |
| 25             | 16.10                                                           | 7.40                     | 4.44   | 13.50  | 221.25               | 83.49   | 127.06  | 31.36   | 7.40                     | 0.90  | 0.26  | 0.00 |                 |
| 26             | 10.75                                                           | 6.80                     | 4.44   | 13.50  | 186.25               | 83.49   | 136.40  | 30.52   | 7.40                     | 0.90  | 0.20  | 0.00 |                 |
| 27             | 7.40                                                            | 6.80                     | 8.00   | 14.80  | 138.48               | 201.25  | 161.80  | 28.84   | 6.80                     | 0.90  | 0.20  | 0.00 |                 |
| 28             | 7.40                                                            | 6.20                     | 11.85  | 14.80  | 103.20               | 441.75  | 147.81  | 26.40   | 6.80                     | 0.80  | 0.16  | 0.00 |                 |
| 29             | 6.80                                                            | 6.50                     | 7.70   | 14.80  | 89.71                | 491.65  | 104.24  | 26.40   | 7.40                     | 0.75  |       | 0.00 |                 |
| 30             | 7.40                                                            | 7.40                     | 8.55   | 24.00  | 95.94                | 343.95  | 86.60   | 26.40   | 7.10                     | 0.70  |       | 0.00 |                 |
| 31             |                                                                 | 7.40                     |        | 49.00  | 164.00               |         | 76.23   |         | 6.80                     | 0.70  |       | 0.00 |                 |
| Total          | 198.14                                                          | 303.90                   | 275.56 | 481.85 | 5707.90              | 7809.40 | 4428.70 | 1171.20 | 374.15                   | 95.47 | 13.41 | 0.34 | 20860.02 CMSDAY |
| Mean           | 6.60                                                            | 9.80                     | 9.19   | 15.54  | 184.13               | 260.31  | 142.86  | 39.04   | 12.07                    | 3.08  | 0.48  | 0.01 | 57.15 CMS       |
| Max            | 16.10                                                           | 22.40                    | 28.84  | 49.00  | 601.65               | 819.00  | 247.95  | 68.32   | 24.80                    | 6.80  | 0.75  | 0.18 | 819.00 CMS      |
| Min            | 4.16                                                            | 5.60                     | 4.44   | 3.88   | 64.96                | 83.49   | 50.68   | 26.40   | 6.20                     | 0.70  | 0.16  | 0.00 | 0.00 CMS        |
| Runoff         | 17.119                                                          | 26.26                    | 23.81  | 41.63  | 493.16               | 674.73  | 382.64  | 101.19  | 32.33                    | 8.25  | 1.16  | 0.03 | 1802.31 MCM     |
| Momentary Peak | 893.65 CMS. at 100.33 m. (MSL.) at 17.00 Hours , on Sep 1, 2013 |                          |        |        |                      |         |         |         |                          |       |       |      |                 |
| Runoff Yield   | 5.55                                                            | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 86.720  | Liters/Second/Square KM. |       |       |      |                 |

**WATER YEAR : 2013****YOM RIVER BASIN****Nam Mae Kham Mi at Ban Mae Kham Mi Tamnak Tham , Phrae (Y.38)**

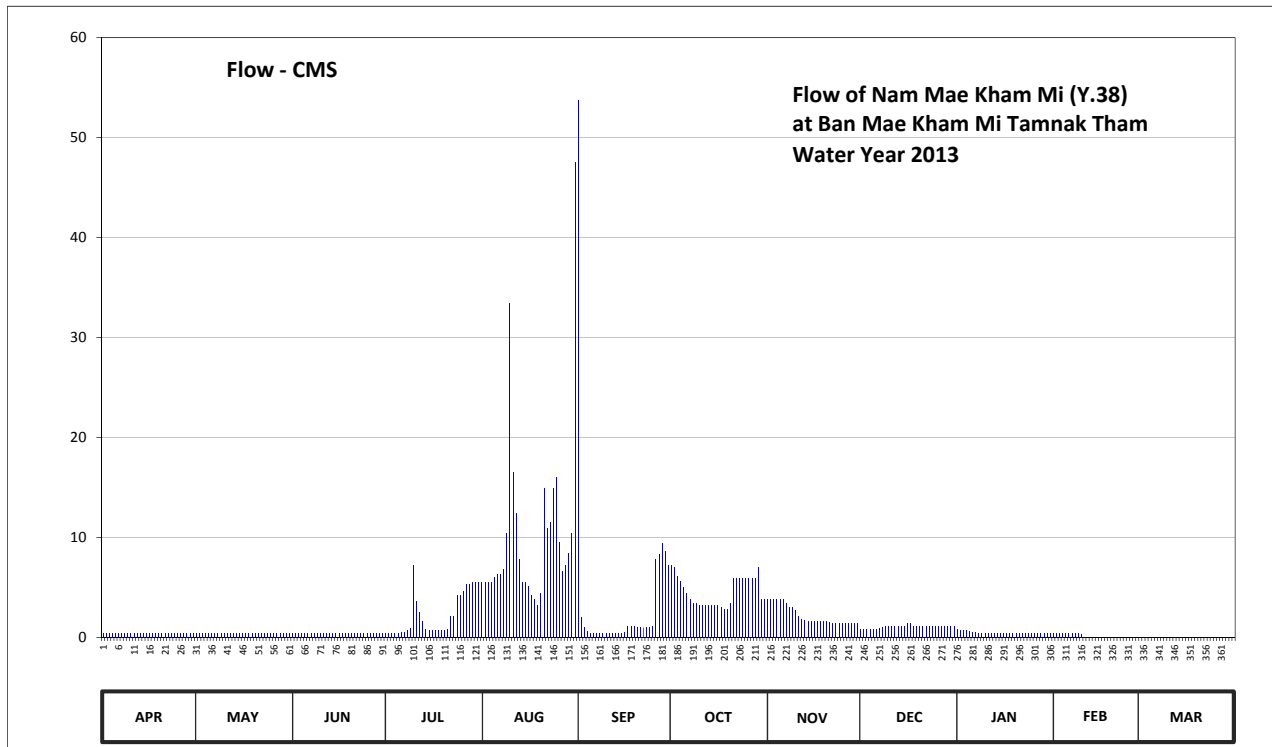
Lat 18 - 15 - 54 N Long 100 - 14 - 28 E

Location : on right bank at the bridge on road.

|                                         |                                                                             |                         |               |                 |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-------------------------|---------------|-----------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Mae Kham Mi Tamnak Tham | <b>Amphoe</b> | Nong Muang Khai | <b>Changwat</b>  | Phrae              |
| <b>Drainage Area</b>                    | 425                                                                         | sq.km.                  |               |                 |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |                         |               |                 |                  |                    |
| <b>Zero Gage at Bottom</b>              | +170.100                                                                    | m. (MSL.)               |               |                 |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                         |               |                 |                  |                    |
| <b>Location BM</b>                      | On right bank about 15 meters from the top staff gage.                      |                         |               |                 | <b>Elevation</b> | +179.900 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |                         |               |                 |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |                         |               |                 |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                |                         |               |                 |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                         |               |                 |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                |                         |               |                 |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                         |               |                 |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                |                         |               |                 |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |                         |               |                 |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                         |               |                 |                  |                    |
| <b>General Description</b>              | Records fair. The islet situated of the gage site.                          |                         |               |                 |                  |                    |
|                                         | Stage-discharge relation defined by 41 discharge measurements made in 2013. |                         |               |                 |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                              | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 171.70 | 171.70 | 171.70      | 171.70 | 172.08                           | 172.75 | 171.80            | 171.64 | 171.41 | 171.41 | 171.32 | 171.00 |        |
| 2                                | 171.70 | 171.70 | 171.70      | 171.70 | 172.08                           | 171.90 | 171.79            | 171.64 | 171.41 | 171.39 | 171.32 | 171.00 |        |
| 3                                | 171.70 | 171.70 | 171.70      | 171.70 | 172.08                           | 171.80 | 171.75            | 171.64 | 171.41 | 171.39 | 171.32 | 171.00 |        |
| 4                                | 171.70 | 171.70 | 171.70      | 171.70 | 172.08                           | 171.74 | 171.73            | 171.64 | 171.41 | 171.38 | 171.32 | 171.00 |        |
| 5                                | 171.70 | 171.70 | 171.70      | 171.71 | 172.10                           | 171.70 | 171.70            | 171.64 | 171.41 | 171.36 | 171.32 | 171.00 |        |
| 6                                | 171.70 | 171.70 | 171.70      | 171.72 | 172.11                           | 171.70 | 171.67            | 171.64 | 171.41 | 171.35 | 171.32 | 171.00 |        |
| 7                                | 171.70 | 171.70 | 171.70      | 171.73 | 172.11                           | 171.70 | 171.64            | 171.62 | 171.42 | 171.34 | 171.32 | 171.00 |        |
| 8                                | 171.70 | 171.71 | 171.70      | 171.75 | 172.13                           | 171.70 | 171.62            | 171.60 | 171.43 | 171.32 | 171.32 | 171.00 |        |
| 9                                | 171.70 | 171.71 | 171.70      | 171.79 | 172.23                           | 171.70 | 171.62            | 171.60 | 171.44 | 171.32 | 171.32 | 171.00 |        |
| 10                               | 171.70 | 171.71 | 171.70      | 172.14 | 172.58                           | 171.70 | 171.61            | 171.58 | 171.44 | 171.32 | 171.30 | 171.00 |        |
| 11                               | 171.70 | 171.71 | 171.70      | 171.99 | 172.35                           | 171.70 | 171.61            | 171.54 | 171.44 | 171.32 | 171.01 | 171.00 |        |
| 12                               | 171.70 | 171.71 | 171.70      | 171.93 | 172.27                           | 171.70 | 171.61            | 171.52 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 13                               | 171.70 | 171.71 | 171.70      | 171.86 | 172.16                           | 171.70 | 171.61            | 171.51 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 14                               | 171.70 | 171.71 | 171.70      | 171.78 | 172.08                           | 171.70 | 171.61            | 171.50 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 15                               | 171.70 | 171.71 | 171.70      | 171.75 | 172.08                           | 171.70 | 171.61            | 171.50 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 16                               | 171.70 | 171.71 | 171.70      | 171.75 | 172.06                           | 171.73 | 171.61            | 171.50 | 171.48 | 171.32 | 171.00 | 171.00 |        |
| 17                               | 171.70 | 171.71 | 171.70      | 171.75 | 172.02                           | 171.81 | 171.60            | 171.50 | 171.48 | 171.32 | 171.00 | 171.00 |        |
| 18                               | 171.70 | 171.71 | 171.70      | 171.75 | 172.00                           | 171.81 | 171.59            | 171.50 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 19                               | 171.70 | 171.71 | 171.70      | 171.75 | 171.97                           | 171.81 | 171.59            | 171.50 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 20                               | 171.70 | 171.71 | 171.70      | 171.75 | 172.03                           | 171.80 | 171.62            | 171.50 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 21                               | 171.70 | 171.71 | 171.70      | 171.78 | 172.32                           | 171.80 | 171.74            | 171.49 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 22                               | 171.70 | 171.71 | 171.70      | 171.91 | 172.24                           | 171.80 | 171.74            | 171.48 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 23                               | 171.70 | 171.71 | 171.70      | 171.91 | 172.25                           | 171.80 | 171.74            | 171.48 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 24                               | 171.70 | 171.71 | 171.70      | 172.02 | 172.32                           | 171.80 | 171.74            | 171.48 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 25                               | 171.70 | 171.71 | 171.70      | 172.02 | 172.34                           | 171.81 | 171.74            | 171.48 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 26                               | 171.70 | 171.71 | 171.70      | 172.04 | 172.21                           | 171.82 | 171.74            | 171.48 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 27                               | 171.70 | 171.71 | 171.70      | 172.07 | 172.12                           | 171.84 | 171.74            | 171.48 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 28                               | 171.70 | 171.71 | 171.70      | 172.07 | 172.14                           | 171.88 | 171.74            | 171.48 | 171.44 | 171.32 | 171.00 | 171.00 |        |
| 29                               | 171.70 | 171.71 | 171.70      | 172.08 | 172.18                           | 171.85 | 171.79            | 171.48 | 171.44 | 171.32 |        | 171.00 |        |
| 30                               | 171.70 | 171.71 | 171.70      | 172.08 | 172.23                           | 171.80 | 171.64            | 171.48 | 171.44 | 171.32 |        | 171.00 |        |
| 31                               |        | 171.71 |             | 172.08 | 172.70                           |        | 171.64            |        | 171.44 | 171.32 |        | 171.00 |        |
| Mean                             | 171.70 | 171.71 | 171.70      | 171.86 | 172.18                           | 171.80 | 171.68            | 171.54 | 171.44 | 171.33 | 171.11 | 171.00 |        |
| Max                              | 171.70 | 171.71 | 171.70      | 172.14 | 172.70                           | 172.75 | 171.80            | 171.64 | 171.48 | 171.41 | 171.32 | 171.00 | 172.75 |
| Min                              | 171.70 | 171.70 | 171.70      | 171.70 | 171.97                           | 171.70 | 171.59            | 171.48 | 171.41 | 171.32 | 171.00 | 171.00 | 171.00 |
| Annual Max Momentary Gage Height | 173.20 |        | m. (MSL.) , |        | at 08.00 Hours , on Sep 1 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 170.10 |        | m. (MSL.) , |        | River Bed                        | 170.84 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 180.09 |        | m. (MSL.) , |        |                                  |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 180.08 |        | m. (MSL.) , |        | Drainage Area                    | 425    | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb  | Mar  | Annual        |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|-------|-------|-------|------|------|---------------|
| 1              | 0.40                                                             | 0.40                     | 0.40  | 0.40                 | 5.56   | 53.75   | 7.30                     | 3.80  | 0.88  | 0.88  | 0.44 | 0.00 |               |
| 2              | 0.40                                                             | 0.40                     | 0.40  | 0.40                 | 5.56   | 2.00    | 7.07                     | 3.80  | 0.88  | 0.76  | 0.44 | 0.00 |               |
| 3              | 0.40                                                             | 0.40                     | 0.40  | 0.40                 | 5.56   | 1.00    | 6.15                     | 3.80  | 0.88  | 0.76  | 0.44 | 0.00 |               |
| 4              | 0.40                                                             | 0.40                     | 0.40  | 0.40                 | 5.56   | 0.64    | 5.69                     | 3.80  | 0.88  | 0.71  | 0.44 | 0.00 |               |
| 5              | 0.40                                                             | 0.40                     | 0.40  | 0.46                 | 6.00   | 0.40    | 5.00                     | 3.80  | 0.88  | 0.62  | 0.44 | 0.00 |               |
| 6              | 0.40                                                             | 0.40                     | 0.40  | 0.52                 | 6.30   | 0.40    | 4.40                     | 3.80  | 0.88  | 0.58  | 0.44 | 0.00 |               |
| 7              | 0.40                                                             | 0.40                     | 0.40  | 0.58                 | 6.30   | 0.40    | 3.80                     | 3.40  | 0.96  | 0.53  | 0.44 | 0.00 |               |
| 8              | 0.40                                                             | 0.46                     | 0.40  | 0.70                 | 6.90   | 0.40    | 3.40                     | 3.00  | 1.04  | 0.44  | 0.44 | 0.00 |               |
| 9              | 0.40                                                             | 0.46                     | 0.40  | 0.94                 | 10.50  | 0.40    | 3.40                     | 3.00  | 1.12  | 0.44  | 0.44 | 0.00 |               |
| 10             | 0.40                                                             | 0.46                     | 0.40  | 7.20                 | 33.40  | 0.40    | 3.20                     | 2.72  | 1.12  | 0.44  | 0.35 | 0.00 |               |
| 11             | 0.40                                                             | 0.46                     | 0.40  | 3.62                 | 16.50  | 0.40    | 3.20                     | 2.16  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 12             | 0.40                                                             | 0.46                     | 0.40  | 2.54                 | 12.50  | 0.40    | 3.20                     | 1.88  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 13             | 0.40                                                             | 0.46                     | 0.40  | 1.60                 | 7.80   | 0.40    | 3.20                     | 1.74  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 14             | 0.40                                                             | 0.46                     | 0.40  | 0.88                 | 5.56   | 0.40    | 3.20                     | 1.60  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 15             | 0.40                                                             | 0.46                     | 0.40  | 0.70                 | 5.56   | 0.40    | 3.20                     | 1.60  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 16             | 0.40                                                             | 0.46                     | 0.40  | 0.70                 | 5.12   | 0.58    | 3.20                     | 1.60  | 1.44  | 0.44  | 0.00 | 0.00 |               |
| 17             | 0.40                                                             | 0.46                     | 0.40  | 0.70                 | 4.24   | 1.10    | 3.00                     | 1.60  | 1.44  | 0.44  | 0.00 | 0.00 |               |
| 18             | 0.40                                                             | 0.46                     | 0.40  | 0.70                 | 3.80   | 1.10    | 2.86                     | 1.60  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 19             | 0.40                                                             | 0.46                     | 0.40  | 0.70                 | 3.26   | 1.10    | 2.86                     | 1.60  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 20             | 0.40                                                             | 0.46                     | 0.40  | 0.70                 | 4.46   | 1.00    | 3.40                     | 1.60  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 21             | 0.40                                                             | 0.46                     | 0.40  | 0.88                 | 15.00  | 1.00    | 5.92                     | 1.52  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 22             | 0.40                                                             | 0.46                     | 0.40  | 2.18                 | 11.00  | 1.00    | 5.92                     | 1.44  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 23             | 0.40                                                             | 0.46                     | 0.40  | 2.18                 | 11.50  | 1.00    | 5.92                     | 1.44  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 24             | 0.40                                                             | 0.46                     | 0.40  | 4.24                 | 15.00  | 1.00    | 5.92                     | 1.44  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 25             | 0.40                                                             | 0.46                     | 0.40  | 4.24                 | 16.00  | 1.10    | 5.92                     | 1.44  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 26             | 0.40                                                             | 0.46                     | 0.40  | 4.68                 | 9.50   | 7.84    | 5.92                     | 1.44  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 27             | 0.40                                                             | 0.46                     | 0.40  | 5.34                 | 6.60   | 8.38    | 5.92                     | 1.44  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 28             | 0.40                                                             | 0.46                     | 0.40  | 5.34                 | 7.20   | 9.46    | 5.92                     | 1.44  | 1.12  | 0.44  | 0.00 | 0.00 |               |
| 29             | 0.40                                                             | 0.46                     | 0.40  | 5.56                 | 8.40   | 8.65    | 7.07                     | 1.44  | 1.12  | 0.44  |      | 0.00 |               |
| 30             | 0.40                                                             | 0.46                     | 0.40  | 5.56                 | 10.50  | 7.30    | 3.80                     | 1.44  | 1.12  | 0.44  |      | 0.00 |               |
| 31             |                                                                  | 0.46                     |       | 5.56                 | 47.50  |         | 3.80                     |       | 1.12  | 0.44  |      | 0.00 |               |
| Total          | 12.00                                                            | 13.84                    | 12.00 | 70.60                | 318.64 | 113.40  | 142.76                   | 66.38 | 33.68 | 15.40 | 4.31 | 0.00 | 803.01 CMSDAY |
| Mean           | 0.40                                                             | 0.45                     | 0.40  | 2.28                 | 10.28  | 3.78    | 4.61                     | 2.21  | 1.09  | 0.50  | 0.15 | 0.00 | 2.20 CMS      |
| Max            | 0.40                                                             | 0.46                     | 0.40  | 7.20                 | 47.50  | 53.75   | 7.30                     | 3.80  | 1.44  | 0.88  | 0.44 | 0.00 | 53.75 CMS     |
| Min            | 0.40                                                             | 0.40                     | 0.40  | 0.40                 | 3.26   | 0.40    | 2.86                     | 1.44  | 0.88  | 0.44  | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 1.04                                                             | 1.20                     | 1.04  | 6.10                 | 27.53  | 9.80    | 12.33                    | 5.74  | 2.91  | 1.33  | 0.37 | 0.00 | 69.38 MCM     |
| Momentary Peak | 132.00 CMS. at 173.20 m. (MSL.) at 08.00 Hours , on Sep 1 , 2013 |                          |       |                      |        |         |                          |       |       |       |      |      |               |
| Runoff Yield   | 5.18                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 310.588 | Liters/Second/Square KM. |       |       |       |      |      |               |

**WATER YEAR : 2013****YOM RIVER BASIN****Yom River at Ban Tha Tako , Phichit (Y.42)**

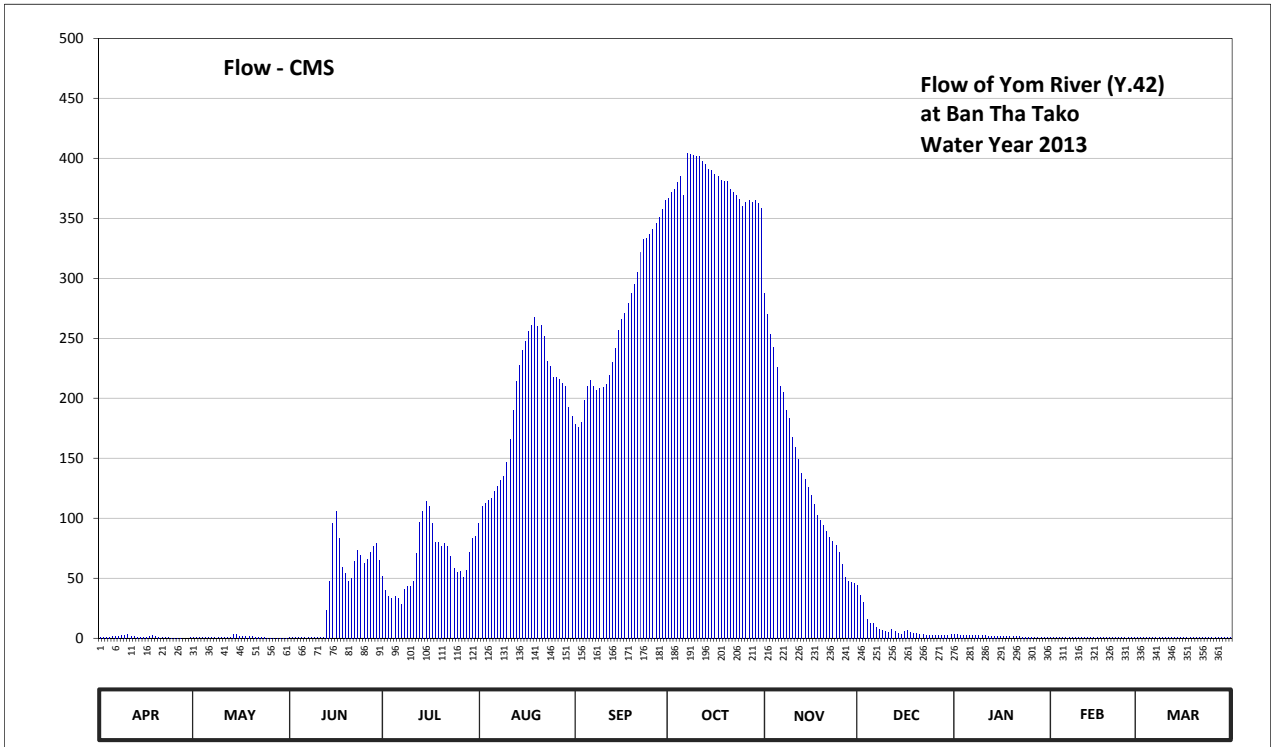
Lat 16 - 18 - 40 N Long 100 - 16 - 19 E

**Location : on left bank at Ban Tha Tako**

|                                         |                                                                                          |                 |               |                          |                  |                  |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------------|---------------|--------------------------|------------------|------------------|
|                                         | <b>Ban</b>                                                                               | <b>Tha Tako</b> | <b>Amphoe</b> | <b>Pho Prathap Chang</b> | <b>Changwat</b>  | <b>Phichit</b>   |
| <b>Drainage Area</b>                    | -                                                                                        | sq.km.          |               |                          |                  |                  |
| <b>Type of Gage</b>                     | Staff gage                                                                               |                 |               |                          |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                   | m. (A.D.)       |               |                          |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |                 |               |                          |                  |                  |
| <b>Location BM</b>                      | Near the gage observers house.                                                           |                 |               |                          | <b>Elevation</b> | +8.000 m. (A.D.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                     |                 |               |                          |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |                 |               |                          |                  |                  |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                             |                 |               |                          |                  |                  |
| <b>Rating Operation</b>                 |                                                                                          |                 |               |                          |                  |                  |
| <b>Period of Rating</b>                 | 2011 to date                                                                             |                 |               |                          |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                        |                 |               |                          |                  |                  |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                             |                 |               |                          |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                               |                 |               |                          |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                 |               |                          |                  |                  |
| <b>General Description</b>              | Records fair.Stage-discharge relation defined by 17 discharge measurements made in 2013. |                 |               |                          |                  |                  |

**Gage Height in Meter (A.D.) Water Year April 1, 2013 to March 31, 2014**

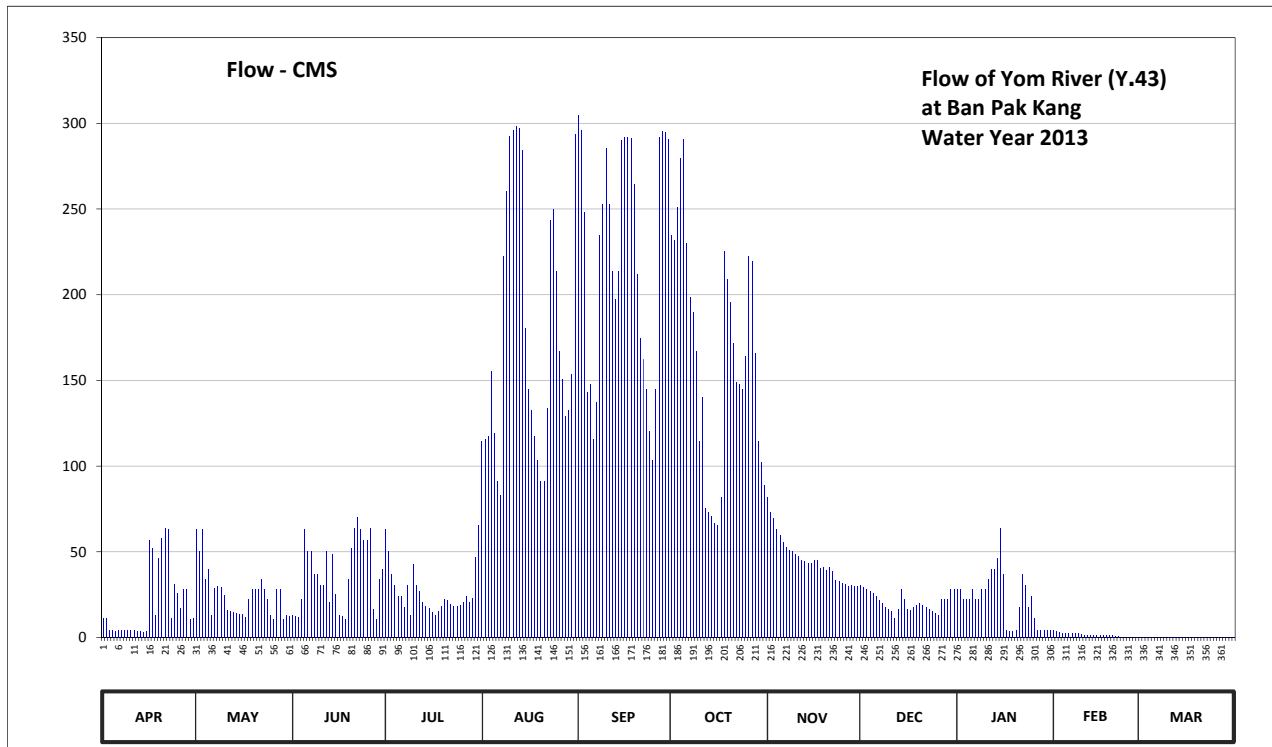
| Date                             | Apr   | May  | Jun         | Jul  | Aug                              | Sep  | Oct       | Nov               | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|----------------------------------|------|-----------|-------------------|------|------|------|------|--------|
| 1                                | 1.01  | 0.92 | 0.92        | 2.66 | 3.61                             | 5.02 | 7.58      | 6.58              | 2.48 | 1.19 | 0.92 | 0.91 |        |
| 2                                | 1.01  | 0.91 | 0.91        | 2.37 | 3.89                             | 4.98 | 7.64      | 6.35              | 2.28 | 1.18 | 0.92 | 0.91 |        |
| 3                                | 1.00  | 0.91 | 0.91        | 2.25 | 3.92                             | 5.04 | 7.67      | 6.12              | 2.13 | 1.15 | 0.92 | 0.91 |        |
| 4                                | 1.02  | 0.93 | 0.91        | 2.20 | 3.98                             | 5.32 | 7.73      | 5.96              | 1.74 | 1.13 | 0.92 | 0.91 |        |
| 5                                | 1.05  | 0.95 | 0.91        | 2.25 | 4.00                             | 5.49 | 7.79      | 5.73              | 1.63 | 1.12 | 0.92 | 0.91 |        |
| 6                                | 1.08  | 0.93 | 0.93        | 2.20 | 4.11                             | 5.57 | 7.61      | 5.49              | 1.62 | 1.12 | 0.92 | 0.91 |        |
| 7                                | 1.10  | 0.94 | 0.91        | 2.08 | 4.17                             | 5.49 | 8.01      | 5.41              | 1.48 | 1.12 | 0.92 | 0.91 |        |
| 8                                | 1.12  | 0.94 | 0.91        | 2.39 | 4.26                             | 5.44 | 8.00      | 5.20              | 1.43 | 1.13 | 0.92 | 0.91 |        |
| 9                                | 1.15  | 0.94 | 0.91        | 2.45 | 4.32                             | 5.46 | 7.99      | 5.10              | 1.39 | 1.13 | 0.92 | 0.91 |        |
| 10                               | 1.18  | 0.93 | 0.93        | 2.45 | 4.51                             | 5.48 | 7.98      | 4.85              | 1.34 | 1.12 | 0.92 | 0.91 |        |
| 11                               | 1.08  | 0.93 | 0.92        | 2.56 | 4.82                             | 5.52 | 7.98      | 4.72              | 1.30 | 1.11 | 0.92 | 0.91 |        |
| 12                               | 1.05  | 0.92 | 0.92        | 3.09 | 5.19                             | 5.63 | 7.94      | 4.55              | 1.43 | 1.10 | 0.92 | 0.91 |        |
| 13                               | 1.02  | 0.91 | 1.96        | 3.63 | 5.55                             | 5.78 | 7.91      | 4.36              | 1.32 | 1.08 | 0.92 | 0.91 |        |
| 14                               | 1.00  | 1.21 | 2.57        | 3.81 | 5.75                             | 5.95 | 7.86      | 4.28              | 1.25 | 1.07 | 0.92 | 0.91 |        |
| 15                               | 1.00  | 1.17 | 3.61        | 3.96 | 5.93                             | 6.17 | 7.85      | 4.16              | 1.21 | 1.07 | 0.92 | 0.91 |        |
| 16                               | 0.99  | 1.10 | 3.80        | 3.89 | 6.03                             | 6.29 | 7.81      | 4.04              | 1.34 | 1.06 | 0.92 | 0.91 |        |
| 17                               | 1.04  | 1.04 | 3.36        | 3.61 | 6.15                             | 6.36 | 7.79      | 3.91              | 1.38 | 1.05 | 0.92 | 0.91 |        |
| 18                               | 1.11  | 1.07 | 2.83        | 3.29 | 6.22                             | 6.47 | 7.75      | 3.75              | 1.30 | 1.04 | 0.92 | 0.91 |        |
| 19                               | 1.06  | 1.07 | 2.73        | 3.30 | 6.31                             | 6.58 | 7.74      | 3.66              | 1.25 | 1.04 | 0.92 | 0.91 |        |
| 20                               | 1.01  | 1.03 | 2.56        | 3.23 | 6.21                             | 6.68 | 7.74      | 3.59              | 1.23 | 1.03 | 0.92 | 0.91 |        |
| 21                               | 0.96  | 1.00 | 2.63        | 3.27 | 6.22                             | 6.81 | 7.67      | 3.48              | 1.20 | 1.03 | 0.92 | 0.91 |        |
| 22                               | 0.93  | 0.98 | 2.95        | 3.22 | 6.09                             | 7.03 | 7.64      | 3.38              | 1.17 | 1.03 | 0.92 | 0.91 |        |
| 23                               | 0.90  | 0.98 | 3.16        | 3.04 | 5.80                             | 7.16 | 7.61      | 3.31              | 1.15 | 1.02 | 0.92 | 0.91 |        |
| 24                               | 0.88  | 0.98 | 3.05        | 2.82 | 5.74                             | 7.17 | 7.57      | 3.25              | 1.14 | 1.00 | 0.92 | 0.91 |        |
| 25                               | 0.86  | 0.88 | 2.92        | 2.75 | 5.60                             | 7.21 | 7.50      | 3.11              | 1.12 | 0.99 | 0.91 | 0.91 |        |
| 26                               | 0.84  | 0.87 | 2.99        | 2.77 | 5.60                             | 7.27 | 7.54      | 2.89              | 1.11 | 0.97 | 0.91 | 0.91 |        |
| 27                               | 0.81  | 0.87 | 3.11        | 2.64 | 5.58                             | 7.33 | 7.56      | 2.64              | 1.11 | 0.96 | 0.91 | 0.91 |        |
| 28                               | 0.79  | 0.86 | 3.22        | 2.78 | 5.53                             | 7.39 | 7.54      | 2.57              | 1.13 | 0.94 | 0.91 | 0.91 |        |
| 29                               | 0.79  | 0.84 | 3.28        | 3.12 | 5.49                             | 7.47 | 7.56      | 2.55              | 1.14 | 0.93 |      | 0.91 |        |
| 30                               | 0.94  | 0.83 | 2.97        | 3.37 | 5.23                             | 7.56 | 7.53      | 2.53              | 1.14 | 0.92 |      | 0.91 |        |
| 31                               |       | 0.83 |             | 3.40 | 5.12                             |      | 7.48      |                   | 1.17 | 0.92 |      | 0.91 |        |
| Mean                             | 0.99  | 0.96 | 2.16        | 2.93 | 5.19                             | 6.24 | 7.73      | 4.25              | 1.39 | 1.06 | 0.92 | 0.91 |        |
| Max                              | 1.18  | 1.21 | 3.80        | 3.96 | 6.31                             | 7.56 | 8.01      | 6.58              | 2.48 | 1.19 | 0.92 | 0.91 | 8.01   |
| Min                              | 0.79  | 0.83 | 0.91        | 2.08 | 3.61                             | 4.98 | 7.48      | 2.53              | 1.11 | 0.92 | 0.91 | 0.91 | 0.79   |
| Annual Max Momentary Gage Height | 8.02  |      | m. (A.D.) , |      | at 18.00 Hours , on Oct 6 , 2013 |      |           |                   |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (A.D.) , |      | River Bed                        | 0.73 | m. (A.D.) |                   |      |      |      |      |        |
| Left Bank Elevation              | 9.84  |      | m. (A.D.) , |      |                                  |      |           |                   |      |      |      |      |        |
| Right Bank Elevation             | 10.39 |      | m. (A.D.) , |      | Drainage Area                    |      |           | Square Kilometers |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                            | May                      | Jun     | Jul     | Aug                  | Sep     | Oct      | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|----------|---------|--------------------------|-------|-------|-------|----------|--------|
| 1              | 1.10                                                           | 0.60                     | 0.60    | 51.40   | 95.52                | 178.55  | 366.80   | 287.25  | 44.20                    | 3.35  | 0.60  | 0.55  |          |        |
| 2              | 1.10                                                           | 0.55                     | 0.55    | 39.80   | 110.45               | 175.95  | 371.90   | 270.00  | 36.20                    | 3.20  | 0.60  | 0.55  |          |        |
| 3              | 1.00                                                           | 0.55                     | 0.55    | 35.00   | 112.10               | 179.85  | 374.45   | 253.40  | 30.20                    | 2.75  | 0.60  | 0.55  |          |        |
| 4              | 1.20                                                           | 0.65                     | 0.55    | 33.00   | 115.40               | 198.35  | 379.55   | 242.20  | 16.20                    | 2.45  | 0.60  | 0.55  |          |        |
| 5              | 1.50                                                           | 0.75                     | 0.55    | 35.00   | 116.50               | 209.83  | 384.65   | 226.10  | 12.90                    | 2.30  | 0.60  | 0.55  |          |        |
| 6              | 1.80                                                           | 0.65                     | 0.65    | 33.00   | 122.83               | 215.23  | 369.35   | 209.83  | 12.60                    | 2.30  | 0.60  | 0.55  |          |        |
| 7              | 2.00                                                           | 0.70                     | 0.55    | 28.20   | 126.28               | 209.83  | 403.90   | 204.43  | 9.00                     | 2.30  | 0.60  | 0.55  |          |        |
| 8              | 2.30                                                           | 0.70                     | 0.55    | 40.60   | 131.60               | 206.45  | 403.00   | 190.25  | 7.75                     | 2.45  | 0.60  | 0.55  |          |        |
| 9              | 2.75                                                           | 0.70                     | 0.55    | 43.00   | 135.20               | 207.80  | 402.12   | 183.75  | 6.80                     | 2.45  | 0.60  | 0.55  |          |        |
| 10             | 3.20                                                           | 0.65                     | 0.65    | 43.00   | 146.60               | 209.15  | 401.25   | 167.62  | 5.80                     | 2.30  | 0.60  | 0.55  |          |        |
| 11             | 1.80                                                           | 0.65                     | 0.60    | 47.40   | 165.75               | 211.85  | 401.25   | 159.50  | 5.00                     | 2.15  | 0.60  | 0.55  |          |        |
| 12             | 1.50                                                           | 0.60                     | 0.60    | 70.55   | 189.60               | 219.28  | 397.75   | 149.00  | 7.75                     | 2.00  | 0.60  | 0.55  |          |        |
| 13             | 1.20                                                           | 0.55                     | 23.60   | 96.58   | 213.88               | 229.60  | 395.12   | 137.60  | 5.40                     | 1.80  | 0.60  | 0.55  |          |        |
| 14             | 1.00                                                           | 3.65                     | 47.80   | 106.05  | 227.50               | 241.50  | 390.75   | 132.80  | 4.25                     | 1.70  | 0.60  | 0.55  |          |        |
| 15             | 1.00                                                           | 3.05                     | 95.52   | 114.30  | 240.10               | 256.90  | 389.87   | 125.70  | 3.65                     | 1.70  | 0.60  | 0.55  |          |        |
| 16             | 0.95                                                           | 2.00                     | 105.50  | 110.45  | 247.10               | 265.52  | 386.37   | 118.80  | 5.80                     | 1.60  | 0.60  | 0.55  |          |        |
| 17             | 1.40                                                           | 1.40                     | 83.10   | 95.52   | 255.50               | 270.75  | 384.65   | 111.55  | 6.60                     | 1.50  | 0.60  | 0.55  |          |        |
| 18             | 2.15                                                           | 1.70                     | 58.85   | 79.77   | 260.45               | 279.00  | 381.25   | 102.87  | 5.00                     | 1.40  | 0.60  | 0.55  |          |        |
| 19             | 1.60                                                           | 1.70                     | 54.35   | 80.25   | 267.00               | 287.25  | 380.40   | 98.15   | 4.25                     | 1.40  | 0.60  | 0.55  |          |        |
| 20             | 1.10                                                           | 1.30                     | 47.40   | 76.92   | 259.73               | 294.75  | 380.40   | 94.50   | 3.95                     | 1.30  | 0.60  | 0.55  |          |        |
| 21             | 0.80                                                           | 1.00                     | 50.20   | 78.82   | 260.45               | 304.52  | 374.45   | 89.00   | 3.50                     | 1.30  | 0.60  | 0.55  |          |        |
| 22             | 0.65                                                           | 0.90                     | 64.25   | 76.45   | 251.30               | 321.90  | 371.90   | 84.05   | 3.05                     | 1.30  | 0.60  | 0.55  |          |        |
| 23             | 0.50                                                           | 0.90                     | 73.70   | 68.30   | 231.00               | 332.30  | 369.35   | 80.72   | 2.75                     | 1.20  | 0.60  | 0.55  |          |        |
| 24             | 0.40                                                           | 0.90                     | 68.75   | 58.40   | 226.80               | 333.10  | 365.95   | 77.87   | 2.60                     | 1.00  | 0.60  | 0.55  |          |        |
| 25             | 0.30                                                           | 0.40                     | 62.90   | 55.25   | 217.25               | 336.30  | 360.00   | 71.45   | 2.30                     | 0.95  | 0.55  | 0.55  |          |        |
| 26             | 0.20                                                           | 0.35                     | 66.05   | 56.15   | 217.25               | 341.10  | 363.40   | 61.55   | 2.15                     | 0.85  | 0.55  | 0.55  |          |        |
| 27             | 0.05                                                           | 0.35                     | 71.45   | 50.60   | 215.90               | 345.90  | 365.10   | 50.60   | 2.15                     | 0.80  | 0.55  | 0.55  |          |        |
| 28             | 0.00                                                           | 0.30                     | 76.45   | 56.60   | 212.53               | 350.70  | 363.40   | 47.80   | 2.45                     | 0.70  | 0.55  | 0.55  |          |        |
| 29             | 0.00                                                           | 0.20                     | 79.30   | 71.90   | 209.83               | 357.45  | 365.10   | 47.00   | 2.60                     | 0.65  |       | 0.55  |          |        |
| 30             | 0.70                                                           | 0.15                     | 65.15   | 83.57   | 192.28               | 365.10  | 362.55   | 46.20   | 2.60                     | 0.60  |       | 0.55  |          |        |
| 31             |                                                                | 0.15                     |         | 85.00   | 185.05               |         | 358.30   |         | 3.05                     | 0.60  |       | 0.55  |          |        |
| Total          | 35.25                                                          | 28.70                    | 1201.27 | 2000.83 | 5958.73              | 7935.76 | 11764.28 | 4121.54 | 262.50                   | 52.35 | 16.60 | 17.05 | 33394.86 | CMSDAY |
| Mean           | 1.18                                                           | 0.93                     | 40.04   | 64.54   | 192.22               | 264.53  | 379.49   | 137.38  | 8.47                     | 1.69  | 0.59  | 0.55  | 91.49    | CMS    |
| Max            | 3.20                                                           | 3.65                     | 105.50  | 114.30  | 267.00               | 365.10  | 403.90   | 287.25  | 44.20                    | 3.35  | 0.60  | 0.55  | 403.90   | CMS    |
| Min            | 0.00                                                           | 0.15                     | 0.55    | 28.20   | 95.52                | 175.95  | 358.30   | 46.20   | 2.15                     | 0.60  | 0.55  | 0.55  | 0.00     | CMS    |
| Runoff         | 3.05                                                           | 2.48                     | 103.71  | 172.87  | 514.83               | 685.65  | 1016.43  | 356.10  | 22.68                    | 4.52  | 1.43  | 1.47  | 2885.32  | MCM    |
| Momentary Peak | 404.80 CMS. at 8.02 m. (A.D.) at 18.00 Hours , on Oct 6 , 2013 |                          |         |         |                      |         |          |         |                          |       |       |       |          |        |
| Runoff Yield   | *****                                                          | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |          | *****   | Liters/Second/Square KM. |       |       |       |          |        |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                              | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar   | Annual |
|----------------------------------|--------|--------|-------------|--------|----------------------------------|--------|-------------------|--------|--------|--------|--------|-------|--------|
| 1                                | 100.41 | 100.49 | 100.66      | 100.49 | 101.83                           | 106.16 | 102.63            | 101.57 | 101.00 | 100.57 | 100.38 | 99.91 |        |
| 2                                | 100.41 | 100.47 | 100.65      | 100.47 | 101.84                           | 104.32 | 102.61            | 101.49 | 100.98 | 100.57 | 100.36 | 99.89 |        |
| 3                                | 100.40 | 100.49 | 100.63      | 100.45 | 101.85                           | 102.72 | 102.74            | 101.46 | 100.96 | 100.58 | 100.33 | 99.88 |        |
| 4                                | 100.38 | 100.56 | 100.58      | 100.44 | 102.10                           | 102.02 | 102.93            | 101.40 | 100.94 | 100.58 | 100.32 | 99.96 |        |
| 5                                | 100.37 | 100.55 | 100.49      | 100.43 | 101.86                           | 102.05 | 103.14            | 101.36 | 100.92 | 100.58 | 100.31 | 99.97 |        |
| 6                                | 100.39 | 100.67 | 100.47      | 100.43 | 101.65                           | 101.84 | 102.60            | 101.31 | 100.89 | 100.57 | 100.31 | 99.97 |        |
| 7                                | 100.39 | 100.97 | 100.47      | 100.42 | 101.58                           | 101.98 | 102.39            | 101.28 | 100.85 | 100.58 | 100.30 | 99.97 |        |
| 8                                | 100.39 | 100.99 | 100.45      | 100.44 | 102.55                           | 102.63 | 102.33            | 101.26 | 100.82 | 100.58 | 100.29 | 99.97 |        |
| 9                                | 100.39 | 100.98 | 100.45      | 100.66 | 102.80                           | 102.75 | 102.18            | 101.25 | 100.77 | 100.57 | 100.28 | 99.97 |        |
| 10                               | 100.38 | 100.90 | 100.44      | 101.16 | 103.48                           | 102.97 | 101.83            | 101.23 | 100.75 | 100.57 | 100.27 | 99.97 |        |
| 11                               | 100.38 | 100.73 | 100.44      | 101.00 | 104.24                           | 102.75 | 102.00            | 101.22 | 100.72 | 100.56 | 100.20 | 99.93 |        |
| 12                               | 100.36 | 100.72 | 100.47      | 100.94 | 104.81                           | 102.49 | 101.51            | 101.19 | 100.62 | 100.55 | 100.19 | 99.91 |        |
| 13                               | 100.35 | 100.71 | 100.83      | 100.83 | 104.57                           | 102.38 | 101.49            | 101.18 | 100.59 | 100.55 | 100.18 | 99.90 |        |
| 14                               | 100.34 | 100.69 | 101.23      | 100.78 | 102.96                           | 102.49 | 101.47            | 101.17 | 100.57 | 100.54 | 100.17 | 99.89 |        |
| 15                               | 100.36 | 100.68 | 100.91      | 100.76 | 102.27                           | 103.03 | 101.43            | 101.17 | 100.58 | 100.51 | 100.16 | 99.89 |        |
| 16                               | 100.48 | 100.68 | 100.67      | 100.71 | 102.03                           | 103.36 | 101.42            | 101.19 | 100.75 | 100.45 | 100.16 | 99.89 |        |
| 17                               | 100.53 | 100.63 | 100.65      | 100.66 | 101.95                           | 103.45 | 101.57            | 101.19 | 100.73 | 100.40 | 100.15 | 99.88 |        |
| 18                               | 100.66 | 100.58 | 100.60      | 100.72 | 101.85                           | 103.25 | 102.57            | 101.13 | 100.77 | 100.35 | 100.14 | 99.88 |        |
| 19                               | 100.54 | 100.57 | 100.56      | 100.79 | 101.75                           | 102.83 | 102.46            | 101.14 | 100.80 | 100.37 | 100.13 | 99.87 |        |
| 20                               | 100.52 | 100.57 | 100.53      | 100.86 | 101.65                           | 102.48 | 102.37            | 101.12 | 100.82 | 100.40 | 100.13 | 99.87 |        |
| 21                               | 100.51 | 100.57 | 100.51      | 100.85 | 101.65                           | 102.23 | 102.21            | 101.14 | 100.80 | 100.42 | 100.09 | 99.87 |        |
| 22                               | 100.49 | 100.56 | 100.50      | 100.81 | 101.96                           | 102.15 | 102.06            | 101.11 | 100.77 | 100.45 | 100.03 | 99.89 |        |
| 23                               | 100.62 | 100.57 | 100.49      | 100.79 | 102.69                           | 102.03 | 102.05            | 101.04 | 100.75 | 100.44 | 100.01 | 99.90 |        |
| 24                               | 101.01 | 100.58 | 100.48      | 100.79 | 102.73                           | 101.87 | 102.03            | 101.03 | 100.72 | 100.42 | 100.00 | 99.91 |        |
| 25                               | 100.92 | 100.66 | 100.48      | 100.80 | 102.49                           | 101.75 | 102.16            | 101.02 | 100.69 | 100.43 | 99.98  | 99.92 |        |
| 26                               | 100.76 | 100.61 | 100.51      | 100.83 | 102.18                           | 102.03 | 102.55            | 101.01 | 100.67 | 100.41 | 99.97  | 99.95 |        |
| 27                               | 100.57 | 100.57 | 100.59      | 100.89 | 102.07                           | 103.39 | 102.53            | 100.99 | 100.58 | 100.40 | 99.95  | 99.96 |        |
| 28                               | 100.57 | 100.57 | 100.60      | 100.83 | 101.93                           | 104.12 | 102.17            | 101.00 | 100.58 | 100.40 | 99.93  | 99.96 |        |
| 29                               | 100.61 | 100.61 | 100.56      | 100.87 | 101.95                           | 104.05 | 101.83            | 100.99 | 100.58 | 100.39 |        | 99.93 |        |
| 30                               | 100.62 | 100.66 | 100.55      | 101.21 | 102.09                           | 103.14 | 101.74            | 100.99 | 100.57 | 100.39 |        | 99.90 |        |
| 31                               |        | 100.65 |             | 101.42 | 103.83                           |        | 101.63            |        | 100.57 | 100.38 |        | 99.89 |        |
| Mean                             | 100.50 | 100.65 | 100.58      | 100.76 | 102.43                           | 102.82 | 102.15            | 101.19 | 100.75 | 100.48 | 100.17 | 99.92 |        |
| Max                              | 101.01 | 100.99 | 101.23      | 101.42 | 104.81                           | 106.16 | 103.14            | 101.57 | 101.00 | 100.58 | 100.38 | 99.97 | 106.16 |
| Min                              | 100.34 | 100.47 | 100.44      | 100.42 | 101.58                           | 101.75 | 101.42            | 100.99 | 100.57 | 100.35 | 99.93  | 99.87 | 99.87  |
| Annual Max Momentary Gage Height | 106.52 |        | m. (MSL.) , |        | at 03.00 Hours , on Sep 1 , 2013 |        |                   |        |        |        |        |       |        |
| Zero Gage at Bottom Elevation    | 98.69  |        | m. (MSL.) , |        | River Bed                        | 96.80  | m. (MSL.)         |        |        |        |        |       |        |
| Left Bank Elevation              | 103.93 |        | m. (MSL.) , |        |                                  |        |                   |        |        |        |        |       |        |
| Right Bank Elevation             | 104.90 |        | m. (MSL.) , |        | Drainage Area                    | 9881   | Square Kilometers |        |        |        |        |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec    | Jan    | Feb   | Mar  | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|---------|--------|--------|-------|------|-----------------|
| 1              | 11.05                                                            | 63.45                    | 12.90   | 63.45                | 114.50  | 304.52  | 234.50                   | 81.78   | 30.50  | 28.35  | 4.10  | 0.23 |                 |
| 2              | 11.05                                                            | 50.35                    | 12.50   | 50.35                | 116.00  | 296.06  | 231.50                   | 73.17   | 29.30  | 28.35  | 3.70  | 0.18 |                 |
| 3              | 4.50                                                             | 63.45                    | 11.70   | 37.25                | 117.50  | 248.00  | 251.00                   | 69.95   | 28.10  | 22.40  | 3.10  | 0.16 |                 |
| 4              | 4.10                                                             | 34.30                    | 22.40   | 30.70                | 155.00  | 143.00  | 279.50                   | 63.50   | 26.90  | 22.40  | 2.90  | 0.38 |                 |
| 5              | 3.90                                                             | 40.25                    | 63.45   | 24.15                | 119.00  | 147.50  | 290.64                   | 60.00   | 25.70  | 22.40  | 2.70  | 0.41 |                 |
| 6              | 4.30                                                             | 13.30                    | 50.35   | 24.15                | 91.25   | 116.00  | 230.00                   | 55.62   | 23.95  | 28.35  | 2.70  | 0.41 |                 |
| 7              | 4.30                                                             | 28.70                    | 50.35   | 17.60                | 82.85   | 137.00  | 198.50                   | 53.00   | 21.75  | 22.40  | 2.50  | 0.41 |                 |
| 8              | 4.30                                                             | 29.90                    | 37.25   | 30.70                | 222.50  | 234.50  | 189.50                   | 51.25   | 20.10  | 22.40  | 2.40  | 0.41 |                 |
| 9              | 4.30                                                             | 29.30                    | 37.25   | 12.90                | 260.00  | 252.50  | 167.00                   | 50.38   | 17.65  | 28.35  | 2.30  | 0.41 |                 |
| 10             | 4.10                                                             | 24.50                    | 30.70   | 42.80                | 292.21  | 285.50  | 114.50                   | 48.63   | 16.75  | 28.35  | 2.20  | 0.41 |                 |
| 11             | 4.10                                                             | 15.85                    | 30.70   | 30.50                | 295.70  | 252.50  | 140.00                   | 47.75   | 15.40  | 34.30  | 1.50  | 0.29 |                 |
| 12             | 3.70                                                             | 15.40                    | 50.35   | 26.90                | 298.32  | 213.50  | 75.33                    | 45.20   | 11.30  | 40.25  | 1.45  | 0.23 |                 |
| 13             | 3.50                                                             | 14.95                    | 20.65   | 20.65                | 297.21  | 197.00  | 73.17                    | 44.40   | 16.45  | 40.25  | 1.40  | 0.20 |                 |
| 14             | 3.30                                                             | 14.10                    | 48.63   | 18.10                | 284.00  | 213.50  | 71.03                    | 43.60   | 28.35  | 46.20  | 1.35  | 0.18 |                 |
| 15             | 3.70                                                             | 13.70                    | 25.10   | 17.20                | 180.50  | 290.14  | 66.72                    | 43.60   | 22.40  | 64.05  | 1.30  | 0.18 |                 |
| 16             | 56.90                                                            | 13.70                    | 13.30   | 14.95                | 144.50  | 291.65  | 65.65                    | 45.20   | 16.75  | 37.25  | 1.30  | 0.18 |                 |
| 17             | 52.15                                                            | 11.70                    | 12.50   | 12.90                | 132.50  | 292.07  | 81.78                    | 45.20   | 15.85  | 4.50   | 1.25  | 0.16 |                 |
| 18             | 12.90                                                            | 22.40                    | 10.50   | 15.40                | 117.50  | 291.15  | 225.50                   | 40.40   | 17.65  | 3.50   | 1.20  | 0.16 |                 |
| 19             | 46.20                                                            | 28.35                    | 34.30   | 18.55                | 103.75  | 264.50  | 209.00                   | 41.20   | 19.00  | 3.90   | 1.15  | 0.14 |                 |
| 20             | 58.10                                                            | 28.35                    | 52.15   | 22.30                | 91.25   | 212.00  | 195.50                   | 39.60   | 20.10  | 4.50   | 1.15  | 0.14 |                 |
| 21             | 64.05                                                            | 28.35                    | 64.05   | 21.75                | 91.25   | 174.50  | 171.50                   | 41.20   | 19.00  | 17.60  | 0.95  | 0.14 |                 |
| 22             | 63.45                                                            | 34.30                    | 70.00   | 19.55                | 134.00  | 162.50  | 149.00                   | 38.80   | 17.65  | 37.25  | 0.65  | 0.18 |                 |
| 23             | 11.30                                                            | 28.35                    | 63.45   | 18.55                | 243.50  | 144.50  | 147.50                   | 33.50   | 16.75  | 30.70  | 0.55  | 0.20 |                 |
| 24             | 31.25                                                            | 22.40                    | 56.90   | 18.55                | 249.50  | 120.50  | 144.50                   | 32.75   | 15.40  | 17.60  | 0.50  | 0.23 |                 |
| 25             | 25.70                                                            | 12.90                    | 56.90   | 19.00                | 213.50  | 103.75  | 164.00                   | 32.00   | 14.10  | 24.15  | 0.44  | 0.26 |                 |
| 26             | 17.20                                                            | 10.90                    | 64.05   | 20.65                | 167.00  | 144.50  | 222.50                   | 31.25   | 13.30  | 11.05  | 0.41  | 0.35 |                 |
| 27             | 28.35                                                            | 28.35                    | 16.45   | 23.95                | 150.50  | 291.79  | 219.50                   | 29.90   | 22.40  | 4.50   | 0.35  | 0.38 |                 |
| 28             | 28.35                                                            | 28.35                    | 10.50   | 20.65                | 129.50  | 295.15  | 165.50                   | 30.50   | 22.40  | 4.50   | 0.29  | 0.38 |                 |
| 29             | 10.90                                                            | 10.90                    | 34.30   | 22.85                | 132.50  | 294.82  | 114.50                   | 29.90   | 22.40  | 4.30   |       | 0.29 |                 |
| 30             | 11.30                                                            | 12.90                    | 40.25   | 46.88                | 153.50  | 290.64  | 102.50                   | 29.90   | 28.35  | 4.30   |       | 0.20 |                 |
| 31             |                                                                  | 12.50                    |         | 65.65                | 293.81  |         | 88.75                    |         | 28.35  | 4.10   |       | 0.18 |                 |
| Total          | 592.30                                                           | 786.20                   | 1103.88 | 829.53               | 5474.60 | 6705.24 | 5080.07                  | 1373.13 | 644.05 | 692.50 | 45.79 | 8.06 | 23335.35 CMSDAY |
| Mean           | 19.74                                                            | 25.36                    | 36.80   | 26.76                | 176.60  | 223.51  | 163.87                   | 45.77   | 20.78  | 22.34  | 1.64  | 0.26 | 63.93 CMS       |
| Max            | 64.05                                                            | 63.45                    | 70.00   | 65.65                | 298.32  | 304.52  | 290.64                   | 81.78   | 30.50  | 64.05  | 4.10  | 0.41 | 304.52 CMS      |
| Min            | 3.30                                                             | 10.90                    | 10.50   | 12.90                | 82.85   | 103.75  | 65.65                    | 29.90   | 11.30  | 3.50   | 0.29  | 0.14 | 0.14 CMS        |
| Runoff         | 51.18                                                            | 67.93                    | 95.38   | 71.67                | 473.01  | 579.33  | 438.92                   | 118.64  | 55.65  | 59.83  | 3.96  | 0.70 | 2016.18 MCM     |
| Momentary Peak | 306.17 CMS. at 106.52 m. (MSL.) at 03.00 Hours , on Sep 1 , 2013 |                          |         |                      |         |         |                          |         |        |        |       |      |                 |
| Runoff Yield   | 6.47                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 30.986  | Liters/Second/Square KM. |         |        |        |       |      |                 |

## WATER YEAR : 2013

## YOM RIVER BASIN

**Nam Mae Ta at Ban Nam Rin , Phrae (Y.44)**

Lat 18 - 09 - 32 N Long 99 - 56 - 35 E

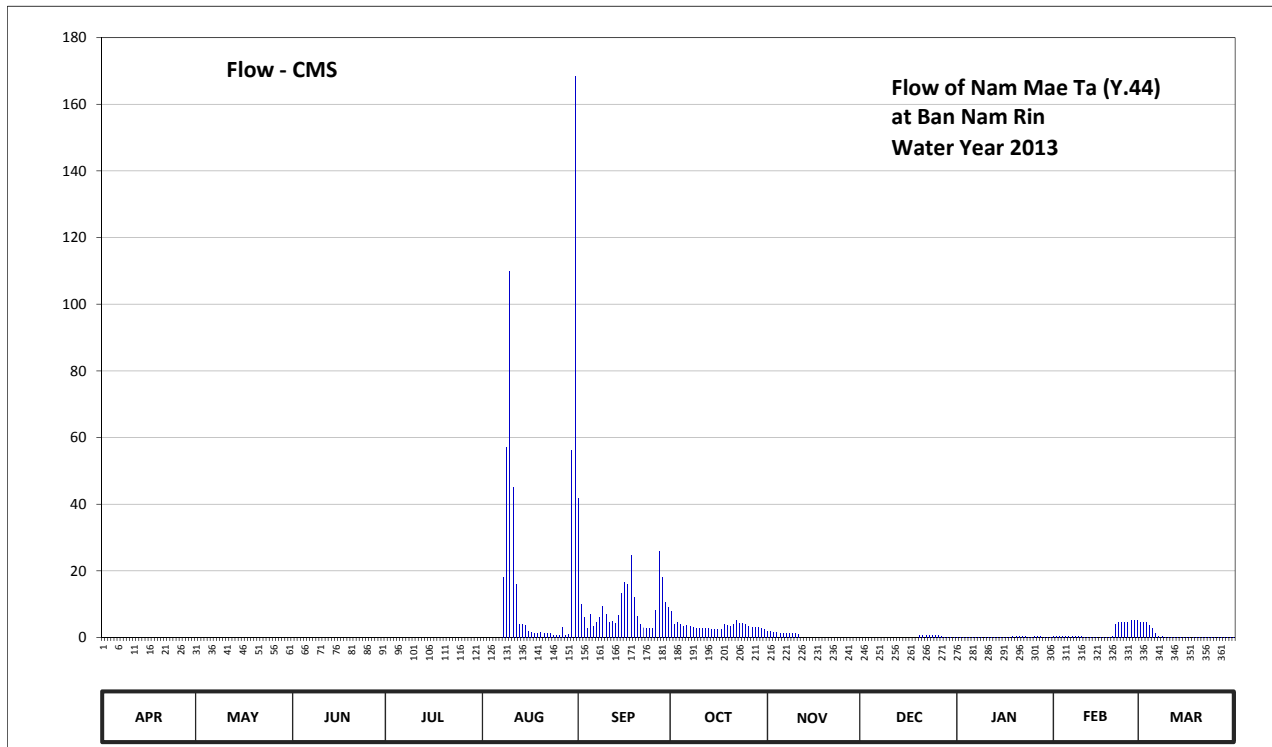
**Location : on right bank at the bridge on road**

|                                         |                                                                                           |           |               |      |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Nam Rin   | <b>Amphoe</b> | Long | <b>Changwat</b>  | Phrae              |
| <b>Drainage Area</b>                    | 317                                                                                       | sq.km.    |               |      |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |      |                  |                    |
| <b>Zero Gage at Bottom</b>              | +148.038                                                                                  | m. (MSL.) |               |      |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |      |                  |                    |
| <b>Location BM</b>                      | Near automatic gage building                                                              |           |               |      | <b>Elevation</b> | +156.872 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |      |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |      |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |           |               |      |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |      |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |           |               |      |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |      |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |           |               |      |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |               |      |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |      |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 44 discharge measurements made in 2013. |           |               |      |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 149.28 | 149.69 | 148.82                                          | 149.02 | 149.14 | 149.94 | 149.37 | 149.12 | 150.31 | 148.84 | 148.90 | 149.26 |        |
| 2                                | 149.28 | 149.69 | 148.82                                          | 149.00 | 149.33 | 149.43 | 149.22 | 149.12 | 150.29 | 148.84 | 148.90 | 149.26 |        |
| 3                                | 149.28 | 149.77 | 148.82                                          | 148.99 | 149.46 | 149.32 | 149.25 | 149.10 | 150.30 | 148.84 | 148.90 | 149.25 |        |
| 4                                | 149.26 | 149.82 | 148.82                                          | 148.99 | 149.43 | 149.16 | 149.22 | 149.10 | 150.33 | 148.84 | 148.90 | 149.21 |        |
| 5                                | 149.24 | 149.89 | 148.80                                          | 148.97 | 149.46 | 149.35 | 149.20 | 149.08 | 150.34 | 148.84 | 148.90 | 149.16 |        |
| 6                                | 149.24 | 149.91 | 148.80                                          | 148.95 | 149.48 | 149.20 | 149.21 | 149.08 | 150.36 | 148.84 | 148.90 | 149.06 |        |
| 7                                | 149.24 | 149.96 | 148.80                                          | 148.94 | 149.52 | 149.25 | 149.20 | 149.07 | 150.38 | 148.84 | 148.90 | 148.93 |        |
| 8                                | 149.23 | 149.96 | 148.81                                          | 148.94 | 149.62 | 149.32 | 149.18 | 149.07 | 150.38 | 148.84 | 148.90 | 148.91 |        |
| 9                                | 149.22 | 149.96 | 148.81                                          | 148.95 | 150.11 | 149.42 | 149.17 | 149.06 | 150.38 | 148.89 | 148.90 | 148.88 |        |
| 10                               | 149.22 | 149.70 | 148.82                                          | 148.95 | 150.64 | 149.35 | 149.17 | 149.06 | 150.36 | 148.89 | 148.90 | 148.86 |        |
| 11                               | 149.21 | 149.06 | 148.82                                          | 148.97 | 149.98 | 149.26 | 149.16 | 149.04 | 150.36 | 148.89 | 148.89 | 148.84 |        |
| 12                               | 149.19 | 148.96 | 148.82                                          | 149.01 | 149.58 | 149.27 | 149.16 | 149.07 | 150.30 | 148.89 | 148.88 | 148.84 |        |
| 13                               | 149.16 | 148.87 | 148.82                                          | 149.06 | 149.22 | 149.24 | 149.16 | 149.55 | 150.10 | 148.89 | 148.88 | 148.84 |        |
| 14                               | 149.16 | 148.85 | 148.82                                          | 149.06 | 149.23 | 149.34 | 149.15 | 150.05 | 150.04 | 148.89 | 148.88 | 148.83 |        |
| 15                               | 149.15 | 148.85 | 148.82                                          | 149.04 | 149.21 | 149.52 | 149.15 | 150.22 | 150.04 | 148.89 | 148.88 | 148.83 |        |
| 16                               | 149.12 | 148.86 | 148.82                                          | 149.05 | 149.12 | 149.59 | 149.15 | 150.50 | 150.04 | 148.89 | 148.88 | 148.80 |        |
| 17                               | 148.99 | 148.86 | 148.81                                          | 149.07 | 149.10 | 149.58 | 149.15 | 150.49 | 150.05 | 148.89 | 148.88 | 148.80 |        |
| 18                               | 148.79 | 148.85 | 148.81                                          | 149.06 | 149.08 | 149.73 | 149.22 | 150.46 | 150.09 | 148.89 | 148.88 | 148.79 |        |
| 19                               | 148.77 | 148.85 | 148.81                                          | 149.03 | 149.07 | 149.49 | 149.21 | 150.44 | 149.71 | 148.92 | 148.88 | 148.79 |        |
| 20                               | 148.76 | 148.84 | 148.82                                          | 149.01 | 149.09 | 149.33 | 149.20 | 150.46 | 148.99 | 148.92 | 148.90 | 148.79 |        |
| 21                               | 148.74 | 148.84 | 148.87                                          | 149.04 | 149.07 | 149.23 | 149.22 | 150.45 | 148.97 | 148.93 | 149.23 | 148.79 |        |
| 22                               | 148.74 | 148.84 | 148.90                                          | 149.03 | 149.07 | 149.17 | 149.28 | 150.44 | 148.97 | 148.93 | 149.25 | 148.77 |        |
| 23                               | 148.72 | 148.84 | 148.92                                          | 148.99 | 149.05 | 149.16 | 149.24 | 150.43 | 148.97 | 148.91 | 149.25 | 148.77 |        |
| 24                               | 148.84 | 148.85 | 148.92                                          | 148.99 | 148.97 | 149.16 | 149.24 | 150.41 | 148.98 | 148.89 | 149.25 | 148.77 |        |
| 25                               | 149.17 | 148.86 | 148.93                                          | 148.97 | 148.97 | 149.17 | 149.22 | 150.37 | 148.98 | 148.89 | 149.26 | 148.77 |        |
| 26                               | 149.23 | 148.86 | 148.96                                          | 148.97 | 148.96 | 149.38 | 149.20 | 150.37 | 148.96 | 148.90 | 149.28 | 148.77 |        |
| 27                               | 149.37 | 148.85 | 148.99                                          | 148.99 | 149.18 | 149.75 | 149.18 | 150.36 | 148.92 | 148.90 | 149.28 | 148.76 |        |
| 28                               | 149.54 | 148.84 | 149.01                                          | 149.01 | 148.99 | 149.62 | 149.18 | 150.34 | 148.89 | 148.90 | 149.28 | 148.75 |        |
| 29                               | 149.57 | 148.84 | 149.05                                          | 149.02 | 149.01 | 149.45 | 149.18 | 150.33 | 148.87 | 148.89 |        | 148.77 |        |
| 30                               | 149.69 | 148.84 | 149.03                                          | 149.04 | 150.10 | 149.41 | 149.16 | 150.32 | 148.85 | 148.88 |        | 148.78 |        |
| 31                               |        | 148.82 |                                                 | 149.04 | 151.17 |        | 149.15 |        | 148.84 | 148.88 |        | 148.78 |        |
| Mean                             | 149.15 | 149.18 | 148.86                                          | 149.00 | 149.40 | 149.39 | 149.20 | 149.83 | 149.72 | 148.88 | 149.00 | 148.88 |        |
| Max                              | 149.69 | 149.96 | 149.05                                          | 149.07 | 151.17 | 149.94 | 149.37 | 150.50 | 150.38 | 148.93 | 149.28 | 149.26 | 151.17 |
| Min                              | 148.72 | 148.82 | 148.80                                          | 148.94 | 148.96 | 149.16 | 149.15 | 149.04 | 148.84 | 148.84 | 148.88 | 148.75 | 148.72 |
| Annual Max Momentary Gage Height |        | 151.72 | m. (MSL.) , at 19.00 Hours , on Aug 31 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 148.04 | m. (MSL.) , River Bed 148.06 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 156.51 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 156.57 | m. (MSL.) , Drainage Area 317 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                        | May                      | Jun  | Jul  | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan  | Feb   | Mar   | Annual  |        |
|----------------|------------------------------------------------------------|--------------------------|------|------|----------------------|--------|--------|---------|--------------------------|------|-------|-------|---------|--------|
| 1              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 41.75  | 7.81   | 1.99    | 0.00                     | 0.21 | 0.30  | 4.72  |         |        |
| 2              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 9.91   | 3.94   | 1.99    | 0.00                     | 0.21 | 0.30  | 4.72  |         |        |
| 3              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 6.16   | 4.52   | 1.60    | 0.00                     | 0.21 | 0.30  | 4.52  |         |        |
| 4              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 2.77   | 3.94   | 1.60    | 0.00                     | 0.21 | 0.30  | 3.75  |         |        |
| 5              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 7.15   | 3.55   | 1.44    | 0.00                     | 0.21 | 0.30  | 2.77  |         |        |
| 6              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 3.55   | 3.75   | 1.44    | 0.00                     | 0.21 | 0.30  | 1.28  |         |        |
| 7              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 4.52   | 3.55   | 1.36    | 0.00                     | 0.21 | 0.30  | 0.45  |         |        |
| 8              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 18.10                | 6.16   | 3.16   | 1.36    | 0.00                     | 0.21 | 0.30  | 0.35  |         |        |
| 9              | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 57.18                | 9.54   | 2.96   | 1.28    | 0.00                     | 0.29 | 0.30  | 0.27  |         |        |
| 10             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 109.80               | 7.15   | 2.96   | 1.28    | 0.00                     | 0.29 | 0.30  | 0.24  |         |        |
| 11             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 45.25                | 4.72   | 2.77   | 1.12    | 0.00                     | 0.29 | 0.29  | 0.21  |         |        |
| 12             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 16.10                | 4.92   | 2.77   | 0.00    | 0.00                     | 0.29 | 0.27  | 0.21  |         |        |
| 13             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 3.94                 | 4.33   | 2.77   | 0.00    | 0.00                     | 0.29 | 0.27  | 0.21  |         |        |
| 14             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 4.13                 | 6.82   | 2.57   | 0.00    | 0.00                     | 0.29 | 0.27  | 0.20  |         |        |
| 15             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 3.75                 | 13.40  | 2.57   | 0.00    | 0.00                     | 0.29 | 0.27  | 0.20  |         |        |
| 16             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.99                 | 16.55  | 2.57   | 0.00    | 0.00                     | 0.29 | 0.27  | 0.15  |         |        |
| 17             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.60                 | 16.10  | 2.57   | 0.00    | 0.00                     | 0.29 | 0.27  | 0.15  |         |        |
| 18             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.44                 | 24.60  | 3.94   | 0.00    | 0.00                     | 0.29 | 0.27  | 0.13  |         |        |
| 19             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.36                 | 12.13  | 3.75   | 0.00    | 0.00                     | 0.40 | 0.27  | 0.13  |         |        |
| 20             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.52                 | 6.49   | 3.55   | 0.00    | 0.75                     | 0.40 | 0.30  | 0.13  |         |        |
| 21             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.36                 | 4.13   | 3.94   | 0.00    | 0.65                     | 0.45 | 4.13  | 0.13  |         |        |
| 22             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.36                 | 2.96   | 5.11   | 0.00    | 0.65                     | 0.45 | 4.52  | 0.11  |         |        |
| 23             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 1.20                 | 2.77   | 4.33   | 0.00    | 0.65                     | 0.35 | 4.52  | 0.11  |         |        |
| 24             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.65                 | 2.77   | 4.33   | 0.00    | 0.70                     | 0.29 | 4.52  | 0.11  |         |        |
| 25             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.65                 | 2.96   | 3.94   | 0.00    | 0.70                     | 0.29 | 4.72  | 0.11  |         |        |
| 26             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.60                 | 8.14   | 3.55   | 0.00    | 0.60                     | 0.30 | 5.11  | 0.11  |         |        |
| 27             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 3.16                 | 26.00  | 3.16   | 0.00    | 0.40                     | 0.30 | 5.11  | 0.09  |         |        |
| 28             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.75                 | 18.10  | 3.16   | 0.00    | 0.29                     | 0.30 | 5.11  | 0.08  |         |        |
| 29             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.88                 | 10.65  | 3.16   | 0.00    | 0.26                     | 0.29 |       | 0.11  |         |        |
| 30             | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 56.25                | 9.17   | 2.77   | 0.00    | 0.23                     | 0.27 |       | 0.12  |         |        |
| 31             |                                                            | 0.00                     |      | 0.00 | 168.55               |        | 2.57   |         | 0.21                     | 0.27 |       | 0.12  |         |        |
| Total          | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 501.57               | 296.37 | 109.99 | 16.46   | 6.09                     | 8.94 | 43.49 | 25.99 | 1008.90 | CMSDAY |
| Mean           | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 16.18                | 9.88   | 3.55   | 0.55    | 0.20                     | 0.29 | 1.55  | 0.84  | 2.76    | CMS    |
| Max            | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 168.55               | 41.75  | 7.81   | 1.99    | 0.75                     | 0.45 | 5.11  | 4.72  | 168.55  | CMS    |
| Min            | 0.00                                                       | 0.00                     | 0.00 | 0.00 | 0.00                 | 2.77   | 2.57   | 0.00    | 0.00                     | 0.21 | 0.27  | 0.08  | 0.00    | CMS    |
| Runoff         | 0.00                                                       |                          | 0.00 |      | 43.34                | 25.61  | 9.50   | 1.42    | 0.53                     | 0.77 | 3.76  | 2.25  | 87.17   | MCM    |
| Momentary Peak | CMS. at 151.72 m. (MSL.) at 19.00 Hours , on Aug 31 , 2013 |                          |      |      |                      |        |        |         |                          |      |       |       |         |        |
| Runoff Yield   | 8.72                                                       | Liters/Second/Square KM. |      |      | Momentary Peak Yield |        |        | 741.325 | Liters/Second/Square KM. |      |       |       |         |        |

**WATER YEAR : 2013****YOM RIVER BASIN****Nam Mae Kham Mi at Ban Phai Ton , Phrae (Y.45)**

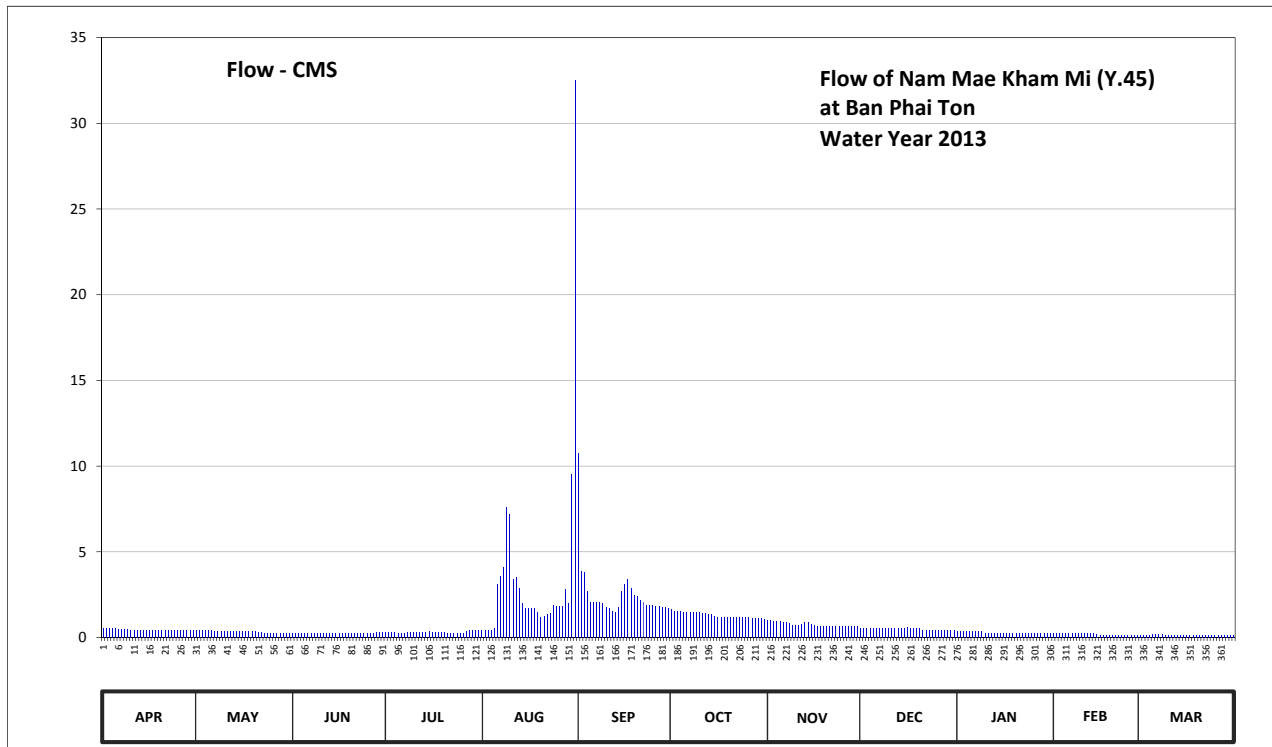
Lat 18 - 23 - 27 N Long 100 - 26 - 01 E

**Location : on left bank at Ban Phai Ton.**

|                                         |                                                                                           |                 |               |                   |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|---------------|-------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Phai Ton</b> | <b>Amphoe</b> | <b>Rong Kwang</b> | <b>Changwat</b>  | <b>Phrae</b>       |
| <b>Drainage Area</b>                    | 142                                                                                       | sq.km.          |               |                   |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                 |               |                   |                  |                    |
| <b>Zero Gage at Bottom</b>              | +271.179                                                                                  | m. (MSL.)       |               |                   |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                 |               |                   |                  |                    |
| <b>Location BM</b>                      | Near the automatic gage building.                                                         |                 |               |                   | <b>Elevation</b> | +276.119 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                 |               |                   |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                 |               |                   |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |                 |               |                   |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                 |               |                   |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |                 |               |                   |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |               |                   |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |                 |               |                   |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |                 |               |                   |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                 |               |                   |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 44 discharge measurements made in 2013. |                 |               |                   |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct    | Nov    | Dec               | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|--------|--------|-------------------|--------|--------|--------|--------|
| 1                                | 271.62 | 271.58 | 271.53      | 271.54 | 271.57                            | 272.58 | 271.92 | 271.78 | 271.61            | 271.56 | 271.53 | 271.48 |        |
| 2                                | 271.62 | 271.58 | 271.53      | 271.54 | 271.58                            | 272.17 | 271.91 | 271.78 | 271.61            | 271.56 | 271.53 | 271.48 |        |
| 3                                | 271.61 | 271.57 | 271.53      | 271.54 | 271.58                            | 272.16 | 271.91 | 271.76 | 271.61            | 271.56 | 271.53 | 271.48 |        |
| 4                                | 271.61 | 271.57 | 271.53      | 271.54 | 271.58                            | 272.05 | 271.91 | 271.76 | 271.61            | 271.56 | 271.53 | 271.48 |        |
| 5                                | 271.61 | 271.57 | 271.53      | 271.53 | 271.61                            | 271.98 | 271.90 | 271.75 | 271.61            | 271.56 | 271.53 | 271.50 |        |
| 6                                | 271.60 | 271.57 | 271.53      | 271.53 | 272.09                            | 271.98 | 271.89 | 271.74 | 271.61            | 271.56 | 271.53 | 271.50 |        |
| 7                                | 271.60 | 271.56 | 271.53      | 271.53 | 272.14                            | 271.98 | 271.89 | 271.73 | 271.61            | 271.56 | 271.53 | 271.49 |        |
| 8                                | 271.60 | 271.56 | 271.53      | 271.54 | 272.19                            | 271.98 | 271.90 | 271.72 | 271.61            | 271.56 | 271.52 | 271.49 |        |
| 9                                | 271.59 | 271.56 | 271.53      | 271.54 | 272.43                            | 271.97 | 271.89 | 271.68 | 271.61            | 271.56 | 271.52 | 271.48 |        |
| 10                               | 271.58 | 271.56 | 271.53      | 271.54 | 272.41                            | 271.94 | 271.89 | 271.68 | 271.61            | 271.53 | 271.52 | 271.48 |        |
| 11                               | 271.58 | 271.56 | 271.52      | 271.54 | 272.12                            | 271.93 | 271.88 | 271.68 | 271.61            | 271.53 | 271.52 | 271.48 |        |
| 12                               | 271.58 | 271.56 | 271.52      | 271.54 | 272.13                            | 271.91 | 271.88 | 271.70 | 271.61            | 271.53 | 271.52 | 271.48 |        |
| 13                               | 271.58 | 271.56 | 271.52      | 271.54 | 272.07                            | 271.89 | 271.87 | 271.74 | 271.61            | 271.53 | 271.52 | 271.48 |        |
| 14                               | 271.58 | 271.56 | 271.52      | 271.54 | 271.97                            | 271.94 | 271.86 | 271.73 | 271.61            | 271.53 | 271.51 | 271.46 |        |
| 15                               | 271.58 | 271.56 | 271.52      | 271.55 | 271.93                            | 272.05 | 271.84 | 271.70 | 271.62            | 271.53 | 271.50 | 271.46 |        |
| 16                               | 271.58 | 271.56 | 271.53      | 271.54 | 271.93                            | 272.09 | 271.83 | 271.68 | 271.63            | 271.53 | 271.48 | 271.46 |        |
| 17                               | 271.58 | 271.56 | 271.53      | 271.54 | 271.93                            | 272.12 | 271.83 | 271.66 | 271.61            | 271.53 | 271.48 | 271.46 |        |
| 18                               | 271.58 | 271.56 | 271.53      | 271.54 | 271.93                            | 272.07 | 271.83 | 271.66 | 271.61            | 271.53 | 271.48 | 271.46 |        |
| 19                               | 271.58 | 271.56 | 271.53      | 271.54 | 271.90                            | 272.03 | 271.83 | 271.66 | 271.61            | 271.53 | 271.48 | 271.46 |        |
| 20                               | 271.58 | 271.56 | 271.53      | 271.54 | 271.83                            | 272.02 | 271.83 | 271.66 | 271.61            | 271.53 | 271.48 | 271.46 |        |
| 21                               | 271.58 | 271.54 | 271.53      | 271.53 | 271.84                            | 272.00 | 271.83 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 22                               | 271.58 | 271.54 | 271.53      | 271.53 | 271.86                            | 271.98 | 271.83 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 23                               | 271.58 | 271.53 | 271.53      | 271.53 | 271.88                            | 271.96 | 271.83 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 24                               | 271.58 | 271.53 | 271.53      | 271.53 | 271.96                            | 271.96 | 271.83 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 25                               | 271.58 | 271.53 | 271.53      | 271.53 | 271.95                            | 271.96 | 271.83 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 26                               | 271.58 | 271.53 | 271.53      | 271.53 | 271.95                            | 271.95 | 271.83 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 27                               | 271.58 | 271.53 | 271.53      | 271.55 | 271.95                            | 271.95 | 271.81 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 28                               | 271.58 | 271.53 | 271.54      | 271.58 | 272.06                            | 271.94 | 271.81 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 |        |
| 29                               | 271.58 | 271.53 | 271.54      | 271.58 | 271.97                            | 271.94 | 271.81 | 271.66 | 271.58            | 271.53 |        | 271.46 |        |
| 30                               | 271.58 | 271.53 | 271.54      | 271.58 | 272.52                            | 271.93 | 271.81 | 271.66 | 271.58            | 271.53 |        | 271.46 |        |
| 31                               |        | 271.53 |             | 271.58 | 273.21                            |        | 271.80 |        | 271.58            | 271.53 |        | 271.46 |        |
| Mean                             | 271.59 | 271.55 | 271.53      | 271.54 | 272.00                            | 272.01 | 271.86 | 271.70 | 271.60            | 271.54 | 271.50 | 271.47 |        |
| Max                              | 271.62 | 271.58 | 271.54      | 271.58 | 273.21                            | 272.58 | 271.92 | 271.78 | 271.63            | 271.56 | 271.53 | 271.50 | 273.21 |
| Min                              | 271.58 | 271.53 | 271.52      | 271.53 | 271.57                            | 271.89 | 271.80 | 271.66 | 271.58            | 271.53 | 271.48 | 271.46 | 271.46 |
| Annual Max Momentary Gage Height | 274.10 |        | m. (MSL.) , |        | at 02.00 Hours , on Aug 31 , 2013 |        |        |        |                   |        |        |        |        |
| Zero Gage at Bottom Elevation    | 271.18 |        | m. (MSL.) , |        | River Bed                         |        | 271.40 |        | m. (MSL.)         |        |        |        |        |
| Left Bank Elevation              | 275.28 |        | m. (MSL.) , |        |                                   |        |        |        |                   |        |        |        |        |
| Right Bank Elevation             | 276.00 |        | m. (MSL.) , |        | Drainage Area                     |        | 142    |        | Square Kilometers |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun  | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan  | Feb  | Mar  | Annual        |
|----------------|-------------------------------------------------------------------|--------------------------|------|----------------------|--------|---------|--------------------------|-------|-------|------|------|------|---------------|
| 1              | 0.56                                                              | 0.44                     | 0.29 | 0.32                 | 0.41   | 10.78   | 1.64                     | 1.04  | 0.53  | 0.38 | 0.29 | 0.16 |               |
| 2              | 0.56                                                              | 0.44                     | 0.29 | 0.32                 | 0.44   | 3.90    | 1.57                     | 1.04  | 0.53  | 0.38 | 0.29 | 0.16 |               |
| 3              | 0.53                                                              | 0.41                     | 0.29 | 0.32                 | 0.44   | 3.80    | 1.57                     | 0.98  | 0.53  | 0.38 | 0.29 | 0.16 |               |
| 4              | 0.53                                                              | 0.41                     | 0.29 | 0.32                 | 0.44   | 2.70    | 1.57                     | 0.98  | 0.53  | 0.38 | 0.29 | 0.16 |               |
| 5              | 0.53                                                              | 0.41                     | 0.29 | 0.29                 | 0.53   | 2.06    | 1.50                     | 0.95  | 0.53  | 0.38 | 0.29 | 0.20 |               |
| 6              | 0.50                                                              | 0.41                     | 0.29 | 0.29                 | 3.10   | 2.06    | 1.46                     | 0.92  | 0.53  | 0.38 | 0.29 | 0.20 |               |
| 7              | 0.50                                                              | 0.38                     | 0.29 | 0.29                 | 3.60   | 2.06    | 1.46                     | 0.89  | 0.53  | 0.38 | 0.29 | 0.18 |               |
| 8              | 0.50                                                              | 0.38                     | 0.29 | 0.32                 | 4.10   | 2.06    | 1.50                     | 0.86  | 0.53  | 0.38 | 0.26 | 0.18 |               |
| 9              | 0.47                                                              | 0.38                     | 0.29 | 0.32                 | 7.63   | 1.99    | 1.46                     | 0.74  | 0.53  | 0.38 | 0.26 | 0.16 |               |
| 10             | 0.44                                                              | 0.38                     | 0.29 | 0.32                 | 7.21   | 1.78    | 1.46                     | 0.74  | 0.53  | 0.29 | 0.26 | 0.16 |               |
| 11             | 0.44                                                              | 0.38                     | 0.26 | 0.32                 | 3.40   | 1.71    | 1.42                     | 0.74  | 0.53  | 0.29 | 0.26 | 0.16 |               |
| 12             | 0.44                                                              | 0.38                     | 0.26 | 0.32                 | 3.50   | 1.57    | 1.42                     | 0.80  | 0.53  | 0.29 | 0.26 | 0.16 |               |
| 13             | 0.44                                                              | 0.38                     | 0.26 | 0.32                 | 2.90   | 1.46    | 1.38                     | 0.92  | 0.53  | 0.29 | 0.26 | 0.16 |               |
| 14             | 0.44                                                              | 0.38                     | 0.26 | 0.32                 | 1.99   | 1.78    | 1.34                     | 0.89  | 0.53  | 0.29 | 0.23 | 0.12 |               |
| 15             | 0.44                                                              | 0.38                     | 0.26 | 0.35                 | 1.71   | 2.70    | 1.26                     | 0.80  | 0.56  | 0.29 | 0.20 | 0.12 |               |
| 16             | 0.44                                                              | 0.38                     | 0.29 | 0.32                 | 1.71   | 3.10    | 1.22                     | 0.74  | 0.59  | 0.29 | 0.16 | 0.12 |               |
| 17             | 0.44                                                              | 0.38                     | 0.29 | 0.32                 | 1.71   | 3.40    | 1.22                     | 0.68  | 0.53  | 0.29 | 0.16 | 0.12 |               |
| 18             | 0.44                                                              | 0.38                     | 0.29 | 0.32                 | 1.71   | 2.90    | 1.22                     | 0.68  | 0.53  | 0.29 | 0.16 | 0.12 |               |
| 19             | 0.44                                                              | 0.38                     | 0.29 | 0.32                 | 1.50   | 2.50    | 1.22                     | 0.68  | 0.53  | 0.29 | 0.16 | 0.12 |               |
| 20             | 0.44                                                              | 0.38                     | 0.29 | 0.32                 | 1.22   | 2.40    | 1.22                     | 0.68  | 0.53  | 0.29 | 0.16 | 0.12 |               |
| 21             | 0.44                                                              | 0.32                     | 0.29 | 0.29                 | 1.26   | 2.20    | 1.22                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 22             | 0.44                                                              | 0.32                     | 0.29 | 0.29                 | 1.34   | 2.06    | 1.22                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 23             | 0.44                                                              | 0.29                     | 0.29 | 0.29                 | 1.42   | 1.92    | 1.22                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 24             | 0.44                                                              | 0.29                     | 0.29 | 0.29                 | 1.92   | 1.92    | 1.22                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 25             | 0.44                                                              | 0.29                     | 0.29 | 0.29                 | 1.85   | 1.92    | 1.22                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 26             | 0.44                                                              | 0.29                     | 0.29 | 0.29                 | 1.85   | 1.85    | 1.22                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 27             | 0.44                                                              | 0.29                     | 0.29 | 0.35                 | 1.85   | 1.85    | 1.14                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 28             | 0.44                                                              | 0.29                     | 0.32 | 0.44                 | 2.80   | 1.78    | 1.14                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 |               |
| 29             | 0.44                                                              | 0.29                     | 0.32 | 0.44                 | 1.99   | 1.78    | 1.14                     | 0.68  | 0.44  | 0.29 |      | 0.12 |               |
| 30             | 0.44                                                              | 0.29                     | 0.32 | 0.44                 | 9.52   | 1.71    | 1.14                     | 0.68  | 0.44  | 0.29 |      | 0.12 |               |
| 31             |                                                                   | 0.29                     |      | 0.44                 | 32.51  |         | 1.10                     |       | 0.44  | 0.29 |      | 0.12 |               |
| Total          | 13.92                                                             | 11.09                    | 8.64 | 10.19                | 107.56 | 75.70   | 41.09                    | 23.55 | 15.53 | 9.80 | 6.10 | 4.36 | 327.53 CMSDAY |
| Mean           | 0.46                                                              | 0.36                     | 0.29 | 0.33                 | 3.47   | 2.52    | 1.33                     | 0.79  | 0.50  | 0.32 | 0.22 | 0.14 | 0.90 CMS      |
| Max            | 0.56                                                              | 0.44                     | 0.32 | 0.44                 | 32.51  | 10.78   | 1.64                     | 1.04  | 0.59  | 0.38 | 0.29 | 0.20 | 32.51 CMS     |
| Min            | 0.44                                                              | 0.29                     | 0.26 | 0.29                 | 0.41   | 1.46    | 1.10                     | 0.68  | 0.44  | 0.29 | 0.16 | 0.12 | 0.12 CMS      |
| Runoff         | 1.20                                                              | 0.96                     | 0.75 | 0.88                 | 9.29   | 6.54    | 3.55                     | 2.04  | 1.34  | 0.85 | 0.53 | 0.38 | 28.30 MCM     |
| Momentary Peak | 102.75 CMS. at 274.10 m. (MSL.) at 02.00 Hours , on Aug 31 , 2013 |                          |      |                      |        |         |                          |       |       |      |      |      |               |
| Runoff Yield   | 6.32                                                              | Liters/Second/Square KM. |      | Momentary Peak Yield |        | 723.592 | Liters/Second/Square KM. |       |       |      |      |      |               |

## WATER YEAR : 2013

## YOM RIVER BASIN

**Nam Mae Suat at Ban Pang Yao , Nan (Y.46)**

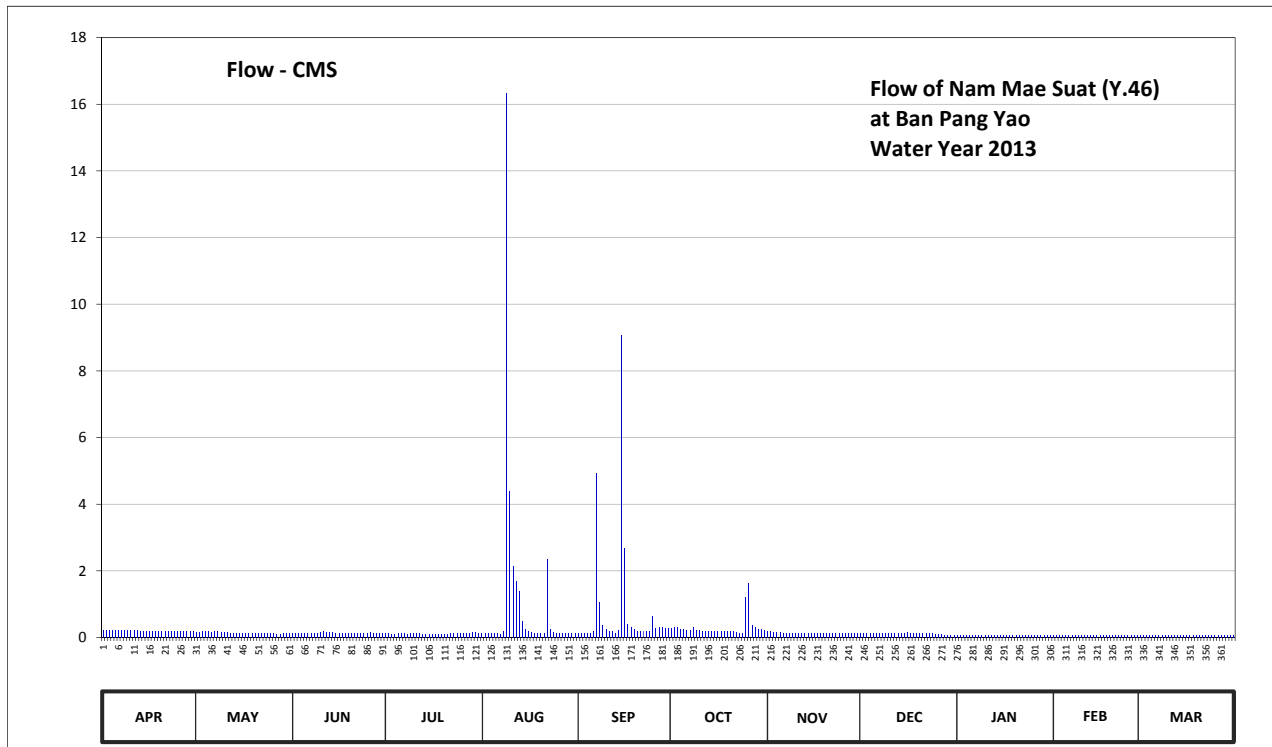
Lat 18 - 50 - 36 N Long 100 - 25 - 39 E

**Location :** on left bank at Ban Pang Yao

|                                         |                                                                                           |                |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pang Yao       | <b>Amphoe</b> | Ban Luang | <b>Changwat</b>  | Nan                |
| <b>Drainage Area</b>                    | 191                                                                                       | sq.km.         |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water -                                                                                   | stage recorder |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +340.936                                                                                  | m. (MSL.)      |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |           |                  |                    |
| <b>Location BM</b>                      | Near the automatic gage building.                                                         |                |               |           | <b>Elevation</b> | +345.541 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |                |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |           |                  |                    |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |                |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |                |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                                       |                |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |           |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 34 discharge measurements made in 2013. |                |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

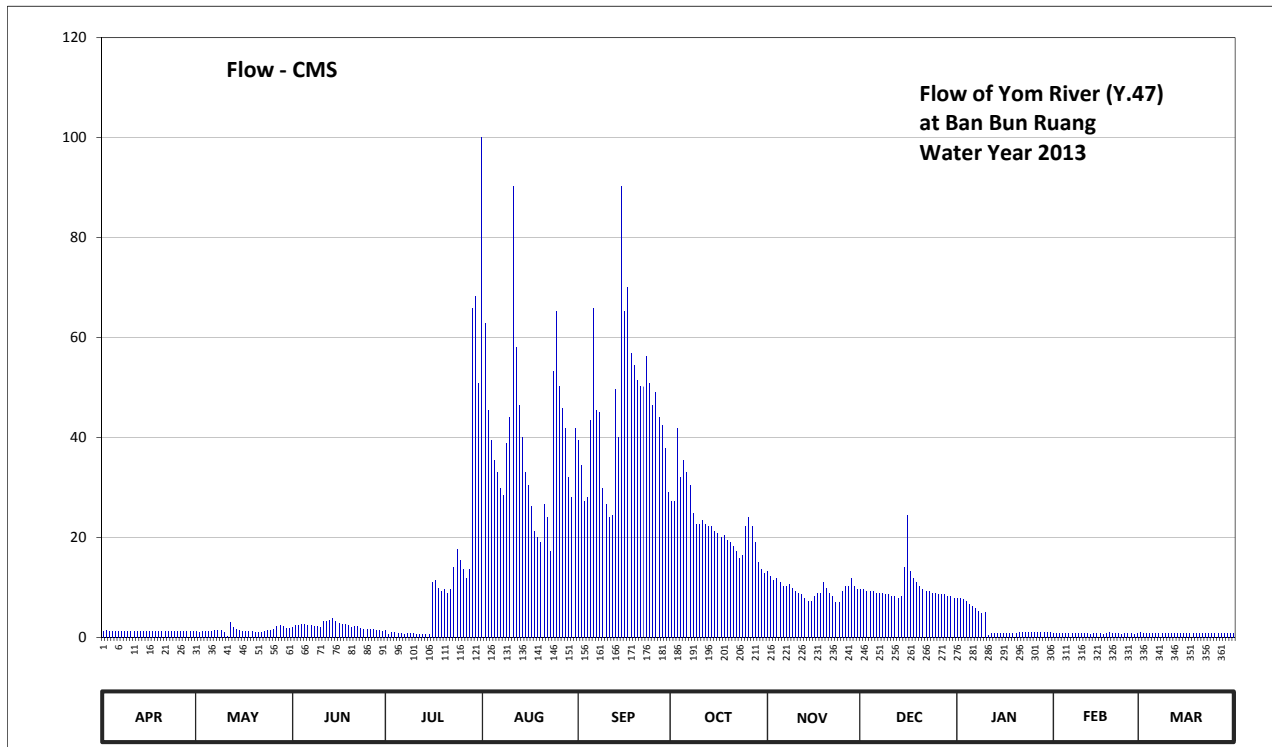
| Date                             | Apr    | May               | Jun                                          | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------------|----------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 342.21 | 342.17            | 342.14                                       | 342.12 | 342.13 | 342.12 | 342.29 | 342.20 | 342.12 | 342.02 | 342.03 | 342.02 |        |
| 2                                | 342.21 | 342.16            | 342.14                                       | 342.12 | 342.12 | 342.12 | 342.30 | 342.18 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 3                                | 342.21 | 342.18            | 342.14                                       | 342.11 | 342.12 | 342.12 | 342.31 | 342.17 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 4                                | 342.21 | 342.19            | 342.14                                       | 342.11 | 342.12 | 342.13 | 342.27 | 342.17 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 5                                | 342.21 | 342.18            | 342.14                                       | 342.12 | 342.12 | 342.14 | 342.24 | 342.16 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 6                                | 342.21 | 342.17            | 342.14                                       | 342.12 | 342.12 | 342.19 | 342.22 | 342.15 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 7                                | 342.21 | 342.18            | 342.14                                       | 342.12 | 342.11 | 342.83 | 342.22 | 342.15 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 8                                | 342.21 | 342.18            | 342.14                                       | 342.11 | 342.20 | 342.52 | 342.31 | 342.14 | 342.12 | 342.02 | 342.03 | 342.02 |        |
| 9                                | 342.21 | 342.17            | 342.14                                       | 342.15 | 343.29 | 342.39 | 342.23 | 342.14 | 342.12 | 342.02 | 342.03 | 342.02 |        |
| 10                               | 342.21 | 342.17            | 342.16                                       | 342.14 | 342.80 | 342.24 | 342.21 | 342.14 | 342.12 | 342.02 | 342.03 | 342.02 |        |
| 11                               | 342.21 | 342.16            | 342.18                                       | 342.13 | 342.64 | 342.20 | 342.20 | 342.14 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 12                               | 342.21 | 342.15            | 342.17                                       | 342.12 | 342.60 | 342.20 | 342.20 | 342.14 | 342.12 | 342.03 | 342.03 | 342.02 |        |
| 13                               | 342.20 | 342.15            | 342.16                                       | 342.11 | 342.56 | 342.15 | 342.20 | 342.14 | 342.12 | 342.04 | 342.03 | 342.02 |        |
| 14                               | 342.20 | 342.14            | 342.16                                       | 342.10 | 342.42 | 342.22 | 342.19 | 342.13 | 342.12 | 342.06 | 342.03 | 342.02 |        |
| 15                               | 342.19 | 342.14            | 342.15                                       | 342.08 | 342.24 | 343.03 | 342.19 | 342.13 | 342.15 | 342.05 | 342.02 | 342.02 |        |
| 16                               | 342.19 | 342.14            | 342.15                                       | 342.08 | 342.20 | 342.69 | 342.19 | 342.13 | 342.16 | 342.05 | 342.02 | 342.01 |        |
| 17                               | 342.19 | 342.13            | 342.14                                       | 342.07 | 342.16 | 342.40 | 342.19 | 342.13 | 342.14 | 342.06 | 342.02 | 342.01 |        |
| 18                               | 342.19 | 342.13            | 342.14                                       | 342.07 | 342.14 | 342.30 | 342.19 | 342.12 | 342.14 | 342.06 | 342.02 | 342.01 |        |
| 19                               | 342.19 | 342.12            | 342.14                                       | 342.08 | 342.13 | 342.25 | 342.19 | 342.12 | 342.14 | 342.06 | 342.02 | 342.01 |        |
| 20                               | 342.19 | 342.12            | 342.14                                       | 342.10 | 342.12 | 342.20 | 342.18 | 342.12 | 342.13 | 342.06 | 342.02 | 342.01 |        |
| 21                               | 342.19 | 342.13            | 342.14                                       | 342.11 | 342.15 | 342.19 | 342.18 | 342.12 | 342.13 | 342.05 | 342.02 | 342.01 |        |
| 22                               | 342.19 | 342.13            | 342.13                                       | 342.12 | 342.66 | 342.19 | 342.17 | 342.12 | 342.12 | 342.04 | 342.02 | 342.02 |        |
| 23                               | 342.19 | 342.12            | 342.13                                       | 342.12 | 342.24 | 342.18 | 342.14 | 342.12 | 342.12 | 342.04 | 342.02 | 342.03 |        |
| 24                               | 342.19 | 342.12            | 342.12                                       | 342.12 | 342.16 | 342.19 | 342.15 | 342.12 | 342.12 | 342.04 | 342.02 | 342.02 |        |
| 25                               | 342.19 | 342.12            | 342.14                                       | 342.12 | 342.15 | 342.45 | 342.54 | 342.12 | 342.10 | 342.04 | 342.02 | 342.02 |        |
| 26                               | 342.19 | 342.12            | 342.16                                       | 342.13 | 342.14 | 342.29 | 342.59 | 342.12 | 342.09 | 342.04 | 342.02 | 342.02 |        |
| 27                               | 342.19 | 342.11            | 342.14                                       | 342.13 | 342.14 | 342.30 | 342.39 | 342.12 | 342.07 | 342.03 | 342.02 | 342.01 |        |
| 28                               | 342.19 | 342.11            | 342.13                                       | 342.15 | 342.13 | 342.30 | 342.31 | 342.12 | 342.06 | 342.03 | 342.02 | 342.01 |        |
| 29                               | 342.20 | 342.12            | 342.12                                       | 342.16 | 342.13 | 342.29 | 342.27 | 342.12 | 342.04 | 342.03 |        | 342.01 |        |
| 30                               | 342.18 | 342.12            | 342.12                                       | 342.17 | 342.12 | 342.28 | 342.25 | 342.12 | 342.03 | 342.03 |        | 342.01 |        |
| 31                               |        | 342.12            |                                              | 342.15 | 342.12 |        | 342.22 |        | 342.02 | 342.03 |        | 342.01 |        |
| Mean                             | 342.20 | 342.14            | 342.14                                       | 342.12 | 342.27 | 342.30 | 342.25 | 342.14 | 342.11 | 342.04 | 342.02 | 342.02 |        |
| Max                              | 342.21 | 342.19            | 342.18                                       | 342.17 | 343.29 | 343.03 | 342.59 | 342.20 | 342.16 | 342.06 | 342.03 | 342.03 | 343.29 |
| Min                              | 342.18 | 342.11            | 342.12                                       | 342.07 | 342.11 | 342.12 | 342.14 | 342.12 | 342.02 | 342.02 | 342.02 | 342.01 | 342.01 |
| Annual Max Momentary Gage Height |        | 343.68            | m. (MSL.) , at 15.00 Hours , on Aug 9 , 2013 |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 340.94            | m. (MSL.) , River Bed 341.43 m. (MSL.)       |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 345.81            | m. (MSL.) ,                                  |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 345.77            | m. (MSL.) ,                                  |        |        |        |        |        |        |        |        |        |        |
| Drainage Area                    | 101    | Square Kilometers |                                              |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul                  | Aug   | Sep     | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual       |
|----------------|-----------------------------------------------------------------|--------------------------|------|----------------------|-------|---------|--------------------------|------|------|------|------|------|--------------|
| 1              | 0.21                                                            | 0.17                     | 0.14 | 0.12                 | 0.13  | 0.12    | 0.29                     | 0.20 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 2              | 0.21                                                            | 0.16                     | 0.14 | 0.12                 | 0.12  | 0.12    | 0.30                     | 0.18 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 3              | 0.21                                                            | 0.18                     | 0.14 | 0.11                 | 0.12  | 0.12    | 0.31                     | 0.17 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 4              | 0.21                                                            | 0.19                     | 0.14 | 0.11                 | 0.12  | 0.13    | 0.27                     | 0.17 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 5              | 0.21                                                            | 0.18                     | 0.14 | 0.12                 | 0.12  | 0.14    | 0.24                     | 0.16 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 6              | 0.21                                                            | 0.17                     | 0.14 | 0.12                 | 0.12  | 0.19    | 0.22                     | 0.15 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 7              | 0.21                                                            | 0.18                     | 0.14 | 0.12                 | 0.11  | 4.94    | 0.22                     | 0.15 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 8              | 0.21                                                            | 0.18                     | 0.14 | 0.11                 | 0.20  | 1.06    | 0.31                     | 0.14 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 9              | 0.21                                                            | 0.17                     | 0.14 | 0.15                 | 16.32 | 0.39    | 0.23                     | 0.14 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 10             | 0.21                                                            | 0.17                     | 0.16 | 0.14                 | 4.40  | 0.24    | 0.21                     | 0.14 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 11             | 0.21                                                            | 0.16                     | 0.18 | 0.13                 | 2.14  | 0.20    | 0.20                     | 0.14 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 12             | 0.21                                                            | 0.15                     | 0.17 | 0.12                 | 1.70  | 0.20    | 0.20                     | 0.14 | 0.12 | 0.06 | 0.06 | 0.06 |              |
| 13             | 0.20                                                            | 0.15                     | 0.16 | 0.11                 | 1.38  | 0.15    | 0.20                     | 0.14 | 0.12 | 0.07 | 0.06 | 0.06 |              |
| 14             | 0.20                                                            | 0.14                     | 0.16 | 0.10                 | 0.50  | 0.22    | 0.19                     | 0.13 | 0.12 | 0.08 | 0.06 | 0.06 |              |
| 15             | 0.19                                                            | 0.14                     | 0.15 | 0.09                 | 0.24  | 9.05    | 0.19                     | 0.13 | 0.15 | 0.07 | 0.06 | 0.06 |              |
| 16             | 0.19                                                            | 0.14                     | 0.15 | 0.09                 | 0.20  | 2.69    | 0.19                     | 0.13 | 0.16 | 0.07 | 0.06 | 0.06 |              |
| 17             | 0.19                                                            | 0.13                     | 0.14 | 0.09                 | 0.16  | 0.40    | 0.19                     | 0.13 | 0.14 | 0.08 | 0.06 | 0.06 |              |
| 18             | 0.19                                                            | 0.13                     | 0.14 | 0.09                 | 0.14  | 0.30    | 0.19                     | 0.12 | 0.14 | 0.08 | 0.06 | 0.06 |              |
| 19             | 0.19                                                            | 0.12                     | 0.14 | 0.09                 | 0.13  | 0.25    | 0.19                     | 0.12 | 0.14 | 0.08 | 0.06 | 0.06 |              |
| 20             | 0.19                                                            | 0.12                     | 0.14 | 0.10                 | 0.12  | 0.20    | 0.18                     | 0.12 | 0.13 | 0.08 | 0.06 | 0.06 |              |
| 21             | 0.19                                                            | 0.13                     | 0.14 | 0.11                 | 0.15  | 0.19    | 0.18                     | 0.12 | 0.13 | 0.07 | 0.06 | 0.06 |              |
| 22             | 0.19                                                            | 0.13                     | 0.13 | 0.12                 | 2.36  | 0.19    | 0.17                     | 0.12 | 0.12 | 0.07 | 0.06 | 0.06 |              |
| 23             | 0.19                                                            | 0.12                     | 0.13 | 0.12                 | 0.24  | 0.18    | 0.14                     | 0.12 | 0.12 | 0.07 | 0.06 | 0.06 |              |
| 24             | 0.19                                                            | 0.12                     | 0.12 | 0.12                 | 0.16  | 0.19    | 0.15                     | 0.12 | 0.12 | 0.07 | 0.06 | 0.06 |              |
| 25             | 0.19                                                            | 0.12                     | 0.14 | 0.12                 | 0.15  | 0.65    | 1.22                     | 0.12 | 0.10 | 0.07 | 0.06 | 0.06 |              |
| 26             | 0.19                                                            | 0.12                     | 0.16 | 0.13                 | 0.14  | 0.29    | 1.62                     | 0.12 | 0.09 | 0.07 | 0.06 | 0.06 |              |
| 27             | 0.19                                                            | 0.11                     | 0.14 | 0.13                 | 0.14  | 0.30    | 0.39                     | 0.12 | 0.09 | 0.06 | 0.06 | 0.06 |              |
| 28             | 0.19                                                            | 0.11                     | 0.13 | 0.15                 | 0.13  | 0.30    | 0.31                     | 0.12 | 0.08 | 0.06 | 0.06 | 0.06 |              |
| 29             | 0.20                                                            | 0.12                     | 0.12 | 0.16                 | 0.13  | 0.29    | 0.27                     | 0.12 | 0.07 | 0.06 |      | 0.06 |              |
| 30             | 0.18                                                            | 0.12                     | 0.12 | 0.17                 | 0.12  | 0.28    | 0.25                     | 0.12 | 0.06 | 0.06 |      | 0.06 |              |
| 31             |                                                                 | 0.12                     |      | 0.15                 | 0.12  |         | 0.22                     |      | 0.06 | 0.06 |      | 0.06 |              |
| Total          | 5.96                                                            | 4.45                     | 4.28 | 3.71                 | 32.31 | 23.97   | 9.44                     | 4.10 | 3.58 | 2.05 | 1.68 | 1.86 | 97.39 CMSDAY |
| Mean           | 0.20                                                            | 0.14                     | 0.14 | 0.12                 | 1.04  | 0.80    | 0.30                     | 0.14 | 0.12 | 0.07 | 0.06 | 0.06 | 0.27 CMS     |
| Max            | 0.21                                                            | 0.19                     | 0.18 | 0.17                 | 16.32 | 9.05    | 1.62                     | 0.20 | 0.16 | 0.08 | 0.06 | 0.06 | 16.32 CMS    |
| Min            | 0.18                                                            | 0.11                     | 0.12 | 0.09                 | 0.11  | 0.12    | 0.14                     | 0.12 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 CMS     |
| Runoff         | 0.52                                                            | 0.38                     | 0.37 | 0.32                 | 2.79  | 2.07    | 0.82                     | 0.35 | 0.31 | 0.18 | 0.15 | 0.16 | 8.41 MCM     |
| Momentary Peak | 33.88 CMS. at 343.68 m. (MSL.) at 15.00 Hours , on Aug 9 , 2013 |                          |      |                      |       |         |                          |      |      |      |      |      |              |
| Runoff Yield   | 1.40                                                            | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 177.382 | Liters/Second/Square KM. |      |      |      |      |      |              |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug     | Sep     | Oct    | Nov                      | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|---------|---------|--------|--------------------------|--------|-------|-------|-------|----------------|
| 1              | 1.30                                                             | 1.20                     | 2.10  | 1.50                 | 100.00  | 39.50   | 27.20  | 13.25                    | 9.64   | 7.94  | 0.98  | 1.02  |                |
| 2              | 1.40                                                             | 1.18                     | 2.40  | 0.64                 | 62.80   | 34.50   | 27.20  | 12.35                    | 9.64   | 7.94  | 0.96  | 1.00  |                |
| 3              | 1.38                                                             | 1.22                     | 2.55  | 1.08                 | 45.50   | 27.20   | 42.00  | 11.45                    | 9.30   | 7.60  | 0.94  | 1.00  |                |
| 4              | 1.36                                                             | 1.26                     | 2.70  | 1.14                 | 39.50   | 28.10   | 32.00  | 11.90                    | 9.30   | 7.32  | 0.92  | 1.00  |                |
| 5              | 1.36                                                             | 1.28                     | 2.70  | 0.98                 | 35.50   | 43.50   | 35.50  | 11.00                    | 9.30   | 6.76  | 0.90  | 0.98  |                |
| 6              | 1.36                                                             | 1.34                     | 2.40  | 0.82                 | 33.00   | 65.80   | 33.00  | 10.32                    | 8.96   | 6.20  | 0.88  | 0.98  |                |
| 7              | 1.34                                                             | 1.42                     | 2.40  | 0.76                 | 30.00   | 45.50   | 30.50  | 10.32                    | 8.96   | 5.92  | 0.88  | 0.98  |                |
| 8              | 1.34                                                             | 1.48                     | 2.25  | 0.82                 | 28.55   | 45.00   | 24.95  | 10.66                    | 8.96   | 5.36  | 0.86  | 0.96  |                |
| 9              | 1.32                                                             | 1.44                     | 2.25  | 0.84                 | 39.00   | 30.00   | 22.70  | 9.98                     | 8.62   | 4.80  | 0.86  | 0.96  |                |
| 10             | 1.32                                                             | 1.06                     | 2.10  | 0.80                 | 44.00   | 26.75   | 22.70  | 9.30                     | 8.62   | 5.08  | 0.84  | 0.96  |                |
| 11             | 1.32                                                             | 0.37                     | 3.18  | 0.76                 | 90.20   | 24.05   | 23.60  | 8.96                     | 8.28   | 0.56  | 0.84  | 0.94  |                |
| 12             | 1.30                                                             | 3.00                     | 3.36  | 0.76                 | 58.00   | 24.50   | 22.70  | 8.62                     | 8.28   | 0.78  | 0.80  | 0.94  |                |
| 13             | 1.30                                                             | 2.10                     | 3.54  | 0.72                 | 46.50   | 49.60   | 22.25  | 7.94                     | 7.94   | 0.84  | 0.76  | 0.94  |                |
| 14             | 1.28                                                             | 1.65                     | 3.90  | 0.72                 | 40.00   | 40.00   | 22.25  | 7.32                     | 8.28   | 0.88  | 0.80  | 0.92  |                |
| 15             | 1.28                                                             | 1.50                     | 3.18  | 0.68                 | 33.00   | 90.20   | 21.35  | 7.32                     | 14.15  | 0.88  | 0.80  | 0.92  |                |
| 16             | 1.28                                                             | 1.32                     | 2.85  | 11.00                | 30.50   | 65.20   | 20.90  | 8.28                     | 24.50  | 0.88  | 0.78  | 0.90  |                |
| 17             | 1.32                                                             | 1.32                     | 2.70  | 11.45                | 26.30   | 70.00   | 20.00  | 8.96                     | 13.25  | 0.86  | 0.76  | 0.88  |                |
| 18             | 1.32                                                             | 1.23                     | 2.70  | 9.98                 | 21.35   | 56.80   | 20.45  | 8.96                     | 11.90  | 0.86  | 0.84  | 0.86  |                |
| 19             | 1.30                                                             | 1.23                     | 2.40  | 9.30                 | 20.00   | 54.40   | 19.55  | 11.00                    | 11.00  | 0.84  | 1.04  | 0.86  |                |
| 20             | 1.28                                                             | 1.14                     | 2.10  | 9.64                 | 19.10   | 51.40   | 19.10  | 9.98                     | 10.32  | 0.90  | 1.00  | 0.84  |                |
| 21             | 1.30                                                             | 1.14                     | 2.25  | 8.96                 | 26.75   | 50.20   | 18.20  | 8.96                     | 9.64   | 1.10  | 0.84  | 0.84  |                |
| 22             | 1.30                                                             | 1.14                     | 2.25  | 9.64                 | 24.05   | 50.20   | 17.30  | 8.28                     | 9.30   | 1.10  | 0.80  | 0.86  |                |
| 23             | 1.28                                                             | 1.23                     | 1.95  | 14.15                | 17.30   | 56.20   | 15.95  | 7.04                     | 9.30   | 1.08  | 0.76  | 0.90  |                |
| 24             | 1.28                                                             | 1.41                     | 1.80  | 17.75                | 53.20   | 50.80   | 16.40  | 7.04                     | 8.96   | 1.08  | 0.80  | 0.86  |                |
| 25             | 1.28                                                             | 1.50                     | 1.65  | 15.50                | 65.20   | 46.50   | 22.25  | 9.30                     | 8.96   | 1.06  | 0.80  | 0.86  |                |
| 26             | 1.26                                                             | 1.80                     | 1.80  | 13.70                | 50.20   | 49.00   | 24.05  | 10.32                    | 8.62   | 1.06  | 0.78  | 0.86  |                |
| 27             | 1.26                                                             | 2.25                     | 1.65  | 11.90                | 46.00   | 44.00   | 22.25  | 10.32                    | 8.62   | 1.06  | 0.76  | 0.86  |                |
| 28             | 1.26                                                             | 2.40                     | 1.50  | 13.70                | 42.00   | 42.50   | 19.10  | 11.90                    | 8.62   | 1.06  | 0.84  | 0.84  |                |
| 29             | 1.24                                                             | 2.25                     | 1.41  | 65.80                | 32.00   | 38.00   | 15.05  | 10.32                    | 8.28   | 1.04  |       | 0.84  |                |
| 30             | 1.20                                                             | 1.95                     | 1.32  | 68.20                | 28.10   | 29.00   | 13.70  | 9.64                     | 8.28   | 1.04  |       | 0.84  |                |
| 31             |                                                                  | 1.95                     |       | 50.80                | 42.00   |         | 12.80  |                          | 7.94   | 1.02  |       | 0.84  |                |
| Total          | 39.12                                                            | 46.76                    | 71.34 | 354.49               | 1269.60 | 1368.40 | 706.95 | 290.99                   | 305.72 | 84.90 | 23.82 | 28.24 | 4590.33 CMSDAY |
| Mean           | 1.30                                                             | 1.51                     | 2.38  | 11.44                | 40.95   | 45.61   | 22.80  | 9.70                     | 9.86   | 2.74  | 0.85  | 0.91  | 12.58 CMS      |
| Max            | 1.40                                                             | 3.00                     | 3.90  | 68.20                | 100.00  | 90.20   | 42.00  | 13.25                    | 24.50  | 7.94  | 1.04  | 1.02  | 100.00 CMS     |
| Min            | 1.20                                                             | 0.37                     | 1.32  | 0.64                 | 17.30   | 24.05   | 12.80  | 7.04                     | 7.94   | 0.56  | 0.76  | 0.84  | 0.37 CMS       |
| Runoff         | 3.38                                                             | 4.04                     | 6.16  | 30.63                | 109.69  | 118.23  | 61.08  | 25.14                    | 26.41  | 7.34  | 2.06  | 2.44  | 396.61 MCM     |
| Momentary Peak | 114.25 CMS. at 290.79 m. (MSL.) at 14.00 Hours , on Aug 1 , 2013 |                          |       |                      |         |         |        |                          |        |       |       |       |                |
| Runoff Yield   | 28.32                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |         |         | 257.32 | Liters/Second/Square KM. |        |       |       |       |                |

**WATER YEAR : 2013****YOM RIVER BASIN****Nam Mae Ngim at Ban Hae , Phayao (Y.48)**

Lat 19 - 18 - 09 N Long 100 - 23 - 27 E

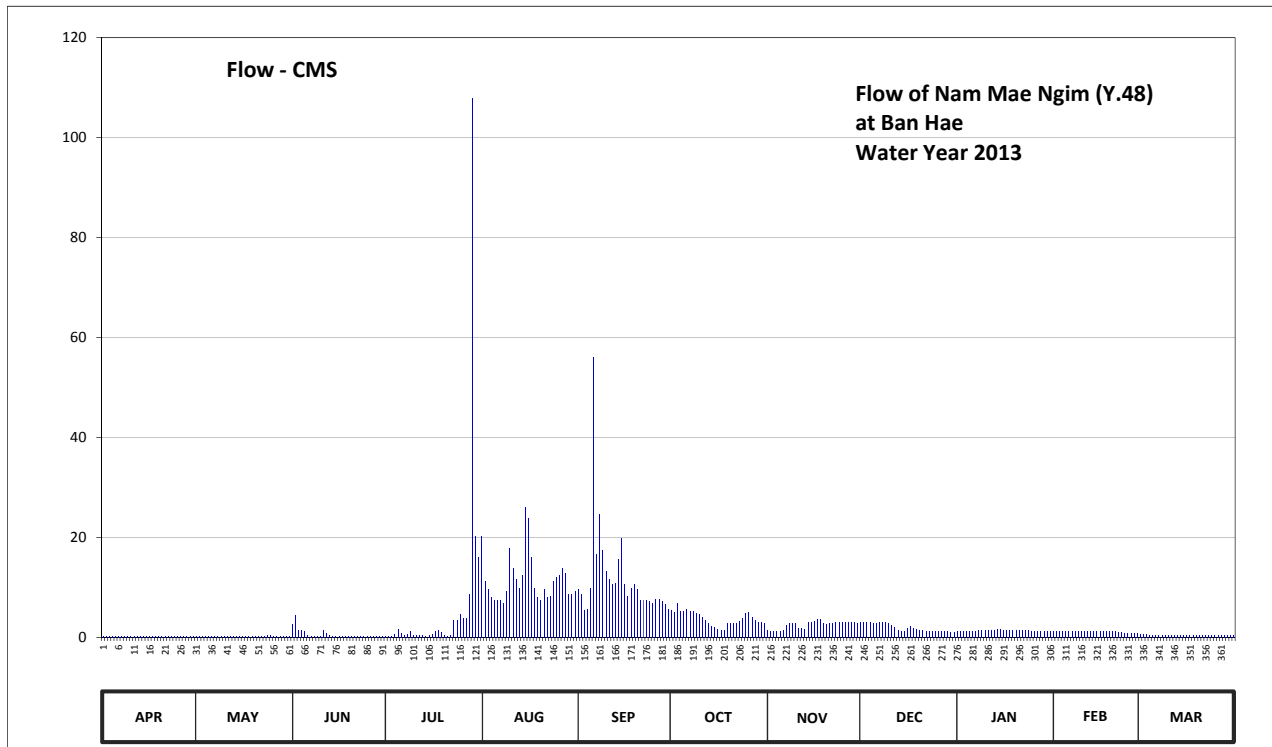
**Location : on right bank at Ban Hae.**

|                                         |                                                                                           |                    |                                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------------|-------------------------------------|
|                                         | <b>Ban Hae</b>                                                                            | <b>Amphoe Pong</b> | <b>Changwat Phayao</b>              |
| <b>Drainage Area</b>                    | 55                                                                                        | sq.km.             |                                     |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                    |                                     |
| <b>Zero Gage at Bottom</b>              | +351.277 m. (MSL.)                                                                        |                    |                                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                    |                                     |
| <b>Location BM</b>                      | Near the automatic gage building.                                                         |                    | <b>Elevation</b> +355.940 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                    |                                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                    |                                     |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |                    |                                     |
| <b>Rating Operation</b>                 |                                                                                           |                    |                                     |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |                    |                                     |
| <b>Rated by Flot</b>                    | -                                                                                         |                    |                                     |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |                    |                                     |
| <b>Stability of Channel Regimes</b>     | Stable because of backwater effect.                                                       |                    |                                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                    |                                     |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2013. |                    |                                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 351.66 | 351.64 | 351.86      | 351.66 | 352.38                            | 352.13 | 351.99            | 351.79    | 351.88 | 351.77 | 351.78 | 351.72 |        |
| 2                                | 351.66 | 351.64 | 351.94      | 351.66 | 352.18                            | 352.10 | 351.97            | 351.78    | 351.88 | 351.77 | 351.78 | 351.72 |        |
| 3                                | 351.66 | 351.64 | 351.80      | 351.66 | 352.13                            | 351.99 | 352.04            | 351.78    | 351.88 | 351.77 | 351.78 | 351.71 |        |
| 4                                | 351.66 | 351.64 | 351.79      | 351.72 | 352.08                            | 352.00 | 351.98            | 351.78    | 351.88 | 351.78 | 351.78 | 351.70 |        |
| 5                                | 351.66 | 351.64 | 351.77      | 351.81 | 352.06                            | 352.14 | 351.98            | 351.78    | 351.87 | 351.78 | 351.78 | 351.70 |        |
| 6                                | 351.66 | 351.64 | 351.70      | 351.73 | 352.06                            | 352.85 | 352.00            | 351.80    | 351.87 | 351.78 | 351.78 | 351.70 |        |
| 7                                | 351.66 | 351.64 | 351.65      | 351.68 | 352.06                            | 352.30 | 351.98            | 351.85    | 351.88 | 351.78 | 351.78 | 351.69 |        |
| 8                                | 351.66 | 351.65 | 351.64      | 351.71 | 352.04                            | 352.45 | 351.98            | 351.87    | 351.88 | 351.79 | 351.78 | 351.69 |        |
| 9                                | 351.66 | 351.65 | 351.63      | 351.77 | 352.12                            | 352.32 | 351.96            | 351.87    | 351.88 | 351.80 | 351.78 | 351.69 |        |
| 10                               | 351.66 | 351.65 | 351.66      | 351.69 | 352.33                            | 352.23 | 351.95            | 351.87    | 351.87 | 351.80 | 351.78 | 351.69 |        |
| 11                               | 351.66 | 351.64 | 351.79      | 351.68 | 352.24                            | 352.19 | 351.93            | 351.82    | 351.85 | 351.80 | 351.78 | 351.68 |        |
| 12                               | 351.65 | 351.64 | 351.73      | 351.67 | 352.19                            | 352.16 | 351.90            | 351.82    | 351.83 | 351.80 | 351.78 | 351.68 |        |
| 13                               | 351.65 | 351.63 | 351.67      | 351.67 | 352.14                            | 352.17 | 351.87            | 351.81    | 351.79 | 351.80 | 351.78 | 351.68 |        |
| 14                               | 351.65 | 351.63 | 351.66      | 351.66 | 352.21                            | 352.28 | 351.84            | 351.88    | 351.77 | 351.81 | 351.77 | 351.68 |        |
| 15                               | 351.64 | 351.63 | 351.66      | 351.67 | 352.47                            | 352.37 | 351.83            | 351.88    | 351.78 | 351.81 | 351.77 | 351.68 |        |
| 16                               | 351.64 | 351.64 | 351.66      | 351.71 | 352.44                            | 352.16 | 351.81            | 351.89    | 351.82 | 351.80 | 351.77 | 351.68 |        |
| 17                               | 351.64 | 351.64 | 351.65      | 351.78 | 352.29                            | 352.09 | 351.80            | 351.91    | 351.84 | 351.80 | 351.77 | 351.68 |        |
| 18                               | 351.65 | 351.64 | 351.65      | 351.79 | 352.14                            | 352.14 | 351.80            | 351.91    | 351.82 | 351.79 | 351.77 | 351.68 |        |
| 19                               | 351.65 | 351.64 | 351.65      | 351.76 | 352.08                            | 352.16 | 351.87            | 351.87    | 351.81 | 351.79 | 351.77 | 351.68 |        |
| 20                               | 351.65 | 351.64 | 351.65      | 351.68 | 352.06                            | 352.13 | 351.87            | 351.86    | 351.80 | 351.79 | 351.77 | 351.68 |        |
| 21                               | 351.65 | 351.64 | 351.66      | 351.66 | 352.13                            | 352.06 | 351.87            | 351.87    | 351.79 | 351.79 | 351.77 | 351.68 |        |
| 22                               | 351.65 | 351.64 | 351.66      | 351.70 | 352.08                            | 352.06 | 351.87            | 351.87    | 351.78 | 351.79 | 351.76 | 351.68 |        |
| 23                               | 351.65 | 351.65 | 351.66      | 351.90 | 352.09                            | 352.06 | 351.89            | 351.88    | 351.78 | 351.79 | 351.76 | 351.69 |        |
| 24                               | 351.65 | 351.68 | 351.66      | 351.90 | 352.18                            | 352.05 | 351.92            | 351.88    | 351.78 | 351.79 | 351.75 | 351.70 |        |
| 25                               | 351.65 | 351.67 | 351.66      | 351.95 | 352.20                            | 352.04 | 351.96            | 351.88    | 351.78 | 351.78 | 351.75 | 351.69 |        |
| 26                               | 351.65 | 351.66 | 351.66      | 351.92 | 352.21                            | 352.07 | 351.97            | 351.88    | 351.77 | 351.78 | 351.74 | 351.68 |        |
| 27                               | 351.65 | 351.66 | 351.65      | 351.92 | 352.24                            | 352.07 | 351.93            | 351.88    | 351.77 | 351.78 | 351.73 | 351.68 |        |
| 28                               | 351.65 | 351.65 | 351.65      | 352.10 | 352.22                            | 352.05 | 351.90            | 351.88    | 351.77 | 351.78 | 351.73 | 351.68 |        |
| 29                               | 351.64 | 351.65 | 351.65      | 353.37 | 352.10                            | 352.03 | 351.88            | 351.88    | 351.77 | 351.78 |        | 351.68 |        |
| 30                               | 351.64 | 351.65 | 351.65      | 352.38 | 352.10                            | 352.00 | 351.88            | 351.87    | 351.76 | 351.78 |        | 351.68 |        |
| 31                               |        | 351.66 |             | 352.29 | 352.12                            |        | 351.87            |           | 351.76 | 351.78 |        | 351.68 |        |
| Mean                             | 351.65 | 351.65 | 351.69      | 351.85 | 352.17                            | 352.16 | 351.91            | 351.85    | 351.82 | 351.79 | 351.77 | 351.69 |        |
| Max                              | 351.66 | 351.68 | 351.94      | 353.37 | 352.47                            | 352.85 | 352.04            | 351.91    | 351.88 | 351.81 | 351.78 | 351.72 | 353.37 |
| Min                              | 351.64 | 351.63 | 351.63      | 351.66 | 352.04                            | 351.99 | 351.80            | 351.78    | 351.76 | 351.77 | 351.73 | 351.68 | 351.63 |
| Annual Max Momentary Gage Height | 353.91 |        | m. (MSL.) , |        | at 10.00 Hours , on Jul 29 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 351.28 |        | m. (MSL.) , |        | River Bed                         | 350.48 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 355.58 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 355.48 |        | m. (MSL.) , |        | Drainage Area                     | 55     | Square Kilometers |           |        |        |        |        |        |

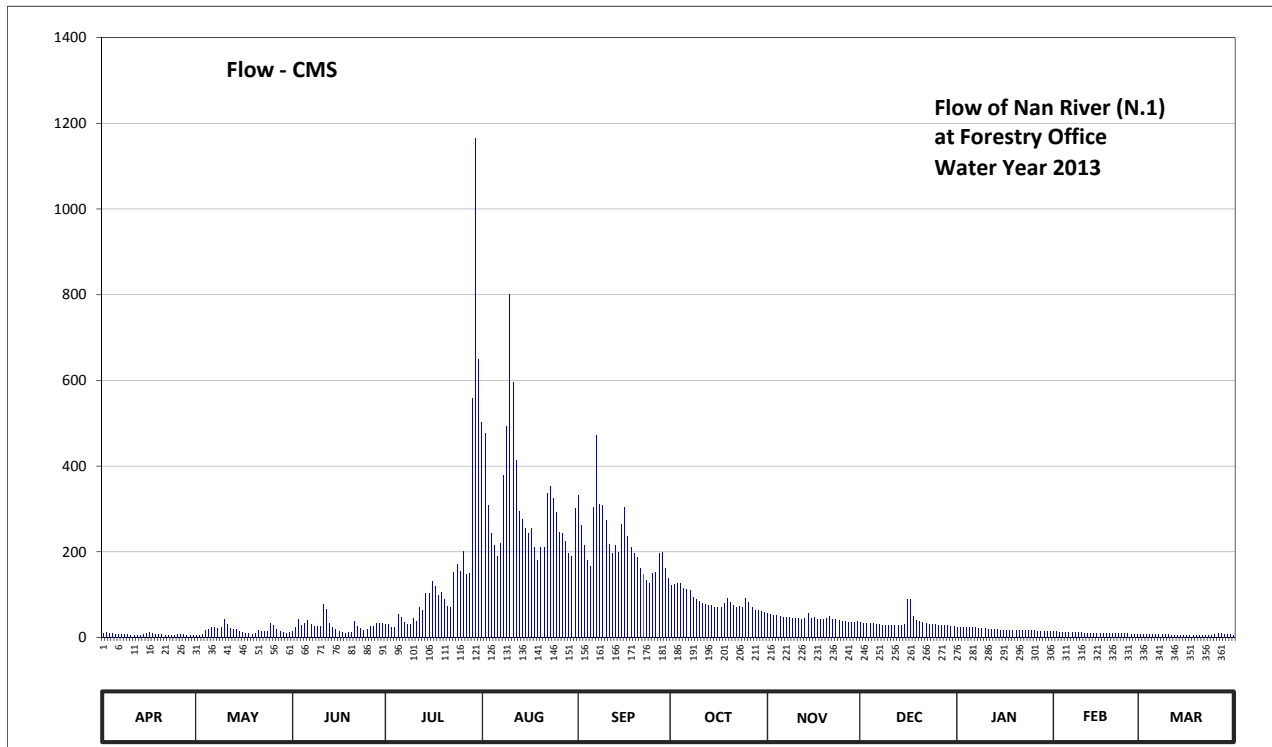




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                        | May                      | Jun   | Jul    | Aug                  | Sep    | Oct    | Nov      | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|------------------------------------------------------------|--------------------------|-------|--------|----------------------|--------|--------|----------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 0.38                                                       | 0.32                     | 2.70  | 0.38   | 20.28                | 9.62   | 5.57   | 1.40     | 3.10                     | 1.20  | 1.30  | 0.70  |         |        |
| 2              | 0.38                                                       | 0.32                     | 4.42  | 0.38   | 11.32                | 8.60   | 5.11   | 1.30     | 3.10                     | 1.20  | 1.30  | 0.70  |         |        |
| 3              | 0.38                                                       | 0.32                     | 1.50  | 0.38   | 9.62                 | 5.57   | 6.92   | 1.30     | 3.10                     | 1.20  | 1.30  | 0.60  |         |        |
| 4              | 0.38                                                       | 0.32                     | 1.40  | 0.70   | 8.04                 | 5.80   | 5.34   | 1.30     | 3.10                     | 1.30  | 1.30  | 0.50  |         |        |
| 5              | 0.38                                                       | 0.32                     | 1.20  | 1.70   | 7.48                 | 9.96   | 5.34   | 1.30     | 2.90                     | 1.30  | 1.30  | 0.50  |         |        |
| 6              | 0.38                                                       | 0.32                     | 0.50  | 0.80   | 7.48                 | 56.13  | 5.80   | 1.50     | 2.90                     | 1.30  | 1.30  | 0.50  |         |        |
| 7              | 0.38                                                       | 0.32                     | 0.35  | 0.44   | 7.48                 | 16.60  | 5.34   | 2.50     | 3.10                     | 1.30  | 1.30  | 0.47  |         |        |
| 8              | 0.38                                                       | 0.35                     | 0.32  | 0.60   | 6.92                 | 24.65  | 5.34   | 2.90     | 3.10                     | 1.40  | 1.30  | 0.47  |         |        |
| 9              | 0.38                                                       | 0.35                     | 0.29  | 1.20   | 9.28                 | 17.52  | 4.88   | 2.90     | 3.10                     | 1.50  | 1.30  | 0.47  |         |        |
| 10             | 0.38                                                       | 0.35                     | 0.38  | 0.47   | 17.98                | 13.38  | 4.65   | 2.90     | 2.90                     | 1.50  | 1.30  | 0.47  |         |        |
| 11             | 0.38                                                       | 0.32                     | 1.40  | 0.44   | 13.84                | 11.66  | 4.19   | 1.90     | 2.50                     | 1.50  | 1.30  | 0.44  |         |        |
| 12             | 0.35                                                       | 0.32                     | 0.80  | 0.41   | 11.66                | 10.64  | 3.50   | 1.90     | 2.10                     | 1.50  | 1.30  | 0.44  |         |        |
| 13             | 0.35                                                       | 0.29                     | 0.41  | 0.41   | 9.96                 | 10.98  | 2.90   | 1.70     | 1.40                     | 1.50  | 1.30  | 0.44  |         |        |
| 14             | 0.35                                                       | 0.29                     | 0.38  | 0.38   | 12.46                | 15.68  | 2.30   | 3.10     | 1.20                     | 1.70  | 1.20  | 0.44  |         |        |
| 15             | 0.32                                                       | 0.29                     | 0.38  | 0.41   | 26.03                | 19.82  | 2.10   | 3.10     | 1.30                     | 1.70  | 1.20  | 0.44  |         |        |
| 16             | 0.32                                                       | 0.32                     | 0.38  | 0.60   | 23.96                | 10.64  | 1.70   | 3.30     | 1.90                     | 1.50  | 1.20  | 0.44  |         |        |
| 17             | 0.32                                                       | 0.32                     | 0.35  | 1.30   | 16.14                | 8.32   | 1.50   | 3.73     | 2.30                     | 1.50  | 1.20  | 0.44  |         |        |
| 18             | 0.35                                                       | 0.32                     | 0.35  | 1.40   | 9.96                 | 9.96   | 1.50   | 3.73     | 1.90                     | 1.40  | 1.20  | 0.44  |         |        |
| 19             | 0.35                                                       | 0.32                     | 0.35  | 1.10   | 8.04                 | 10.64  | 2.90   | 2.90     | 1.70                     | 1.40  | 1.20  | 0.44  |         |        |
| 20             | 0.35                                                       | 0.32                     | 0.35  | 0.44   | 7.48                 | 9.62   | 2.90   | 2.70     | 1.50                     | 1.40  | 1.20  | 0.44  |         |        |
| 21             | 0.35                                                       | 0.32                     | 0.38  | 0.38   | 9.62                 | 7.48   | 2.90   | 2.90     | 1.40                     | 1.40  | 1.20  | 0.44  |         |        |
| 22             | 0.35                                                       | 0.32                     | 0.38  | 0.50   | 8.04                 | 7.48   | 2.90   | 2.90     | 1.30                     | 1.40  | 1.10  | 0.44  |         |        |
| 23             | 0.35                                                       | 0.35                     | 0.38  | 3.50   | 8.32                 | 7.48   | 3.30   | 3.10     | 1.30                     | 1.40  | 1.10  | 0.47  |         |        |
| 24             | 0.35                                                       | 0.44                     | 0.38  | 3.50   | 11.32                | 7.20   | 3.96   | 3.10     | 1.30                     | 1.40  | 1.00  | 0.50  |         |        |
| 25             | 0.35                                                       | 0.41                     | 0.38  | 4.65   | 12.00                | 6.92   | 4.88   | 3.10     | 1.30                     | 1.30  | 1.00  | 0.47  |         |        |
| 26             | 0.35                                                       | 0.38                     | 0.38  | 3.96   | 12.46                | 7.76   | 5.11   | 3.10     | 1.20                     | 1.30  | 0.90  | 0.44  |         |        |
| 27             | 0.35                                                       | 0.38                     | 0.35  | 3.96   | 13.84                | 7.76   | 4.19   | 3.10     | 1.20                     | 1.30  | 0.80  | 0.44  |         |        |
| 28             | 0.35                                                       | 0.35                     | 0.35  | 8.60   | 12.92                | 7.20   | 3.50   | 3.10     | 1.20                     | 1.30  | 0.80  | 0.44  |         |        |
| 29             | 0.32                                                       | 0.35                     | 0.35  | 107.87 | 8.60                 | 6.64   | 3.10   | 3.10     | 1.20                     | 1.30  |       | 0.44  |         |        |
| 30             | 0.32                                                       | 0.35                     | 0.35  | 20.28  | 8.60                 | 5.80   | 3.10   | 2.90     | 1.10                     | 1.30  |       | 0.44  |         |        |
| 31             |                                                            | 0.38                     |       | 16.14  | 9.28                 |        | 2.90   |          | 1.10                     | 1.30  |       | 0.44  |         |        |
| Total          | 10.68                                                      | 10.43                    | 21.89 | 187.28 | 360.41               | 357.51 | 119.62 | 77.76    | 61.80                    | 43.00 | 33.20 | 14.74 | 1298.32 | CMSDAY |
| Mean           | 0.36                                                       | 0.34                     | 0.73  | 6.04   | 11.63                | 11.92  | 3.86   | 2.59     | 1.99                     | 1.39  | 1.19  | 0.48  | 3.56    | CMS    |
| Max            | 0.38                                                       | 0.44                     | 4.42  | 107.87 | 26.03                | 56.13  | 6.92   | 3.73     | 3.10                     | 1.70  | 1.30  | 0.70  | 107.87  | CMS    |
| Min            | 0.32                                                       | 0.29                     | 0.29  | 0.38   | 6.92                 | 5.57   | 1.50   | 1.30     | 1.10                     | 1.20  | 0.80  | 0.44  | 0.29    | CMS    |
| Runoff         | 0.92                                                       | 0.90                     | 1.89  | 16.18  | 31.14                | 30.89  | 10.34  | 6.72     | 5.34                     | 3.72  | 2.87  | 1.27  | 112.18  | MCM    |
| Momentary Peak | CMS. at 353.91 m. (MSL.) at 10.00 Hours , on Jul 29 , 2013 |                          |       |        |                      |        |        |          |                          |       |       |       |         |        |
| Runoff Yield   | 64.67                                                      | Liters/Second/Square KM. |       |        | Momentary Peak Yield |        |        | 3150.000 | Liters/Second/Square KM. |       |       |       |         |        |

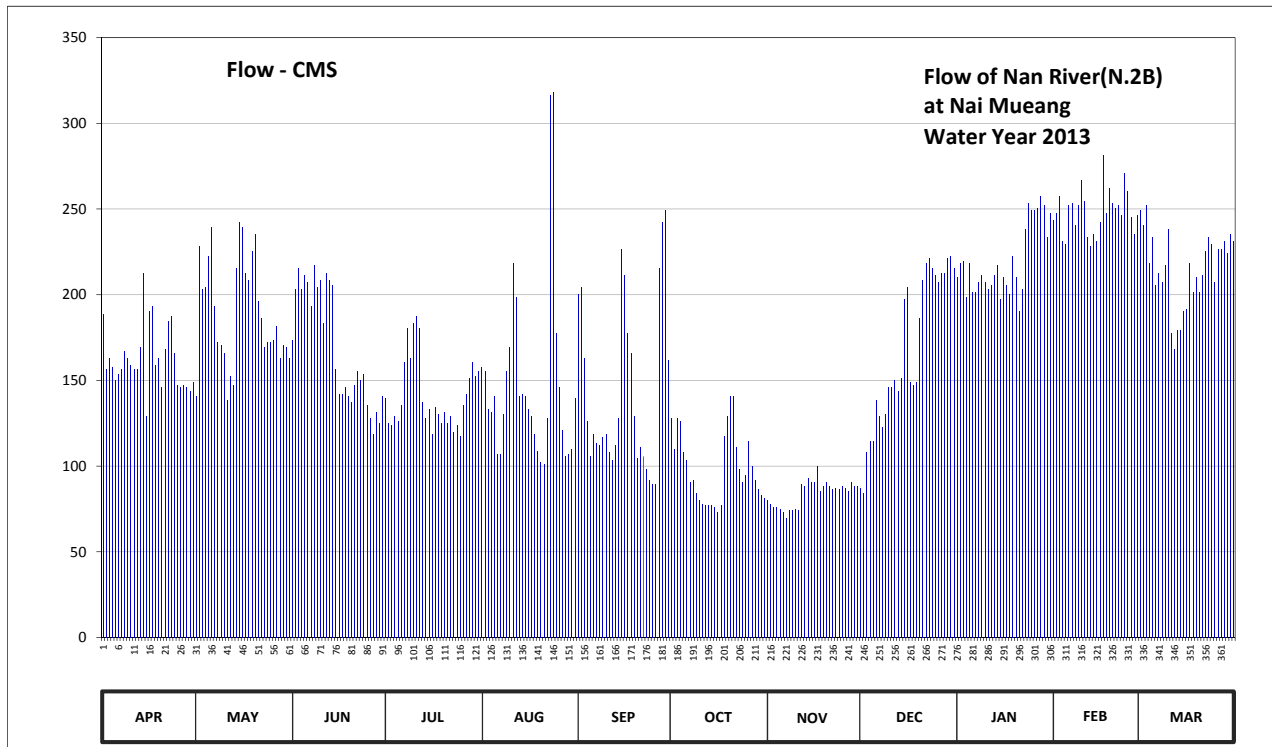




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr     | May                      | Jun                                                        | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|---------|--------------------------|------------------------------------------------------------|---------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 10.76   | 5.70                     | 15.00                                                      | 32.10   | 502.60               | 333.60  | 123.15  | 56.35   | 35.50                    | 24.75  | 14.25  | 8.90   |          |        |
| 2              | 12.75   | 5.70                     | 23.25                                                      | 31.25   | 477.10               | 261.30  | 124.27  | 54.45   | 34.65                    | 24.75  | 14.25  | 8.28   |          |        |
| 3              | 10.76   | 8.28                     | 44.00                                                      | 24.00   | 309.80               | 217.10  | 127.62  | 53.50   | 34.65                    | 24.75  | 13.50  | 8.28   |          |        |
| 4              | 9.52    | 17.25                    | 28.70                                                      | 23.25   | 244.40               | 180.40  | 126.50  | 51.60   | 34.65                    | 24.00  | 13.50  | 8.28   |          |        |
| 5              | 8.90    | 18.75                    | 34.65                                                      | 54.45   | 214.50               | 166.00  | 115.33  | 49.70   | 32.95                    | 24.00  | 12.75  | 7.66   |          |        |
| 6              | 8.28    | 24.75                    | 40.60                                                      | 46.85   | 191.20               | 305.60  | 113.10  | 47.80   | 30.40                    | 23.25  | 12.75  | 7.66   |          |        |
| 7              | 7.66    | 23.25                    | 32.10                                                      | 35.50   | 221.00               | 472.00  | 110.87  | 46.85   | 30.40                    | 23.25  | 12.75  | 7.66   |          |        |
| 8              | 7.66    | 22.50                    | 25.50                                                      | 30.40   | 379.40               | 311.20  | 95.23   | 46.85   | 29.55                    | 22.50  | 12.75  | 7.04   |          |        |
| 9              | 7.04    | 24.75                    | 26.25                                                      | 31.25   | 492.40               | 309.80  | 90.00   | 45.90   | 29.55                    | 22.50  | 12.00  | 7.04   |          |        |
| 10             | 6.42    | 43.15                    | 27.00                                                      | 44.95   | 800.27               | 274.30  | 85.00   | 45.90   | 28.70                    | 21.75  | 12.00  | 7.04   |          |        |
| 11             | 6.42    | 30.40                    | 79.00                                                      | 38.90   | 595.30               | 218.40  | 81.00   | 44.95   | 28.70                    | 21.00  | 11.38  | 6.42   |          |        |
| 12             | 6.42    | 21.75                    | 67.00                                                      | 72.00   | 413.25               | 198.40  | 79.00   | 43.15   | 29.55                    | 20.25  | 11.38  | 6.42   |          |        |
| 13             | 6.42    | 18.75                    | 34.65                                                      | 65.00   | 294.40               | 215.80  | 77.00   | 44.95   | 28.70                    | 18.75  | 11.38  | 5.80   |          |        |
| 14             | 7.04    | 19.50                    | 24.75                                                      | 104.17  | 276.90               | 199.60  | 75.00   | 56.35   | 27.85                    | 18.75  | 10.76  | 5.80   |          |        |
| 15             | 10.14   | 14.25                    | 19.50                                                      | 103.05  | 254.80               | 265.20  | 72.00   | 44.95   | 32.10                    | 18.00  | 10.76  | 5.80   |          |        |
| 16             | 12.00   | 12.00                    | 15.00                                                      | 130.97  | 243.10               | 305.60  | 70.00   | 47.80   | 90.00                    | 18.00  | 10.76  | 5.80   |          |        |
| 17             | 10.76   | 10.14                    | 12.75                                                      | 119.80  | 256.10               | 237.90  | 71.00   | 44.00   | 90.00                    | 17.25  | 11.38  | 5.80   |          |        |
| 18             | 8.28    | 9.52                     | 11.38                                                      | 99.70   | 211.90               | 211.90  | 80.00   | 42.30   | 49.70                    | 17.25  | 11.38  | 5.80   |          |        |
| 19             | 7.04    | 8.90                     | 12.00                                                      | 105.28  | 180.40               | 196.00  | 91.00   | 43.15   | 41.45                    | 17.25  | 10.76  | 5.77   |          |        |
| 20             | 7.04    | 9.52                     | 12.00                                                      | 90.00   | 210.60               | 187.60  | 82.00   | 45.90   | 38.05                    | 16.50  | 10.76  | 5.77   |          |        |
| 21             | 6.42    | 17.25                    | 37.20                                                      | 74.00   | 211.90               | 162.40  | 75.00   | 49.70   | 36.35                    | 16.50  | 10.14  | 5.77   |          |        |
| 22             | 6.42    | 15.75                    | 26.25                                                      | 72.00   | 336.40               | 147.72  | 70.00   | 44.00   | 33.80                    | 16.50  | 10.14  | 5.77   |          |        |
| 23             | 5.80    | 15.75                    | 21.75                                                      | 153.30  | 354.40               | 134.32  | 73.00   | 42.30   | 32.10                    | 16.50  | 10.14  | 5.77   |          |        |
| 24             | 6.42    | 14.25                    | 18.00                                                      | 170.80  | 325.20               | 126.50  | 72.00   | 40.60   | 31.25                    | 16.50  | 10.14  | 6.42   |          |        |
| 25             | 8.28    | 33.80                    | 19.50                                                      | 154.42  | 293.00               | 149.95  | 93.00   | 38.90   | 30.40                    | 16.50  | 9.52   | 7.66   |          |        |
| 26             | 7.66    | 27.85                    | 26.25                                                      | 202.00  | 247.00               | 153.30  | 83.00   | 37.20   | 29.55                    | 16.50  | 8.90   | 10.14  |          |        |
| 27             | 7.04    | 21.00                    | 27.00                                                      | 148.83  | 244.40               | 198.40  | 70.00   | 36.35   | 28.70                    | 15.75  | 8.90   | 10.76  |          |        |
| 28             | 6.42    | 15.75                    | 32.95                                                      | 151.07  | 224.90               | 199.60  | 65.00   | 36.35   | 28.70                    | 15.75  | 8.90   | 7.66   |          |        |
| 29             | 5.80    | 12.00                    | 33.80                                                      | 559.20  | 198.40               | 162.40  | 63.00   | 35.50   | 27.85                    | 15.75  |        | 7.66   |          |        |
| 30             | 5.73    | 10.76                    | 34.65                                                      | 1164.40 | 190.00               | 138.78  | 61.10   | 37.20   | 27.00                    | 15.75  |        | 7.66   |          |        |
| 31             |         | 12.75                    |                                                            | 650.00  | 301.40               |         | 59.20   |         | 25.50                    | 15.00  |        | 5.80   |          |        |
| Total          | 237.30  | 545.72                   | 862.43                                                     | 4782.89 | 9696.42              | 6641.07 | 2673.37 | 1354.50 | 1108.30                  | 595.50 | 317.98 | 218.09 | 29033.57 | CMSDAY |
| Mean           | 7.91    | 17.60                    | 28.75                                                      | 154.29  | 312.79               | 221.37  | 86.24   | 45.15   | 35.75                    | 19.21  | 11.36  | 7.04   | 79.54    | CMS    |
| Max            | 12.75   | 43.15                    | 79.00                                                      | 1164.40 | 800.27               | 472.00  | 127.62  | 56.35   | 90.00                    | 24.75  | 14.25  | 10.76  | 1164.40  | CMS    |
| Min            | 5.73    | 5.70                     | 11.38                                                      | 23.25   | 180.40               | 126.50  | 59.20   | 35.50   | 25.50                    | 15.00  | 8.90   | 5.77   | 5.70     | CMS    |
| Runoff         | 20.50   | 47.15                    | 74.51                                                      | 413.24  | 837.77               | 573.79  | 230.98  | 117.03  | 95.76                    | 51.45  | 27.47  | 18.84  | 2508.50  | MCM    |
| Momentary Peak | 1224.40 |                          | CMS. at 199.31 m. (MSL.) at 09.00 Hours , on Jul 30 , 2013 |         |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 17.44   | Liters/Second/Square KM. |                                                            |         | Momentary Peak Yield |         |         | 268.509 | Liters/Second/Square KM. |        |        |        |          |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 188.80                                                           | 140.80                   | 173.40  | 139.50               | 157.70  | 200.00  | 127.80                   | 80.15   | 87.50   | 209.80  | 243.40  | 249.00  |          |        |
| 2              | 156.40                                                           | 228.00                   | 202.80  | 125.20               | 155.10  | 204.20  | 110.10                   | 78.05   | 84.35   | 218.20  | 247.60  | 240.60  |          |        |
| 3              | 162.90                                                           | 202.80                   | 215.40  | 123.90               | 133.00  | 162.90  | 127.80                   | 76.10   | 107.90  | 219.60  | 257.50  | 251.80  |          |        |
| 4              | 157.70                                                           | 204.20                   | 202.80  | 129.10               | 131.70  | 126.50  | 126.50                   | 76.10   | 114.50  | 198.60  | 230.80  | 218.20  |          |        |
| 5              | 149.90                                                           | 222.40                   | 211.20  | 126.50               | 140.80  | 105.70  | 107.90                   | 75.20   | 114.50  | 218.20  | 229.40  | 233.60  |          |        |
| 6              | 153.80                                                           | 239.20                   | 207.00  | 135.60               | 106.80  | 118.90  | 103.50                   | 73.40   | 138.20  | 201.40  | 251.80  | 205.60  |          |        |
| 7              | 156.40                                                           | 193.00                   | 193.00  | 160.30               | 106.80  | 113.40  | 90.65                    | 69.80   | 129.10  | 201.40  | 253.20  | 212.60  |          |        |
| 8              | 166.80                                                           | 172.00                   | 216.80  | 180.40               | 130.40  | 112.30  | 91.70                    | 74.30   | 122.60  | 207.00  | 240.60  | 207.00  |          |        |
| 9              | 162.90                                                           | 170.70                   | 204.20  | 162.90               | 155.10  | 116.70  | 84.35                    | 74.30   | 130.40  | 211.20  | 251.80  | 216.80  |          |        |
| 10             | 159.00                                                           | 165.50                   | 208.40  | 183.20               | 169.40  | 118.90  | 80.15                    | 75.20   | 146.00  | 207.00  | 266.50  | 237.80  |          |        |
| 11             | 156.40                                                           | 138.20                   | 183.20  | 187.40               | 218.20  | 107.90  | 78.05                    | 74.30   | 146.00  | 202.80  | 254.60  | 177.60  |          |        |
| 12             | 156.40                                                           | 152.50                   | 212.60  | 180.40               | 198.60  | 103.50  | 77.00                    | 89.60   | 149.90  | 205.60  | 233.60  | 168.10  |          |        |
| 13             | 169.40                                                           | 147.30                   | 208.40  | 136.90               | 140.80  | 112.30  | 77.00                    | 88.55   | 143.40  | 211.20  | 228.00  | 179.00  |          |        |
| 14             | 212.60                                                           | 215.40                   | 205.60  | 127.80               | 142.10  | 127.80  | 77.00                    | 92.75   | 151.20  | 216.80  | 235.00  | 179.00  |          |        |
| 15             | 129.10                                                           | 242.00                   | 156.40  | 133.00               | 140.80  | 226.60  | 76.10                    | 90.65   | 197.20  | 197.20  | 230.80  | 190.20  |          |        |
| 16             | 190.20                                                           | 239.20                   | 142.10  | 118.90               | 133.00  | 211.20  | 73.40                    | 90.65   | 204.20  | 209.80  | 242.00  | 191.60  |          |        |
| 17             | 193.00                                                           | 212.60                   | 142.10  | 134.30               | 129.10  | 177.60  | 77.00                    | 100.20  | 148.60  | 205.60  | 281.50  | 218.20  |          |        |
| 18             | 159.00                                                           | 208.40                   | 146.00  | 130.40               | 118.90  | 165.50  | 117.80                   | 85.40   | 147.30  | 200.00  | 247.60  | 201.40  |          |        |
| 19             | 162.90                                                           | 225.20                   | 140.80  | 125.20               | 109.00  | 129.10  | 129.10                   | 88.55   | 148.60  | 222.40  | 262.00  | 209.80  |          |        |
| 20             | 146.00                                                           | 235.00                   | 136.90  | 131.70               | 102.40  | 104.60  | 140.80                   | 90.65   | 186.00  | 209.80  | 253.20  | 201.40  |          |        |
| 21             | 168.10                                                           | 195.80                   | 147.30  | 125.20               | 101.30  | 111.20  | 140.80                   | 88.55   | 208.40  | 190.20  | 250.40  | 211.20  |          |        |
| 22             | 184.60                                                           | 186.00                   | 155.10  | 129.10               | 127.80  | 105.70  | 111.20                   | 86.45   | 218.20  | 202.80  | 251.80  | 225.20  |          |        |
| 23             | 187.40                                                           | 169.40                   | 149.90  | 120.00               | 316.40  | 98.00   | 98.00                    | 87.50   | 221.00  | 237.80  | 246.20  | 233.60  |          |        |
| 24             | 165.50                                                           | 172.00                   | 153.80  | 123.90               | 318.00  | 91.70   | 90.65                    | 86.45   | 215.40  | 253.20  | 271.00  | 229.40  |          |        |
| 25             | 147.30                                                           | 172.00                   | 135.60  | 117.80               | 177.60  | 89.60   | 94.85                    | 88.55   | 211.20  | 249.00  | 260.50  | 207.00  |          |        |
| 26             | 146.00                                                           | 173.40                   | 127.80  | 135.60               | 146.00  | 89.60   | 114.50                   | 87.50   | 207.00  | 249.00  | 244.80  | 226.60  |          |        |
| 27             | 147.30                                                           | 181.80                   | 118.90  | 142.10               | 121.30  | 215.40  | 100.20                   | 85.40   | 212.60  | 250.40  | 235.00  | 226.60  |          |        |
| 28             | 146.00                                                           | 162.90                   | 131.70  | 151.20               | 105.70  | 242.00  | 91.70                    | 90.65   | 212.60  | 257.50  | 246.20  | 230.80  |          |        |
| 29             | 143.40                                                           | 170.70                   | 125.20  | 160.30               | 106.80  | 249.00  | 86.45                    | 88.55   | 221.00  | 251.80  |         | 223.80  |          |        |
| 30             | 148.60                                                           | 169.40                   | 140.80  | 152.50               | 110.10  | 161.60  | 83.30                    | 88.55   | 222.40  | 233.60  |         | 235.00  |          |        |
| 31             |                                                                  | 162.90                   |         | 155.10               | 139.50  |         | 81.20                    |         | 215.40  | 247.60  |         | 230.80  |          |        |
| Total          | 4873.80                                                          | 5870.70                  | 5095.20 | 4385.40              | 4590.20 | 4299.40 | 3066.55                  | 2522.05 | 5162.65 | 6796.50 | 6946.80 | 6669.30 | 60278.55 | CMSDAY |
| Mean           | 162.46                                                           | 189.38                   | 169.84  | 141.46               | 148.07  | 143.31  | 98.92                    | 84.07   | 166.54  | 219.24  | 248.10  | 215.14  | 165.15   | CMS    |
| Max            | 212.60                                                           | 242.00                   | 216.80  | 187.40               | 318.00  | 249.00  | 140.80                   | 100.20  | 222.40  | 257.50  | 281.50  | 251.80  | 318.00   | CMS    |
| Min            | 129.10                                                           | 138.20                   | 118.90  | 117.80               | 101.30  | 89.60   | 73.40                    | 69.80   | 84.35   | 190.20  | 228.00  | 168.10  | 69.80    | CMS    |
| Runoff         | 421.10                                                           | 507.23                   | 440.23  | 378.90               | 396.59  | 371.47  | 264.95                   | 217.91  | 446.05  | 587.22  | 600.20  | 576.23  | 5208.07  | MCM    |
| Momentary Peak | 367.30 CMS. at 54.49 m. (MSL.) at 21.00 Hours , on Aug 23 , 2013 |                          |         |                      |         |         |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 9.79                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 21.779  | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Mueang , Phitsanulok (N.5A)**

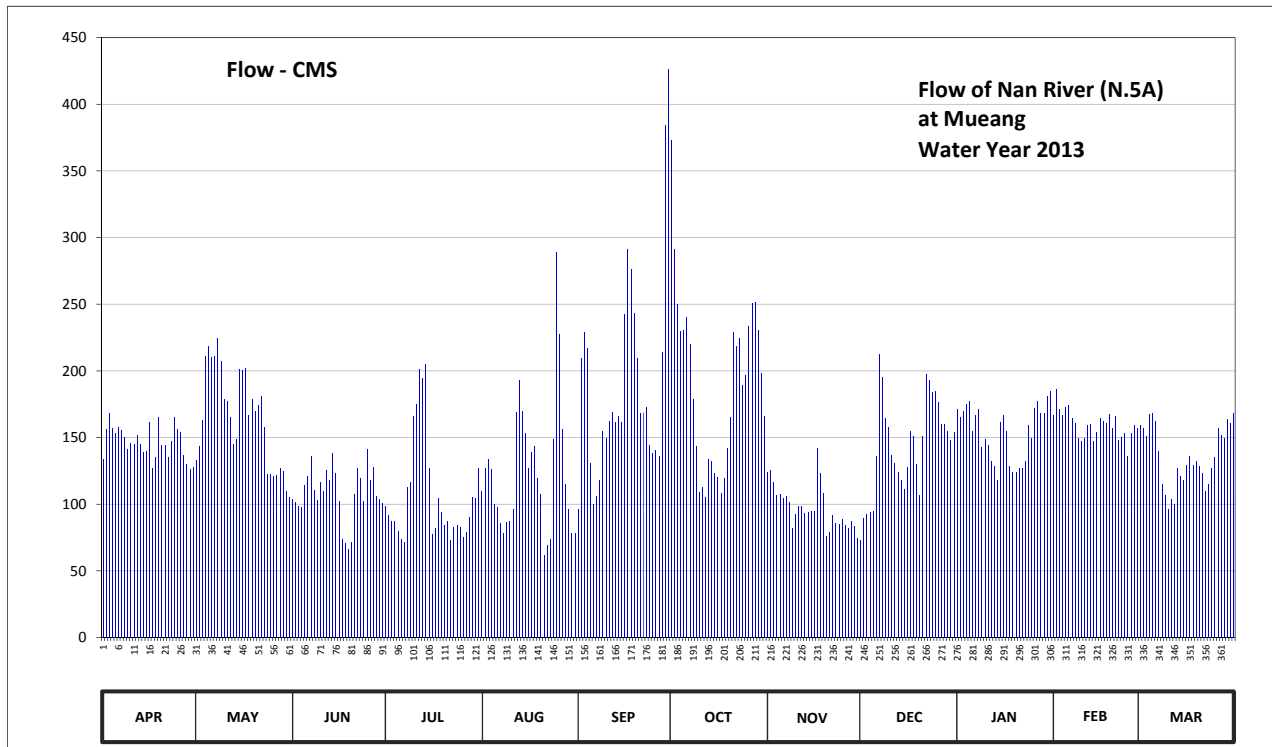
Lat 16 - 49 - 19 N Long 100 - 15 - 49 E

**Location : on right bank near the Post Office and about 1 kilometer upstream from gaging station N.5**

|                                         |                                                                             |                   |               |               |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-------------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | <b>Nai Mueang</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b>  | <b>Phitsanulok</b> |
| <b>Drainage Area</b>                    | 25,039                                                                      | sq.km.            |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                 |                   |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +34.500                                                                     | m. (MSL.)         |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                   |               |               |                  |                    |
| <b>Location BM</b>                      | Near the automatic gage building.                                           |                   |               |               | <b>Elevation</b> | +44.800 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.        |                   |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                               |                   |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 1963 to date                                                                |                   |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                   |               |               |                  |                    |
| <b>Period of Rating</b>                 | 1966 to date                                                                |                   |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                   |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 1966 to date                                                                |                   |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                   |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                   |               |               |                  |                    |
| <b>General Description</b>              | Records very good. Flow effected by Naresuan Dam.                           |                   |               |               |                  |                    |
|                                         | Stage-discharge relation defined by 36 discharge measurements made in 2013. |                   |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep                               | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 36.04 | 36.03 | 35.61       | 35.54 | 35.70 | 35.50                             | 38.80 | 35.90             | 35.15 | 36.50 | 36.45 | 36.35 |        |
| 2                                | 36.32 | 36.16 | 35.58       | 35.44 | 35.94 | 36.97                             | 37.90 | 35.92             | 35.41 | 36.43 | 36.69 | 36.33 |        |
| 3                                | 36.47 | 36.40 | 35.54       | 35.37 | 36.04 | 37.20                             | 37.44 | 35.79             | 35.45 | 36.49 | 36.50 | 36.25 |        |
| 4                                | 36.33 | 36.99 | 35.53       | 35.38 | 35.93 | 37.06                             | 37.21 | 35.66             | 35.47 | 36.55 | 36.45 | 36.46 |        |
| 5                                | 36.28 | 37.07 | 35.76       | 35.26 | 35.56 | 36.00                             | 37.22 | 35.67             | 35.48 | 36.58 | 36.52 | 36.47 |        |
| 6                                | 36.34 | 36.98 | 35.86       | 35.17 | 35.53 | 35.56                             | 37.33 | 35.62             | 36.06 | 36.30 | 36.54 | 36.39 |        |
| 7                                | 36.31 | 36.99 | 36.06       | 35.13 | 35.35 | 35.65                             | 37.09 | 35.65             | 37.00 | 36.45 | 36.42 | 36.11 |        |
| 8                                | 36.24 | 37.15 | 35.71       | 35.74 | 35.24 | 35.81                             | 36.59 | 35.58             | 36.80 | 36.50 | 36.37 | 35.77 |        |
| 9                                | 36.13 | 36.94 | 35.60       | 35.79 | 35.36 | 36.30                             | 36.16 | 35.30             | 36.42 | 36.15 | 36.23 | 35.66 |        |
| 10                               | 36.19 | 36.59 | 35.79       | 36.44 | 35.37 | 36.23                             | 35.69 | 35.45             | 36.34 | 36.22 | 36.20 | 35.50 |        |
| 11                               | 36.18 | 36.58 | 35.70       | 36.55 | 35.51 | 36.39                             | 35.74 | 35.54             | 36.07 | 36.17 | 36.23 | 35.61 |        |
| 12                               | 36.26 | 36.43 | 35.92       | 36.87 | 36.48 | 36.48                             | 35.63 | 35.54             | 36.00 | 36.02 | 36.35 | 35.56 |        |
| 13                               | 36.18 | 36.18 | 35.82       | 36.79 | 36.77 | 36.38                             | 36.04 | 35.46             | 35.90 | 35.97 | 36.36 | 35.94 |        |
| 14                               | 36.10 | 36.22 | 36.09       | 36.92 | 36.49 | 36.44                             | 36.02 | 35.47             | 35.81 | 35.81 | 36.20 | 35.86 |        |
| 15                               | 36.11 | 36.87 | 35.89       | 35.94 | 36.28 | 36.38                             | 35.89 | 35.48             | 35.72 | 36.38 | 36.29 | 35.82 |        |
| 16                               | 36.38 | 36.86 | 35.59       | 35.22 | 35.94 | 37.36                             | 35.85 | 35.48             | 35.96 | 36.45 | 36.42 | 35.98 |        |
| 17                               | 35.95 | 36.88 | 35.16       | 35.30 | 36.10 | 37.90                             | 35.68 | 36.14             | 36.30 | 36.30 | 36.39 | 36.06 |        |
| 18                               | 36.05 | 36.45 | 35.11       | 35.62 | 36.16 | 37.73                             | 35.84 | 35.89             | 36.25 | 35.97 | 36.37 | 35.98 |        |
| 19                               | 36.43 | 36.59 | 35.04       | 35.47 | 35.84 | 37.37                             | 36.14 | 35.68             | 35.99 | 35.90 | 36.46 | 36.02 |        |
| 20                               | 36.17 | 36.49 | 35.13       | 35.33 | 35.67 | 36.97                             | 36.43 | 35.20             | 35.66 | 35.90 | 36.33 | 35.97 |        |
| 21                               | 36.17 | 36.54 | 35.67       | 35.37 | 34.97 | 36.47                             | 37.20 | 35.25             | 36.25 | 35.94 | 36.44 | 35.89 |        |
| 22                               | 36.05 | 36.62 | 35.94       | 35.15 | 35.09 | 36.47                             | 37.07 | 35.44             | 36.83 | 35.94 | 36.21 | 35.70 |        |
| 23                               | 36.20 | 36.34 | 35.84       | 35.31 | 35.16 | 36.52                             | 37.15 | 35.35             | 36.77 | 36.02 | 36.24 | 35.77 |        |
| 24                               | 36.43 | 35.88 | 35.59       | 35.33 | 36.22 | 36.17                             | 36.73 | 35.34             | 36.66 | 36.35 | 36.28 | 35.94 |        |
| 25                               | 36.32 | 35.88 | 36.13       | 35.31 | 37.88 | 36.09                             | 36.82 | 35.40             | 36.67 | 36.23 | 36.06 | 36.05 |        |
| 26                               | 36.29 | 35.86 | 35.81       | 35.19 | 37.18 | 36.12                             | 37.25 | 35.33             | 36.57 | 36.51 | 36.28 | 36.33 |        |
| 27                               | 36.07 | 35.87 | 35.96       | 35.25 | 36.32 | 36.06                             | 37.45 | 35.30             | 36.36 | 36.58 | 36.35 | 36.26 |        |
| 28                               | 35.99 | 35.95 | 35.64       | 35.42 | 35.77 | 37.02                             | 37.46 | 35.38             | 36.36 | 36.47 | 36.33 | 36.23 |        |
| 29                               | 35.93 | 35.91 | 35.61       | 35.63 | 35.50 | 38.92                             | 37.22 | 35.32             | 36.30 | 36.47 |       | 36.41 |        |
| 30                               | 35.96 | 35.70 | 35.57       | 35.62 | 35.23 | 39.34                             | 36.84 | 35.18             | 36.21 | 36.62 |       | 36.37 |        |
| 31                               |       | 35.63 |             | 35.95 | 35.23 |                                   | 36.44 |                   | 36.29 | 36.67 |       | 36.47 |        |
| Mean                             | 36.20 | 36.42 | 35.67       | 35.64 | 35.86 | 36.70                             | 36.72 | 35.52             | 36.15 | 36.29 | 36.36 | 36.05 |        |
| Max                              | 36.47 | 37.15 | 36.13       | 36.92 | 37.88 | 39.34                             | 38.80 | 36.14             | 37.00 | 36.67 | 36.69 | 36.47 | 39.34  |
| Min                              | 35.93 | 35.63 | 35.04       | 35.13 | 34.97 | 35.50                             | 35.63 | 35.18             | 35.15 | 35.81 | 36.06 | 35.50 | 34.97  |
| Annual Max Momentary Gage Height | 39.44 |       | m. (MSL.) , |       |       | at 06.00 Hours , on Sep 30 , 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 34.50 |       | m. (MSL.) , |       |       | River Bed                         | 32.99 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 44.29 |       | m. (MSL.) , |       |       |                                   |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 45.02 |       | m. (MSL.) , |       |       | Drainage Area                     | 25039 | Square Kilometers |       |       |       |       |        |

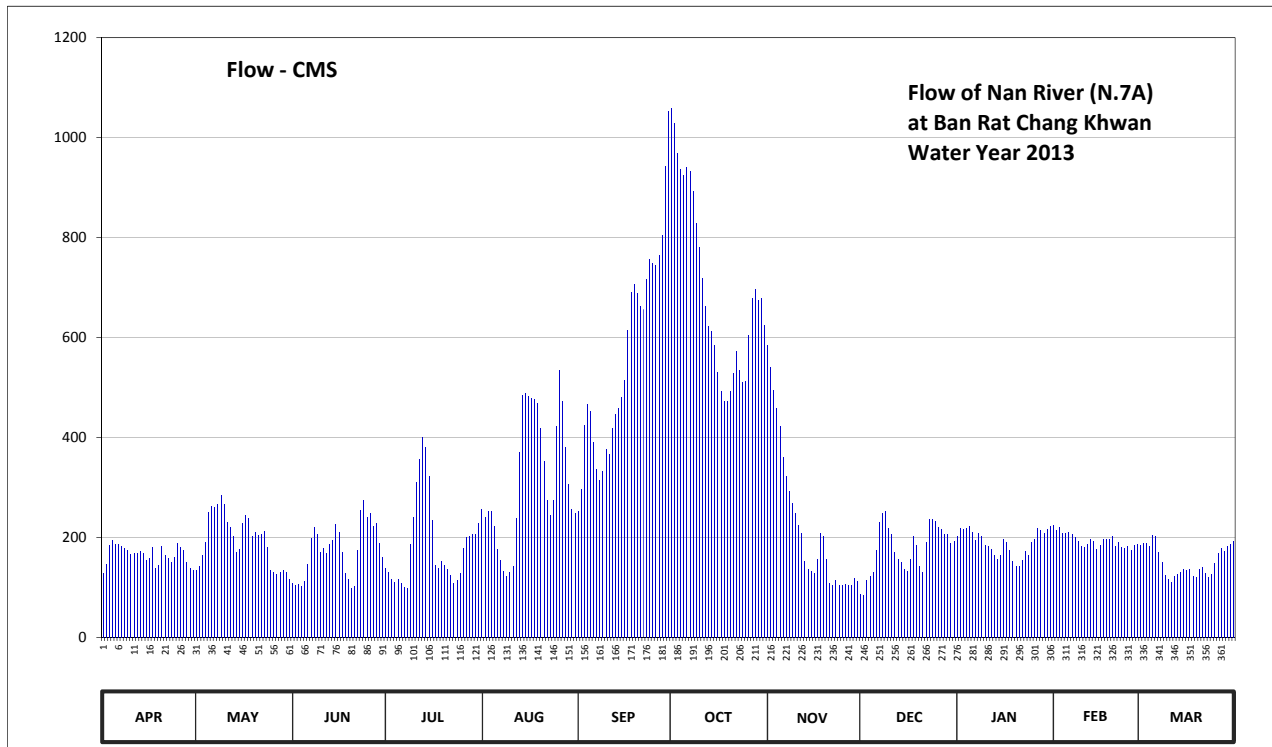


Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 134.20                                                           | 133.40                   | 103.70  | 98.80   | 110.00               | 96.00   | 373.00  | 124.00  | 73.00                    | 171.00  | 167.00  | 159.00  |          |        |
| 2              | 156.60                                                           | 143.80                   | 101.60  | 91.80   | 126.80               | 209.45  | 291.00  | 125.40  | 89.70                    | 165.40  | 186.20  | 157.40  |          |        |
| 3              | 168.60                                                           | 163.00                   | 98.80   | 87.05   | 134.20               | 229.00  | 249.60  | 116.30  | 92.50                    | 170.20  | 171.00  | 151.00  |          |        |
| 4              | 157.40                                                           | 211.15                   | 98.10   | 87.70   | 126.10               | 217.10  | 229.85  | 107.20  | 93.90                    | 175.00  | 167.00  | 167.80  |          |        |
| 5              | 153.40                                                           | 217.95                   | 114.20  | 79.90   | 100.20               | 131.00  | 230.70  | 107.90  | 94.60                    | 177.40  | 172.60  | 168.60  |          |        |
| 6              | 158.20                                                           | 210.30                   | 121.20  | 74.20   | 98.10                | 100.20  | 240.05  | 104.40  | 135.80                   | 155.00  | 174.20  | 162.20  |          |        |
| 7              | 155.80                                                           | 211.15                   | 135.80  | 71.80   | 85.75                | 106.50  | 219.65  | 106.50  | 212.00                   | 167.00  | 164.60  | 139.80  |          |        |
| 8              | 150.20                                                           | 224.75                   | 110.70  | 112.80  | 78.60                | 117.70  | 178.20  | 101.60  | 195.00                   | 171.00  | 160.60  | 114.90  |          |        |
| 9              | 141.40                                                           | 206.90                   | 103.00  | 116.30  | 86.40                | 155.00  | 143.80  | 82.50   | 164.60                   | 143.00  | 149.40  | 107.20  |          |        |
| 10             | 146.20                                                           | 178.20                   | 116.30  | 166.20  | 87.05                | 149.40  | 109.30  | 92.50   | 158.20                   | 148.60  | 147.00  | 96.00   |          |        |
| 11             | 145.40                                                           | 177.40                   | 110.00  | 175.00  | 96.70                | 162.20  | 112.80  | 98.80   | 136.60                   | 144.60  | 149.40  | 103.70  |          |        |
| 12             | 151.80                                                           | 165.40                   | 125.40  | 200.95  | 169.40               | 169.40  | 105.10  | 98.80   | 131.00                   | 132.60  | 159.00  | 100.20  |          |        |
| 13             | 145.40                                                           | 145.40                   | 118.40  | 194.20  | 192.60               | 161.40  | 134.20  | 93.20   | 124.00                   | 128.90  | 159.80  | 126.80  |          |        |
| 14             | 139.00                                                           | 148.60                   | 138.20  | 205.20  | 170.20               | 166.20  | 132.60  | 93.90   | 117.70                   | 117.70  | 147.00  | 121.20  |          |        |
| 15             | 139.80                                                           | 200.95                   | 123.30  | 126.80  | 153.40               | 161.40  | 123.30  | 94.60   | 111.40                   | 161.40  | 154.20  | 118.40  |          |        |
| 16             | 161.40                                                           | 200.10                   | 102.30  | 77.30   | 126.80               | 242.60  | 120.50  | 94.60   | 128.20                   | 167.00  | 164.60  | 129.60  |          |        |
| 17             | 127.50                                                           | 201.80                   | 73.60   | 82.50   | 139.00               | 291.00  | 108.60  | 142.20  | 155.00                   | 155.00  | 162.20  | 135.80  |          |        |
| 18             | 135.00                                                           | 167.00                   | 70.60   | 104.40  | 143.80               | 275.70  | 119.80  | 123.30  | 151.00                   | 128.90  | 160.60  | 129.60  |          |        |
| 19             | 165.40                                                           | 178.20                   | 66.40   | 93.90   | 119.80               | 243.45  | 142.20  | 108.60  | 130.30                   | 124.00  | 167.80  | 132.60  |          |        |
| 20             | 144.60                                                           | 170.20                   | 71.80   | 84.45   | 107.90               | 209.45  | 165.40  | 76.00   | 107.20                   | 124.00  | 157.40  | 128.90  |          |        |
| 21             | 144.60                                                           | 174.20                   | 107.90  | 87.05   | 62.20                | 168.60  | 229.00  | 79.25   | 151.00                   | 126.80  | 166.20  | 123.30  |          |        |
| 22             | 135.00                                                           | 180.60                   | 126.80  | 73.00   | 69.40                | 168.60  | 217.95  | 91.80   | 197.55                   | 126.80  | 147.80  | 110.00  |          |        |
| 23             | 147.00                                                           | 158.20                   | 119.80  | 83.15   | 73.60                | 172.60  | 224.75  | 85.75   | 192.60                   | 132.60  | 150.20  | 114.90  |          |        |
| 24             | 165.40                                                           | 122.60                   | 102.30  | 84.45   | 148.60               | 144.60  | 189.40  | 85.10   | 183.80                   | 159.00  | 153.40  | 126.80  |          |        |
| 25             | 156.60                                                           | 122.60                   | 141.40  | 83.15   | 289.20               | 138.20  | 196.70  | 89.00   | 184.60                   | 149.40  | 135.80  | 135.00  |          |        |
| 26             | 154.20                                                           | 121.20                   | 117.70  | 75.40   | 227.30               | 140.60  | 233.25  | 84.45   | 176.60                   | 171.80  | 153.40  | 157.40  |          |        |
| 27             | 136.60                                                           | 121.90                   | 128.20  | 79.25   | 156.60               | 135.80  | 250.50  | 82.50   | 159.80                   | 177.40  | 159.00  | 151.80  |          |        |
| 28             | 130.30                                                           | 127.50                   | 105.80  | 90.40   | 114.90               | 213.70  | 251.40  | 87.70   | 159.80                   | 168.60  | 157.40  | 149.40  |          |        |
| 29             | 126.10                                                           | 124.70                   | 103.70  | 105.10  | 96.00                | 384.40  | 230.70  | 83.80   | 155.00                   | 168.60  |         | 163.80  |          |        |
| 30             | 128.20                                                           | 110.00                   | 100.90  | 104.40  | 77.95                | 426.00  | 198.40  | 74.80   | 147.80                   | 180.60  |         | 160.60  |          |        |
| 31             |                                                                  | 105.10                   |         | 127.50  | 77.95                |         | 166.20  |         | 154.20                   | 184.60  |         | 168.60  |          |        |
| Total          | 4401.30                                                          | 5124.25                  | 3257.90 | 3324.10 | 3846.50              | 5687.25 | 5917.90 | 2936.45 | 4464.45                  | 4773.90 | 4464.80 | 4212.30 | 52411.10 | CMSDAY |
| Mean           | 146.71                                                           | 165.30                   | 108.60  | 107.23  | 124.08               | 189.58  | 190.90  | 97.88   | 144.01                   | 154.00  | 159.46  | 135.88  | 143.59   | CMS    |
| Max            | 168.60                                                           | 224.75                   | 141.40  | 205.20  | 289.20               | 426.00  | 373.00  | 142.20  | 212.00                   | 184.60  | 186.20  | 168.60  | 426.00   | CMS    |
| Min            | 126.10                                                           | 105.10                   | 66.40   | 71.80   | 62.20                | 96.00   | 105.10  | 74.80   | 73.00                    | 117.70  | 135.80  | 96.00   | 62.20    | CMS    |
| Runoff         | 380.27                                                           | 442.74                   | 281.48  | 287.20  | 332.34               | 491.38  | 511.31  | 253.71  | 385.73                   | 412.47  | 385.76  | 363.94  | 4528.32  | MCM    |
| Momentary Peak | 436.00 CMS. at 39.44 m. (MSL.) at 06.00 Hours , on Sep 30 , 2013 |                          |         |         |                      |         |         |         |                          |         |         |         |          |        |
| Runoff Yield   | 5.73                                                             | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | 17.413  | Liters/Second/Square KM. |         |         |         |          |        |







**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep      | Oct      | Nov                      | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|----------|--------------------------|---------|---------|---------|---------|----------|--------|
| 1              | 129.50                                                           | 134.90                   | 108.80  | 139.40               | 257.10  | 253.60   | 1058.90  | 583.70                   | 87.80   | 203.90  | 224.80  | 184.10  |          |        |
| 2              | 147.00                                                           | 142.10                   | 104.60  | 130.40               | 241.30  | 297.40   | 1029.50  | 540.50                   | 85.40   | 219.30  | 214.90  | 189.60  |          |        |
| 3              | 184.10                                                           | 164.00                   | 106.20  | 117.80               | 252.50  | 424.90   | 969.10   | 493.20                   | 115.10  | 216.00  | 220.40  | 189.60  |          |        |
| 4              | 195.10                                                           | 191.80                   | 103.80  | 110.60               | 253.60  | 466.50   | 937.00   | 458.70                   | 122.30  | 218.20  | 208.30  | 182.00  |          |        |
| 5              | 187.40                                                           | 251.30                   | 112.40  | 117.80               | 222.60  | 452.20   | 923.50   | 423.60                   | 130.40  | 223.70  | 208.30  | 205.00  |          |        |
| 6              | 186.30                                                           | 262.80                   | 147.00  | 109.70               | 178.00  | 391.10   | 940.00   | 361.50                   | 175.00  | 211.60  | 210.50  | 202.80  |          |        |
| 7              | 183.00                                                           | 261.70                   | 198.40  | 100.60               | 155.00  | 337.70   | 932.50   | 324.00                   | 231.40  | 195.10  | 206.10  | 171.00  |          |        |
| 8              | 180.00                                                           | 266.30                   | 220.40  | 99.80                | 132.20  | 315.40   | 892.00   | 293.80                   | 249.00  | 208.30  | 201.70  | 150.00  |          |        |
| 9              | 174.00                                                           | 285.80                   | 207.20  | 187.40               | 123.20  | 332.80   | 829.00   | 269.70                   | 252.50  | 203.90  | 194.00  | 125.00  |          |        |
| 10             | 167.00                                                           | 266.30                   | 171.00  | 241.30               | 130.40  | 376.80   | 781.00   | 247.90                   | 219.30  | 185.20  | 182.00  | 116.90  |          |        |
| 11             | 170.00                                                           | 230.30                   | 179.00  | 311.80               | 142.10  | 367.80   | 718.00   | 225.90                   | 206.10  | 183.00  | 181.00  | 110.60  |          |        |
| 12             | 169.00                                                           | 221.50                   | 170.00  | 356.50               | 238.00  | 418.40   | 663.40   | 209.40                   | 172.00  | 176.00  | 187.40  | 123.20  |          |        |
| 13             | 173.00                                                           | 202.80                   | 186.30  | 400.20               | 371.60  | 447.00   | 621.50   | 152.00                   | 157.00  | 165.00  | 196.20  | 125.90  |          |        |
| 14             | 169.00                                                           | 171.00                   | 195.10  | 382.00               | 483.80  | 460.00   | 612.00   | 137.60                   | 150.00  | 157.00  | 192.90  | 131.30  |          |        |
| 15             | 155.00                                                           | 177.00                   | 227.00  | 322.80               | 487.80  | 481.10   | 583.70   | 133.10                   | 137.60  | 165.00  | 178.00  | 137.60  |          |        |
| 16             | 159.00                                                           | 228.10                   | 210.50  | 235.80               | 482.40  | 514.80   | 531.10   | 129.50                   | 132.20  | 196.20  | 184.10  | 134.00  |          |        |
| 17             | 181.00                                                           | 244.60                   | 172.00  | 146.00               | 478.40  | 614.70   | 491.90   | 157.00                   | 156.00  | 191.80  | 196.20  | 137.60  |          |        |
| 18             | 139.40                                                           | 238.00                   | 129.50  | 139.40               | 475.70  | 690.00   | 471.70   | 208.30                   | 202.80  | 174.00  | 196.20  | 122.30  |          |        |
| 19             | 146.00                                                           | 203.90                   | 117.80  | 154.00               | 467.80  | 706.80   | 471.70   | 203.90                   | 185.20  | 152.00  | 196.20  | 121.40  |          |        |
| 20             | 182.00                                                           | 210.50                   | 99.80   | 146.00               | 419.70  | 687.20   | 491.90   | 157.00                   | 142.10  | 143.00  | 203.90  | 136.70  |          |        |
| 21             | 165.00                                                           | 205.00                   | 103.00  | 137.60               | 352.80  | 662.00   | 528.30   | 109.70                   | 131.30  | 142.10  | 182.00  | 141.20  |          |        |
| 22             | 159.00                                                           | 206.10                   | 175.00  | 125.00               | 274.30  | 656.60   | 571.50   | 105.40                   | 191.80  | 155.00  | 190.70  | 129.50  |          |        |
| 23             | 150.00                                                           | 212.70                   | 254.80  | 109.70               | 244.60  | 716.60   | 535.10   | 115.10                   | 236.90  | 173.00  | 181.00  | 120.50  |          |        |
| 24             | 161.00                                                           | 181.00                   | 274.30  | 115.10               | 274.30  | 755.80   | 509.50   | 105.40                   | 236.90  | 165.00  | 179.00  | 127.70  |          |        |
| 25             | 189.60                                                           | 134.90                   | 240.20  | 128.60               | 422.30  | 748.80   | 512.10   | 105.40                   | 232.50  | 191.80  | 182.00  | 148.00  |          |        |
| 26             | 181.00                                                           | 130.40                   | 249.00  | 180.00               | 533.70  | 743.20   | 603.90   | 107.90                   | 220.40  | 196.20  | 174.00  | 169.00  |          |        |
| 27             | 174.00                                                           | 125.90                   | 223.70  | 201.70               | 471.70  | 764.20   | 678.80   | 105.40                   | 217.10  | 218.20  | 184.10  | 179.00  |          |        |
| 28             | 151.00                                                           | 130.40                   | 229.20  | 202.80               | 380.70  | 805.00   | 695.60   | 105.40                   | 206.10  | 214.90  | 187.40  | 173.00  |          |        |
| 29             | 139.40                                                           | 134.00                   | 189.60  | 206.10               | 307.00  | 943.00   | 674.60   | 118.70                   | 207.20  | 208.30  |         | 183.00  |          |        |
| 30             | 134.90                                                           | 130.40                   | 162.00  | 206.10               | 255.90  | 1052.80  | 677.40   | 112.40                   | 189.60  | 216.00  |         | 187.40  |          |        |
| 31             |                                                                  | 117.80                   |         | 228.10               | 247.90  |          | 624.20   |                          | 192.90  | 222.60  |         | 194.00  |          |        |
| Total          | 4981.70                                                          | 6063.30                  | 5267.60 | 5790.10              | 9758.40 | 16884.20 | 21560.40 | 6801.10                  | 5571.90 | 5891.30 | 5443.30 | 4748.90 | 98762.20 | CMSDAY |
| Mean           | 166.10                                                           | 195.60                   | 175.60  | 186.80               | 314.80  | 562.80   | 695.50   | 226.70                   | 179.70  | 190.00  | 194.40  | 153.20  | 270.60   | CMS    |
| Max            | 195.10                                                           | 285.80                   | 274.30  | 400.20               | 533.70  | 1052.80  | 1058.90  | 583.70                   | 252.50  | 223.70  | 224.80  | 205.00  | 1058.90  | CMS    |
| Min            | 129.50                                                           | 117.80                   | 99.80   | 99.80                | 123.20  | 253.60   | 471.70   | 105.40                   | 85.40   | 142.10  | 174.00  | 110.60  | 85.40    | CMS    |
| Runoff         | 430.42                                                           | 523.87                   | 455.12  | 500.26               | 843.13  | 1458.79  | 1862.82  | 587.62                   | 481.41  | 509.01  | 470.30  | 410.30  | 8533.05  | MCM    |
| Momentary Peak | 1062.05 CMS. at 34.71 m. (MSL.) at 06.00 Hours , on Oct 1 , 2013 |                          |         |                      |         |          |          |                          |         |         |         |         |          |        |
| Runoff Yield   | 9.70                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         |          | 38.070   | Liters/Second/Square KM. |         |         |         |         |          |        |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Ban Hor Krai , Phichit (N.8A)**

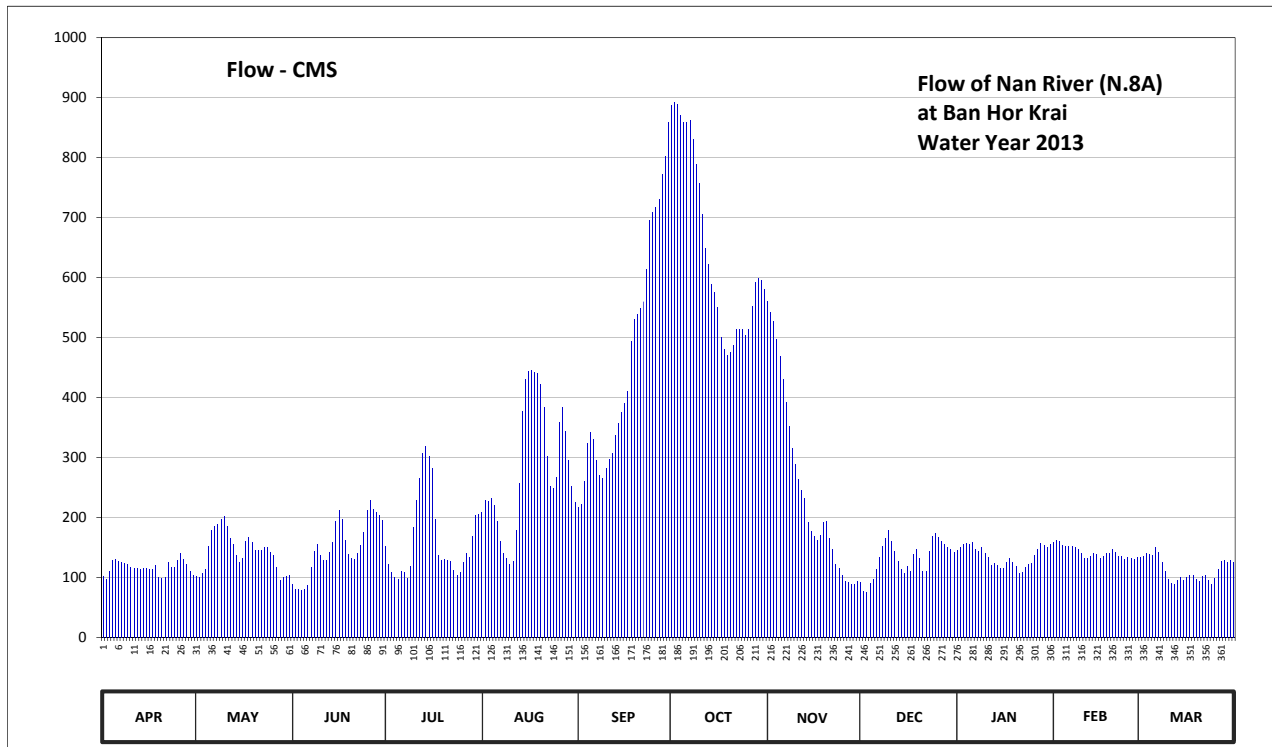
Lat 16 - 04 - 45 N Long 100 - 24 - 00 E

**Location : on right bank opposite to Wat Bang Mun Nak.**

|                                         |                                                                             |                 |                  |                     |                 |                |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------------|------------------|---------------------|-----------------|----------------|
|                                         | <b>Ban</b>                                                                  | <b>Hor Krai</b> | <b>Amphoe</b>    | <b>Bang Mun Nak</b> | <b>Changwat</b> | <b>Phichit</b> |
| <b>Drainage Area</b>                    | 31,472                                                                      | sq.km.          |                  |                     |                 |                |
| <b>Type of Gage</b>                     | Staff gage                                                                  |                 |                  |                     |                 |                |
| <b>Zero Gage at Bottom</b>              | +20.000                                                                     | m. (MSL.)       |                  |                     |                 |                |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                 |                  |                     |                 |                |
| <b>Location BM</b>                      | On right bank about 89 meters upstream from the top staff gage.             |                 | <b>Elevation</b> | +30.978 m. (MSL.)   |                 |                |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.        |                 |                  |                     |                 |                |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                               |                 |                  |                     |                 |                |
| <b>Period of Available Gage Records</b> | 2000 to date                                                                |                 |                  |                     |                 |                |
| <b>Rating Operation</b>                 |                                                                             |                 |                  |                     |                 |                |
| <b>Period of Rating</b>                 | 2000 to date                                                                |                 |                  |                     |                 |                |
| <b>Rated by Flot</b>                    | -                                                                           |                 |                  |                     |                 |                |
| <b>Rated by Current Meter</b>           | 2000 to date                                                                |                 |                  |                     |                 |                |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |                 |                  |                     |                 |                |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                 |                  |                     |                 |                |
| <b>General Description</b>              | Records very good. Flow effected by Naresuan Dam.                           |                 |                  |                     |                 |                |
|                                         | Stage-discharge relation defined by 33 discharge measurements made in 2013. |                 |                  |                     |                 |                |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May         | Jun   | Jul   | Aug   | Sep           | Oct                              | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------------|-------|-------|-------|---------------|----------------------------------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 21.93 | 21.93       | 21.73 | 22.71 | 23.49 | 23.60         | 30.17                            | 27.68             | 21.76 | 22.62 | 22.81 | 22.45 |        |
| 2                                | 21.85 | 21.90       | 21.58 | 22.26 | 23.75 | 23.67         | 30.19                            | 27.48             | 21.52 | 22.70 | 22.86 | 22.48 |        |
| 3                                | 22.07 | 22.03       | 21.59 | 22.06 | 23.73 | 24.19         | 30.18                            | 27.33             | 21.51 | 22.76 | 22.84 | 22.55 |        |
| 4                                | 22.36 | 22.12       | 21.54 | 21.91 | 23.81 | 24.95         | 30.09                            | 26.99             | 21.75 | 22.79 | 22.75 | 22.52 |        |
| 5                                | 22.40 | 22.71       | 21.57 | 21.87 | 23.65 | 25.18         | 30.03                            | 26.66             | 21.85 | 22.77 | 22.71 | 22.51 |        |
| 6                                | 22.35 | 23.10       | 21.70 | 22.08 | 23.30 | 25.03         | 30.03                            | 26.21             | 22.13 | 22.81 | 22.72 | 22.70 |        |
| 7                                | 22.31 | 23.18       | 22.19 | 22.06 | 22.85 | 24.62         | 30.05                            | 25.76             | 22.46 | 22.66 | 22.73 | 22.57 |        |
| 8                                | 22.30 | 23.23       | 22.59 | 21.88 | 22.55 | 24.32         | 29.88                            | 25.28             | 22.71 | 22.60 | 22.69 | 22.33 |        |
| 9                                | 22.27 | 23.35       | 22.76 | 22.22 | 22.42 | 24.24         | 29.62                            | 24.86             | 22.91 | 22.69 | 22.65 | 22.09 |        |
| 10                               | 22.18 | 23.40       | 22.51 | 23.17 | 22.28 | 24.45         | 29.41                            | 24.54             | 23.10 | 22.56 | 22.54 | 21.85 |        |
| 11                               | 22.17 | 23.18       | 22.37 | 23.77 | 22.34 | 24.64         | 29.03                            | 24.23             | 22.83 | 22.44 | 22.41 | 21.75 |        |
| 12                               | 22.17 | 22.91       | 22.38 | 24.24 | 23.10 | 24.76         | 28.54                            | 23.99             | 22.61 | 22.24 | 22.43 | 21.71 |        |
| 13                               | 22.13 | 22.78       | 22.58 | 24.75 | 24.15 | 25.11         | 28.29                            | 23.80             | 22.35 | 22.30 | 22.47 | 21.82 |        |
| 14                               | 22.17 | 22.49       | 22.82 | 24.90 | 25.59 | 25.34         | 27.96                            | 23.28             | 22.12 | 22.25 | 22.55 | 21.92 |        |
| 15                               | 22.17 | 22.32       | 23.29 | 24.70 | 26.21 | 25.56         | 27.83                            | 23.08             | 22.01 | 22.17 | 22.52 | 21.84 |        |
| 16                               | 22.13 | 22.42       | 23.54 | 24.45 | 26.36 | 25.74         | 27.58                            | 22.97             | 22.21 | 22.16 | 22.43 | 21.92 |        |
| 17                               | 22.15 | 22.83       | 23.35 | 23.34 | 26.38 | 25.97         | 27.03                            | 22.86             | 22.09 | 22.31 | 22.47 | 21.98 |        |
| 18                               | 22.25 | 22.94       | 22.87 | 22.51 | 26.34 | 26.95         | 26.79                            | 22.99             | 22.52 | 22.41 | 22.56 | 21.98 |        |
| 19                               | 21.92 | 22.82       | 22.53 | 22.36 | 26.33 | 27.36         | 26.68                            | 23.27             | 22.66 | 22.33 | 22.55 | 21.85 |        |
| 20                               | 21.89 | 22.63       | 22.41 | 22.40 | 26.11 | 27.46         | 26.73                            | 23.29             | 22.43 | 22.21 | 22.65 | 21.79 |        |
| 21                               | 21.92 | 22.63       | 22.39 | 22.38 | 25.66 | 27.56         | 26.87                            | 22.90             | 22.09 | 22.03 | 22.57 | 21.94 |        |
| 22                               | 22.32 | 22.62       | 22.55 | 22.35 | 24.69 | 27.68         | 27.18                            | 22.66             | 22.09 | 22.05 | 22.47 | 21.98 |        |
| 23                               | 22.20 | 22.69       | 22.75 | 22.11 | 24.07 | 28.22         | 27.18                            | 22.28             | 22.60 | 22.18 | 22.48 | 21.84 |        |
| 24                               | 22.20 | 22.69       | 23.05 | 21.97 | 24.02 | 28.94         | 27.17                            | 22.17             | 22.97 | 22.28 | 22.40 | 21.72 |        |
| 25                               | 22.38 | 22.57       | 23.54 | 22.04 | 24.26 | 29.06         | 27.07                            | 21.96             | 23.02 | 22.30 | 22.44 | 21.88 |        |
| 26                               | 22.54 | 22.49       | 23.76 | 22.32 | 25.37 | 29.12         | 27.17                            | 21.80             | 22.94 | 22.50 | 22.42 | 22.14 |        |
| 27                               | 22.40 | 22.18       | 23.56 | 22.56 | 25.66 | 29.23         | 27.60                            | 21.77             | 22.85 | 22.64 | 22.39 | 22.34 |        |
| 28                               | 22.28 | 21.83       | 23.50 | 22.45 | 25.20 | 29.51         | 28.00                            | 21.73             | 22.78 | 22.80 | 22.45 | 22.37 |        |
| 29                               | 22.07 | 21.91       | 23.43 | 22.95 | 24.63 | 29.70         | 28.06                            | 21.72             | 22.70 | 22.75 |       | 22.32 |        |
| 30                               | 21.98 | 21.95       | 23.32 | 23.43 | 24.07 | 30.03         | 28.04                            | 21.80             | 22.66 | 22.69 |       | 22.37 |        |
| 31                               |       | 21.96       |       | 23.45 | 23.72 |               | 27.89                            |                   | 22.58 | 22.77 |       | 22.33 |        |
| Mean                             | 22.18 | 22.57       | 22.66 | 22.83 | 24.39 | 26.41         | 28.33                            | 23.91             | 22.41 | 22.48 | 22.57 | 22.12 |        |
| Max                              | 22.54 | 23.40       | 23.76 | 24.90 | 26.38 | 30.03         | 30.19                            | 27.68             | 23.10 | 22.81 | 22.86 | 22.70 | 30.19  |
| Min                              | 21.85 | 21.83       | 21.54 | 21.87 | 22.28 | 23.60         | 26.68                            | 21.72             | 21.51 | 22.03 | 22.39 | 21.71 | 21.51  |
| Annual Max Momentary Gage Height | 30.19 | m. (MSL.) , |       |       |       |               | at 18.00 Hours , on Oct 1 , 2013 |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 20.00 | m. (MSL.) , |       |       |       | River Bed     | 19.01                            | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 31.11 | m. (MSL.) , |       |       |       |               |                                  |                   |       |       |       |       |        |
| Right Bank Elevation             | 31.12 | m. (MSL.) , |       |       |       | Drainage Area | 31472                            | Square Kilometers |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 101.80                                                         | 101.80                   | 89.80   | 151.70               | 208.75  | 217.00   | 887.70                   | 560.00  | 91.60   | 145.40  | 158.70  | 134.25  |          |        |
| 2              | 97.00                                                          | 100.00                   | 80.80   | 121.90               | 228.25  | 222.25   | 891.90                   | 541.20  | 77.20   | 151.00  | 162.20  | 136.20  |          |        |
| 3              | 110.20                                                         | 107.80                   | 81.40   | 109.60               | 226.75  | 261.25   | 889.80                   | 527.70  | 76.60   | 155.20  | 160.80  | 140.75  |          |        |
| 4              | 128.40                                                         | 113.20                   | 78.40   | 100.60               | 232.75  | 323.75   | 870.90                   | 497.15  | 91.00   | 157.30  | 154.50  | 138.80  |          |        |
| 5              | 131.00                                                         | 151.70                   | 80.20   | 98.20                | 220.75  | 343.30   | 858.30                   | 469.10  | 97.00   | 155.90  | 151.70  | 138.15  |          |        |
| 6              | 127.75                                                         | 179.50                   | 88.00   | 110.80               | 194.50  | 330.55   | 858.30                   | 430.85  | 113.80  | 158.70  | 152.40  | 151.00  |          |        |
| 7              | 125.15                                                         | 185.50                   | 117.40  | 109.60               | 161.50  | 295.70   | 862.50                   | 392.60  | 134.90  | 148.20  | 153.10  | 142.05  |          |        |
| 8              | 124.50                                                         | 189.25                   | 143.35  | 98.80                | 140.75  | 271.60   | 830.40                   | 351.80  | 151.70  | 144.00  | 150.30  | 126.45  |          |        |
| 9              | 122.55                                                         | 198.25                   | 155.20  | 119.30               | 132.30  | 265.20   | 789.00                   | 316.10  | 165.70  | 150.30  | 147.50  | 111.40  |          |        |
| 10             | 116.80                                                         | 202.00                   | 138.15  | 184.75               | 123.20  | 282.00   | 757.50                   | 289.20  | 179.50  | 141.40  | 140.10  | 97.00   |          |        |
| 11             | 116.20                                                         | 185.50                   | 129.05  | 229.75               | 127.10  | 297.40   | 705.60                   | 264.40  | 160.10  | 133.60  | 131.65  | 91.00   |          |        |
| 12             | 116.20                                                         | 165.70                   | 129.70  | 265.20               | 179.50  | 307.60   | 649.40                   | 246.25  | 144.70  | 120.60  | 132.95  | 88.60   |          |        |
| 13             | 113.80                                                         | 156.60                   | 142.70  | 306.75               | 258.25  | 337.35   | 621.90                   | 232.00  | 127.75  | 124.50  | 135.55  | 95.20   |          |        |
| 14             | 116.20                                                         | 136.85                   | 159.40  | 319.50               | 378.15  | 356.90   | 588.00                   | 193.00  | 113.20  | 121.25  | 140.75  | 101.20  |          |        |
| 15             | 116.20                                                         | 125.80                   | 193.75  | 302.50               | 430.85  | 375.60   | 575.00                   | 178.00  | 106.60  | 116.20  | 138.80  | 96.40   |          |        |
| 16             | 113.80                                                         | 132.30                   | 212.50  | 282.00               | 443.60  | 390.90   | 550.20                   | 169.90  | 118.65  | 115.60  | 132.95  | 101.20  |          |        |
| 17             | 115.00                                                         | 160.10                   | 198.25  | 197.50               | 445.30  | 410.45   | 500.70                   | 162.20  | 111.40  | 125.15  | 135.55  | 104.80  |          |        |
| 18             | 121.25                                                         | 167.80                   | 162.90  | 138.15               | 441.90  | 493.75   | 480.15                   | 171.30  | 138.80  | 131.65  | 141.40  | 104.80  |          |        |
| 19             | 101.20                                                         | 159.40                   | 139.45  | 128.40               | 441.05  | 530.40   | 470.80                   | 192.25  | 148.20  | 126.45  | 140.75  | 97.00   |          |        |
| 20             | 99.40                                                          | 146.10                   | 131.65  | 131.00               | 422.35  | 539.40   | 475.05                   | 193.75  | 132.95  | 118.65  | 147.50  | 93.40   |          |        |
| 21             | 101.20                                                         | 146.10                   | 130.35  | 129.70               | 384.10  | 548.40   | 486.95                   | 165.00  | 111.40  | 107.80  | 142.05  | 102.40  |          |        |
| 22             | 125.80                                                         | 145.40                   | 140.75  | 127.75               | 301.65  | 560.00   | 514.20                   | 148.20  | 111.40  | 109.00  | 135.55  | 104.80  |          |        |
| 23             | 118.00                                                         | 150.30                   | 154.50  | 112.60               | 252.25  | 614.20   | 514.20                   | 123.20  | 144.00  | 116.80  | 136.20  | 96.40   |          |        |
| 24             | 118.00                                                         | 150.30                   | 175.75  | 104.20               | 248.50  | 694.80   | 513.30                   | 116.20  | 169.90  | 123.20  | 131.00  | 89.20   |          |        |
| 25             | 129.70                                                         | 142.05                   | 212.50  | 108.40               | 266.80  | 709.20   | 504.30                   | 103.60  | 173.50  | 124.50  | 133.60  | 98.80   |          |        |
| 26             | 140.10                                                         | 136.85                   | 229.00  | 125.80               | 359.45  | 716.40   | 513.30                   | 94.00   | 167.80  | 137.50  | 132.30  | 114.40  |          |        |
| 27             | 131.00                                                         | 116.80                   | 214.00  | 141.40               | 384.10  | 730.50   | 552.00                   | 92.20   | 161.50  | 146.80  | 130.35  | 127.10  |          |        |
| 28             | 123.20                                                         | 95.80                    | 209.50  | 134.25               | 345.00  | 772.50   | 592.00                   | 89.80   | 156.60  | 158.00  | 134.25  | 129.05  |          |        |
| 29             | 110.20                                                         | 100.60                   | 204.25  | 168.50               | 296.55  | 801.00   | 598.00                   | 89.20   | 151.00  | 154.50  |         | 125.80  |          |        |
| 30             | 104.80                                                         | 103.00                   | 196.00  | 204.25               | 252.25  | 858.30   | 596.00                   | 94.00   | 148.20  | 150.30  |         | 129.05  |          |        |
| 31             |                                                                | 103.60                   |         | 205.75               | 226.00  |          | 581.00                   |         | 142.70  | 155.90  |         | 126.45  |          |        |
| Total          | 3516.40                                                        | 4455.95                  | 4518.65 | 5068.60              | 8754.20 | 13857.65 | 20078.35                 | 7494.15 | 4119.35 | 4225.35 | 3984.45 | 3533.10 | 83606.21 | CMSDAY |
| Mean           | 117.21                                                         | 143.74                   | 150.62  | 163.50               | 282.39  | 461.92   | 647.69                   | 249.81  | 132.88  | 136.30  | 142.30  | 113.97  | 229.06   | CMS    |
| Max            | 140.10                                                         | 202.00                   | 229.00  | 319.50               | 445.30  | 858.30   | 891.90                   | 560.00  | 179.50  | 158.70  | 162.20  | 151.00  | 891.90   | CMS    |
| Min            | 97.00                                                          | 95.80                    | 78.40   | 98.20                | 123.20  | 217.00   | 470.80                   | 89.20   | 76.60   | 107.80  | 130.35  | 88.60   | 76.60    | CMS    |
| Runoff         | 303.82                                                         | 384.99                   | 390.41  | 437.93               | 756.36  | 1197.30  | 1734.77                  | 647.50  | 355.91  | 365.07  | 344.26  | 305.26  | 7223.58  | MCM    |
| Momentary Peak | 891.90 CMS. at 30.19 m. (MSL.) at 18.00 Hours , on Oct 1, 2013 |                          |         |                      |         |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 7.28                                                           | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 28.339   | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Ban Taphan Hin , Phichit (N.10A)**

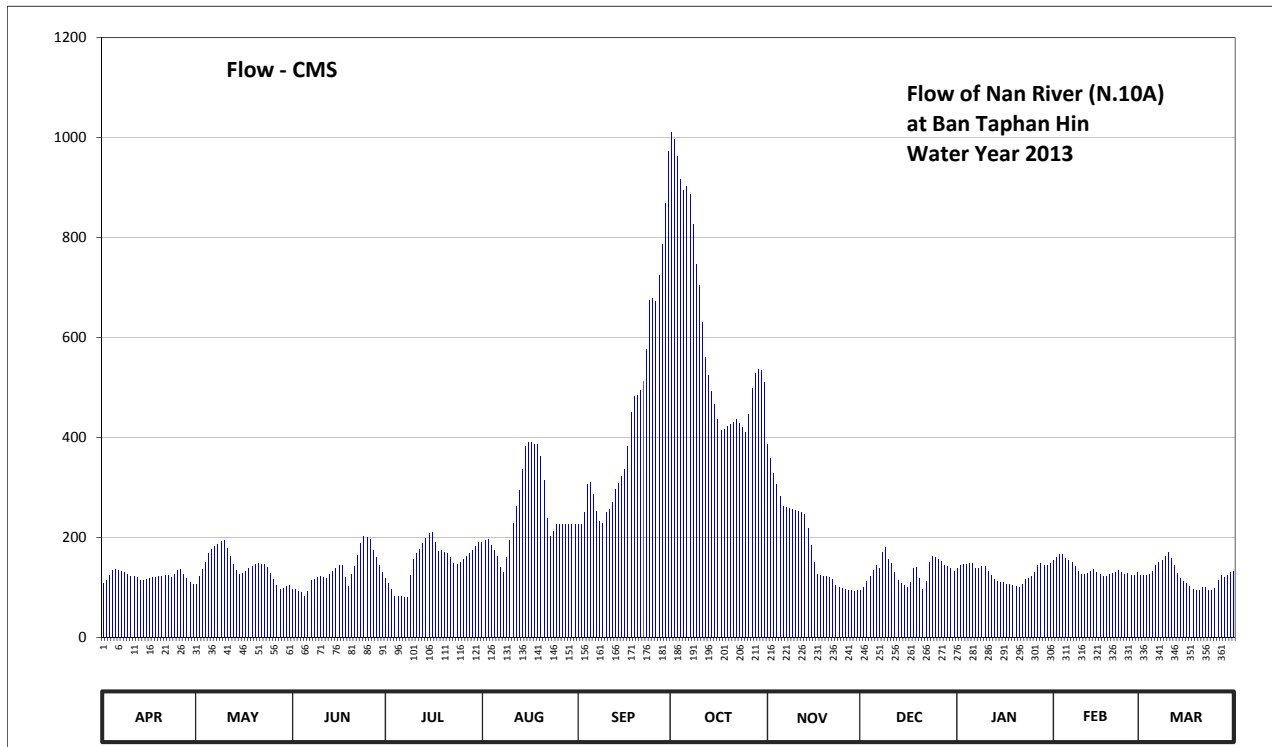
Lat 16 - 13 - 00 N Long 100 - 25 - 19 E

**Location : on left bank near Amphoe Taphan Hin Office about 250 meters from Station N.10**

|                                         |                                                                             |                   |               |                   |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|-------------------|---------------|-------------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | <b>Taphan Hin</b> | <b>Amphoe</b> | <b>Taphan Hin</b> | <b>Changwat</b>  | <b>Phichit</b>    |
| <b>Drainage Area</b>                    | 30,328                                                                      | sq.km.            |               |                   |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                  |                   |               |                   |                  |                   |
| <b>Zero Gage at Bottom</b>              | +22.280                                                                     | m. (MSL.)         |               |                   |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                   |               |                   |                  |                   |
| <b>Location BM</b>                      | On left bank near automatic gage building.                                  |                   |               |                   | <b>Elevation</b> | +33.300 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.        |                   |               |                   |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                               |                   |               |                   |                  |                   |
| <b>Period of Available Gage Records</b> | 1969 to date                                                                |                   |               |                   |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |                   |               |                   |                  |                   |
| <b>Period of Rating</b>                 | 1974 - 1979, 1991 to date                                                   |                   |               |                   |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |                   |               |                   |                  |                   |
| <b>Rated by Current Meter</b>           | 1974 - 1982, 1987, 1991 to date                                             |                   |               |                   |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                   |               |                   |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                   |               |                   |                  |                   |
| <b>General Description</b>              | Records very good. Flow effected by Naresuan Dam.                           |                   |               |                   |                  |                   |
|                                         | Stage-discharge relation defined by 31 discharge measurements made in 2013. |                   |               |                   |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep                              | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 23.65 | 23.63 | 23.49       | 23.81 | 24.84 | 25.34                            | 31.44 | 27.38             | 23.44 | 24.13 | 24.36 | 23.90 |        |
| 2                                | 23.76 | 23.87 | 23.46       | 23.65 | 24.91 | 25.34                            | 31.40 | 27.06             | 23.54 | 24.22 | 24.44 | 23.91 |        |
| 3                                | 23.91 | 24.09 | 23.42       | 23.47 | 24.93 | 25.66                            | 31.28 | 26.68             | 23.72 | 24.24 | 24.53 | 23.92 |        |
| 4                                | 24.05 | 24.32 | 23.39       | 23.25 | 24.78 | 26.39                            | 31.11 | 26.40             | 23.89 | 24.26 | 24.52 | 23.95 |        |
| 5                                | 24.08 | 24.56 | 23.23       | 23.23 | 24.64 | 26.44                            | 31.03 | 26.09             | 24.06 | 24.28 | 24.43 | 24.02 |        |
| 6                                | 24.05 | 24.66 | 23.40       | 23.22 | 24.49 | 26.13                            | 31.06 | 25.82             | 24.22 | 24.29 | 24.36 | 24.23 |        |
| 7                                | 24.03 | 24.74 | 23.75       | 23.20 | 24.14 | 25.67                            | 31.00 | 25.78             | 24.13 | 24.12 | 24.30 | 24.30 |        |
| 8                                | 24.00 | 24.81 | 23.79       | 23.20 | 23.99 | 25.40                            | 30.75 | 25.76             | 24.58 | 24.13 | 24.19 | 24.38 |        |
| 9                                | 23.94 | 24.87 | 23.83       | 23.90 | 24.44 | 25.37                            | 30.37 | 25.73             | 24.71 | 24.19 | 24.04 | 24.47 |        |
| 10                               | 23.89 | 24.90 | 23.88       | 24.41 | 24.90 | 25.65                            | 30.14 | 25.70             | 24.41 | 24.17 | 23.95 | 24.58 |        |
| 11                               | 23.88 | 24.69 | 23.84       | 24.55 | 25.35 | 25.74                            | 29.70 | 25.68             | 24.28 | 24.04 | 23.93 | 24.42 |        |
| 12                               | 23.83 | 24.48 | 23.81       | 24.68 | 25.81 | 25.92                            | 29.16 | 25.65             | 23.99 | 23.92 | 23.98 | 24.21 |        |
| 13                               | 23.76 | 24.26 | 23.95       | 24.82 | 26.23 | 26.27                            | 28.83 | 25.60             | 23.75 | 23.79 | 24.04 | 23.97 |        |
| 14                               | 23.74 | 24.05 | 24.04       | 24.95 | 26.77 | 26.42                            | 28.52 | 25.23             | 23.66 | 23.72 | 24.09 | 23.80 |        |
| 15                               | 23.77 | 23.93 | 24.13       | 25.08 | 27.35 | 26.59                            | 28.24 | 24.77             | 23.59 | 23.70 | 24.01 | 23.72 |        |
| 16                               | 23.80 | 23.96 | 24.22       | 25.12 | 27.43 | 26.78                            | 27.94 | 24.32             | 23.53 | 23.68 | 23.93 | 23.65 |        |
| 17                               | 23.83 | 24.04 | 24.22       | 24.84 | 27.44 | 27.35                            | 27.71 | 23.95             | 23.68 | 23.64 | 23.89 | 23.57 |        |
| 18                               | 23.84 | 24.11 | 23.86       | 24.62 | 27.39 | 28.08                            | 27.73 | 23.92             | 24.13 | 23.63 | 23.87 | 23.47 |        |
| 19                               | 23.87 | 24.18 | 23.58       | 24.63 | 27.38 | 28.42                            | 27.78 | 23.89             | 24.15 | 23.59 | 23.93 | 23.43 |        |
| 20                               | 23.88 | 24.25 | 23.94       | 24.59 | 27.11 | 28.44                            | 27.82 | 23.87             | 23.80 | 23.57 | 23.97 | 23.45 |        |
| 21                               | 23.91 | 24.27 | 24.19       | 24.55 | 26.50 | 28.55                            | 27.87 | 23.84             | 23.49 | 23.54 | 24.00 | 23.54 |        |
| 22                               | 23.91 | 24.26 | 24.50       | 24.44 | 25.48 | 28.73                            | 27.94 | 23.77             | 23.72 | 23.62 | 24.06 | 23.54 |        |
| 23                               | 23.86 | 24.24 | 24.82       | 24.29 | 25.02 | 29.30                            | 27.85 | 23.59             | 24.32 | 23.78 | 24.00 | 23.43 |        |
| 24                               | 23.95 | 24.16 | 25.02       | 24.24 | 25.15 | 29.98                            | 27.76 | 23.54             | 24.48 | 23.80 | 23.94 | 23.43 |        |
| 25                               | 24.05 | 23.97 | 24.98       | 24.32 | 25.33 | 30.00                            | 27.65 | 23.51             | 24.46 | 23.89 | 23.96 | 23.52 |        |
| 26                               | 24.08 | 23.78 | 24.93       | 24.40 | 25.33 | 29.97                            | 28.05 | 23.48             | 24.39 | 24.01 | 23.91 | 23.74 |        |
| 27                               | 23.95 | 23.60 | 24.64       | 24.48 | 25.33 | 30.25                            | 28.59 | 23.45             | 24.33 | 24.23 | 23.91 | 23.90 |        |
| 28                               | 23.81 | 23.47 | 24.46       | 24.56 | 25.33 | 30.56                            | 28.88 | 23.43             | 24.23 | 24.28 | 24.00 | 23.86 |        |
| 29                               | 23.70 | 23.52 | 24.23       | 24.63 | 25.33 | 30.93                            | 28.95 | 23.42             | 24.17 | 24.23 |       | 23.92 |        |
| 30                               | 23.62 | 23.58 | 24.00       | 24.74 | 25.33 | 31.32                            | 28.93 | 23.43             | 24.11 | 24.22 |       | 23.99 |        |
| 31                               |       | 23.59 |             | 24.85 | 25.34 |                                  | 28.70 |                   | 24.02 | 24.28 |       | 24.02 |        |
| Mean                             | 23.88 | 24.16 | 24.03       | 24.28 | 25.61 | 27.57                            | 29.17 | 24.82             | 24.03 | 23.97 | 24.09 | 23.88 |        |
| Max                              | 24.08 | 24.90 | 25.02       | 25.12 | 27.44 | 31.32                            | 31.44 | 27.38             | 24.71 | 24.29 | 24.53 | 24.58 | 31.44  |
| Min                              | 23.62 | 23.47 | 23.23       | 23.20 | 23.99 | 25.34                            | 27.65 | 23.42             | 23.44 | 23.54 | 23.87 | 23.43 | 23.20  |
| Annual Max Momentary Gage Height | 31.44 |       | m. (MSL.) , |       |       | at 09.00 Hours , on Oct 1 , 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 22.28 |       | m. (MSL.) , |       |       | River Bed                        | 19.91 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 33.29 |       | m. (MSL.) , |       |       |                                  |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 32.69 |       | m. (MSL.) , |       |       | Drainage Area                    | 30328 | Square Kilometers |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                      | Jun                                                | Jul     | Aug                  | Sep      | Oct      | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|---------|--------------------------|----------------------------------------------------|---------|----------------------|----------|----------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 108.25  | 106.95                   | 97.85                                              | 118.65  | 190.00               | 227.50   | 1009.60  | 386.30  | 94.60                    | 139.45  | 154.40  | 124.50  |          |        |
| 2              | 115.40  | 122.55                   | 95.90                                              | 108.25  | 195.25               | 227.50   | 996.00   | 359.80  | 101.10                   | 145.30  | 160.00  | 125.15  |          |        |
| 3              | 125.15  | 136.85                   | 93.30                                              | 96.55   | 196.75               | 251.50   | 962.40   | 329.40  | 112.80                   | 146.60  | 166.75  | 125.80  |          |        |
| 4              | 134.25  | 151.80                   | 91.45                                              | 83.75   | 185.50               | 306.25   | 915.70   | 307.00  | 123.85                   | 147.90  | 166.00  | 127.75  |          |        |
| 5              | 136.20  | 169.00                   | 82.65                                              | 82.65   | 175.00               | 310.20   | 894.10   | 283.75  | 134.90                   | 149.20  | 159.25  | 132.30  |          |        |
| 6              | 134.25  | 176.50                   | 92.00                                              | 82.10   | 163.75               | 286.75   | 902.20   | 263.50  | 145.30                   | 149.85  | 154.40  | 145.95  |          |        |
| 7              | 132.95  | 182.50                   | 114.75                                             | 81.00   | 140.10               | 252.25   | 886.00   | 260.50  | 139.45                   | 138.80  | 150.50  | 150.50  |          |        |
| 8              | 131.00  | 187.75                   | 117.35                                             | 81.00   | 130.35               | 232.00   | 827.00   | 259.00  | 170.50                   | 139.45  | 143.35  | 155.70  |          |        |
| 9              | 127.10  | 192.25                   | 119.95                                             | 124.50  | 160.00               | 229.75   | 746.30   | 256.75  | 180.25                   | 143.35  | 133.60  | 162.25  |          |        |
| 10             | 123.85  | 194.50                   | 123.20                                             | 157.75  | 194.50               | 250.75   | 703.20   | 254.50  | 157.75                   | 142.05  | 127.75  | 170.50  |          |        |
| 11             | 123.20  | 178.75                   | 120.60                                             | 168.25  | 228.25               | 257.50   | 631.00   | 253.00  | 149.20                   | 133.60  | 126.45  | 158.50  |          |        |
| 12             | 119.95  | 163.00                   | 118.65                                             | 178.00  | 262.75               | 271.00   | 559.60   | 250.75  | 130.35                   | 125.80  | 129.70  | 144.65  |          |        |
| 13             | 115.40  | 147.90                   | 127.75                                             | 188.50  | 294.25               | 297.25   | 523.30   | 247.00  | 114.75                   | 117.35  | 133.60  | 129.05  |          |        |
| 14             | 114.10  | 134.25                   | 133.60                                             | 198.25  | 336.60               | 308.60   | 492.40   | 219.25  | 108.90                   | 112.80  | 136.85  | 118.00  |          |        |
| 15             | 116.05  | 126.45                   | 139.45                                             | 208.00  | 383.75               | 322.20   | 465.80   | 184.75  | 104.35                   | 111.50  | 131.65  | 112.80  |          |        |
| 16             | 118.00  | 128.40                   | 145.30                                             | 211.00  | 390.70               | 337.40   | 437.30   | 151.80  | 100.45                   | 110.20  | 126.45  | 108.25  |          |        |
| 17             | 119.95  | 133.60                   | 145.30                                             | 190.00  | 391.60               | 383.75   | 415.90   | 127.75  | 110.20                   | 107.60  | 123.85  | 103.05  |          |        |
| 18             | 120.60  | 138.15                   | 121.90                                             | 173.50  | 387.15               | 450.60   | 417.70   | 125.80  | 139.45                   | 106.95  | 122.55  | 96.55   |          |        |
| 19             | 122.55  | 142.70                   | 103.70                                             | 174.25  | 386.30               | 482.90   | 422.20   | 123.85  | 140.75                   | 104.35  | 126.45  | 93.95   |          |        |
| 20             | 123.20  | 147.25                   | 127.10                                             | 171.25  | 363.80               | 484.80   | 425.90   | 122.55  | 118.00                   | 103.05  | 129.05  | 95.25   |          |        |
| 21             | 125.15  | 148.55                   | 143.35                                             | 168.25  | 315.00               | 495.25   | 430.65   | 120.60  | 97.85                    | 101.10  | 131.00  | 101.10  |          |        |
| 22             | 125.15  | 147.90                   | 164.50                                             | 160.00  | 238.00               | 513.00   | 437.30   | 116.05  | 112.80                   | 106.30  | 134.90  | 101.10  |          |        |
| 23             | 121.90  | 146.60                   | 188.50                                             | 149.85  | 203.50               | 576.00   | 428.75   | 104.35  | 151.80                   | 116.70  | 131.00  | 93.95   |          |        |
| 24             | 127.75  | 141.40                   | 203.50                                             | 146.60  | 213.25               | 674.80   | 420.40   | 101.10  | 163.00                   | 118.00  | 127.10  | 93.95   |          |        |
| 25             | 134.25  | 129.05                   | 200.50                                             | 151.80  | 226.75               | 678.00   | 410.50   | 99.15   | 161.50                   | 123.85  | 128.40  | 99.80   |          |        |
| 26             | 136.20  | 116.70                   | 196.75                                             | 157.00  | 226.75               | 673.20   | 447.75   | 97.20   | 156.35                   | 131.65  | 125.15  | 114.10  |          |        |
| 27             | 127.75  | 105.00                   | 175.00                                             | 163.00  | 226.75               | 723.50   | 499.05   | 95.25   | 152.45                   | 145.95  | 125.15  | 124.50  |          |        |
| 28             | 118.65  | 96.55                    | 161.50                                             | 169.00  | 226.75               | 785.60   | 528.80   | 93.95   | 145.95                   | 149.20  | 131.00  | 121.90  |          |        |
| 29             | 111.50  | 99.80                    | 145.95                                             | 174.25  | 226.75               | 869.20   | 536.50   | 93.30   | 142.05                   | 145.95  |         | 125.80  |          |        |
| 30             | 106.30  | 103.70                   | 131.00                                             | 182.50  | 226.75               | 973.60   | 534.30   | 93.95   | 138.15                   | 145.30  |         | 130.35  |          |        |
| 31             |         | 104.35                   |                                                    | 190.75  | 227.50               |          | 510.00   |         | 132.30                   | 149.20  |         | 132.30  |          |        |
| Total          | 3696.00 | 4400.70                  | 4022.30                                            | 4690.20 | 7714.10              | 13132.60 | 18817.60 | 5781.90 | 4131.10                  | 4008.35 | 3836.30 | 3819.30 | 78050.45 | CMSDAY |
| Mean           | 123.20  | 141.96                   | 134.08                                             | 151.30  | 248.84               | 437.75   | 607.02   | 192.73  | 133.26                   | 129.30  | 137.01  | 123.20  | 213.84   | CMS    |
| Max            | 136.20  | 194.50                   | 203.50                                             | 211.00  | 391.60               | 973.60   | 1009.60  | 386.30  | 180.25                   | 149.85  | 166.75  | 170.50  | 1009.60  | CMS    |
| Min            | 106.30  | 96.55                    | 82.65                                              | 81.00   | 130.35               | 227.50   | 410.50   | 93.30   | 94.60                    | 101.10  | 122.55  | 93.95   | 81.00    | CMS    |
| Runoff         | 319.33  | 380.22                   | 347.53                                             | 405.23  | 666.50               | 1134.66  | 1625.84  | 499.56  | 356.93                   | 346.32  | 331.46  | 329.99  | 6743.56  | MCM    |
| Momentary Peak | 1009.60 | CMS.                     | at 31.44 m. (MSL.) at 09.00 Hours , on Oct 1, 2013 |         |                      |          |          |         |                          |         |         |         |          |        |
| Runoff Yield   | 7.05    | Liters/Second/Square KM. |                                                    |         | Momentary Peak Yield |          |          | 33.289  | Liters/Second/Square KM. |         |         |         |          |        |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Ban Hat Phai , Uttaradit (N.12A)**

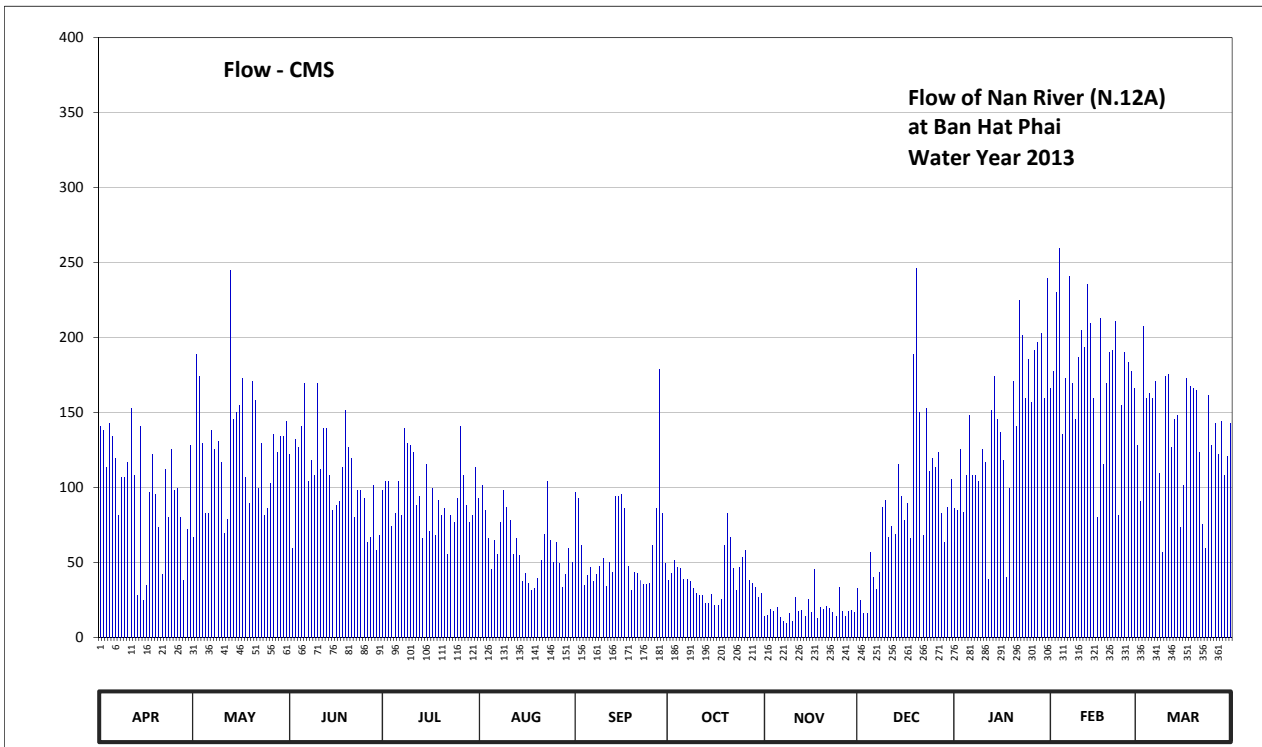
Lat 17 - 44 - 11 N Long 100 - 32 - 27 E

**Location : on right bank about 4 kilometers downstream, Sirikit Dam Site, along Phasom - Silot road.**

|                                         |                                                                                           |                 |               |                |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | <b>Hat Phai</b> | <b>Amphoe</b> | <b>Tha Pla</b> | <b>Changwat</b>  | <b>Uttaradit</b>  |
| <b>Drainage Area</b>                    | 15,579                                                                                    | sq.km.          |               |                |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                 |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +69.000                                                                                   | m. (MSL.)       |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                 |               |                |                  |                   |
| <b>Location BM</b>                      | On right bank in front of gage observer's house.                                          |                 |               |                | <b>Elevation</b> | +84.000 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                 |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                 |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 1966 to date                                                                              |                 |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                 |               |                |                  |                   |
| <b>Period of Rating</b>                 | 1966 to date                                                                              |                 |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 1966 to date                                                                              |                 |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                 |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                 |               |                |                  |                   |
| <b>General Description</b>              | Records fair. Flow regulated by Sirikit Dam reservoir about 6 kilometers above gage site. |                 |               |                |                  |                   |
|                                         | Stage-discharge relation defined by 20 discharge measurements made in 2013.               |                 |               |                |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep           | Oct                               | Nov   | Dec               | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|---------------|-----------------------------------|-------|-------------------|-------|-------|-------|--------|
| 1                                | 71.34 | 70.77 | 71.21       | 71.04 | 71.00 | 71.03         | 70.44                             | 70.05 | 70.37             | 70.94 | 71.50 | 71.25 |        |
| 2                                | 71.32 | 71.64 | 70.69       | 71.08 | 71.06 | 71.00         | 70.50                             | 70.06 | 70.26             | 70.93 | 71.57 | 70.98 |        |
| 3                                | 71.15 | 71.55 | 71.28       | 71.08 | 70.93 | 70.71         | 70.61                             | 70.16 | 70.10             | 71.23 | 71.89 | 71.76 |        |
| 4                                | 71.35 | 71.26 | 71.24       | 70.84 | 70.76 | 70.40         | 70.55                             | 70.12 | 70.09             | 70.92 | 72.05 | 71.46 |        |
| 5                                | 71.29 | 70.91 | 71.34       | 70.91 | 70.53 | 70.48         | 70.54                             | 70.19 | 70.66             | 71.11 | 71.30 | 71.48 |        |
| 6                                | 71.19 | 70.91 | 71.52       | 71.08 | 70.75 | 70.55         | 70.45                             | 70.04 | 70.47             | 71.39 | 71.54 | 71.46 |        |
| 7                                | 70.90 | 71.32 | 71.08       | 70.90 | 70.65 | 70.43         | 70.45                             | 69.96 | 70.36             | 71.11 | 71.95 | 71.53 |        |
| 8                                | 71.10 | 71.23 | 71.18       | 71.33 | 70.86 | 70.49         | 70.43                             | 69.93 | 70.51             | 71.11 | 71.52 | 71.12 |        |
| 9                                | 71.10 | 71.27 | 71.11       | 71.26 | 71.04 | 70.56         | 70.37                             | 70.09 | 70.95             | 71.08 | 71.37 | 70.66 |        |
| 10                               | 71.17 | 71.17 | 71.52       | 71.25 | 70.95 | 70.62         | 70.32                             | 69.98 | 70.99             | 71.23 | 71.63 | 71.55 |        |
| 11                               | 71.42 | 70.80 | 71.14       | 71.22 | 70.87 | 70.39         | 70.30                             | 70.28 | 70.77             | 71.17 | 71.74 | 71.56 |        |
| 12                               | 71.11 | 70.88 | 71.33       | 70.96 | 70.65 | 70.59         | 70.30                             | 70.13 | 70.84             | 70.45 | 71.67 | 71.24 |        |
| 13                               | 70.30 | 71.97 | 71.33       | 71.01 | 70.76 | 70.51         | 70.23                             | 70.14 | 70.79             | 71.41 | 71.92 | 71.37 |        |
| 14                               | 71.34 | 71.37 | 71.11       | 70.76 | 70.64 | 71.01         | 70.23                             | 70.05 | 71.16             | 71.55 | 71.77 | 71.39 |        |
| 15                               | 70.26 | 71.40 | 70.93       | 71.16 | 70.43 | 71.01         | 70.31                             | 70.27 | 71.01             | 71.37 | 71.46 | 70.83 |        |
| 16                               | 70.40 | 71.43 | 70.96       | 70.81 | 70.50 | 71.02         | 70.21                             | 70.11 | 70.87             | 71.31 | 70.89 | 71.06 |        |
| 17                               | 71.03 | 71.54 | 70.98       | 71.05 | 70.42 | 70.94         | 70.21                             | 70.53 | 70.97             | 71.18 | 71.79 | 71.54 |        |
| 18                               | 71.21 | 71.10 | 71.15       | 70.78 | 70.35 | 70.56         | 70.27                             | 70.02 | 70.76             | 70.47 | 71.16 | 71.51 |        |
| 19                               | 71.02 | 70.97 | 71.41       | 70.99 | 70.37 | 70.35         | 70.71                             | 70.19 | 71.64             | 71.05 | 71.52 | 71.50 |        |
| 20                               | 70.83 | 71.53 | 71.24       | 70.90 | 70.46 | 70.51         | 70.91                             | 70.15 | 71.98             | 71.53 | 71.65 | 71.49 |        |
| 21                               | 70.49 | 71.45 | 71.19       | 70.94 | 70.61 | 70.50         | 70.77                             | 70.20 | 71.40             | 71.34 | 71.66 | 71.22 |        |
| 22                               | 71.14 | 71.05 | 70.89       | 70.65 | 70.79 | 70.44         | 70.54                             | 70.17 | 70.78             | 71.86 | 71.78 | 70.85 |        |
| 23                               | 70.89 | 71.26 | 71.04       | 70.90 | 71.08 | 70.41         | 70.35                             | 70.11 | 71.42             | 71.72 | 70.90 | 70.69 |        |
| 24                               | 71.23 | 70.90 | 71.04       | 70.86 | 70.75 | 70.41         | 70.55                             | 70.05 | 71.13             | 71.46 | 71.43 | 71.47 |        |
| 25                               | 71.04 | 70.94 | 71.00       | 71.00 | 70.59 | 70.42         | 70.63                             | 70.38 | 71.19             | 71.62 | 71.65 | 71.25 |        |
| 26                               | 71.05 | 71.07 | 70.73       | 71.34 | 70.73 | 70.71         | 70.68                             | 70.13 | 71.15             | 71.44 | 71.61 | 71.35 |        |
| 27                               | 70.89 | 71.30 | 70.77       | 71.11 | 70.58 | 70.94         | 70.44                             | 70.05 | 71.22             | 71.66 | 71.57 | 71.21 |        |
| 28                               | 70.44 | 71.22 | 71.06       | 70.96 | 70.38 | 71.58         | 70.42                             | 70.13 | 70.91             | 71.69 | 71.50 | 71.36 |        |
| 29                               | 70.82 | 71.29 | 70.68       | 70.86 | 70.49 | 70.91         | 70.38                             | 70.14 | 70.73             | 71.73 |       | 71.11 |        |
| 30                               | 71.25 | 71.29 | 70.78       | 70.90 | 70.69 | 70.58         | 70.28                             | 70.11 | 70.95             | 71.46 |       | 71.20 |        |
| 31                               |       | 71.36 |             | 71.15 | 70.59 |               | 70.32                             |       | 71.09             | 71.94 |       | 71.35 |        |
| Mean                             | 71.00 | 71.23 | 71.10       | 71.00 | 70.69 | 70.67         | 70.44                             | 70.13 | 70.89             | 71.31 | 71.57 | 71.28 |        |
| Max                              | 71.42 | 71.97 | 71.52       | 71.34 | 71.08 | 71.58         | 70.91                             | 70.53 | 71.98             | 71.94 | 72.05 | 71.76 | 72.05  |
| Min                              | 70.26 | 70.77 | 70.68       | 70.65 | 70.35 | 70.35         | 70.21                             | 69.93 | 70.09             | 70.45 | 70.89 | 70.66 | 69.93  |
| Annual Max Momentary Gage Height | 73.73 |       | m. (MSL.) , |       |       |               | at 15.00 Hours , on Dec 20 , 2013 |       |                   |       |       |       |        |
| Zero Gage at Bottom Elevation    | 69.00 |       | m. (MSL.) , |       |       | River Bed     | 66.89                             |       | m. (MSL.)         |       |       |       |        |
| Left Bank Elevation              | 82.44 |       | m. (MSL.) , |       |       |               |                                   |       |                   |       |       |       |        |
| Right Bank Elevation             | 81.45 |       | m. (MSL.) , |       |       | Drainage Area | 15579                             |       | Square Kilometers |       |       |       |        |

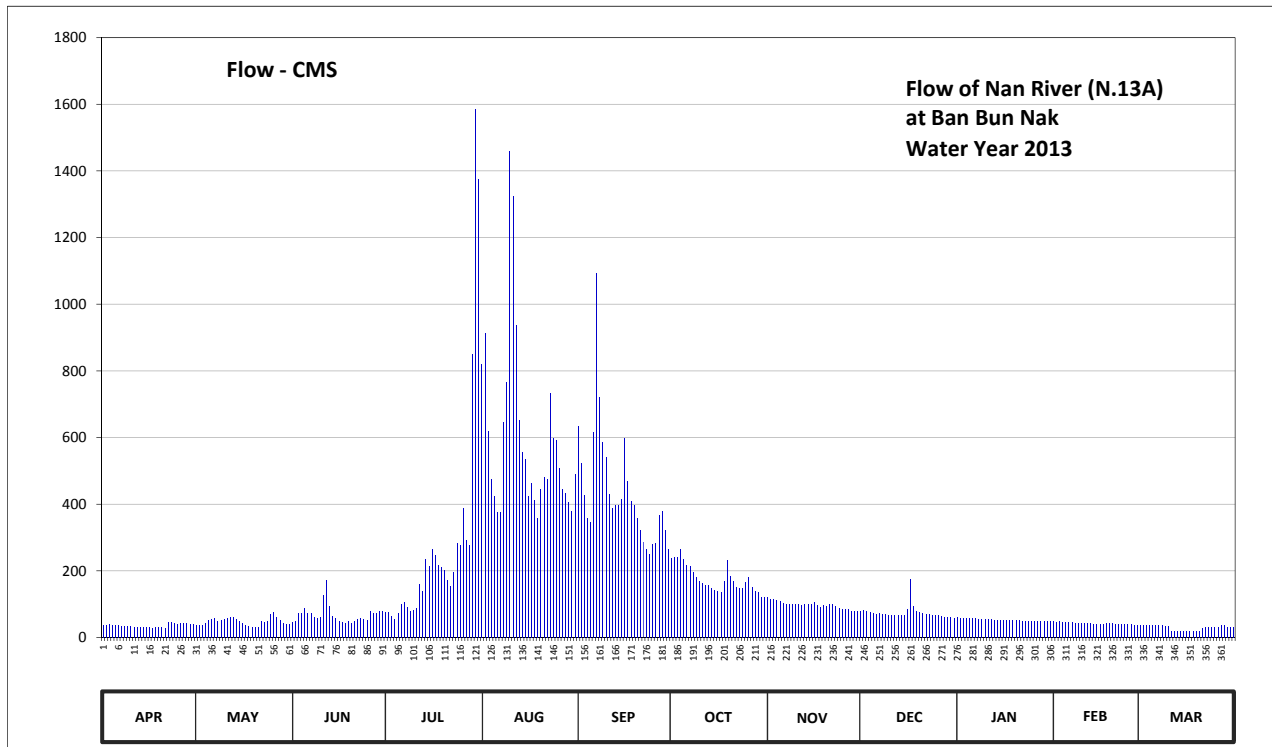


Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|--------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 141.30                                                           | 67.15                    | 122.45  | 98.60   | 93.00                | 97.20   | 38.20   | 14.25  | 32.90                    | 86.10   | 166.00  | 128.25  |          |        |
| 2              | 138.40                                                           | 188.40                   | 59.55   | 104.20  | 101.40               | 93.00   | 43.00   | 14.70  | 25.20                    | 84.95   | 177.20  | 90.70   |          |        |
| 3              | 114.00                                                           | 174.00                   | 132.60  | 104.20  | 84.95                | 61.45   | 51.95   | 19.20  | 16.50                    | 125.35  | 230.20  | 207.60  |          |        |
| 4              | 142.75                                                           | 129.70                   | 126.80  | 74.60   | 66.20                | 35.00   | 47.00   | 17.40  | 16.05                    | 83.80   | 259.50  | 159.60  |          |        |
| 5              | 134.05                                                           | 82.65                    | 141.30  | 82.65   | 45.40                | 41.40   | 46.20   | 20.55  | 56.70                    | 108.40  | 135.50  | 162.80  |          |        |
| 6              | 119.60                                                           | 82.65                    | 169.20  | 104.20  | 65.25                | 47.00   | 39.00   | 13.80  | 40.60                    | 148.55  | 172.40  | 159.60  |          |        |
| 7              | 81.50                                                            | 138.40                   | 104.20  | 81.50   | 55.75                | 37.40   | 39.00   | 10.60  | 32.20                    | 108.40  | 241.00  | 170.80  |          |        |
| 8              | 107.00                                                           | 125.35                   | 118.20  | 139.85  | 76.90                | 42.20   | 37.40   | 9.55   | 43.80                    | 108.40  | 169.20  | 109.80  |          |        |
| 9              | 107.00                                                           | 131.15                   | 108.40  | 129.70  | 98.60                | 47.80   | 32.90   | 16.05  | 87.25                    | 104.20  | 145.65  | 56.70   |          |        |
| 10             | 116.80                                                           | 116.80                   | 169.20  | 128.25  | 87.25                | 52.90   | 29.40   | 11.30  | 91.85                    | 125.35  | 186.80  | 174.00  |          |        |
| 11             | 153.20                                                           | 70.00                    | 112.60  | 123.90  | 78.05                | 34.30   | 28.00   | 26.60  | 67.15                    | 116.80  | 204.40  | 175.60  |          |        |
| 12             | 108.40                                                           | 79.20                    | 139.85  | 88.40   | 55.75                | 50.20   | 28.00   | 17.85  | 74.60                    | 39.00   | 193.20  | 126.80  |          |        |
| 13             | 28.00                                                            | 244.60                   | 139.85  | 94.40   | 66.20                | 43.80   | 23.10   | 18.30  | 69.05                    | 151.60  | 235.60  | 145.65  |          |        |
| 14             | 141.30                                                           | 145.65                   | 108.40  | 66.20   | 54.80                | 94.40   | 23.10   | 14.25  | 115.40                   | 174.00  | 209.20  | 148.55  |          |        |
| 15             | 25.20                                                            | 150.00                   | 84.95   | 115.40  | 37.40                | 94.40   | 28.70   | 25.90  | 94.40                    | 145.65  | 159.60  | 73.45   |          |        |
| 16             | 35.00                                                            | 154.80                   | 88.40   | 71.15   | 43.00                | 95.80   | 21.70   | 16.95  | 78.05                    | 136.95  | 80.35   | 101.40  |          |        |
| 17             | 97.20                                                            | 172.40                   | 90.70   | 100.00  | 36.60                | 86.10   | 21.70   | 45.40  | 89.55                    | 118.20  | 212.40  | 172.40  |          |        |
| 18             | 122.45                                                           | 107.00                   | 114.00  | 68.10   | 31.50                | 47.80   | 25.90   | 12.90  | 66.20                    | 40.60   | 115.40  | 167.60  |          |        |
| 19             | 95.80                                                            | 89.55                    | 151.60  | 91.85   | 32.90                | 31.50   | 61.45   | 20.55  | 188.40                   | 100.00  | 169.20  | 166.00  |          |        |
| 20             | 73.45                                                            | 170.80                   | 126.80  | 81.50   | 39.80                | 43.80   | 82.65   | 18.75  | 246.40                   | 170.80  | 190.00  | 164.40  |          |        |
| 21             | 42.20                                                            | 158.00                   | 119.60  | 86.10   | 51.95                | 43.00   | 67.15   | 21.00  | 150.00                   | 141.30  | 191.60  | 123.90  |          |        |
| 22             | 112.60                                                           | 100.00                   | 80.35   | 55.75   | 69.05                | 38.20   | 46.20   | 19.65  | 68.10                    | 224.80  | 210.80  | 75.75   |          |        |
| 23             | 80.35                                                            | 129.70                   | 98.60   | 81.50   | 104.20               | 35.80   | 31.50   | 16.95  | 153.20                   | 201.20  | 81.50   | 59.55   |          |        |
| 24             | 125.35                                                           | 81.50                    | 98.60   | 76.90   | 65.25                | 35.80   | 47.00   | 14.25  | 111.20                   | 159.60  | 154.80  | 161.20  |          |        |
| 25             | 98.60                                                            | 86.10                    | 93.00   | 93.00   | 50.20                | 36.60   | 53.85   | 33.60  | 119.60                   | 185.20  | 190.00  | 128.25  |          |        |
| 26             | 100.00                                                           | 102.80                   | 63.35   | 141.30  | 63.35                | 61.45   | 58.60   | 17.85  | 114.00                   | 156.40  | 183.60  | 142.75  |          |        |
| 27             | 80.35                                                            | 135.50                   | 67.15   | 108.40  | 49.40                | 86.10   | 38.20   | 14.25  | 123.90                   | 191.60  | 177.20  | 122.45  |          |        |
| 28             | 38.20                                                            | 123.90                   | 101.40  | 88.40   | 33.60                | 178.80  | 36.60   | 17.85  | 82.65                    | 196.40  | 166.00  | 144.20  |          |        |
| 29             | 72.30                                                            | 134.05                   | 58.60   | 76.90   | 42.20                | 82.65   | 33.60   | 18.30  | 63.35                    | 202.80  |         | 108.40  |          |        |
| 30             | 128.25                                                           | 134.05                   | 68.10   | 81.50   | 59.55                | 49.40   | 26.60   | 16.95  | 87.25                    | 159.60  |         | 121.00  |          |        |
| 31             |                                                                  | 144.20                   |         | 114.00  | 50.20                |         | 29.40   |        | 105.60                   | 239.20  |         | 142.75  |          |        |
| Total          | 2960.60                                                          | 3950.05                  | 3257.80 | 2952.40 | 1889.65              | 1825.25 | 1217.05 | 555.50 | 2711.10                  | 4335.20 | 5008.30 | 4191.90 | 34854.80 | CMSDAY |
| Mean           | 98.69                                                            | 127.42                   | 108.59  | 95.24   | 60.96                | 60.84   | 39.26   | 18.52  | 87.45                    | 139.85  | 178.87  | 135.22  | 95.49    | CMS    |
| Max            | 153.20                                                           | 244.60                   | 169.20  | 141.30  | 104.20               | 178.80  | 82.65   | 45.40  | 246.40                   | 239.20  | 259.50  | 207.60  | 259.50   | CMS    |
| Min            | 25.20                                                            | 67.15                    | 58.60   | 55.75   | 31.50                | 31.50   | 21.70   | 9.55   | 16.05                    | 39.00   | 80.35   | 56.70   | 9.55     | CMS    |
| Runoff         | 255.80                                                           | 341.28                   | 281.47  | 255.09  | 163.27               | 157.70  | 105.15  | 48.00  | 234.24                   | 374.56  | 432.72  | 362.18  | 3011.46  | MCM    |
| Momentary Peak | 656.40 CMS. at 73.73 m. (MSL.) at 15.00 Hours , on Dec 20 , 2013 |                          |         |         |                      |         |         |        |                          |         |         |         |          |        |
| Runoff Yield   | 6.13                                                             | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | 42.134 | Liters/Second/Square KM. |         |         |         |          |        |

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 177.81 | 177.82 | 177.87      | 178.11 | 181.65                            | 180.94 | 179.07            | 178.39    | 178.12 | 178.00 | 177.89 | 177.82 |        |
| 2                                | 177.81 | 177.81 | 177.90      | 178.11 | 182.00                            | 180.48 | 179.09            | 178.36    | 178.14 | 177.97 | 177.88 | 177.82 |        |
| 3                                | 177.83 | 177.81 | 178.07      | 178.02 | 180.88                            | 180.05 | 179.09            | 178.36    | 178.12 | 177.98 | 177.89 | 177.82 |        |
| 4                                | 177.81 | 177.86 | 178.07      | 177.95 | 180.27                            | 179.69 | 179.20            | 178.34    | 178.11 | 177.98 | 177.88 | 177.81 |        |
| 5                                | 177.81 | 177.93 | 178.18      | 178.07 | 180.04                            | 179.63 | 179.05            | 178.32    | 178.08 | 177.97 | 177.88 | 177.81 |        |
| 6                                | 177.80 | 177.95 | 178.09      | 178.26 | 179.80                            | 180.87 | 178.96            | 178.28    | 178.06 | 177.97 | 177.87 | 177.80 |        |
| 7                                | 177.79 | 177.96 | 178.07      | 178.30 | 179.79                            | 182.64 | 178.94            | 178.26    | 178.07 | 177.96 | 177.87 | 177.80 |        |
| 8                                | 177.79 | 177.91 | 177.99      | 178.21 | 180.99                            | 181.28 | 178.84            | 178.27    | 178.05 | 177.95 | 177.86 | 177.80 |        |
| 9                                | 177.79 | 177.93 | 177.97      | 178.13 | 181.45                            | 180.74 | 178.74            | 178.26    | 178.05 | 177.95 | 177.86 | 177.79 |        |
| 10                               | 177.78 | 177.95 | 178.00      | 178.14 | 183.95                            | 180.55 | 178.67            | 178.26    | 178.04 | 177.95 | 177.86 | 177.79 |        |
| 11                               | 177.77 | 177.98 | 178.43      | 178.18 | 183.47                            | 180.07 | 178.64            | 178.26    | 178.03 | 177.94 | 177.86 | 177.66 |        |
| 12                               | 177.77 | 178.00 | 178.70      | 178.63 | 182.08                            | 179.86 | 178.61            | 178.25    | 178.03 | 177.94 | 177.85 | 177.66 |        |
| 13                               | 177.76 | 177.99 | 178.22      | 178.51 | 181.02                            | 179.91 | 178.60            | 178.26    | 178.03 | 177.93 | 177.85 | 177.66 |        |
| 14                               | 177.75 | 177.95 | 178.01      | 179.05 | 180.62                            | 179.90 | 178.56            | 178.26    | 178.04 | 177.93 | 177.84 | 177.65 |        |
| 15                               | 177.75 | 177.91 | 177.97      | 178.93 | 180.53                            | 180.00 | 178.52            | 178.27    | 178.04 | 177.92 | 177.84 | 177.65 |        |
| 16                               | 177.75 | 177.85 | 177.91      | 179.21 | 180.04                            | 180.79 | 178.50            | 178.30    | 178.16 | 177.92 | 177.84 | 177.65 |        |
| 17                               | 177.74 | 177.80 | 177.88      | 179.11 | 180.21                            | 180.24 | 178.49            | 178.24    | 178.72 | 177.92 | 177.84 | 177.65 |        |
| 18                               | 177.76 | 177.78 | 177.86      | 178.96 | 179.98                            | 179.96 | 178.68            | 178.21    | 178.23 | 177.92 | 177.85 | 177.65 |        |
| 19                               | 177.75 | 177.75 | 177.90      | 178.92 | 179.69                            | 179.90 | 179.03            | 178.24    | 178.13 | 177.92 | 177.85 | 177.65 |        |
| 20                               | 177.75 | 177.75 | 177.86      | 178.87 | 180.13                            | 179.70 | 178.76            | 178.23    | 178.11 | 177.92 | 177.85 | 177.65 |        |
| 21                               | 177.74 | 177.77 | 177.90      | 178.69 | 180.29                            | 179.50 | 178.67            | 178.26    | 178.09 | 177.92 | 177.84 | 177.93 |        |
| 22                               | 177.88 | 177.91 | 177.94      | 178.59 | 180.27                            | 179.32 | 178.57            | 178.26    | 178.06 | 177.91 | 177.84 | 177.95 |        |
| 23                               | 177.87 | 177.88 | 177.96      | 178.83 | 181.32                            | 179.20 | 178.55            | 178.23    | 178.05 | 177.91 | 177.83 | 177.95 |        |
| 24                               | 177.86 | 177.89 | 177.95      | 179.30 | 180.79                            | 179.13 | 178.55            | 178.18    | 178.04 | 177.91 | 177.83 | 177.95 |        |
| 25                               | 177.83 | 178.05 | 177.93      | 179.27 | 180.77                            | 179.29 | 178.66            | 178.16    | 178.04 | 177.91 | 177.83 | 177.95 |        |
| 26                               | 177.85 | 178.11 | 178.13      | 179.85 | 180.41                            | 179.30 | 178.74            | 178.17    | 178.03 | 177.91 | 177.83 | 177.95 |        |
| 27                               | 177.85 | 178.00 | 178.09      | 179.35 | 180.13                            | 179.75 | 178.58            | 178.16    | 178.02 | 177.90 | 177.82 | 177.99 |        |
| 28                               | 177.85 | 177.92 | 178.07      | 179.27 | 180.08                            | 179.81 | 178.50            | 178.13    | 178.00 | 177.90 | 177.82 | 177.99 |        |
| 29                               | 177.83 | 177.85 | 178.12      | 181.77 | 179.95                            | 179.50 | 178.48            | 178.13    | 178.00 | 177.90 |        | 177.95 |        |
| 30                               | 177.83 | 177.83 | 178.12      | 184.39 | 179.81                            | 179.21 | 178.40            | 178.12    | 178.00 | 177.89 |        | 177.95 |        |
| 31                               |        | 177.83 |             | 183.65 | 180.33                            |        | 178.40            |           | 177.98 | 177.89 |        | 177.95 |        |
| Mean                             | 177.80 | 177.89 | 178.04      | 179.12 | 180.73                            | 180.04 | 178.71            | 178.25    | 178.09 | 177.93 | 177.85 | 177.81 |        |
| Max                              | 177.88 | 178.11 | 178.70      | 184.39 | 183.95                            | 182.64 | 179.20            | 178.39    | 178.72 | 178.00 | 177.89 | 177.99 | 184.39 |
| Min                              | 177.74 | 177.75 | 177.86      | 177.95 | 179.69                            | 179.13 | 178.40            | 178.12    | 177.98 | 177.89 | 177.82 | 177.65 | 177.65 |
| Annual Max Momentary Gage Height | 184.55 |        | m. (MSL.) , |        | at 18.00 Hours , on Jul 30 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 177.40 |        | m. (MSL.) , |        | River Bed                         | 174.73 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 190.27 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 192.59 |        | m. (MSL.) , |        | Drainage Area                     | 8706   | Square Kilometers |           |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                                | May                      | Jun     | Jul                  | Aug      | Sep      | Oct     | Nov                      | Dec     | Jan     | Feb     | Mar    | Annual          |
|----------------|--------------------------------------------------------------------|--------------------------|---------|----------------------|----------|----------|---------|--------------------------|---------|---------|---------|--------|-----------------|
| 1              | 37.30                                                              | 38.60                    | 45.10   | 77.40                | 818.50   | 633.60   | 239.30  | 120.40                   | 78.80   | 62.00   | 47.70   | 38.60  |                 |
| 2              | 37.30                                                              | 37.30                    | 49.00   | 77.40                | 913.00   | 524.40   | 243.10  | 115.60                   | 81.60   | 58.10   | 46.40   | 38.60  |                 |
| 3              | 39.90                                                              | 37.30                    | 71.80   | 64.80                | 619.20   | 427.00   | 243.10  | 115.60                   | 78.80   | 59.40   | 47.70   | 38.60  |                 |
| 4              | 37.30                                                              | 43.80                    | 71.80   | 55.50                | 476.10   | 357.10   | 264.00  | 112.40                   | 77.40   | 59.40   | 46.40   | 37.30  |                 |
| 5              | 37.30                                                              | 52.90                    | 87.20   | 71.80                | 424.80   | 345.70   | 235.50  | 109.20                   | 73.20   | 58.10   | 46.40   | 37.30  |                 |
| 6              | 36.00                                                              | 55.50                    | 74.60   | 99.60                | 378.00   | 616.80   | 218.80  | 102.80                   | 70.40   | 58.10   | 45.10   | 36.00  |                 |
| 7              | 34.80                                                              | 56.80                    | 71.80   | 106.00               | 376.10   | 1092.20  | 215.20  | 99.60                    | 71.80   | 56.80   | 45.10   | 36.00  |                 |
| 8              | 34.80                                                              | 50.30                    | 60.70   | 91.60                | 645.60   | 721.30   | 197.20  | 101.20                   | 69.00   | 55.50   | 43.80   | 36.00  |                 |
| 9              | 34.80                                                              | 52.90                    | 58.10   | 80.20                | 765.70   | 585.60   | 179.80  | 99.60                    | 69.00   | 55.50   | 43.80   | 34.80  |                 |
| 10             | 33.60                                                              | 55.50                    | 62.00   | 81.60                | 1459.00  | 540.50   | 167.90  | 99.60                    | 67.60   | 55.50   | 43.80   | 34.80  |                 |
| 11             | 32.40                                                              | 59.40                    | 127.10  | 87.20                | 1324.60  | 431.40   | 162.80  | 99.60                    | 66.20   | 54.20   | 43.80   | 20.00  |                 |
| 12             | 32.40                                                              | 62.00                    | 173.00  | 161.10               | 935.40   | 389.40   | 157.70  | 98.00                    | 66.20   | 54.20   | 42.50   | 20.00  |                 |
| 13             | 31.20                                                              | 60.70                    | 93.20   | 140.70               | 653.20   | 398.90   | 156.00  | 99.60                    | 66.20   | 52.90   | 42.50   | 20.00  |                 |
| 14             | 30.00                                                              | 55.50                    | 63.40   | 235.50               | 556.80   | 397.00   | 149.20  | 99.60                    | 67.60   | 52.90   | 41.20   | 19.00  |                 |
| 15             | 30.00                                                              | 50.30                    | 58.10   | 213.40               | 535.90   | 416.00   | 142.40  | 101.20                   | 67.60   | 51.60   | 41.20   | 19.00  |                 |
| 16             | 30.00                                                              | 42.50                    | 50.30   | 265.90               | 424.80   | 597.60   | 139.00  | 106.00                   | 84.40   | 51.60   | 41.20   | 19.00  |                 |
| 17             | 28.80                                                              | 36.00                    | 46.40   | 246.90               | 462.30   | 469.20   | 137.30  | 96.40                    | 176.40  | 51.60   | 41.20   | 19.00  |                 |
| 18             | 31.20                                                              | 33.60                    | 43.80   | 218.80               | 412.20   | 408.40   | 169.60  | 91.60                    | 94.80   | 51.60   | 42.50   | 19.00  |                 |
| 19             | 30.00                                                              | 30.00                    | 49.00   | 211.60               | 357.10   | 397.00   | 231.70  | 96.40                    | 80.20   | 51.60   | 42.50   | 19.00  |                 |
| 20             | 30.00                                                              | 30.00                    | 43.80   | 202.60               | 444.60   | 359.00   | 183.20  | 94.80                    | 77.40   | 51.60   | 42.50   | 19.00  |                 |
| 21             | 28.80                                                              | 32.40                    | 49.00   | 171.30               | 480.70   | 321.00   | 167.90  | 99.60                    | 74.60   | 51.60   | 41.20   | 28.20  |                 |
| 22             | 46.40                                                              | 50.30                    | 54.20   | 154.30               | 476.10   | 286.80   | 150.90  | 99.60                    | 70.40   | 50.30   | 41.20   | 31.00  |                 |
| 23             | 45.10                                                              | 46.40                    | 56.80   | 195.40               | 731.70   | 264.00   | 147.50  | 94.80                    | 69.00   | 50.30   | 39.90   | 31.00  |                 |
| 24             | 43.80                                                              | 47.70                    | 55.50   | 283.00               | 597.60   | 250.70   | 147.50  | 87.20                    | 67.60   | 50.30   | 39.90   | 31.00  |                 |
| 25             | 39.90                                                              | 69.00                    | 52.90   | 277.30               | 592.80   | 281.10   | 166.20  | 84.40                    | 67.60   | 50.30   | 39.90   | 31.00  |                 |
| 26             | 42.50                                                              | 77.40                    | 80.20   | 387.50               | 508.30   | 283.00   | 179.80  | 85.80                    | 66.20   | 50.30   | 39.90   | 31.00  |                 |
| 27             | 42.50                                                              | 62.00                    | 74.60   | 292.50               | 444.60   | 368.50   | 152.60  | 84.40                    | 64.80   | 49.00   | 38.60   | 36.60  |                 |
| 28             | 42.50                                                              | 51.60                    | 71.80   | 277.30               | 433.60   | 379.90   | 139.00  | 80.20                    | 62.00   | 49.00   | 38.60   | 36.60  |                 |
| 29             | 39.90                                                              | 42.50                    | 78.80   | 850.90               | 406.50   | 321.00   | 135.60  | 80.20                    | 62.00   | 49.00   |         | 31.00  |                 |
| 30             | 39.90                                                              | 39.90                    | 78.80   | 1586.10              | 379.90   | 265.90   | 122.00  | 78.80                    | 62.00   | 47.70   |         | 31.00  |                 |
| 31             |                                                                    | 39.90                    |         | 1375.00              | 489.90   |          | 122.00  |                          | 59.40   | 47.70   |         | 31.00  |                 |
| Total          | 1080.40                                                            | 1500.00                  | 2052.80 | 8640.20              | 18524.60 | 13130.00 | 5463.80 | 2934.20                  | 2310.20 | 1647.70 | 1196.50 | 910.40 | 59390.80 CMSDAY |
| Mean           | 36.00                                                              | 48.40                    | 68.40   | 278.70               | 597.60   | 437.70   | 176.30  | 97.80                    | 74.50   | 53.20   | 42.70   | 29.40  | 162.70 CMS      |
| Max            | 46.40                                                              | 77.40                    | 173.00  | 1586.10              | 1459.00  | 1092.20  | 264.00  | 120.40                   | 176.40  | 62.00   | 47.70   | 38.60  | 1586.10 CMS     |
| Min            | 28.80                                                              | 30.00                    | 43.80   | 55.50                | 357.10   | 250.70   | 122.00  | 78.80                    | 59.40   | 47.70   | 38.60   | 19.00  | 19.00 CMS       |
| Runoff         | 93.35                                                              | 129.60                   | 177.36  | 746.51               | 1600.53  | 1134.43  | 472.07  | 253.51                   | 199.60  | 142.36  | 103.38  | 78.66  | 5131.37 MCM     |
| Momentary Peak | 1632.50 CMS. at 184.55 m. (MSL.) at 18.00 Hours , on Jul 30 , 2013 |                          |         |                      |          |          |         |                          |         |         |         |        |                 |
| Runoff Yield   | 18.69                                                              | Liters/Second/Square KM. |         | Momentary Peak Yield |          | 187.514  |         | Liters/Second/Square KM. |         |         |         |        |                 |

**WATER YEAR : 2013**

## Nan RIVER BASIN

**Nan River at Wat Luang Pho Kaeo , Nakhon Sawan (N.14A)**

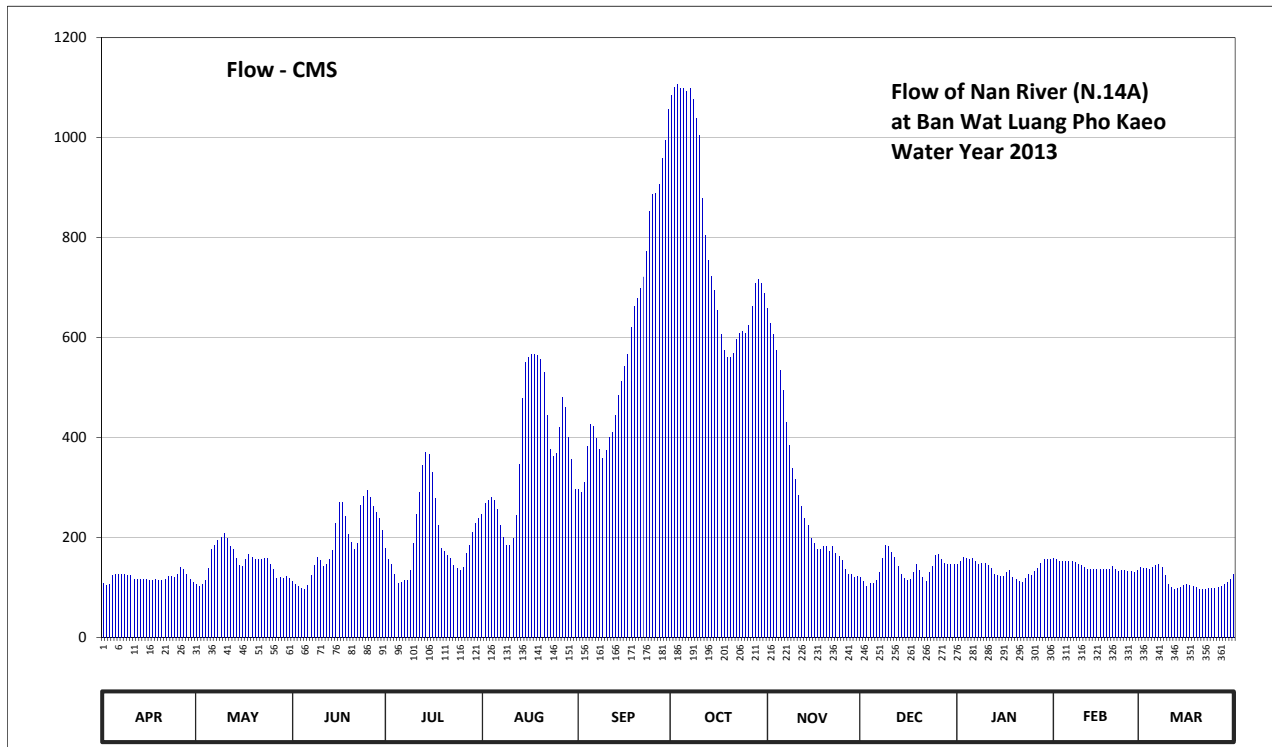
Lat 15 - 53 - 44 N    Long 100 - 18 - 42 E

**Location : on right bank in front of Wat Luang Pho Kaeo about 1 kilometer upstream from Station N.14**

|                                         |                                                                             |                    |               |            |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|--------------------|---------------|------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Wat Luang Pho Kaeo | <b>Amphoe</b> | Chum Saeng | <b>Changwat</b>  | Nakhon Sawan      |
| <b>Drainage Area</b>                    | 32,826                                                                      | sq.km.             |               |            |                  |                   |
| <b>Type of Gage</b>                     | Staff gage.                                                                 |                    |               |            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                      | m. (MSL.)          |               |            |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                    |               |            |                  |                   |
| <b>Location BM</b>                      | On right bank in front of automatic gage building.                          |                    |               |            | <b>Elevation</b> | +32.155 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                      |                    |               |            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                               |                    |               |            |                  |                   |
| <b>Period of Available Gage Records</b> | 1971 to date                                                                |                    |               |            |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |                    |               |            |                  |                   |
| <b>Period of Rating</b>                 | 1973 - 1979, 1991 to date                                                   |                    |               |            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |                    |               |            |                  |                   |
| <b>Rated by Current Meter</b>           | 1972 - 1980, 1991 to date                                                   |                    |               |            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |                    |               |            |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                            |                    |               |            |                  |                   |
| <b>General Description</b>              | Records good. Flow effected by Naresuan Dam.                                |                    |               |            |                  |                   |
|                                         | Stage-discharge relation defined by 47 discharge measurements made in 1913. |                    |               |            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

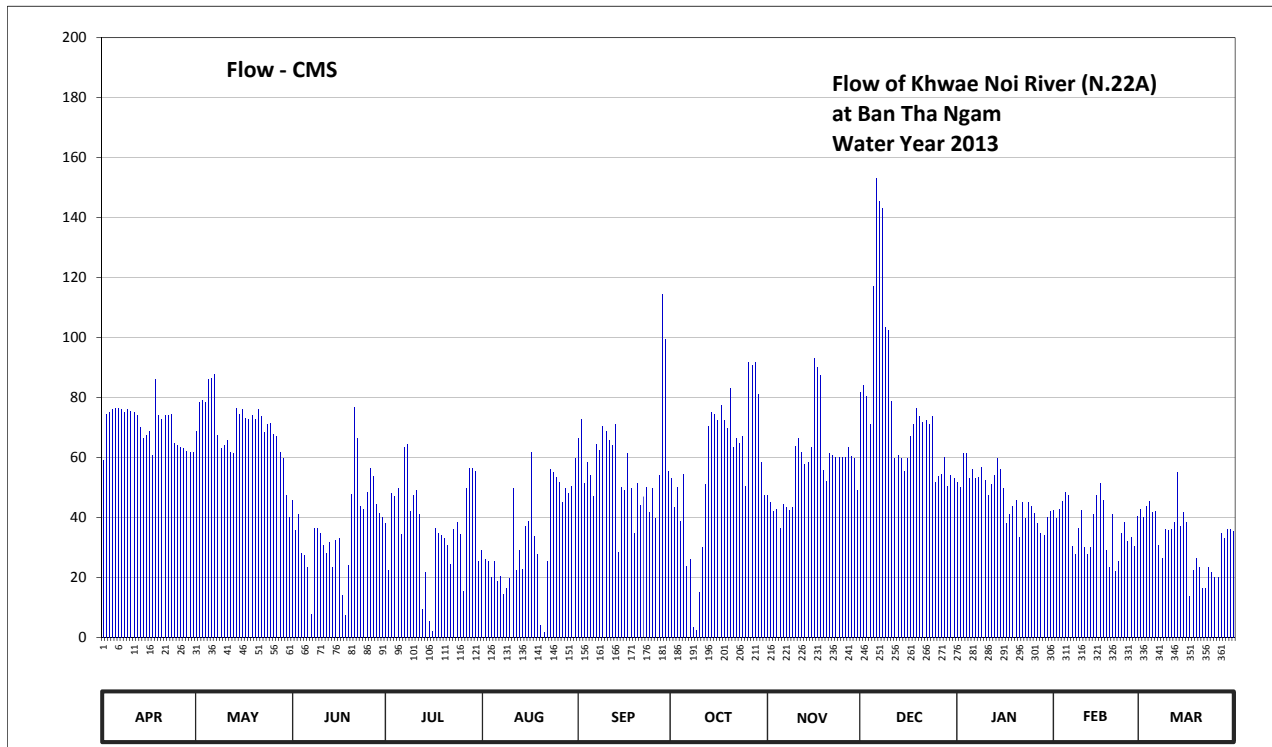
| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 20.72 | 20.69 | 20.79                                             | 21.75 | 22.50 | 23.00 | 28.63 | 26.97 | 20.92 | 21.30 | 21.47 | 21.20 |        |
| 2                                | 20.67 | 20.64 | 20.71                                             | 21.45 | 22.72 | 22.93 | 28.69 | 26.76 | 20.80 | 21.39 | 21.45 | 21.19 |        |
| 3                                | 20.70 | 20.70 | 20.62                                             | 21.30 | 22.79 | 23.13 | 28.71 | 26.62 | 20.63 | 21.49 | 21.40 | 21.19 |        |
| 4                                | 20.99 | 20.82 | 20.57                                             | 21.00 | 22.84 | 23.78 | 28.68 | 26.40 | 20.73 | 21.46 | 21.40 | 21.17 |        |
| 5                                | 21.00 | 21.19 | 20.55                                             | 20.73 | 22.79 | 24.15 | 28.68 | 26.11 | 20.73 | 21.45 | 21.38 | 21.20 |        |
| 6                                | 21.00 | 21.71 | 20.67                                             | 20.76 | 22.60 | 24.11 | 28.66 | 25.79 | 20.82 | 21.47 | 21.38 | 21.27 |        |
| 7                                | 21.00 | 21.81 | 20.98                                             | 20.84 | 22.26 | 23.91 | 28.68 | 25.29 | 21.06 | 21.40 | 21.37 | 21.31 |        |
| 8                                | 21.00 | 21.92 | 21.27                                             | 20.84 | 21.99 | 23.72 | 28.60 | 24.91 | 21.46 | 21.30 | 21.36 | 21.22 |        |
| 9                                | 20.99 | 22.00 | 21.49                                             | 21.13 | 21.81 | 23.57 | 28.47 | 24.50 | 21.81 | 21.33 | 21.30 | 20.98 |        |
| 10                               | 20.98 | 22.08 | 21.42                                             | 21.85 | 21.80 | 23.71 | 28.34 | 24.29 | 21.78 | 21.32 | 21.26 | 20.69 |        |
| 11                               | 20.86 | 21.96 | 21.25                                             | 22.49 | 21.97 | 23.93 | 28.06 | 23.98 | 21.64 | 21.27 | 21.21 | 20.60 |        |
| 12                               | 20.86 | 21.78 | 21.29                                             | 22.95 | 22.47 | 24.01 | 27.76 | 23.73 | 21.50 | 21.19 | 21.15 | 20.55 |        |
| 13                               | 20.86 | 21.71 | 21.45                                             | 23.44 | 23.46 | 24.29 | 27.52 | 23.47 | 21.24 | 21.00 | 21.15 | 20.56 |        |
| 14                               | 20.86 | 21.48 | 21.69                                             | 23.67 | 24.56 | 24.62 | 27.34 | 23.29 | 21.00 | 20.99 | 21.15 | 20.61 |        |
| 15                               | 20.85 | 21.28 | 22.31                                             | 23.63 | 25.25 | 24.85 | 27.18 | 22.90 | 20.91 | 20.95 | 21.15 | 20.65 |        |
| 16                               | 20.83 | 21.23 | 22.74                                             | 23.30 | 25.42 | 25.08 | 26.94 | 22.70 | 20.83 | 20.96 | 21.15 | 20.69 |        |
| 17                               | 20.84 | 21.45 | 22.74                                             | 22.81 | 25.50 | 25.50 | 26.62 | 22.40 | 20.85 | 21.07 | 21.15 | 20.67 |        |
| 18                               | 20.85 | 21.59 | 22.46                                             | 22.26 | 25.50 | 26.07 | 26.40 | 22.40 | 21.07 | 21.14 | 21.15 | 20.64 |        |
| 19                               | 20.83 | 21.50 | 22.05                                             | 21.75 | 25.47 | 26.43 | 26.30 | 22.55 | 21.30 | 20.94 | 21.15 | 20.59 |        |
| 20                               | 20.83 | 21.43 | 21.87                                             | 21.66 | 25.33 | 26.55 | 26.30 | 22.57 | 21.14 | 20.86 | 21.24 | 20.55 |        |
| 21                               | 20.88 | 21.43 | 21.72                                             | 21.57 | 24.99 | 26.71 | 26.36 | 22.33 | 20.93 | 20.79 | 21.17 | 20.55 |        |
| 22                               | 20.96 | 21.43 | 21.86                                             | 21.48 | 24.30 | 26.87 | 26.55 | 21.79 | 20.79 | 20.78 | 21.11 | 20.55 |        |
| 23                               | 20.96 | 21.47 | 22.68                                             | 21.28 | 23.73 | 27.20 | 26.63 | 21.60 | 21.07 | 20.89 | 21.13 | 20.56 |        |
| 24                               | 20.94 | 21.46 | 22.87                                             | 21.18 | 23.60 | 27.66 | 26.66 | 21.53 | 21.24 | 21.00 | 21.12 | 20.58 |        |
| 25                               | 21.02 | 21.30 | 22.98                                             | 21.12 | 23.66 | 27.83 | 26.63 | 21.41 | 21.55 | 20.99 | 21.11 | 20.58 |        |
| 26                               | 21.20 | 21.15 | 22.83                                             | 21.21 | 24.10 | 27.84 | 26.74 | 21.17 | 21.58 | 21.10 | 21.09 | 20.61 |        |
| 27                               | 21.17 | 20.90 | 22.66                                             | 21.60 | 24.58 | 27.93 | 26.99 | 21.00 | 21.45 | 21.19 | 21.08 | 20.64 |        |
| 28                               | 21.00 | 20.93 | 22.54                                             | 21.82 | 24.42 | 28.15 | 27.26 | 21.00 | 21.32 | 21.32 | 21.14 | 20.70 |        |
| 29                               | 20.88 | 20.90 | 22.41                                             | 22.10 | 23.93 | 28.30 | 27.31 | 20.93 | 21.30 | 21.44 |       | 20.78 |        |
| 30                               | 20.77 | 20.97 | 22.14                                             | 22.31 | 23.55 | 28.53 | 27.27 | 20.95 | 21.29 | 21.44 |       | 20.87 |        |
| 31                               |       | 20.89 |                                                   | 22.41 | 23.00 |       | 27.15 |       | 21.29 | 21.44 |       | 21.00 |        |
| Mean                             | 20.91 | 21.35 | 21.79                                             | 21.86 | 23.64 | 25.48 | 27.49 | 23.38 | 21.16 | 21.18 | 21.23 | 20.80 |        |
| Max                              | 21.20 | 22.08 | 22.98                                             | 23.67 | 25.50 | 28.53 | 28.71 | 26.97 | 21.81 | 21.49 | 21.47 | 21.31 | 28.71  |
| Min                              | 20.67 | 20.64 | 20.55                                             | 20.73 | 21.80 | 22.93 | 26.30 | 20.93 | 20.63 | 20.78 | 21.08 | 20.55 | 20.55  |
| Annual Max Momentary Gage Height | 28.71 |       | m. (MSL.) , at 06.00 Hours , on Oct 3 , 2013      |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 15.47 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 29.84 |       | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 32.10 |       | m. (MSL.) , Drainage Area 32826 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                          | May     | Jun     | Jul     | Aug                         | Sep      | Oct      | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|--------------------------------------------------------------|---------|---------|---------|-----------------------------|----------|----------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 108.20                                                       | 106.40  | 112.40  | 180.00  | 247.00                      | 297.00   | 1084.40  | 658.60  | 120.40                   | 147.00  | 158.90  | 140.00  |          |        |
| 2              | 105.20                                                       | 103.40  | 107.60  | 157.50  | 269.00                      | 290.00   | 1101.20  | 627.80  | 113.00                   | 153.30  | 157.50  | 139.30  |          |        |
| 3              | 107.00                                                       | 107.00  | 102.20  | 147.00  | 276.00                      | 311.30   | 1106.80  | 606.10  | 102.80                   | 160.30  | 154.00  | 139.30  |          |        |
| 4              | 125.30                                                       | 114.20  | 99.20   | 126.00  | 281.00                      | 383.60   | 1098.40  | 574.00  | 108.80                   | 158.20  | 154.00  | 137.90  |          |        |
| 5              | 126.00                                                       | 139.30  | 98.00   | 108.80  | 276.00                      | 428.00   | 1098.40  | 534.90  | 108.80                   | 157.50  | 152.60  | 140.00  |          |        |
| 6              | 126.00                                                       | 176.80  | 105.20  | 110.60  | 257.00                      | 423.20   | 1092.80  | 493.80  | 114.20                   | 158.90  | 152.60  | 144.90  |          |        |
| 7              | 126.00                                                       | 184.90  | 124.60  | 115.40  | 225.40                      | 399.20   | 1098.40  | 431.30  | 130.20                   | 154.00  | 151.90  | 147.70  |          |        |
| 8              | 126.00                                                       | 194.80  | 144.90  | 115.40  | 201.10                      | 376.40   | 1076.00  | 385.20  | 158.20                   | 147.00  | 151.20  | 141.40  |          |        |
| 9              | 125.30                                                       | 202.00  | 160.30  | 135.10  | 184.90                      | 359.70   | 1039.60  | 339.00  | 184.90                   | 149.10  | 147.00  | 124.60  |          |        |
| 10             | 124.60                                                       | 209.20  | 155.40  | 188.50  | 184.00                      | 375.20   | 1004.40  | 316.50  | 182.40                   | 148.40  | 144.20  | 106.40  |          |        |
| 11             | 116.60                                                       | 198.40  | 143.50  | 246.10  | 199.30                      | 401.60   | 878.60   | 285.20  | 171.20                   | 144.90  | 140.70  | 101.00  |          |        |
| 12             | 116.60                                                       | 182.40  | 146.30  | 292.00  | 244.30                      | 411.20   | 805.20   | 262.30  | 161.00                   | 139.30  | 136.50  | 98.00   |          |        |
| 13             | 116.60                                                       | 176.80  | 157.50  | 345.40  | 347.60                      | 444.80   | 754.80   | 239.60  | 142.80                   | 126.00  | 136.50  | 98.60   |          |        |
| 14             | 116.60                                                       | 159.60  | 175.20  | 370.70  | 477.20                      | 484.40   | 721.50   | 225.80  | 126.00                   | 125.30  | 136.50  | 101.60  |          |        |
| 15             | 116.00                                                       | 145.60  | 229.90  | 366.30  | 551.00                      | 512.50   | 693.60   | 199.50  | 119.70                   | 122.50  | 136.50  | 104.00  |          |        |
| 16             | 114.80                                                       | 142.10  | 271.00  | 330.00  | 561.20                      | 542.40   | 654.30   | 188.50  | 114.80                   | 123.20  | 136.50  | 106.40  |          |        |
| 17             | 115.40                                                       | 157.50  | 271.00  | 278.00  | 566.00                      | 566.00   | 606.10   | 176.00  | 116.00                   | 130.90  | 136.50  | 105.20  |          |        |
| 18             | 116.00                                                       | 167.30  | 243.40  | 225.40  | 566.00                      | 619.70   | 574.00   | 176.00  | 130.90                   | 135.80  | 136.50  | 103.40  |          |        |
| 19             | 114.80                                                       | 161.00  | 206.50  | 180.00  | 564.20                      | 661.90   | 560.50   | 182.00  | 147.00                   | 121.80  | 136.50  | 100.40  |          |        |
| 20             | 114.80                                                       | 156.10  | 190.30  | 172.80  | 555.80                      | 677.50   | 560.50   | 182.80  | 135.80                   | 116.60  | 142.80  | 98.00   |          |        |
| 21             | 117.80                                                       | 156.10  | 177.60  | 165.90  | 530.70                      | 698.40   | 568.60   | 173.20  | 121.10                   | 112.40  | 137.90  | 98.00   |          |        |
| 22             | 123.20                                                       | 156.10  | 189.40  | 159.60  | 446.00                      | 721.50   | 595.70   | 183.20  | 112.40                   | 111.80  | 133.70  | 98.00   |          |        |
| 23             | 123.20                                                       | 158.90  | 265.00  | 145.60  | 377.60                      | 773.00   | 607.60   | 168.00  | 130.90                   | 118.40  | 135.10  | 98.60   |          |        |
| 24             | 121.80                                                       | 158.20  | 284.00  | 138.60  | 363.00                      | 852.40   | 612.30   | 163.10  | 142.80                   | 126.00  | 134.40  | 99.80   |          |        |
| 25             | 127.40                                                       | 147.00  | 295.00  | 134.40  | 369.60                      | 886.00   | 607.60   | 154.70  | 164.50                   | 125.30  | 133.70  | 99.80   |          |        |
| 26             | 140.00                                                       | 136.50  | 280.00  | 140.70  | 422.00                      | 888.00   | 624.70   | 137.90  | 166.60                   | 133.00  | 132.30  | 101.60  |          |        |
| 27             | 137.90                                                       | 119.00  | 263.00  | 168.00  | 479.60                      | 906.60   | 661.50   | 126.00  | 157.50                   | 139.30  | 131.60  | 103.40  |          |        |
| 28             | 126.00                                                       | 121.10  | 251.00  | 185.80  | 460.40                      | 958.00   | 707.50   | 126.00  | 148.40                   | 148.40  | 135.80  | 107.00  |          |        |
| 29             | 117.80                                                       | 119.00  | 238.90  | 211.00  | 401.60                      | 994.00   | 716.20   | 121.10  | 147.00                   | 156.80  |         | 111.80  |          |        |
| 30             | 111.20                                                       | 123.90  | 214.60  | 229.90  | 357.50                      | 1056.40  | 709.20   | 122.50  | 146.30                   | 156.80  |         | 117.20  |          |        |
| 31             |                                                              | 118.40  |         | 238.90  | 297.00                      |          | 688.50   |         | 146.30                   | 156.80  |         | 126.00  |          |        |
| Total          | 3604.10                                                      | 4699.00 | 5702.90 | 6109.40 | 11539.00                    | 17699.90 | 24708.90 | 8560.60 | 4272.70                  | 4305.00 | 3973.90 | 3539.30 | 98714.70 | CMSDAY |
| Mean           | 120.10                                                       | 151.60  | 190.10  | 197.10  | 372.20                      | 590.00   | 797.10   | 285.40  | 137.80                   | 138.90  | 141.90  | 114.20  | 270.50   | CMS    |
| Max            | 140.00                                                       | 209.20  | 295.00  | 370.70  | 566.00                      | 1056.40  | 1106.80  | 658.60  | 184.90                   | 160.30  | 158.90  | 147.70  | 1106.80  | CMS    |
| Min            | 105.20                                                       | 103.40  | 98.00   | 108.80  | 184.00                      | 290.00   | 560.50   | 121.10  | 102.80                   | 111.80  | 131.60  | 98.00   | 98.00    | CMS    |
| Runoff         | 311.39                                                       | 405.99  | 492.73  | 527.85  | 996.97                      | 1529.27  | 2134.85  | 739.64  | 369.16                   | 371.95  | 343.34  | 305.80  | 8528.95  | MCM    |
| Momentary Peak | 8.24 CMS. at 28.71 m. (MSL.) at 06.00 Hours , on Oct 3, 2013 |         |         |         |                             |          |          |         |                          |         |         |         |          |        |
| Runoff Yield   | 8.24 Liters/Second/Square KM.                                |         |         |         | Momentary Peak Yield 33.717 |          |          |         | Liters/Second/Square KM. |         |         |         |          |        |

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 43.00 | 43.24 | 42.67       | 42.48 | 42.25                            | 43.19 | 42.85             | 42.71 | 43.53 | 42.82 | 42.59 | 42.60 |        |
| 2                                | 43.37 | 43.45 | 42.42       | 42.09 | 42.18                            | 43.33 | 42.61             | 42.65 | 43.58 | 42.78 | 42.52 | 42.53 |        |
| 3                                | 43.38 | 43.47 | 42.55       | 42.73 | 42.16                            | 42.81 | 42.78             | 42.58 | 43.50 | 43.06 | 42.60 | 42.62 |        |
| 4                                | 43.40 | 43.45 | 42.23       | 42.70 | 42.03                            | 42.99 | 42.50             | 42.60 | 43.29 | 43.06 | 42.66 | 42.66 |        |
| 5                                | 43.41 | 43.62 | 42.21       | 42.77 | 42.16                            | 42.88 | 42.89             | 42.44 | 44.31 | 42.85 | 42.74 | 42.57 |        |
| 6                                | 43.41 | 43.63 | 42.11       | 42.39 | 41.99                            | 42.70 | 42.12             | 42.64 | 45.04 | 42.93 | 42.71 | 42.58 |        |
| 7                                | 43.40 | 43.66 | 41.66       | 43.11 | 42.04                            | 43.14 | 42.18             | 42.61 | 44.89 | 42.85 | 42.29 | 42.30 |        |
| 8                                | 43.38 | 43.21 | 42.44       | 43.14 | 41.87                            | 43.09 | 41.43             | 42.59 | 44.84 | 42.86 | 42.22 | 42.19 |        |
| 9                                | 43.40 | 43.10 | 42.44       | 42.58 | 41.93                            | 43.28 | 41.36             | 42.61 | 44.01 | 42.95 | 42.44 | 42.43 |        |
| 10                               | 43.39 | 43.13 | 42.40       | 42.71 | 42.02                            | 43.24 | 41.89             | 43.12 | 43.99 | 42.84 | 42.59 | 42.42 |        |
| 11                               | 43.38 | 43.17 | 42.30       | 42.75 | 42.77                            | 43.17 | 42.28             | 43.19 | 43.46 | 42.71 | 42.28 | 42.43 |        |
| 12                               | 43.36 | 43.07 | 42.23       | 42.55 | 42.09                            | 43.13 | 42.80             | 43.07 | 43.02 | 42.80 | 42.22 | 42.49 |        |
| 13                               | 43.27 | 43.06 | 42.32       | 41.71 | 42.25                            | 43.29 | 43.28             | 42.97 | 43.05 | 42.88 | 42.28 | 42.90 |        |
| 14                               | 43.19 | 43.41 | 42.11       | 42.07 | 42.10                            | 42.24 | 43.38             | 42.99 | 43.02 | 43.02 | 42.55 | 42.45 |        |
| 15                               | 43.21 | 43.37 | 42.34       | 41.56 | 42.45                            | 42.78 | 43.37             | 43.11 | 42.91 | 42.93 | 42.71 | 42.57 |        |
| 16                               | 43.24 | 43.40 | 42.35       | 41.32 | 42.50                            | 42.75 | 43.32             | 43.78 | 43.02 | 42.77 | 42.81 | 42.49 |        |
| 17                               | 43.05 | 43.34 | 41.86       | 42.44 | 43.07                            | 43.06 | 43.43             | 43.71 | 43.20 | 42.48 | 42.67 | 41.85 |        |
| 18                               | 43.62 | 43.33 | 41.65       | 42.40 | 42.37                            | 42.77 | 43.32             | 43.65 | 43.29 | 42.55 | 42.25 | 42.09 |        |
| 19                               | 43.36 | 43.36 | 42.13       | 42.38 | 42.22                            | 42.40 | 43.26             | 42.92 | 43.41 | 42.62 | 42.11 | 42.19 |        |
| 20                               | 43.33 | 43.33 | 42.72       | 42.35 | 41.48                            | 42.81 | 43.56             | 42.83 | 43.35 | 42.67 | 42.55 | 42.11 |        |
| 21                               | 43.36 | 43.40 | 43.42       | 42.30 | 41.27                            | 42.63 | 43.11             | 43.06 | 43.31 | 42.36 | 42.08 | 41.93 |        |
| 22                               | 43.36 | 43.35 | 43.19       | 42.14 | 42.16                            | 42.70 | 43.19             | 43.05 | 43.32 | 42.65 | 42.16 | 41.93 |        |
| 23                               | 43.37 | 43.23 | 42.62       | 42.43 | 42.93                            | 42.78 | 43.15             | 43.03 | 43.29 | 42.52 | 42.40 | 42.11 |        |
| 24                               | 43.15 | 43.29 | 42.60       | 42.49 | 42.90                            | 42.57 | 43.20             | 43.03 | 43.35 | 42.65 | 42.49 | 42.07 |        |
| 25                               | 43.13 | 43.30 | 42.74       | 42.39 | 42.86                            | 42.77 | 42.79             | 43.03 | 42.82 | 42.62 | 42.33 | 42.03 |        |
| 26                               | 43.11 | 43.22 | 42.94       | 41.90 | 42.82                            | 42.52 | 43.75             | 43.03 | 42.87 | 42.56 | 42.36 | 42.03 |        |
| 27                               | 43.10 | 43.20 | 42.87       | 42.77 | 42.65                            | 42.88 | 43.73             | 43.11 | 42.89 | 42.48 | 42.29 | 42.40 |        |
| 28                               | 43.08 | 43.07 | 42.64       | 42.94 | 42.77                            | 44.25 | 43.75             | 43.04 | 43.03 | 42.40 | 42.54 | 42.35 |        |
| 29                               | 43.07 | 43.02 | 42.56       | 42.94 | 42.73                            | 43.92 | 43.51             | 43.02 | 42.79 | 42.38 |       | 42.43 |        |
| 30                               | 43.07 | 42.71 | 42.53       | 42.91 | 42.79                            | 42.91 | 42.99             | 42.75 | 42.88 | 42.53 |       | 42.43 |        |
| 31                               |       | 42.53 |             | 42.16 | 43.02                            |       | 42.71             |       | 42.85 | 42.58 |       | 42.41 |        |
| Mean                             | 43.28 | 43.26 | 42.44       | 42.44 | 42.35                            | 42.97 | 42.92             | 42.96 | 43.42 | 42.71 | 42.44 | 42.34 |        |
| Max                              | 43.62 | 43.66 | 43.42       | 43.14 | 43.07                            | 44.25 | 43.75             | 43.78 | 45.04 | 43.06 | 42.81 | 42.90 | 45.04  |
| Min                              | 43.00 | 42.53 | 41.65       | 41.32 | 41.27                            | 42.24 | 41.36             | 42.44 | 42.79 | 42.36 | 42.08 | 41.85 | 41.27  |
| Annual Max Momentary Gage Height | 45.08 |       | m. (MSL.) , |       | at 15.00 Hours , on Dec 6 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 41.63 |       | m. (MSL.) , |       | River Bed                        | 38.99 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 52.78 |       | m. (MSL.) , |       |                                  |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 52.77 |       | m. (MSL.) , |       | Drainage Area                    | 4774  | Square Kilometers |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug     | Sep                  | Oct     | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|---------|----------------------|---------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 59.00                                                           | 68.80                    | 45.80   | 38.20   | 29.00   | 66.60                | 53.00   | 47.40   | 81.85                    | 51.80   | 42.60   | 43.00   |          |        |
| 2              | 74.65                                                           | 78.25                    | 35.80   | 22.60   | 26.20   | 72.85                | 43.40   | 45.00   | 84.10                    | 50.20   | 39.80   | 40.20   |          |        |
| 3              | 75.10                                                           | 79.15                    | 41.00   | 48.20   | 25.40   | 51.40                | 50.20   | 42.20   | 80.50                    | 61.40   | 43.00   | 43.80   |          |        |
| 4              | 76.00                                                           | 78.25                    | 28.20   | 47.00   | 20.20   | 58.60                | 39.00   | 43.00   | 71.05                    | 61.40   | 45.40   | 45.40   |          |        |
| 5              | 76.45                                                           | 85.90                    | 27.40   | 49.80   | 25.40   | 54.20                | 54.60   | 36.60   | 116.95                   | 53.00   | 48.60   | 41.80   |          |        |
| 6              | 76.45                                                           | 86.35                    | 23.40   | 34.60   | 18.65   | 47.00                | 23.80   | 44.60   | 153.00                   | 56.20   | 47.40   | 42.20   |          |        |
| 7              | 76.00                                                           | 87.70                    | 7.80    | 63.40   | 20.60   | 64.60                | 26.20   | 43.40   | 145.50                   | 53.00   | 30.60   | 31.00   |          |        |
| 8              | 75.10                                                           | 67.45                    | 36.60   | 64.60   | 14.45   | 62.60                | 3.45    | 42.60   | 143.00                   | 53.40   | 27.80   | 26.60   |          |        |
| 9              | 76.00                                                           | 63.00                    | 36.60   | 42.20   | 16.55   | 70.60                | 2.60    | 43.40   | 103.45                   | 57.00   | 36.60   | 36.20   |          |        |
| 10             | 75.55                                                           | 64.20                    | 35.00   | 47.40   | 19.80   | 68.80                | 15.15   | 63.80   | 102.55                   | 52.60   | 42.60   | 35.80   |          |        |
| 11             | 75.10                                                           | 65.80                    | 31.00   | 49.00   | 49.80   | 65.80                | 30.20   | 66.60   | 78.70                    | 47.40   | 30.20   | 36.20   |          |        |
| 12             | 74.20                                                           | 61.80                    | 28.20   | 41.00   | 22.60   | 64.20                | 51.00   | 61.80   | 59.80                    | 51.00   | 27.80   | 38.60   |          |        |
| 13             | 70.15                                                           | 61.40                    | 31.80   | 9.30    | 29.00   | 71.05                | 70.60   | 57.80   | 61.00                    | 54.20   | 30.20   | 55.00   |          |        |
| 14             | 66.60                                                           | 76.45                    | 23.40   | 21.80   | 23.00   | 28.60                | 75.10   | 58.60   | 59.80                    | 59.80   | 41.00   | 37.00   |          |        |
| 15             | 67.45                                                           | 74.65                    | 32.60   | 5.40    | 37.00   | 50.20                | 74.65   | 63.40   | 55.40                    | 56.20   | 47.40   | 41.80   |          |        |
| 16             | 68.80                                                           | 76.00                    | 33.00   | 2.20    | 39.00   | 49.00                | 72.40   | 93.10   | 59.80                    | 49.80   | 51.40   | 38.60   |          |        |
| 17             | 61.00                                                           | 73.30                    | 14.10   | 36.60   | 61.80   | 61.40                | 77.35   | 89.95   | 67.00                    | 38.20   | 45.80   | 13.75   |          |        |
| 18             | 85.90                                                           | 72.85                    | 7.50    | 35.00   | 33.80   | 49.80                | 72.40   | 87.25   | 71.05                    | 41.00   | 29.00   | 22.60   |          |        |
| 19             | 74.20                                                           | 74.20                    | 24.20   | 34.20   | 27.80   | 35.00                | 69.70   | 55.80   | 76.45                    | 43.80   | 23.40   | 26.60   |          |        |
| 20             | 72.85                                                           | 72.85                    | 47.80   | 33.00   | 4.20    | 51.40                | 83.20   | 52.20   | 73.75                    | 45.80   | 41.00   | 23.40   |          |        |
| 21             | 74.20                                                           | 76.00                    | 76.90   | 31.00   | 1.70    | 44.20                | 63.40   | 61.40   | 71.95                    | 33.40   | 22.20   | 16.55   |          |        |
| 22             | 74.20                                                           | 73.75                    | 66.60   | 24.60   | 25.40   | 47.00                | 66.60   | 61.00   | 72.40                    | 45.00   | 25.40   | 16.55   |          |        |
| 23             | 74.65                                                           | 68.35                    | 43.80   | 36.20   | 56.20   | 50.20                | 65.00   | 60.20   | 71.05                    | 39.80   | 35.00   | 23.40   |          |        |
| 24             | 65.00                                                           | 71.05                    | 43.00   | 38.60   | 55.00   | 41.80                | 67.00   | 60.20   | 73.75                    | 45.00   | 38.60   | 21.80   |          |        |
| 25             | 64.20                                                           | 71.50                    | 48.60   | 34.60   | 53.40   | 49.80                | 50.60   | 60.20   | 51.80                    | 43.80   | 32.20   | 20.20   |          |        |
| 26             | 63.40                                                           | 67.90                    | 56.60   | 15.50   | 51.80   | 39.80                | 91.75   | 60.20   | 53.80                    | 41.40   | 33.40   | 20.20   |          |        |
| 27             | 63.00                                                           | 67.00                    | 53.80   | 49.80   | 45.00   | 54.20                | 90.85   | 63.40   | 54.60                    | 38.20   | 30.60   | 35.00   |          |        |
| 28             | 62.20                                                           | 61.80                    | 44.60   | 56.60   | 49.80   | 114.25               | 91.75   | 60.60   | 60.20                    | 35.00   | 40.60   | 33.00   |          |        |
| 29             | 61.80                                                           | 59.80                    | 41.40   | 56.60   | 48.20   | 99.40                | 80.95   | 59.80   | 50.60                    | 34.20   |         | 36.20   |          |        |
| 30             | 61.80                                                           | 47.40                    | 40.20   | 55.40   | 50.60   | 55.40                | 58.60   | 49.00   | 54.20                    | 40.20   |         | 36.20   |          |        |
| 31             |                                                                 | 40.20                    |         | 25.40   | 59.80   |                      | 47.40   |         | 53.00                    | 42.20   |         | 35.40   |          |        |
| Total          | 2121.00                                                         | 2173.10                  | 1106.70 | 1149.80 | 1041.15 | 1739.75              | 1761.90 | 1734.50 | 2412.05                  | 1475.40 | 1029.60 | 1014.05 | 18759.00 | CMSDAY |
| Mean           | 70.70                                                           | 70.10                    | 36.89   | 37.09   | 33.59   | 57.99                | 56.84   | 57.82   | 77.81                    | 47.59   | 36.77   | 32.71   | 51.39    | CMS    |
| Max            | 85.90                                                           | 87.70                    | 76.90   | 64.60   | 61.80   | 114.25               | 91.75   | 93.10   | 153.00                   | 61.40   | 51.40   | 55.00   | 153.00   | CMS    |
| Min            | 59.00                                                           | 40.20                    | 7.50    | 2.20    | 1.70    | 28.60                | 2.60    | 36.60   | 50.60                    | 33.40   | 22.20   | 13.75   | 1.70     | CMS    |
| Runoff         | 183.25                                                          | 187.76                   | 95.62   | 99.34   | 89.96   | 150.31               | 152.23  | 149.86  | 208.40                   | 127.48  | 88.96   | 87.61   | 1620.78  | MCM    |
| Momentary Peak | 155.00 CMS. at 45.08 m. (MSL.) at 15.00 Hours , on Dec 6 , 2013 |                          |         |         |         |                      |         |         |                          |         |         |         |          |        |
| Runoff Yield   | 10.77                                                           | Liters/Second/Square KM. |         |         |         | Momentary Peak Yield |         | 32.468  | Liters/Second/Square KM. |         |         |         |          |        |

## WATER YEAR : 2013

## NAN RIVER BASIN

## Khek River at Ban Wang Nok Aen , Phitsanulok (N.24A)

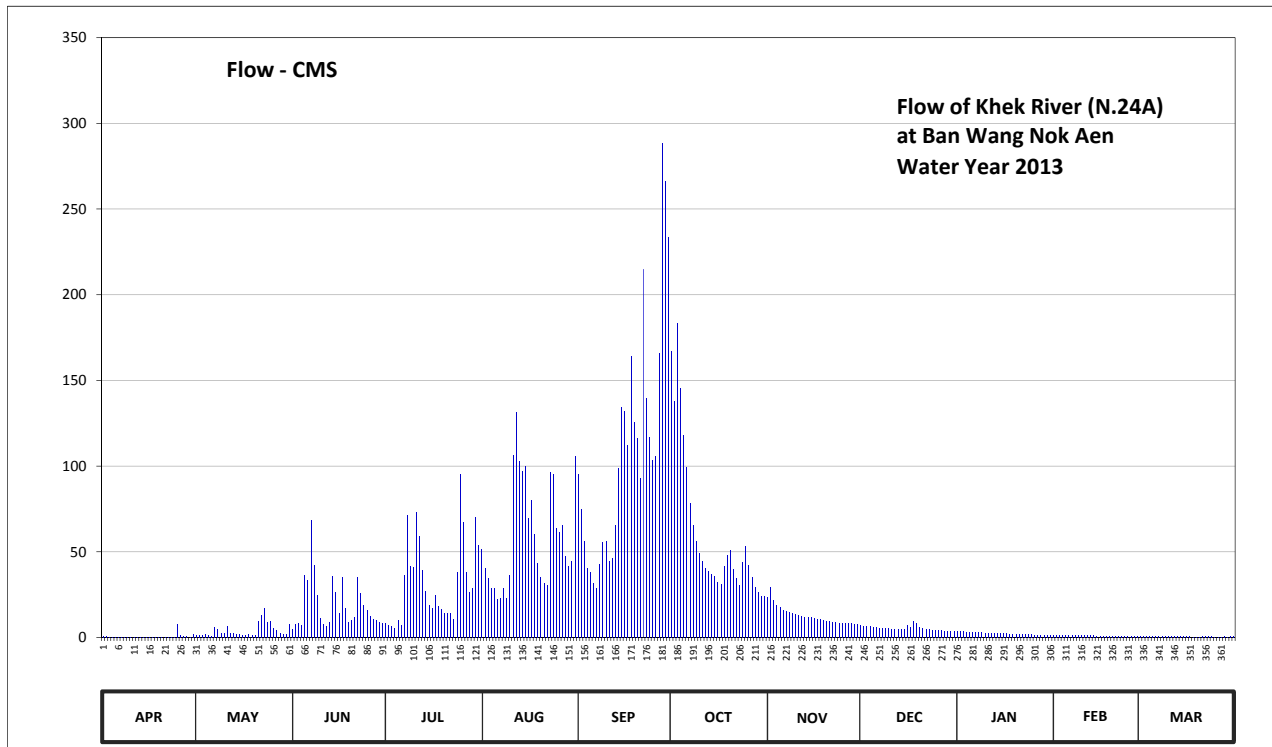
Lat 16 - 50 - 36 N    Long 100 - 31 - 20

**Location :** on right bank about 2 kilometers downstream from Sakunothayan Fall

|                                         |                                                                                           |              |               |            |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Wang Nok Aen | <b>Amphoe</b> | Wang Thong | <b>Changwat</b>  | Phitsanulok       |
| <b>Drainage Area</b>                    | 1,838                                                                                     | sq.km.       |               |            |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |              |               |            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +40.710                                                                                   | m. (MSL.)    |               |            |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |            |                  |                   |
| <b>Location BM</b>                      | Near the gage site.                                                                       |              |               |            | <b>Elevation</b> | +54.851 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |              |               |            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |              |               |            |                  |                   |
| <b>Period of Available Gage Records</b> | 1965 to date                                                                              |              |               |            |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |              |               |            |                  |                   |
| <b>Period of Rating</b>                 | 1965 - 1974 , 1980 to date                                                                |              |               |            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |            |                  |                   |
| <b>Rated by Current Meter</b>           | 1965 - 1974 , 1980 to date                                                                |              |               |            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |              |               |            |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |            |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 33 discharge measurements made in 2013. |              |               |            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 41.63 | 41.80 | 42.17                                            | 42.53 | 45.34 | 47.40 | 49.98 | 43.68 | 42.44 | 42.06 | 41.81 | 41.65 |        |
| 2                                | 41.62 | 41.75 | 42.48                                            | 42.40 | 44.75 | 46.50 | 49.18 | 44.08 | 42.39 | 42.05 | 41.81 | 41.65 |        |
| 3                                | 41.61 | 41.75 | 42.53                                            | 42.36 | 44.40 | 45.55 | 50.25 | 43.54 | 42.36 | 42.05 | 41.80 | 41.65 |        |
| 4                                | 41.61 | 41.84 | 42.44                                            | 42.28 | 44.01 | 44.75 | 49.47 | 43.38 | 42.34 | 42.04 | 41.80 | 41.64 |        |
| 5                                | 41.60 | 41.78 | 44.52                                            | 42.73 | 44.02 | 44.60 | 48.41 | 43.27 | 42.31 | 42.03 | 41.79 | 41.64 |        |
| 6                                | 41.57 | 41.72 | 44.33                                            | 42.40 | 43.61 | 44.23 | 47.58 | 43.18 | 42.30 | 42.02 | 41.78 | 41.64 |        |
| 7                                | 41.56 | 42.31 | 46.17                                            | 44.51 | 43.64 | 44.02 | 46.64 | 43.12 | 42.27 | 42.01 | 41.78 | 41.64 |        |
| 8                                | 41.55 | 42.16 | 44.83                                            | 46.33 | 44.02 | 44.87 | 46.03 | 43.09 | 42.26 | 42.00 | 41.78 | 41.64 |        |
| 9                                | 41.54 | 41.95 | 43.75                                            | 44.82 | 43.62 | 45.52 | 45.56 | 43.05 | 42.25 | 41.99 | 41.77 | 41.63 |        |
| 10                               | 41.53 | 41.97 | 42.83                                            | 44.77 | 44.52 | 45.57 | 45.20 | 43.01 | 42.24 | 41.98 | 41.76 | 41.63 |        |
| 11                               | 41.52 | 42.35 | 42.51                                            | 46.40 | 47.90 | 44.96 | 44.96 | 42.97 | 42.22 | 41.97 | 41.75 | 41.63 |        |
| 12                               | 41.51 | 41.95 | 42.34                                            | 45.71 | 48.94 | 45.06 | 44.73 | 42.93 | 42.22 | 41.96 | 41.75 | 41.64 |        |
| 13                               | 41.54 | 41.92 | 42.59                                            | 44.69 | 47.72 | 46.02 | 44.65 | 42.90 | 42.21 | 41.95 | 41.74 | 41.64 |        |
| 14                               | 41.53 | 41.89 | 44.49                                            | 43.90 | 47.47 | 47.56 | 44.55 | 42.89 | 42.19 | 41.94 | 41.73 | 41.64 |        |
| 15                               | 41.53 | 41.83 | 43.86                                            | 43.38 | 47.60 | 49.06 | 44.48 | 42.85 | 42.18 | 41.93 | 41.72 | 41.63 |        |
| 16                               | 41.54 | 41.79 | 43.07                                            | 43.24 | 46.23 | 48.96 | 44.25 | 42.83 | 42.44 | 41.92 | 41.72 | 41.62 |        |
| 17                               | 41.53 | 41.81 | 44.46                                            | 43.74 | 46.72 | 48.14 | 44.19 | 42.80 | 42.33 | 41.91 | 41.71 | 41.62 |        |
| 18                               | 41.52 | 41.85 | 43.26                                            | 43.32 | 45.78 | 49.92 | 44.82 | 42.76 | 42.65 | 41.90 | 41.70 | 41.61 |        |
| 19                               | 41.52 | 41.81 | 42.62                                            | 43.22 | 44.91 | 48.70 | 45.15 | 42.73 | 42.54 | 41.89 | 41.70 | 41.61 |        |
| 20                               | 41.51 | 41.77 | 42.70                                            | 43.07 | 44.44 | 48.33 | 45.31 | 42.69 | 42.33 | 41.88 | 41.69 | 41.61 |        |
| 21                               | 41.50 | 42.63 | 42.85                                            | 43.05 | 44.23 | 47.29 | 44.72 | 42.65 | 42.25 | 41.87 | 41.68 | 41.67 |        |
| 22                               | 41.50 | 42.98 | 44.45                                            | 43.06 | 44.13 | 50.59 | 44.40 | 42.62 | 42.20 | 41.86 | 41.68 | 41.66 |        |
| 23                               | 41.49 | 43.26 | 43.82                                            | 42.80 | 47.45 | 49.27 | 44.14 | 42.58 | 42.17 | 41.85 | 41.67 | 41.65 |        |
| 24                               | 41.50 | 42.62 | 43.37                                            | 44.60 | 47.40 | 48.36 | 44.93 | 42.56 | 42.15 | 41.84 | 41.67 | 41.64 |        |
| 25                               | 42.46 | 42.66 | 43.18                                            | 47.39 | 45.94 | 47.76 | 45.43 | 42.54 | 42.13 | 41.83 | 41.66 | 41.61 |        |
| 26                               | 41.75 | 42.28 | 42.91                                            | 46.11 | 45.84 | 47.86 | 44.85 | 42.54 | 42.12 | 41.82 | 41.66 | 41.60 |        |
| 27                               | 41.66 | 42.13 | 42.80                                            | 44.61 | 46.03 | 49.95 | 44.43 | 42.55 | 42.11 | 41.81 | 41.66 | 41.61 |        |
| 28                               | 41.62 | 41.98 | 42.70                                            | 43.88 | 45.14 | 51.19 | 44.06 | 42.53 | 42.10 | 41.81 | 41.65 | 41.62 |        |
| 29                               | 41.59 | 41.90 | 42.62                                            | 44.02 | 44.81 | 51.03 | 43.86 | 42.50 | 42.09 | 41.82 |       | 41.61 |        |
| 30                               | 41.85 | 41.86 | 42.54                                            | 46.26 | 44.99 | 50.76 | 43.72 | 42.47 | 42.08 | 41.82 |       | 41.63 |        |
| 31                               |       | 42.48 |                                                  | 45.45 | 47.87 |       | 43.73 |       | 42.07 | 41.81 |       | 41.62 |        |
| Mean                             | 41.60 | 42.09 | 43.31                                            | 44.10 | 45.60 | 47.46 | 45.60 | 42.91 | 42.26 | 41.92 | 41.73 | 41.63 |        |
| Max                              | 42.46 | 43.26 | 46.17                                            | 47.39 | 48.94 | 51.19 | 50.25 | 44.08 | 42.65 | 42.06 | 41.81 | 41.67 | 51.19  |
| Min                              | 41.49 | 41.72 | 42.17                                            | 42.28 | 43.61 | 44.02 | 43.72 | 42.47 | 42.07 | 41.81 | 41.65 | 41.60 | 41.49  |
| Annual Max Momentary Gage Height |       | 51.61 | m. (MSL.) , at 09.00 Hours , on Sep 28 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 40.71 | m. (MSL.) , River Bed 41.11 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 53.81 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 53.98 | m. (MSL.) , Drainage Area 1838 Square Kilometers |       |       |       |       |       |       |       |       |       |        |

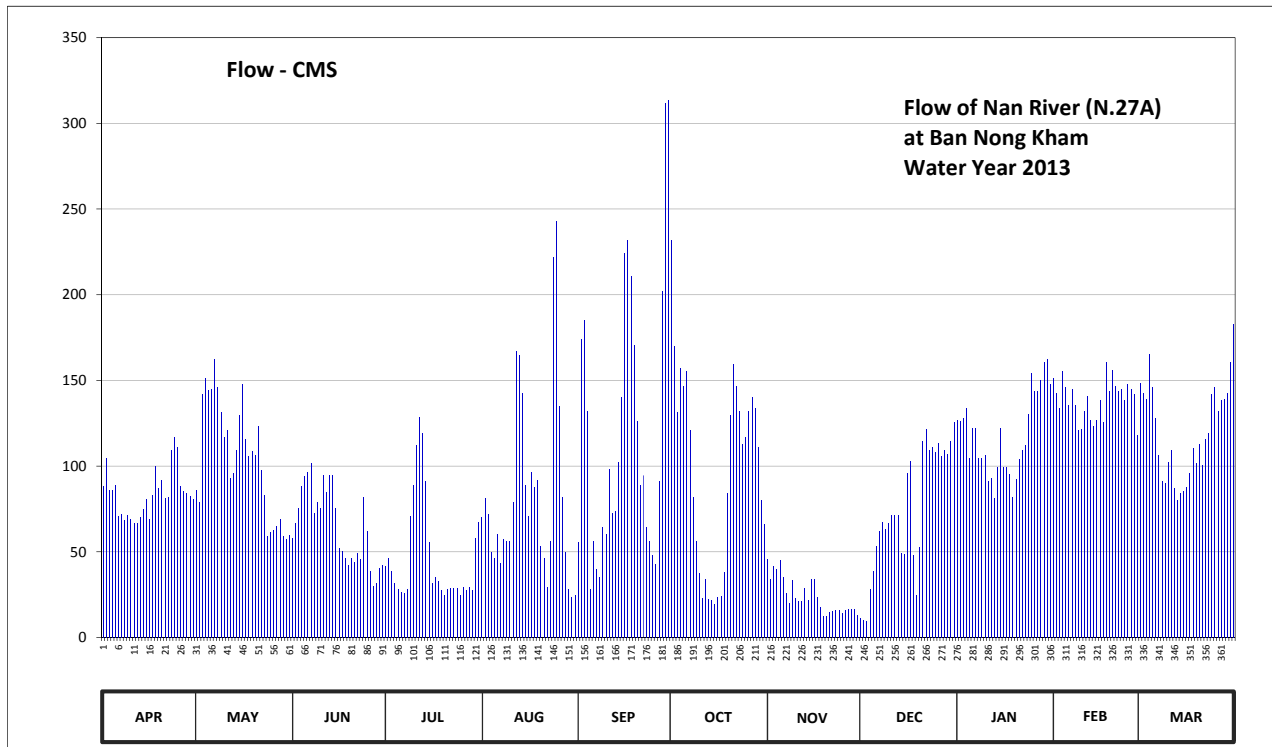


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|---------|--------------------------|--------|-------|-------|-------|----------------|
| 1              | 0.65                                                             | 1.50                     | 4.70   | 8.30                 | 51.80   | 95.50   | 167.00  | 23.70                    | 7.40   | 3.60  | 1.58  | 0.75  |                |
| 2              | 0.60                                                             | 1.25                     | 7.80   | 7.00                 | 40.62   | 75.25   | 137.50  | 29.70                    | 6.90   | 3.50  | 1.58  | 0.75  |                |
| 3              | 0.55                                                             | 1.25                     | 8.30   | 6.60                 | 34.50   | 56.00   | 183.00  | 21.60                    | 6.60   | 3.50  | 1.50  | 0.75  |                |
| 4              | 0.55                                                             | 1.80                     | 7.40   | 5.80                 | 28.65   | 40.62   | 145.45  | 19.20                    | 6.40   | 3.40  | 1.50  | 0.70  |                |
| 5              | 0.50                                                             | 1.40                     | 36.60  | 10.30                | 28.80   | 38.00   | 118.25  | 17.55                    | 6.10   | 3.30  | 1.45  | 0.70  |                |
| 6              | 0.43                                                             | 1.10                     | 33.45  | 7.00                 | 22.65   | 31.95   | 99.55   | 16.20                    | 6.00   | 3.20  | 1.40  | 0.70  |                |
| 7              | 0.40                                                             | 6.10                     | 68.40  | 36.42                | 23.10   | 28.80   | 78.40   | 15.30                    | 5.70   | 3.10  | 1.40  | 0.70  |                |
| 8              | 0.38                                                             | 4.60                     | 42.03  | 71.60                | 28.80   | 42.72   | 65.60   | 14.85                    | 5.60   | 3.00  | 1.40  | 0.70  |                |
| 9              | 0.35                                                             | 2.63                     | 24.75  | 41.85                | 22.80   | 55.40   | 56.20   | 14.25                    | 5.50   | 2.93  | 1.35  | 0.65  |                |
| 10             | 0.32                                                             | 2.78                     | 11.38  | 40.97                | 36.60   | 56.40   | 49.00   | 13.65                    | 5.40   | 2.85  | 1.30  | 0.65  |                |
| 11             | 0.30                                                             | 6.50                     | 8.10   | 73.00                | 106.75  | 44.30   | 44.30   | 13.13                    | 5.20   | 2.78  | 1.25  | 0.65  |                |
| 12             | 0.27                                                             | 2.63                     | 6.40   | 59.20                | 131.50  | 46.20   | 40.27   | 12.63                    | 5.20   | 2.70  | 1.25  | 0.70  |                |
| 13             | 0.35                                                             | 2.40                     | 8.90   | 39.57                | 102.70  | 65.40   | 38.88   | 12.25                    | 5.10   | 2.63  | 1.20  | 0.70  |                |
| 14             | 0.32                                                             | 2.17                     | 36.08  | 27.00                | 97.07   | 99.10   | 37.12   | 12.12                    | 4.90   | 2.55  | 1.15  | 0.70  |                |
| 15             | 0.32                                                             | 1.73                     | 26.40  | 19.20                | 100.00  | 134.50  | 35.90   | 11.62                    | 4.80   | 2.48  | 1.10  | 0.65  |                |
| 16             | 0.35                                                             | 1.45                     | 14.55  | 17.10                | 69.60   | 132.00  | 32.25   | 11.38                    | 7.40   | 2.40  | 1.10  | 0.60  |                |
| 17             | 0.32                                                             | 1.58                     | 35.55  | 24.60                | 80.20   | 112.15  | 31.35   | 11.00                    | 6.30   | 2.33  | 1.05  | 0.60  |                |
| 18             | 0.30                                                             | 1.87                     | 17.40  | 18.30                | 60.60   | 164.00  | 41.85   | 10.60                    | 9.50   | 2.25  | 1.00  | 0.55  |                |
| 19             | 0.30                                                             | 1.58                     | 9.20   | 16.80                | 43.42   | 125.50  | 48.00   | 10.30                    | 8.40   | 2.17  | 1.00  | 0.55  |                |
| 20             | 0.27                                                             | 1.35                     | 10.00  | 14.55                | 35.20   | 116.43  | 51.20   | 9.90                     | 6.30   | 2.10  | 0.95  | 0.55  |                |
| 21             | 0.25                                                             | 9.30                     | 11.62  | 14.25                | 31.95   | 93.02   | 40.10   | 9.50                     | 5.50   | 2.02  | 0.90  | 0.85  |                |
| 22             | 0.25                                                             | 13.25                    | 35.37  | 14.40                | 30.45   | 214.95  | 34.50   | 9.20                     | 5.00   | 1.95  | 0.90  | 0.80  |                |
| 23             | 0.23                                                             | 17.40                    | 25.80  | 11.00                | 96.62   | 139.75  | 30.60   | 8.80                     | 4.70   | 1.87  | 0.85  | 0.75  |                |
| 24             | 0.25                                                             | 9.20                     | 19.05  | 38.00                | 95.50   | 117.10  | 43.78   | 8.60                     | 4.50   | 1.80  | 0.85  | 0.70  |                |
| 25             | 7.60                                                             | 9.60                     | 16.20  | 95.27                | 63.80   | 103.60  | 53.60   | 8.40                     | 4.30   | 1.73  | 0.80  | 0.55  |                |
| 26             | 1.25                                                             | 5.80                     | 12.38  | 67.20                | 61.80   | 105.85  | 42.37   | 8.40                     | 4.20   | 1.65  | 0.80  | 0.50  |                |
| 27             | 0.80                                                             | 4.30                     | 11.00  | 38.17                | 65.60   | 165.50  | 35.02   | 8.50                     | 4.10   | 1.58  | 0.80  | 0.55  |                |
| 28             | 0.60                                                             | 2.85                     | 10.00  | 26.70                | 47.80   | 288.60  | 29.40   | 8.30                     | 4.00   | 1.58  | 0.75  | 0.60  |                |
| 29             | 0.48                                                             | 2.25                     | 9.20   | 28.80                | 41.68   | 266.20  | 26.40   | 8.00                     | 3.90   | 1.65  |       | 0.55  |                |
| 30             | 1.87                                                             | 1.95                     | 8.40   | 70.20                | 44.83   | 233.60  | 24.30   | 7.70                     | 3.80   | 1.65  |       | 0.65  |                |
| 31             |                                                                  | 7.80                     |        | 54.00                | 106.07  |         | 24.45   |                          | 3.70   | 1.58  |       | 0.60  |                |
| Total          | 21.41                                                            | 131.37                   | 576.41 | 1003.15              | 1831.46 | 3288.39 | 1885.59 | 386.33                   | 172.40 | 75.83 | 32.16 | 20.40 | 9424.90 CMSDAY |
| Mean           | 0.71                                                             | 4.24                     | 19.21  | 32.36                | 59.08   | 109.61  | 60.83   | 12.88                    | 5.56   | 2.45  | 1.15  | 0.66  | 25.82 CMS      |
| Max            | 7.60                                                             | 17.40                    | 68.40  | 95.27                | 131.50  | 288.60  | 183.00  | 29.70                    | 9.50   | 3.60  | 1.58  | 0.85  | 288.60 CMS     |
| Min            | 0.23                                                             | 1.10                     | 4.70   | 5.80                 | 22.65   | 28.80   | 24.30   | 7.70                     | 3.70   | 1.58  | 0.75  | 0.50  | 0.23 CMS       |
| Runoff         | 1.85                                                             | 11.35                    | 49.80  | 86.67                | 158.24  | 284.12  | 162.92  | 33.38                    | 14.90  | 6.55  | 2.78  | 1.76  | 814.31 MCM     |
| Momentary Peak | 360.00 CMS. at 51.61 m. (MSL.) at 09.00 Hours , on Sep 28 , 2013 |                          |        |                      |         |         |         |                          |        |       |       |       |                |
| Runoff Yield   | 14.05                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 195.865 |         | Liters/Second/Square KM. |        |       |       |       |                |

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 39.49 | 39.46 | 39.03       | 38.75 | 39.23                             | 38.99 | 41.22             | 38.83 | 38.04 | 39.99 | 40.27 | 40.24 |        |
| 2                                | 39.71 | 39.36 | 39.18       | 38.84 | 39.39                             | 40.54 | 40.49             | 38.60 | 38.01 | 39.98 | 40.17 | 40.17 |        |
| 3                                | 39.46 | 40.16 | 39.31       | 38.69 | 39.26                             | 40.67 | 40.04             | 38.75 | 37.98 | 40.00 | 40.07 | 40.13 |        |
| 4                                | 39.46 | 40.27 | 39.49       | 38.56 | 38.90                             | 40.05 | 40.34             | 38.72 | 38.48 | 40.07 | 40.32 | 40.44 |        |
| 5                                | 39.50 | 40.19 | 39.57       | 38.49 | 38.84                             | 38.48 | 40.22             | 38.82 | 38.70 | 39.71 | 40.21 | 40.21 |        |
| 6                                | 39.24 | 40.20 | 39.61       | 38.45 | 39.07                             | 39.00 | 40.32             | 38.63 | 38.96 | 39.93 | 40.09 | 40.00 |        |
| 7                                | 39.26 | 40.40 | 39.67       | 38.44 | 38.79                             | 38.72 | 39.91             | 38.44 | 39.10 | 39.93 | 40.20 | 39.73 |        |
| 8                                | 39.21 | 40.21 | 39.27       | 38.48 | 39.02                             | 38.62 | 39.40             | 38.30 | 39.19 | 39.71 | 40.09 | 39.53 |        |
| 9                                | 39.25 | 40.04 | 39.36       | 39.24 | 39.00                             | 39.14 | 39.00             | 38.59 | 39.12 | 39.71 | 39.91 | 39.52 |        |
| 10                               | 39.22 | 39.86 | 39.31       | 39.50 | 39.01                             | 39.07 | 38.67             | 38.38 | 39.18 | 39.73 | 39.92 | 39.68 |        |
| 11                               | 39.18 | 39.91 | 39.58       | 39.80 | 39.36                             | 39.63 | 38.38             | 38.33 | 39.25 | 39.53 | 40.05 | 39.77 |        |
| 12                               | 39.18 | 39.56 | 39.44       | 40.01 | 40.46                             | 39.27 | 38.60             | 38.33 | 39.25 | 39.56 | 40.15 | 39.47 |        |
| 13                               | 39.23 | 39.60 | 39.58       | 39.89 | 40.43                             | 39.28 | 38.36             | 38.50 | 39.25 | 39.39 | 39.99 | 39.37 |        |
| 14                               | 39.30 | 39.77 | 39.58       | 39.53 | 40.17                             | 39.68 | 38.35             | 38.34 | 38.89 | 39.64 | 39.94 | 39.43 |        |
| 15                               | 39.38 | 40.02 | 39.31       | 38.99 | 39.50                             | 40.14 | 38.29             | 38.60 | 38.88 | 39.93 | 39.99 | 39.45 |        |
| 16                               | 39.22 | 40.23 | 38.94       | 38.55 | 39.24                             | 41.13 | 38.39             | 38.60 | 39.60 | 39.64 | 40.12 | 39.48 |        |
| 17                               | 39.42 | 39.85 | 38.91       | 38.63 | 39.61                             | 41.22 | 38.40             | 38.39 | 39.69 | 39.64 | 39.97 | 39.60 |        |
| 18                               | 39.65 | 39.72 | 38.84       | 38.58 | 39.48                             | 40.97 | 38.68             | 38.24 | 38.87 | 39.59 | 40.38 | 39.78 |        |
| 19                               | 39.47 | 39.76 | 38.77       | 38.47 | 39.54                             | 40.50 | 39.43             | 38.09 | 38.42 | 39.40 | 40.18 | 39.67 |        |
| 20                               | 39.54 | 39.73 | 38.84       | 38.42 | 38.96                             | 39.98 | 40.02             | 38.09 | 38.95 | 39.55 | 40.33 | 39.81 |        |
| 21                               | 39.39 | 39.94 | 38.80       | 38.48 | 38.84                             | 39.50 | 40.37             | 38.17 | 39.83 | 39.70 | 40.22 | 39.66 |        |
| 22                               | 39.40 | 39.62 | 38.89       | 38.50 | 38.51                             | 39.58 | 40.22             | 38.18 | 39.92 | 39.77 | 40.18 | 39.85 |        |
| 23                               | 39.77 | 39.42 | 38.83       | 38.50 | 39.00                             | 39.14 | 40.05             | 38.20 | 39.77 | 39.80 | 40.20 | 39.89 |        |
| 24                               | 39.86 | 39.05 | 39.40       | 38.50 | 41.10                             | 39.01 | 39.81             | 38.20 | 39.79 | 40.03 | 40.12 | 40.16 |        |
| 25                               | 39.79 | 39.09 | 39.10       | 38.41 | 41.35                             | 38.87 | 39.86             | 38.15 | 39.75 | 40.31 | 40.23 | 40.21 |        |
| 26                               | 39.49 | 39.11 | 38.69       | 38.51 | 40.08                             | 38.78 | 40.05             | 38.20 | 39.82 | 40.18 | 40.20 | 40.05 |        |
| 27                               | 39.45 | 39.15 | 38.52       | 38.47 | 39.40                             | 39.53 | 40.14             | 38.22 | 39.72 | 40.18 | 40.16 | 40.12 |        |
| 28                               | 39.43 | 39.22 | 38.55       | 38.51 | 38.90                             | 40.87 | 40.07             | 38.22 | 39.77 | 40.26 | 39.88 | 40.13 |        |
| 29                               | 39.41 | 39.05 | 38.73       | 38.47 | 38.49                             | 42.16 | 39.79             | 38.21 | 39.74 | 40.38 |       | 40.17 |        |
| 30                               | 39.38 | 39.02 | 38.77       | 39.03 | 38.39                             | 42.18 | 39.37             | 38.10 | 39.83 | 40.40 |       | 40.38 |        |
| 31                               |       | 39.06 |             | 39.19 | 38.42                             |       | 39.17             |       | 39.97 | 40.23 |       | 40.64 |        |
| Mean                             | 39.42 | 39.68 | 39.13       | 38.80 | 39.35                             | 39.82 | 39.53             | 38.38 | 39.22 | 39.87 | 40.13 | 39.89 |        |
| Max                              | 39.86 | 40.40 | 39.67       | 40.01 | 41.35                             | 42.18 | 41.22             | 38.83 | 39.97 | 40.40 | 40.38 | 40.64 | 42.18  |
| Min                              | 39.18 | 39.02 | 38.52       | 38.41 | 38.39                             | 38.48 | 38.29             | 38.09 | 37.98 | 39.39 | 39.88 | 39.37 | 37.98  |
| Annual Max Momentary Gage Height | 42.45 |       | m. (MSL.) , |       | at 18.00 Hours , on Sep 29 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 38.43 |       | m. (MSL.) , |       | River Bed                         | 36.79 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 49.36 |       | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 49.13 |       | m. (MSL.) , |       | Drainage Area                     | 19363 | Square Kilometers |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                                                       | Jun     | Jul     | Aug     | Sep                  | Oct     | Nov    | Dec     | Jan     | Feb                      | Mar     | Annual   |        |
|----------------|---------|-----------------------------------------------------------|---------|---------|---------|----------------------|---------|--------|---------|---------|--------------------------|---------|----------|--------|
| 1              | 88.30   | 86.20                                                     | 57.80   | 41.50   | 70.10   | 55.40                | 231.70  | 45.80  | 11.20   | 127.20  | 150.95                   | 148.40  |          |        |
| 2              | 104.80  | 79.20                                                     | 66.80   | 46.40   | 81.30   | 173.90               | 169.65  | 34.00  | 10.30   | 126.40  | 142.45                   | 142.45  |          |        |
| 3              | 86.20   | 141.60                                                    | 75.70   | 38.50   | 72.20   | 184.95               | 131.40  | 41.50  | 9.50    | 128.00  | 133.95                   | 139.05  |          |        |
| 4              | 86.20   | 150.95                                                    | 88.30   | 32.00   | 50.00   | 132.25               | 156.90  | 40.00  | 28.00   | 133.95  | 155.20                   | 165.40  |          |        |
| 5              | 89.00   | 144.15                                                    | 93.90   | 28.50   | 46.40   | 28.00                | 146.70  | 45.20  | 39.00   | 104.80  | 145.85                   | 145.85  |          |        |
| 6              | 70.80   | 145.00                                                    | 96.80   | 26.50   | 60.20   | 56.00                | 155.20  | 35.50  | 53.60   | 122.40  | 135.65                   | 128.00  |          |        |
| 7              | 72.20   | 162.00                                                    | 101.60  | 26.00   | 43.50   | 40.00                | 120.80  | 26.00  | 62.00   | 122.40  | 145.00                   | 106.40  |          |        |
| 8              | 68.70   | 145.85                                                    | 72.90   | 28.00   | 57.20   | 35.00                | 82.00   | 20.00  | 67.40   | 104.80  | 135.65                   | 91.10   |          |        |
| 9              | 71.50   | 131.40                                                    | 79.20   | 70.80   | 56.00   | 64.40                | 56.00   | 33.50  | 63.20   | 104.80  | 120.80                   | 90.40   |          |        |
| 10             | 69.40   | 116.80                                                    | 75.70   | 89.00   | 56.60   | 60.20                | 37.50   | 23.20  | 66.80   | 106.40  | 121.60                   | 102.40  |          |        |
| 11             | 66.80   | 120.80                                                    | 94.60   | 112.00  | 79.20   | 98.40                | 23.20   | 21.20  | 71.50   | 91.10   | 132.25                   | 109.60  |          |        |
| 12             | 66.80   | 93.20                                                     | 84.80   | 128.85  | 167.10  | 72.90                | 34.00   | 21.20  | 71.50   | 93.20   | 140.75                   | 86.90   |          |        |
| 13             | 70.10   | 96.00                                                     | 94.60   | 119.20  | 164.55  | 73.60                | 22.40   | 29.00  | 71.50   | 81.30   | 127.20                   | 79.90   |          |        |
| 14             | 75.00   | 109.60                                                    | 94.60   | 91.10   | 142.45  | 102.40               | 22.00   | 21.60  | 49.40   | 99.20   | 123.20                   | 84.10   |          |        |
| 15             | 80.60   | 129.70                                                    | 75.70   | 55.40   | 89.00   | 139.90               | 19.60   | 34.00  | 48.80   | 122.40  | 127.20                   | 85.50   |          |        |
| 16             | 69.40   | 147.55                                                    | 52.40   | 31.50   | 70.80   | 224.05               | 23.60   | 34.00  | 96.00   | 99.20   | 138.20                   | 87.60   |          |        |
| 17             | 83.40   | 116.00                                                    | 50.60   | 35.50   | 96.80   | 231.70               | 24.00   | 23.60  | 103.20  | 99.20   | 125.60                   | 96.00   |          |        |
| 18             | 100.00  | 105.60                                                    | 46.40   | 33.00   | 87.60   | 210.45               | 38.00   | 17.60  | 48.20   | 95.30   | 160.30                   | 110.40  |          |        |
| 19             | 86.90   | 108.80                                                    | 42.50   | 27.50   | 91.80   | 170.50               | 84.10   | 12.70  | 25.00   | 82.00   | 143.30                   | 101.60  |          |        |
| 20             | 91.80   | 106.40                                                    | 46.40   | 25.00   | 53.60   | 126.40               | 129.70  | 12.70  | 53.00   | 92.50   | 156.05                   | 112.80  |          |        |
| 21             | 81.30   | 123.20                                                    | 44.00   | 28.00   | 46.40   | 89.00                | 159.45  | 15.10  | 114.40  | 104.00  | 146.70                   | 100.80  |          |        |
| 22             | 82.00   | 97.60                                                     | 49.40   | 29.00   | 29.50   | 94.60                | 146.70  | 15.40  | 121.60  | 109.60  | 143.30                   | 116.00  |          |        |
| 23             | 109.60  | 83.40                                                     | 45.80   | 29.00   | 56.00   | 64.40                | 132.25  | 16.00  | 109.60  | 112.00  | 145.00                   | 119.20  |          |        |
| 24             | 116.80  | 59.00                                                     | 82.00   | 29.00   | 221.50  | 56.60                | 112.80  | 16.00  | 111.20  | 130.55  | 138.20                   | 141.60  |          |        |
| 25             | 111.20  | 61.40                                                     | 62.00   | 24.50   | 242.75  | 48.20                | 116.80  | 14.50  | 108.00  | 154.35  | 147.55                   | 145.85  |          |        |
| 26             | 88.30   | 62.60                                                     | 38.50   | 29.50   | 134.80  | 43.00                | 132.25  | 16.00  | 113.60  | 143.30  | 145.00                   | 132.25  |          |        |
| 27             | 85.50   | 65.00                                                     | 30.00   | 27.50   | 82.00   | 91.10                | 139.90  | 16.80  | 105.60  | 143.30  | 141.60                   | 138.20  |          |        |
| 28             | 84.10   | 69.40                                                     | 31.50   | 29.50   | 50.00   | 201.95               | 133.95  | 16.80  | 109.60  | 150.10  | 118.40                   | 139.05  |          |        |
| 29             | 82.70   | 59.00                                                     | 40.50   | 27.50   | 28.50   | 311.60               | 111.20  | 16.40  | 107.20  | 160.30  |                          | 142.45  |          |        |
| 30             | 80.60   | 57.20                                                     | 42.50   | 57.80   | 23.60   | 313.30               | 79.90   | 13.00  | 114.40  | 162.00  |                          | 160.30  |          |        |
| 31             |         | 59.60                                                     |         | 67.40   | 25.00   |                      | 66.20   |        | 125.60  | 147.55  |                          | 182.40  |          |        |
| Total          | 2520.00 | 3234.20                                                   | 1957.50 | 1464.95 | 2576.45 | 3594.15              | 3039.85 | 728.30 | 2289.90 | 3653.60 | 3886.90                  | 3731.95 | 32677.76 | CMSDAY |
| Mean           | 84.00   | 104.33                                                    | 65.25   | 47.26   | 83.11   | 119.81               | 98.06   | 24.28  | 73.87   | 117.86  | 138.82                   | 120.39  | 89.53    | CMS    |
| Max            | 116.80  | 162.00                                                    | 101.60  | 128.85  | 242.75  | 313.30               | 231.70  | 45.80  | 125.60  | 162.00  | 160.30                   | 182.40  | 313.30   | CMS    |
| Min            | 66.80   | 57.20                                                     | 30.00   | 24.50   | 23.60   | 28.00                | 19.60   | 12.70  | 9.50    | 81.30   | 118.40                   | 79.90   | 9.50     | CMS    |
| Runoff         | 217.73  | 279.44                                                    | 169.13  | 126.57  | 222.61  | 310.54               | 262.64  | 62.93  | 197.85  | 315.67  | 335.83                   | 322.44  | 2823.36  | MCM    |
| Momentary Peak | 336.50  | CMS. at 42.45 m. (MSL.) at 18.00 Hours , on Sep 29 , 2013 |         |         |         |                      |         |        |         |         |                          |         |          |        |
| Runoff Yield   | 4.62    | Liters/Second/Square KM.                                  |         |         |         | Momentary Peak Yield |         |        |         | 17.379  | Liters/Second/Square KM. |         |          |        |

**WATER YEAR : 2013**

## NAN RIVER BASIN

### Khlong Tron at Ban Na Klam , Uttaradit (N.28A)

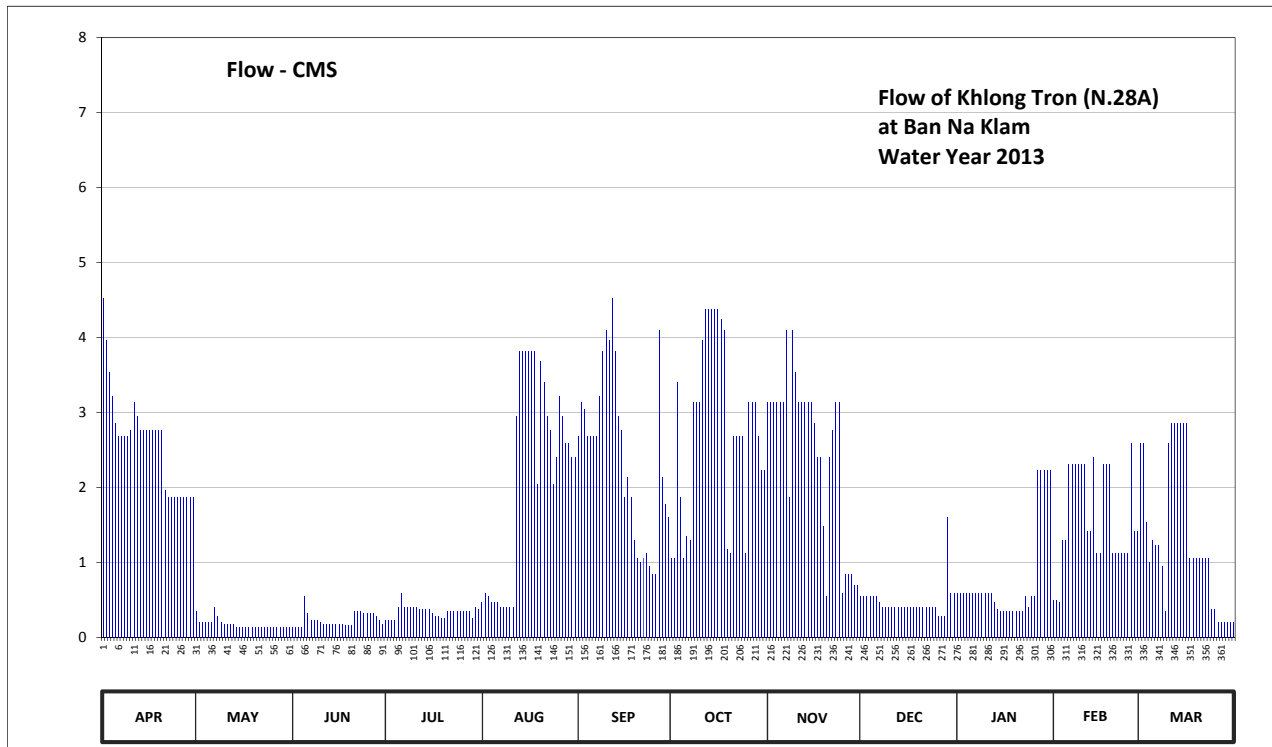
Lat 17 - 35 - 00 N      Long 100 - 29 - 30 E

**Location : on right bank at Ban Na Klam.**

|                                         |                                                                                           |           |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Na Klam   | <b>Amphoe</b> | Nam Pat | <b>Changwat</b>  | Uttaradit          |
| <b>Drainage Area</b>                    | 368                                                                                       | sq.km.    |               |         |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +120.274                                                                                  | m. (MSL.) |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |         |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |           |               |         | <b>Elevation</b> | +126.015 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                              |           |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |         |                  |                    |
| <b>Period of Rating</b>                 | 2008 to date                                                                              |           |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                              |           |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |         |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 13 discharge measurements made in 2013. |           |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep                               | Oct    | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 122.18 | 121.65 | 121.57      | 121.61 | 121.69 | 122.02                            | 121.81 | 122.07            | 121.71 | 121.72 | 121.70 | 122.01 |        |
| 2                                | 122.14 | 121.60 | 121.57      | 121.61 | 121.72 | 122.07                            | 121.81 | 122.07            | 121.71 | 121.72 | 121.70 | 122.01 |        |
| 3                                | 122.11 | 121.60 | 121.57      | 121.61 | 121.71 | 122.06                            | 122.10 | 122.07            | 121.71 | 121.72 | 121.69 | 121.89 |        |
| 4                                | 122.08 | 121.60 | 121.57      | 121.61 | 121.69 | 122.02                            | 121.93 | 122.07            | 121.71 | 121.72 | 121.85 | 121.80 |        |
| 5                                | 122.04 | 121.60 | 121.71      | 121.67 | 121.69 | 122.02                            | 121.81 | 122.07            | 121.71 | 121.72 | 121.85 | 121.85 |        |
| 6                                | 122.02 | 121.60 | 121.64      | 121.72 | 121.69 | 122.02                            | 121.86 | 122.07            | 121.71 | 121.72 | 121.98 | 121.84 |        |
| 7                                | 122.02 | 121.67 | 121.61      | 121.67 | 121.67 | 122.02                            | 121.85 | 122.15            | 121.69 | 121.72 | 121.98 | 121.84 |        |
| 8                                | 122.02 | 121.63 | 121.61      | 121.67 | 121.67 | 122.08                            | 122.07 | 121.93            | 121.67 | 121.72 | 121.98 | 121.79 |        |
| 9                                | 122.02 | 121.60 | 121.61      | 121.67 | 121.67 | 122.13                            | 122.07 | 122.15            | 121.67 | 121.72 | 121.98 | 121.65 |        |
| 10                               | 122.03 | 121.59 | 121.60      | 121.67 | 121.67 | 122.15                            | 122.07 | 122.11            | 121.67 | 121.72 | 121.98 | 122.01 |        |
| 11                               | 122.07 | 121.59 | 121.59      | 121.67 | 121.67 | 122.14                            | 122.14 | 122.07            | 121.67 | 121.72 | 121.98 | 122.04 |        |
| 12                               | 122.05 | 121.59 | 121.59      | 121.66 | 122.05 | 122.18                            | 122.17 | 122.07            | 121.67 | 121.72 | 121.87 | 122.04 |        |
| 13                               | 122.03 | 121.59 | 121.59      | 121.66 | 122.13 | 122.13                            | 122.17 | 122.07            | 121.67 | 121.69 | 121.87 | 122.04 |        |
| 14                               | 122.03 | 121.57 | 121.59      | 121.66 | 122.13 | 122.05                            | 122.17 | 122.07            | 121.67 | 121.66 | 121.99 | 122.04 |        |
| 15                               | 122.03 | 121.57 | 121.59      | 121.66 | 122.13 | 122.03                            | 122.17 | 122.07            | 121.67 | 121.65 | 121.82 | 122.04 |        |
| 16                               | 122.03 | 121.57 | 121.59      | 121.64 | 122.13 | 121.93                            | 122.17 | 122.04            | 121.67 | 121.65 | 121.82 | 122.04 |        |
| 17                               | 122.03 | 121.57 | 121.59      | 121.63 | 122.13 | 121.96                            | 122.16 | 121.99            | 121.67 | 121.65 | 121.98 | 121.81 |        |
| 18                               | 122.03 | 121.57 | 121.58      | 121.63 | 122.13 | 121.93                            | 122.15 | 121.99            | 121.67 | 121.65 | 121.98 | 121.81 |        |
| 19                               | 122.03 | 121.57 | 121.58      | 121.62 | 121.95 | 121.85                            | 121.83 | 121.88            | 121.67 | 121.65 | 121.98 | 121.81 |        |
| 20                               | 122.03 | 121.57 | 121.58      | 121.62 | 122.12 | 121.81                            | 121.82 | 121.71            | 121.67 | 121.65 | 121.82 | 121.81 |        |
| 21                               | 121.94 | 121.57 | 121.65      | 121.65 | 122.10 | 121.80                            | 122.02 | 121.99            | 121.67 | 121.65 | 121.82 | 121.81 |        |
| 22                               | 121.93 | 121.57 | 121.65      | 121.65 | 122.05 | 121.81                            | 122.02 | 122.03            | 121.67 | 121.65 | 121.82 | 121.81 |        |
| 23                               | 121.93 | 121.57 | 121.65      | 121.65 | 122.03 | 121.82                            | 122.02 | 122.07            | 121.67 | 121.71 | 121.82 | 121.81 |        |
| 24                               | 121.93 | 121.57 | 121.64      | 121.65 | 121.95 | 121.79                            | 122.02 | 122.07            | 121.67 | 121.67 | 121.82 | 121.66 |        |
| 25                               | 121.93 | 121.57 | 121.64      | 121.65 | 121.99 | 121.77                            | 121.82 | 121.72            | 121.67 | 121.71 | 121.82 | 121.66 |        |
| 26                               | 121.93 | 121.57 | 121.64      | 121.65 | 122.08 | 121.77                            | 122.07 | 121.77            | 121.63 | 121.71 | 122.01 | 121.60 |        |
| 27                               | 121.93 | 121.57 | 121.64      | 121.65 | 122.05 | 122.15                            | 122.07 | 121.77            | 121.63 | 121.97 | 121.87 | 121.60 |        |
| 28                               | 121.93 | 121.57 | 121.63      | 121.65 | 122.01 | 121.96                            | 122.07 | 121.77            | 121.63 | 121.97 | 121.87 | 121.60 |        |
| 29                               | 121.93 | 121.57 | 121.61      | 121.62 | 122.01 | 121.92                            | 122.02 | 121.74            | 121.90 | 121.97 |        | 121.60 |        |
| 30                               | 121.93 | 121.57 | 121.59      | 121.67 | 121.99 | 121.90                            | 121.97 | 121.74            | 121.72 | 121.97 |        | 121.60 |        |
| 31                               |        | 121.57 |             | 121.66 | 121.99 |                                   | 121.97 |                   | 121.72 | 121.97 |        | 121.60 |        |
| Mean                             | 122.01 | 121.59 | 121.61      | 121.65 | 121.93 | 121.98                            | 122.01 | 121.98            | 121.69 | 121.74 | 121.88 | 121.82 |        |
| Max                              | 122.18 | 121.67 | 121.71      | 121.72 | 122.13 | 122.18                            | 122.17 | 122.15            | 121.90 | 121.97 | 122.01 | 122.04 | 122.18 |
| Min                              | 121.93 | 121.57 | 121.57      | 121.61 | 121.67 | 121.77                            | 121.81 | 121.71            | 121.63 | 121.65 | 121.69 | 121.60 | 121.57 |
| Annual Max Momentary Gage Height |        | 122.27 | m. (MSL.) , |        |        | at 06.00 Hours , on Sep 28 , 2013 |        |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 120.27 | m. (MSL.) , |        |        | River Bed                         | 120.79 | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 127.37 | m. (MSL.) , |        |        |                                   |        |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 127.35 | m. (MSL.) , |        |        | Drainage Area                     | 368    | Square Kilometers |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul                  | Aug   | Sep    | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|------|----------------------|-------|--------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 4.52                                                            | 0.35                     | 0.14 | 0.23                 | 0.47  | 2.68   | 1.06                     | 3.13  | 0.55  | 0.60  | 0.50  | 2.59  |               |
| 2              | 3.96                                                            | 0.20                     | 0.14 | 0.23                 | 0.60  | 3.13   | 1.06                     | 3.13  | 0.55  | 0.60  | 0.50  | 2.59  |               |
| 3              | 3.54                                                            | 0.20                     | 0.14 | 0.23                 | 0.55  | 3.04   | 3.40                     | 3.13  | 0.55  | 0.60  | 0.47  | 1.54  |               |
| 4              | 3.22                                                            | 0.20                     | 0.14 | 0.23                 | 0.47  | 2.68   | 1.87                     | 3.13  | 0.55  | 0.60  | 1.30  | 1.00  |               |
| 5              | 2.86                                                            | 0.20                     | 0.55 | 0.41                 | 0.47  | 2.68   | 1.06                     | 3.13  | 0.55  | 0.60  | 1.30  | 1.30  |               |
| 6              | 2.68                                                            | 0.20                     | 0.32 | 0.60                 | 0.47  | 2.68   | 1.36                     | 3.13  | 0.55  | 0.60  | 2.32  | 1.24  |               |
| 7              | 2.68                                                            | 0.41                     | 0.23 | 0.41                 | 0.41  | 2.68   | 1.30                     | 4.10  | 0.47  | 0.60  | 2.32  | 1.24  |               |
| 8              | 2.68                                                            | 0.29                     | 0.23 | 0.41                 | 0.41  | 3.22   | 3.13                     | 1.87  | 0.41  | 0.60  | 2.32  | 0.95  |               |
| 9              | 2.68                                                            | 0.20                     | 0.23 | 0.41                 | 0.41  | 3.82   | 3.13                     | 4.10  | 0.41  | 0.60  | 2.32  | 0.35  |               |
| 10             | 2.77                                                            | 0.18                     | 0.20 | 0.41                 | 0.41  | 4.10   | 3.13                     | 3.54  | 0.41  | 0.60  | 2.32  | 2.59  |               |
| 11             | 3.13                                                            | 0.18                     | 0.18 | 0.41                 | 0.41  | 3.96   | 3.96                     | 3.13  | 0.41  | 0.60  | 2.32  | 2.86  |               |
| 12             | 2.95                                                            | 0.18                     | 0.18 | 0.38                 | 2.95  | 4.52   | 4.38                     | 3.13  | 0.41  | 0.60  | 1.42  | 2.86  |               |
| 13             | 2.77                                                            | 0.18                     | 0.18 | 0.38                 | 3.82  | 3.82   | 4.38                     | 3.13  | 0.41  | 0.47  | 1.42  | 2.86  |               |
| 14             | 2.77                                                            | 0.14                     | 0.18 | 0.38                 | 3.82  | 2.95   | 4.38                     | 3.13  | 0.41  | 0.38  | 2.41  | 2.86  |               |
| 15             | 2.77                                                            | 0.14                     | 0.18 | 0.38                 | 3.82  | 2.77   | 4.38                     | 3.13  | 0.41  | 0.35  | 1.12  | 2.86  |               |
| 16             | 2.77                                                            | 0.14                     | 0.18 | 0.32                 | 3.82  | 1.87   | 4.38                     | 2.86  | 0.41  | 0.35  | 1.12  | 2.86  |               |
| 17             | 2.77                                                            | 0.14                     | 0.18 | 0.29                 | 3.82  | 2.14   | 4.24                     | 2.41  | 0.41  | 0.35  | 2.32  | 1.06  |               |
| 18             | 2.77                                                            | 0.14                     | 0.16 | 0.29                 | 3.82  | 1.87   | 4.10                     | 2.41  | 0.41  | 0.35  | 2.32  | 1.06  |               |
| 19             | 2.77                                                            | 0.14                     | 0.16 | 0.26                 | 2.05  | 1.30   | 1.18                     | 1.48  | 0.41  | 0.35  | 2.32  | 1.06  |               |
| 20             | 2.77                                                            | 0.14                     | 0.16 | 0.26                 | 3.68  | 1.06   | 1.12                     | 0.55  | 0.41  | 0.35  | 1.12  | 1.06  |               |
| 21             | 1.96                                                            | 0.14                     | 0.35 | 0.35                 | 3.40  | 1.00   | 2.68                     | 2.41  | 0.41  | 0.35  | 1.12  | 1.06  |               |
| 22             | 1.87                                                            | 0.14                     | 0.35 | 0.35                 | 2.95  | 1.06   | 2.68                     | 2.77  | 0.41  | 0.35  | 1.12  | 1.06  |               |
| 23             | 1.87                                                            | 0.14                     | 0.35 | 0.35                 | 2.77  | 1.12   | 2.68                     | 3.13  | 0.41  | 0.55  | 1.12  | 1.06  |               |
| 24             | 1.87                                                            | 0.14                     | 0.32 | 0.35                 | 2.05  | 0.95   | 2.68                     | 3.13  | 0.41  | 0.41  | 1.12  | 0.38  |               |
| 25             | 1.87                                                            | 0.14                     | 0.32 | 0.35                 | 2.41  | 0.85   | 1.12                     | 0.60  | 0.41  | 0.55  | 1.12  | 0.38  |               |
| 26             | 1.87                                                            | 0.14                     | 0.32 | 0.35                 | 3.22  | 0.85   | 3.13                     | 0.85  | 0.29  | 0.55  | 2.59  | 0.20  |               |
| 27             | 1.87                                                            | 0.14                     | 0.32 | 0.35                 | 2.95  | 4.10   | 3.13                     | 0.85  | 0.29  | 2.23  | 1.42  | 0.20  |               |
| 28             | 1.87                                                            | 0.14                     | 0.29 | 0.35                 | 2.59  | 2.14   | 3.13                     | 0.85  | 0.29  | 2.23  | 1.42  | 0.20  |               |
| 29             | 1.87                                                            | 0.14                     | 0.23 | 0.26                 | 2.59  | 1.78   | 2.68                     | 0.70  | 1.60  | 2.23  |       | 0.20  |               |
| 30             | 1.87                                                            | 0.14                     | 0.18 | 0.41                 | 2.41  | 1.60   | 2.23                     | 0.70  | 0.60  | 2.23  |       | 0.20  |               |
| 31             |                                                                 | 0.14                     |      | 0.38                 | 2.41  |        | 2.23                     |       | 0.60  | 2.23  |       | 0.20  |               |
| Total          | 78.62                                                           | 5.49                     | 7.09 | 10.77                | 66.43 | 72.42  | 85.37                    | 73.74 | 14.82 | 24.06 | 44.59 | 41.93 | 525.33 CMSDAY |
| Mean           | 2.62                                                            | 0.18                     | 0.24 | 0.35                 | 2.14  | 2.41   | 2.75                     | 2.46  | 0.48  | 0.78  | 1.59  | 1.35  | 1.44 CMS      |
| Max            | 4.52                                                            | 0.41                     | 0.55 | 0.60                 | 3.82  | 4.52   | 4.38                     | 4.10  | 1.60  | 2.23  | 2.59  | 2.86  | 4.52 CMS      |
| Min            | 1.87                                                            | 0.14                     | 0.14 | 0.23                 | 0.41  | 0.85   | 1.06                     | 0.55  | 0.29  | 0.35  | 0.47  | 0.20  | 0.14 CMS      |
| Runoff         | 6.79                                                            | 0.47                     | 0.61 | 0.93                 | 5.74  | 6.26   | 7.38                     | 6.37  | 1.28  | 2.08  | 3.85  | 3.62  | 45.39 MCM     |
| Momentary Peak | 6.06 CMS. at 122.27 m. (MSL.) at 06.00 Hours , on Sep 28 , 2013 |                          |      |                      |       |        |                          |       |       |       |       |       |               |
| Runoff Yield   | 3.91                                                            | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 16.467 | Liters/Second/Square KM. |       |       |       |       |       |               |

**WATER YEAR : 2013**

## NAN RIVER BASIN

### Khwaee Noi River at Ban Nong Krathao , Phitsanulok (N.36)

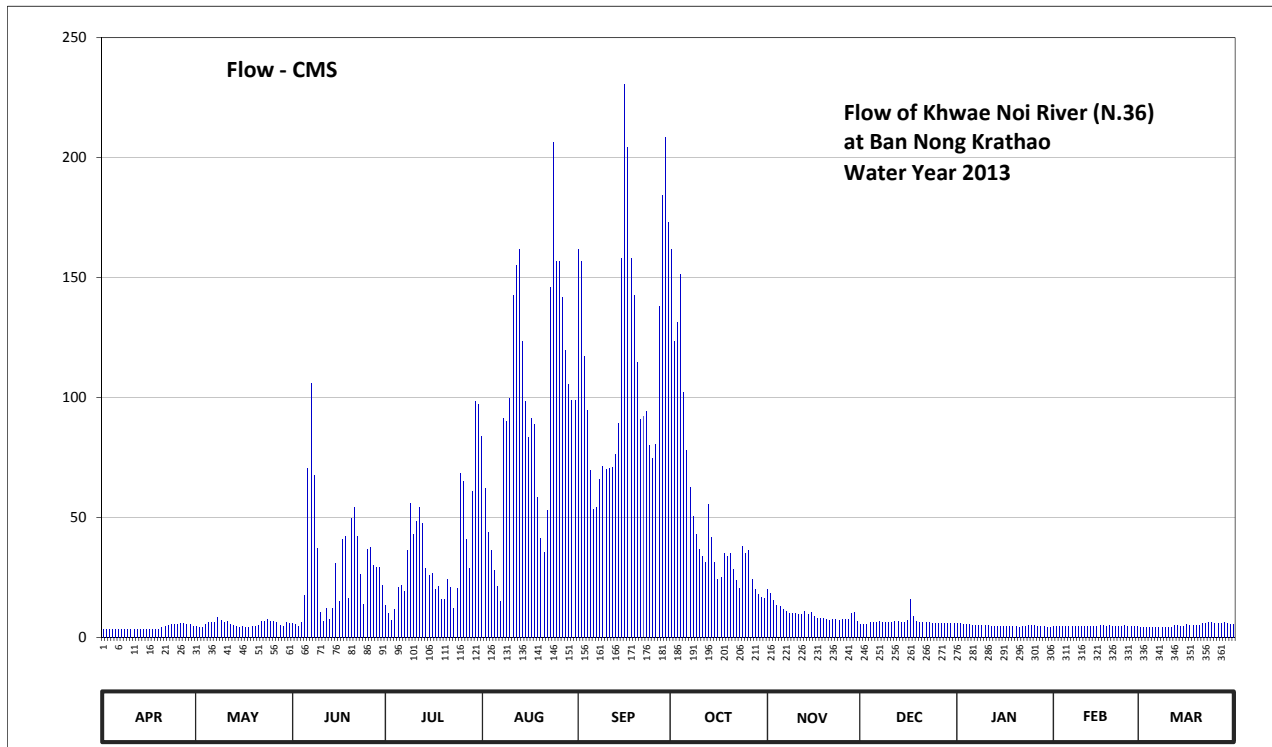
Lat 17 - 04 - 59 N    Long 100 - 49 - 44 E

**Location : on left bank about 50 meters upstream from the bridge along Lom Sak - Nakhon Thai Road, Tambon Nong Krathao.**

|                                         |                                                                                           |              |               |             |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Nong Krathao | <b>Amphoe</b> | Nakhon Thai | <b>Changwat</b>  | Phitsanulok        |
| <b>Drainage Area</b>                    | 1,710                                                                                     | sq.km.       |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |              |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +191.880                                                                                  | m. (MSL.)    |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank along the measuring line.                                                    |              |               |             | <b>Elevation</b> | +200.293 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |              |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |              |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1967 to date                                                                              |              |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |              |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1971 - 1979 , 1993 to date                                                                |              |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1971 - 1979 , 1993 to date                                                                |              |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |              |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |             |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 17 discharge measurements made in 2013. |              |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

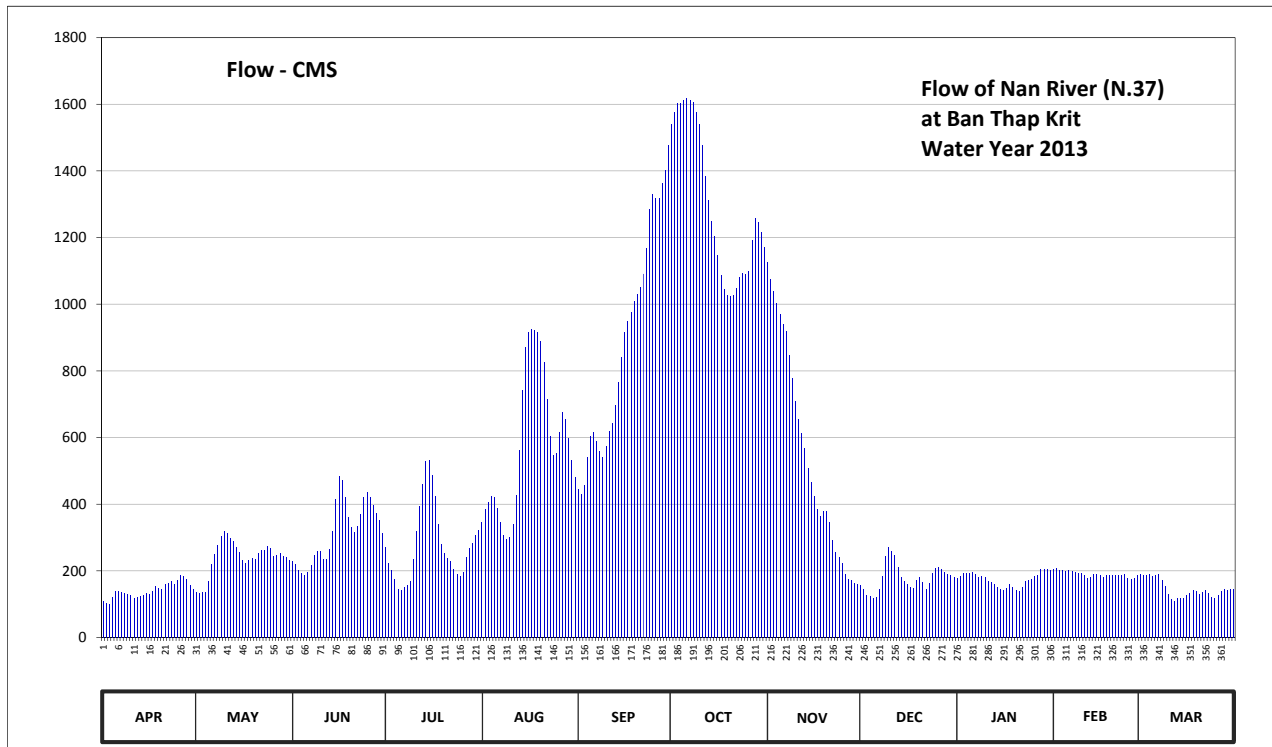
| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 193.41 | 193.52 | 193.64                                           | 194.19 | 197.48 | 198.92 | 198.92 | 194.60 | 193.62 | 193.64 | 193.55 | 193.50 |        |
| 2                                | 193.40 | 193.51 | 193.63                                           | 193.97 | 196.67 | 198.87 | 198.42 | 194.51 | 193.62 | 193.64 | 193.55 | 193.49 |        |
| 3                                | 193.40 | 193.50 | 193.54                                           | 193.75 | 195.88 | 198.31 | 198.54 | 194.34 | 193.61 | 193.63 | 193.53 | 193.49 |        |
| 4                                | 193.40 | 193.61 | 193.70                                           | 194.08 | 195.51 | 197.81 | 198.81 | 194.20 | 193.69 | 193.62 | 193.52 | 193.50 |        |
| 5                                | 193.40 | 193.67 | 194.47                                           | 194.67 | 195.08 | 196.98 | 198.00 | 194.16 | 193.67 | 193.61 | 193.55 | 193.50 |        |
| 6                                | 193.40 | 193.68 | 197.01                                           | 194.71 | 194.68 | 196.30 | 197.28 | 194.07 | 193.68 | 193.59 | 193.53 | 193.50 |        |
| 7                                | 193.40 | 193.69 | 198.08                                           | 194.56 | 194.30 | 196.33 | 196.70 | 194.02 | 193.71 | 193.58 | 193.53 | 193.49 |        |
| 8                                | 193.40 | 193.84 | 196.90                                           | 195.50 | 197.71 | 196.83 | 196.17 | 193.98 | 193.68 | 193.58 | 193.54 | 193.49 |        |
| 9                                | 193.40 | 193.76 | 195.55                                           | 196.41 | 197.68 | 197.04 | 195.84 | 193.97 | 193.70 | 193.58 | 193.55 | 193.48 |        |
| 10                               | 193.40 | 193.67 | 194.01                                           | 195.83 | 197.93 | 196.99 | 195.53 | 193.97 | 193.70 | 193.57 | 193.55 | 193.48 |        |
| 11                               | 193.39 | 193.73 | 193.71                                           | 196.08 | 198.70 | 197.00 | 195.38 | 193.95 | 193.70 | 193.56 | 193.54 | 193.49 |        |
| 12                               | 193.41 | 193.63 | 194.10                                           | 196.33 | 198.85 | 197.02 | 195.25 | 193.95 | 193.71 | 193.55 | 193.54 | 193.56 |        |
| 13                               | 193.41 | 193.57 | 193.79                                           | 196.05 | 198.92 | 197.22 | 196.40 | 194.02 | 193.71 | 193.54 | 193.55 | 193.56 |        |
| 14                               | 193.41 | 193.54 | 194.10                                           | 195.12 | 198.42 | 197.65 | 195.77 | 193.94 | 193.70 | 193.54 | 193.55 | 193.53 |        |
| 15                               | 193.41 | 193.50 | 195.24                                           | 194.95 | 197.90 | 198.88 | 195.25 | 194.00 | 193.70 | 193.53 | 193.55 | 193.55 |        |
| 16                               | 193.40 | 193.52 | 194.31                                           | 195.01 | 197.46 | 199.38 | 194.85 | 193.87 | 193.75 | 193.53 | 193.56 | 193.61 |        |
| 17                               | 193.40 | 193.51 | 195.73                                           | 194.61 | 197.71 | 199.25 | 194.91 | 193.83 | 194.36 | 193.53 | 193.56 | 193.60 |        |
| 18                               | 193.43 | 193.51 | 195.80                                           | 194.68 | 197.63 | 198.88 | 195.44 | 193.82 | 193.88 | 193.52 | 193.55 | 193.60 |        |
| 19                               | 193.43 | 193.54 | 194.40                                           | 194.35 | 196.52 | 198.70 | 195.37 | 193.81 | 193.71 | 193.52 | 193.56 | 193.59 |        |
| 20                               | 193.48 | 193.53 | 196.14                                           | 194.37 | 195.76 | 198.26 | 195.43 | 193.78 | 193.70 | 193.52 | 193.54 | 193.58 |        |
| 21                               | 193.53 | 193.58 | 196.34                                           | 194.85 | 195.46 | 197.70 | 195.10 | 193.76 | 193.69 | 193.51 | 193.54 | 193.65 |        |
| 22                               | 193.56 | 193.74 | 195.79                                           | 194.66 | 196.28 | 197.74 | 194.84 | 193.79 | 193.68 | 193.55 | 193.55 | 193.66 |        |
| 23                               | 193.62 | 193.72 | 194.98                                           | 194.12 | 198.74 | 197.80 | 194.64 | 193.78 | 193.67 | 193.54 | 193.54 | 193.68 |        |
| 24                               | 193.62 | 193.78 | 194.23                                           | 194.64 | 199.26 | 197.35 | 195.58 | 193.77 | 193.65 | 193.57 | 193.56 | 193.67 |        |
| 25                               | 193.61 | 193.73 | 195.53                                           | 196.93 | 198.87 | 197.15 | 195.45 | 193.78 | 193.64 | 193.56 | 193.55 | 193.66 |        |
| 26                               | 193.66 | 193.73 | 195.56                                           | 196.79 | 198.87 | 197.36 | 195.50 | 193.78 | 193.65 | 193.56 | 193.54 | 193.65 |        |
| 27                               | 193.65 | 193.70 | 195.18                                           | 195.74 | 198.69 | 198.64 | 194.86 | 193.78 | 193.64 | 193.55 | 193.53 | 193.66 |        |
| 28                               | 193.63 | 193.58 | 195.15                                           | 195.13 | 198.35 | 199.12 | 194.62 | 193.96 | 193.64 | 193.54 | 193.55 | 193.68 |        |
| 29                               | 193.63 | 193.55 | 195.15                                           | 196.62 | 198.07 | 199.27 | 194.49 | 193.99 | 193.65 | 193.53 |        | 193.64 |        |
| 30                               | 193.53 | 193.70 | 194.72                                           | 197.90 | 197.91 | 199.03 | 194.42 | 193.72 | 193.65 | 193.51 |        | 193.62 |        |
| 31                               |        | 193.66 |                                                  | 197.87 | 197.91 |        | 194.39 |        | 193.64 | 193.51 |        | 193.61 |        |
| Mean                             | 193.47 | 193.63 | 195.02                                           | 195.31 | 197.39 | 197.93 | 195.88 | 193.96 | 193.70 | 193.56 | 193.55 | 193.57 |        |
| Max                              | 193.66 | 193.84 | 198.08                                           | 197.90 | 199.26 | 199.38 | 198.92 | 194.60 | 194.36 | 193.64 | 193.56 | 193.68 | 199.38 |
| Min                              | 193.39 | 193.50 | 193.54                                           | 193.75 | 194.30 | 196.30 | 194.39 | 193.72 | 193.61 | 193.51 | 193.52 | 193.48 | 193.39 |
| Annual Max Momentary Gage Height | 199.42 |        | m. (MSL.) , at 12.00 Hours , on Sep 17 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 191.88 |        | m. (MSL.) , River Bed 190.74 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 202.23 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 202.25 |        | m. (MSL.) , Drainage Area 1710 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul     | Aug                  | Sep     | Oct     | Nov                              | Dec    | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|---------|----------------------|---------|---------|----------------------------------|--------|--------|--------|--------|----------|--------|
| 1              | 3.50                                                              | 4.60                     | 5.88   | 13.45   | 84.08                | 161.60  | 161.60  | 20.00                            | 5.64   | 5.88   | 4.90   | 4.40   |          |        |
| 2              | 3.40                                                              | 4.50                     | 5.76   | 10.18   | 62.15                | 156.85  | 123.50  | 18.47                            | 5.64   | 5.88   | 4.90   | 4.30   |          |        |
| 3              | 3.40                                                              | 4.40                     | 4.80   | 7.20    | 44.16                | 117.25  | 131.30  | 15.70                            | 5.52   | 5.76   | 4.70   | 4.30   |          |        |
| 4              | 3.40                                                              | 5.52                     | 6.60   | 11.80   | 36.60                | 94.60   | 151.15  | 13.60                            | 6.48   | 5.64   | 4.60   | 4.40   |          |        |
| 5              | 3.40                                                              | 6.24                     | 17.79  | 21.19   | 28.24                | 69.90   | 102.20  | 13.00                            | 6.24   | 5.52   | 4.90   | 4.40   |          |        |
| 6              | 3.40                                                              | 6.36                     | 70.68  | 21.87   | 21.36                | 53.50   | 78.24   | 11.65                            | 6.36   | 5.30   | 4.70   | 4.40   |          |        |
| 7              | 3.40                                                              | 6.48                     | 105.80 | 19.32   | 15.10                | 54.19   | 62.90   | 10.90                            | 6.72   | 5.20   | 4.70   | 4.30   |          |        |
| 8              | 3.40                                                              | 8.36                     | 67.90  | 36.40   | 91.32                | 66.15   | 50.54   | 10.32                            | 6.36   | 5.20   | 4.80   | 4.30   |          |        |
| 9              | 3.40                                                              | 7.32                     | 37.40  | 56.03   | 90.36                | 71.52   | 43.28   | 10.18                            | 6.60   | 5.20   | 4.90   | 4.20   |          |        |
| 10             | 3.40                                                              | 6.24                     | 10.75  | 43.06   | 99.40                | 70.15   | 37.00   | 10.18                            | 6.60   | 5.10   | 4.90   | 4.20   |          |        |
| 11             | 3.33                                                              | 6.96                     | 6.72   | 48.56   | 142.70               | 70.40   | 34.00   | 9.90                             | 6.60   | 5.00   | 4.80   | 4.30   |          |        |
| 12             | 3.50                                                              | 5.76                     | 12.10  | 54.19   | 154.95               | 70.96   | 31.40   | 9.90                             | 6.72   | 4.90   | 4.80   | 5.00   |          |        |
| 13             | 3.50                                                              | 5.10                     | 7.68   | 47.90   | 161.60               | 76.56   | 55.80   | 10.90                            | 6.72   | 4.80   | 4.90   | 5.00   |          |        |
| 14             | 3.50                                                              | 4.80                     | 12.10  | 28.96   | 123.50               | 89.40   | 41.80   | 9.76                             | 6.60   | 4.80   | 4.90   | 4.70   |          |        |
| 15             | 3.50                                                              | 4.40                     | 31.20  | 25.95   | 98.20                | 157.80  | 31.40   | 10.60                            | 6.60   | 4.70   | 4.90   | 4.90   |          |        |
| 16             | 3.40                                                              | 4.60                     | 15.25  | 26.98   | 83.46                | 230.74  | 24.25   | 8.78                             | 7.20   | 4.70   | 5.00   | 5.52   |          |        |
| 17             | 3.40                                                              | 4.50                     | 41.00  | 20.17   | 91.32                | 204.35  | 25.27   | 8.22                             | 16.00  | 4.70   | 5.00   | 5.40   |          |        |
| 18             | 3.70                                                              | 4.50                     | 42.40  | 21.36   | 88.76                | 157.80  | 35.20   | 8.08                             | 8.92   | 4.60   | 4.90   | 5.40   |          |        |
| 19             | 3.70                                                              | 4.80                     | 16.60  | 15.85   | 58.56                | 142.70  | 33.80   | 7.94                             | 6.72   | 4.60   | 5.00   | 5.30   |          |        |
| 20             | 4.20                                                              | 4.70                     | 49.88  | 16.15   | 41.60                | 114.50  | 35.00   | 7.56                             | 6.60   | 4.60   | 4.80   | 5.20   |          |        |
| 21             | 4.70                                                              | 5.20                     | 54.42  | 24.25   | 35.60                | 91.00   | 28.60   | 7.32                             | 6.48   | 4.50   | 4.80   | 6.00   |          |        |
| 22             | 5.00                                                              | 7.08                     | 42.20  | 21.02   | 53.04                | 92.28   | 24.08   | 7.68                             | 6.36   | 4.90   | 4.90   | 6.12   |          |        |
| 23             | 5.64                                                              | 6.84                     | 26.46  | 12.40   | 145.70               | 94.20   | 20.68   | 7.56                             | 6.24   | 4.80   | 4.80   | 6.36   |          |        |
| 24             | 5.64                                                              | 7.56                     | 14.05  | 20.68   | 206.38               | 80.20   | 38.00   | 7.44                             | 6.00   | 5.10   | 5.00   | 6.24   |          |        |
| 25             | 5.52                                                              | 6.96                     | 37.00  | 68.65   | 156.85               | 74.60   | 35.40   | 7.56                             | 5.88   | 5.00   | 4.90   | 6.12   |          |        |
| 26             | 6.12                                                              | 6.96                     | 37.60  | 65.15   | 156.85               | 80.48   | 36.40   | 7.56                             | 6.00   | 5.00   | 4.80   | 6.00   |          |        |
| 27             | 6.00                                                              | 6.60                     | 30.04  | 41.20   | 141.95               | 138.20  | 24.42   | 7.56                             | 5.88   | 4.90   | 4.70   | 6.12   |          |        |
| 28             | 5.76                                                              | 5.20                     | 29.50  | 29.14   | 119.45               | 184.20  | 20.34   | 10.04                            | 5.88   | 4.80   | 4.90   | 6.36   |          |        |
| 29             | 5.76                                                              | 4.90                     | 29.50  | 60.90   | 105.35               | 208.41  | 18.13   | 10.46                            | 6.00   | 4.70   |        | 5.88   |          |        |
| 30             | 4.70                                                              | 6.60                     | 22.04  | 98.20   | 98.60                | 172.95  | 16.94   | 6.84                             | 6.00   | 4.50   |        | 5.64   |          |        |
| 31             |                                                                   | 6.12                     |        | 97.00   | 98.60                |         | 16.45   |                                  | 5.88   | 4.50   |        | 5.52   |          |        |
| Total          | 124.67                                                            | 180.16                   | 891.10 | 1085.16 | 2935.79              | 3447.44 | 1569.07 | 305.66                           | 207.44 | 154.78 | 135.80 | 160.28 | 11197.35 | CMSDAY |
| Mean           | 4.16                                                              | 5.81                     | 29.70  | 35.01   | 94.70                | 114.91  | 50.62   | 10.19                            | 6.69   | 4.99   | 4.85   | 5.17   | 30.68    | CMS    |
| Max            | 6.12                                                              | 8.36                     | 105.80 | 98.20   | 206.38               | 230.74  | 161.60  | 20.00                            | 16.00  | 5.88   | 5.00   | 6.36   | 230.74   | CMS    |
| Min            | 3.33                                                              | 4.40                     | 4.80   | 7.20    | 15.10                | 53.50   | 16.45   | 6.84                             | 5.52   | 4.50   | 4.60   | 4.20   | 3.33     | CMS    |
| Runoff         | 10.77                                                             | 15.57                    | 76.99  | 93.76   | 253.65               | 297.86  | 135.57  | 26.41                            | 17.92  | 13.37  | 11.73  | 13.85  | 967.45   | MCM    |
| Momentary Peak | 240.82 CMS. at 199.42 m. (MSL.) at 12.00 Hours , on Sep 17 , 2013 |                          |        |         |                      |         |         |                                  |        |        |        |        |          |        |
| Runoff Yield   | 17.94                                                             | Liters/Second/Square KM. |        |         | Momentary Peak Yield |         |         | 140.830 Liters/Second/Square KM. |        |        |        |        |          |        |

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 18.15 | 18.34 | 19.00                                             | 19.26 | 19.69 | 20.22 | 24.82 | 23.80 | 18.50 | 18.64 | 18.83 | 18.74 |        |
| 2                                | 18.10 | 18.33 | 18.94                                             | 18.95 | 19.91 | 20.15 | 24.89 | 23.61 | 18.41 | 18.69 | 18.85 | 18.71 |        |
| 3                                | 18.08 | 18.34 | 18.82                                             | 18.82 | 20.02 | 20.29 | 24.94 | 23.44 | 18.27 | 18.75 | 18.81 | 18.71 |        |
| 4                                | 18.24 | 18.34 | 18.76                                             | 18.62 | 20.12 | 20.70 | 24.94 | 23.24 | 18.25 | 18.75 | 18.82 | 18.73 |        |
| 5                                | 18.37 | 18.59 | 18.71                                             | 18.40 | 20.11 | 21.00 | 24.96 | 23.01 | 18.21 | 18.76 | 18.79 | 18.69 |        |
| 6                                | 18.36 | 18.93 | 18.77                                             | 18.38 | 19.93 | 21.06 | 24.97 | 22.75 | 18.24 | 18.78 | 18.82 | 18.71 |        |
| 7                                | 18.35 | 19.12 | 18.92                                             | 18.46 | 19.69 | 20.94 | 24.96 | 22.42 | 18.41 | 18.74 | 18.79 | 18.73 |        |
| 8                                | 18.33 | 19.29 | 19.11                                             | 18.49 | 19.48 | 20.79 | 24.95 | 22.10 | 18.68 | 18.67 | 18.78 | 18.61 |        |
| 9                                | 18.31 | 19.46 | 19.18                                             | 18.59 | 19.40 | 20.70 | 24.89 | 21.79 | 19.09 | 18.68 | 18.76 | 18.47 |        |
| 10                               | 18.27 | 19.54 | 19.18                                             | 19.04 | 19.44 | 20.87 | 24.82 | 21.49 | 19.26 | 18.66 | 18.75 | 18.31 |        |
| 11                               | 18.21 | 19.51 | 19.04                                             | 19.54 | 19.66 | 21.08 | 24.70 | 21.24 | 19.18 | 18.59 | 18.70 | 18.19 |        |
| 12                               | 18.24 | 19.42 | 19.04                                             | 19.95 | 20.14 | 21.19 | 24.51 | 21.05 | 19.10 | 18.55 | 18.64 | 18.14 |        |
| 13                               | 18.26 | 19.36 | 19.23                                             | 20.31 | 20.81 | 21.43 | 24.35 | 20.83 | 18.87 | 18.52 | 18.67 | 18.20 |        |
| 14                               | 18.29 | 19.26 | 19.54                                             | 20.64 | 21.64 | 21.75 | 24.20 | 20.54 | 18.66 | 18.45 | 18.73 | 18.21 |        |
| 15                               | 18.33 | 19.16 | 20.07                                             | 20.67 | 22.20 | 22.08 | 24.07 | 20.33 | 18.57 | 18.42 | 18.74 | 18.21 |        |
| 16                               | 18.31 | 19.01 | 20.43                                             | 20.44 | 22.40 | 22.41 | 23.88 | 20.13 | 18.52 | 18.39 | 18.71 | 18.27 |        |
| 17                               | 18.36 | 18.95 | 20.37                                             | 20.12 | 22.51 | 22.83 | 23.66 | 19.91 | 18.45 | 18.43 | 18.66 | 18.33 |        |
| 18                               | 18.48 | 19.01 | 20.10                                             | 19.66 | 22.48 | 23.07 | 23.47 | 19.80 | 18.43 | 18.51 | 18.70 | 18.38 |        |
| 19                               | 18.44 | 19.05 | 19.78                                             | 19.31 | 22.41 | 23.27 | 23.38 | 19.87 | 18.61 | 18.45 | 18.70 | 18.36 |        |
| 20                               | 18.42 | 19.04 | 19.61                                             | 19.15 | 22.28 | 23.40 | 23.36 | 19.87 | 18.67 | 18.38 | 18.71 | 18.30 |        |
| 21                               | 18.51 | 19.14 | 19.52                                             | 19.06 | 22.01 | 23.50 | 23.38 | 19.69 | 18.55 | 18.37 | 18.72 | 18.35 |        |
| 22                               | 18.54 | 19.20 | 19.62                                             | 18.99 | 21.51 | 23.68 | 23.49 | 19.38 | 18.40 | 18.45 | 18.71 | 18.38 |        |
| 23                               | 18.57 | 19.21 | 19.83                                             | 18.83 | 21.01 | 23.96 | 23.63 | 19.16 | 18.54 | 18.57 | 18.72 | 18.33 |        |
| 24                               | 18.52 | 19.28 | 20.11                                             | 18.74 | 20.74 | 24.29 | 23.69 | 19.07 | 18.76 | 18.60 | 18.73 | 18.23 |        |
| 25                               | 18.60 | 19.25 | 20.19                                             | 18.69 | 20.76 | 24.39 | 23.67 | 18.96 | 18.86 | 18.63 | 18.64 | 18.22 |        |
| 26                               | 18.70 | 19.09 | 20.11                                             | 18.78 | 21.06 | 24.36 | 23.71 | 18.73 | 18.88 | 18.68 | 18.62 | 18.28 |        |
| 27                               | 18.68 | 19.11 | 19.98                                             | 19.07 | 21.34 | 24.36 | 24.03 | 18.63 | 18.84 | 18.72 | 18.64 | 18.37 |        |
| 28                               | 18.62 | 19.14 | 19.85                                             | 19.24 | 21.24 | 24.46 | 24.22 | 18.60 | 18.78 | 18.83 | 18.70 | 18.42 |        |
| 29                               | 18.50 | 19.09 | 19.72                                             | 19.34 | 20.98 | 24.55 | 24.19 | 18.54 | 18.74 | 18.83 |       | 18.39 |        |
| 30                               | 18.42 | 19.08 | 19.51                                             | 19.47 | 20.67 | 24.70 | 24.10 | 18.51 | 18.71 | 18.83 |       | 18.40 |        |
| 31                               |       | 19.02 |                                                   | 19.56 | 20.40 |       | 23.97 |       | 18.66 | 18.81 |       | 18.41 |        |
| Mean                             | 18.39 | 19.05 | 19.50                                             | 19.24 | 20.84 | 22.38 | 24.22 | 20.68 | 18.65 | 18.62 | 18.73 | 18.41 |        |
| Max                              | 18.70 | 19.54 | 20.43                                             | 20.67 | 22.51 | 24.70 | 24.97 | 23.80 | 19.26 | 18.83 | 18.85 | 18.74 | 24.97  |
| Min                              | 18.08 | 18.33 | 18.71                                             | 18.38 | 19.40 | 20.15 | 23.36 | 18.51 | 18.21 | 18.37 | 18.62 | 18.14 | 18.08  |
| Annual Max Momentary Gage Height | 24.98 |       | m. (MSL.) , at 13.00 Hours , on Oct 5 , 2013      |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 12.04 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 27.91 |       | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 27.95 |       | m. (MSL.) , Drainage Area 57613 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug      | Sep                  | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------|----------------------|----------|----------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 110.50                                                          | 135.60                   | 230.00  | 271.60  | 346.20   | 444.00               | 1539.40  | 1124.00  | 158.00                   | 177.60  | 204.50  | 191.60  |           |        |
| 2              | 104.00                                                          | 134.20                   | 221.00  | 222.50  | 385.80   | 430.00               | 1575.80  | 1074.40  | 145.40                   | 184.60  | 207.50  | 187.40  |           |        |
| 3              | 101.40                                                          | 135.60                   | 203.00  | 203.00  | 405.60   | 458.00               | 1601.80  | 1038.00  | 126.10                   | 193.00  | 201.50  | 187.40  |           |        |
| 4              | 122.20                                                          | 135.60                   | 194.40  | 174.80  | 424.00   | 540.00               | 1601.80  | 1001.80  | 123.50                   | 193.00  | 203.00  | 190.20  |           |        |
| 5              | 139.80                                                          | 170.60                   | 187.40  | 144.00  | 422.00   | 603.00               | 1612.20  | 968.30   | 118.30                   | 194.40  | 198.60  | 184.60  |           |        |
| 6              | 138.40                                                          | 219.50                   | 195.80  | 141.20  | 389.40   | 615.60               | 1617.40  | 940.50   | 122.20                   | 197.20  | 203.00  | 187.40  |           |        |
| 7              | 137.00                                                          | 249.20                   | 218.00  | 152.40  | 346.20   | 590.40               | 1612.20  | 917.40   | 145.40                   | 191.60  | 198.60  | 190.20  |           |        |
| 8              | 134.20                                                          | 276.40                   | 247.60  | 156.60  | 308.60   | 558.90               | 1607.00  | 846.00   | 183.20                   | 181.80  | 197.20  | 173.40  |           |        |
| 9              | 131.40                                                          | 305.20                   | 258.80  | 170.60  | 295.00   | 540.00               | 1575.80  | 775.80   | 244.40                   | 183.20  | 194.40  | 153.80  |           |        |
| 10             | 126.10                                                          | 319.20                   | 258.80  | 236.40  | 301.80   | 575.70               | 1539.40  | 709.80   | 271.60                   | 180.40  | 193.00  | 131.40  |           |        |
| 11             | 118.30                                                          | 313.80                   | 236.40  | 319.20  | 340.80   | 619.80               | 1477.00  | 654.80   | 258.80                   | 170.60  | 186.00  | 115.70  |           |        |
| 12             | 122.20                                                          | 298.40                   | 236.40  | 393.00  | 428.00   | 643.80               | 1384.50  | 613.50   | 246.00                   | 165.00  | 177.60  | 109.20  |           |        |
| 13             | 124.80                                                          | 288.20                   | 266.80  | 462.00  | 563.10   | 696.60               | 1312.50  | 567.30   | 210.50                   | 160.80  | 181.80  | 117.00  |           |        |
| 14             | 128.70                                                          | 271.60                   | 319.20  | 528.00  | 742.80   | 767.00               | 1250.00  | 508.00   | 180.40                   | 151.00  | 190.20  | 118.30  |           |        |
| 15             | 134.20                                                          | 255.60                   | 414.60  | 534.00  | 869.00   | 841.40               | 1204.50  | 466.00   | 167.80                   | 146.80  | 191.60  | 118.30  |           |        |
| 16             | 131.40                                                          | 231.60                   | 486.00  | 488.00  | 916.00   | 916.70               | 1146.40  | 426.00   | 160.80                   | 142.60  | 187.40  | 126.10  |           |        |
| 17             | 138.40                                                          | 222.50                   | 474.00  | 424.00  | 923.60   | 948.00               | 1086.40  | 385.80   | 151.00                   | 148.20  | 180.40  | 134.20  |           |        |
| 18             | 155.20                                                          | 231.60                   | 420.00  | 340.80  | 921.60   | 976.10               | 1044.00  | 366.00   | 148.20                   | 159.40  | 186.00  | 141.20  |           |        |
| 19             | 149.60                                                          | 238.00                   | 362.40  | 279.70  | 916.70   | 1006.90              | 1026.40  | 378.60   | 173.40                   | 151.00  | 186.00  | 138.40  |           |        |
| 20             | 146.80                                                          | 236.40                   | 331.80  | 254.00  | 887.40   | 1030.00              | 1022.80  | 378.60   | 181.80                   | 141.20  | 187.40  | 130.00  |           |        |
| 21             | 159.40                                                          | 252.40                   | 315.60  | 239.60  | 825.30   | 1050.00              | 1026.40  | 346.20   | 165.00                   | 139.80  | 188.80  | 137.00  |           |        |
| 22             | 163.60                                                          | 262.00                   | 333.60  | 228.50  | 714.20   | 1091.20              | 1048.00  | 291.60   | 144.00                   | 151.00  | 187.40  | 141.20  |           |        |
| 23             | 167.80                                                          | 263.60                   | 371.40  | 204.50  | 605.10   | 1168.80              | 1079.20  | 255.60   | 163.60                   | 167.80  | 188.80  | 134.20  |           |        |
| 24             | 160.80                                                          | 274.80                   | 422.00  | 191.60  | 548.40   | 1286.00              | 1093.60  | 241.20   | 194.40                   | 172.00  | 190.20  | 120.90  |           |        |
| 25             | 172.00                                                          | 270.00                   | 438.00  | 184.60  | 552.60   | 1330.50              | 1088.80  | 224.00   | 209.00                   | 176.20  | 177.60  | 119.60  |           |        |
| 26             | 186.00                                                          | 244.40                   | 422.00  | 197.20  | 615.60   | 1317.00              | 1098.80  | 190.20   | 212.00                   | 183.20  | 174.80  | 127.40  |           |        |
| 27             | 183.20                                                          | 247.60                   | 398.40  | 241.20  | 676.80   | 1317.00              | 1190.50  | 176.20   | 206.00                   | 188.80  | 177.60  | 139.80  |           |        |
| 28             | 174.80                                                          | 252.40                   | 375.00  | 268.40  | 654.80   | 1362.00              | 1258.00  | 172.00   | 197.20                   | 204.50  | 186.00  | 146.80  |           |        |
| 29             | 158.00                                                          | 244.40                   | 351.60  | 284.80  | 598.80   | 1402.50              | 1246.50  | 163.60   | 191.60                   | 204.50  |         | 142.60  |           |        |
| 30             | 146.80                                                          | 242.80                   | 313.80  | 306.90  | 534.00   | 1477.00              | 1215.00  | 159.40   | 187.40                   | 204.50  |         | 144.00  |           |        |
| 31             |                                                                 | 233.20                   |         | 322.80  | 480.00   |                      | 1171.60  |          | 180.40                   | 201.50  |         | 145.40  |           |        |
| Total          | 4267.00                                                         | 7456.40                  | 9503.80 | 8565.90 | 17939.20 | 26603.90             | 40353.70 | 16360.60 | 5567.40                  | 5407.20 | 5326.90 | 4524.70 | 151876.70 | CMSDAY |
| Mean           | 142.20                                                          | 240.50                   | 316.80  | 276.30  | 578.70   | 886.80               | 1301.70  | 545.40   | 179.60                   | 174.40  | 190.20  | 146.00  | 416.10    | CMS    |
| Max            | 186.00                                                          | 319.20                   | 486.00  | 534.00  | 923.60   | 1477.00              | 1617.40  | 1124.00  | 271.60                   | 204.50  | 207.50  | 191.60  | 1617.40   | CMS    |
| Min            | 101.40                                                          | 134.20                   | 187.40  | 141.20  | 295.00   | 430.00               | 1022.80  | 159.40   | 118.30                   | 139.80  | 174.80  | 109.20  | 101.40    | CMS    |
| Runoff         | 368.67                                                          | 644.23                   | 821.13  | 740.09  | 1549.95  | 2298.58              | 3486.56  | 1413.56  | 481.02                   | 467.18  | 460.24  | 390.93  | 13122.15  | MCM    |
| Momentary Peak | 1622.60 CMS. at 24.98 m. (MSL.) at 13.00 Hours , on Oct 5, 2013 |                          |         |         |          |                      |          |          |                          |         |         |         |           |        |
| Runoff Yield   | 7.22                                                            | Liters/Second/Square KM. |         |         |          | Momentary Peak Yield |          | 28.164   | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013****NAN RIVER BASIN****Khlong Chom Phu at Ban Chom Phu , Phitsanulok (N.43A)**

Lat 16 - 41 - 40 N Long 100 - 39 - 28 E

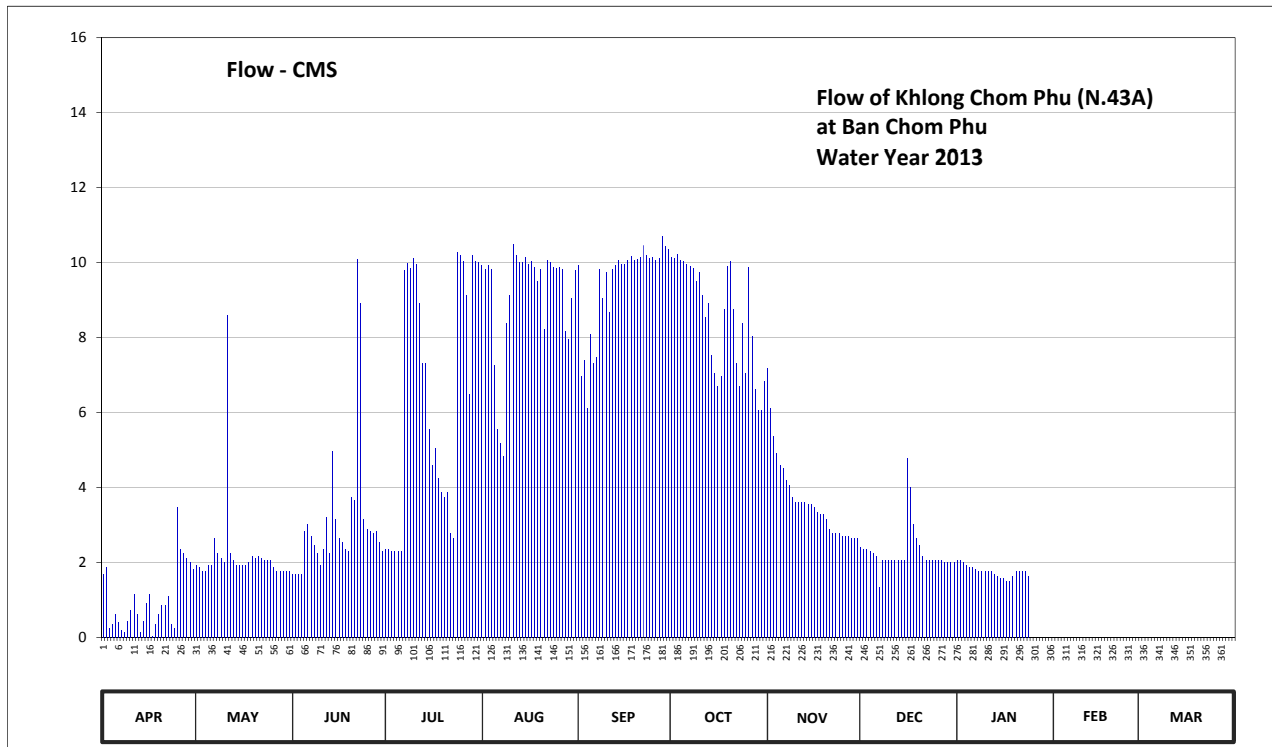
Location : on right bank at Ban Chom Phu.

|                                         |                                                                                           |                 |               |                     |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|---------------|---------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Chom Phu</b> | <b>Amphoe</b> | <b>Noen Maprang</b> | <b>Changwat</b>  | <b>Phitsanulok</b> |
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.          |               |                     |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage            |               |                     |                  |                    |
| <b>Zero Gage at Bottom</b>              | +50.056                                                                                   | m. (MSL.)       |               |                     |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                 |               |                     |                  |                    |
| <b>Location BM</b>                      | Near the gage site.                                                                       |                 |               |                     | <b>Elevation</b> | +59.558 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                 |               |                     |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                 |               |                     |                  |                    |
| <b>Period of Available Gage Records</b> | 2010 to date                                                                              |                 |               |                     |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                 |               |                     |                  |                    |
| <b>Period of Rating</b>                 | 2010 to date                                                                              |                 |               |                     |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |               |                     |                  |                    |
| <b>Rated by Current Meter</b>           | 2010 to date                                                                              |                 |               |                     |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                 |               |                     |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                 |               |                     |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |                 |               |                     |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 51.60 | 51.64 | 51.60       | 51.71 | 53.51                             | 53.66 | 54.99             | 52.44 | 51.72 | 51.66 | 51.82 | 51.74 |        |
| 2                                | 51.63 | 51.63 | 51.60       | 51.71 | 52.99                             | 52.41 | 54.81             | 52.29 | 51.71 | 51.66 | 51.82 | 51.77 |        |
| 3                                | 51.35 | 51.61 | 51.60       | 51.70 | 53.48                             | 52.47 | 55.46             | 52.18 | 51.71 | 51.65 | 51.82 | 51.77 |        |
| 4                                | 51.37 | 51.61 | 51.60       | 51.70 | 52.96                             | 52.29 | 54.44             | 52.11 | 51.70 | 51.64 | 51.82 | 51.82 |        |
| 5                                | 51.42 | 51.64 | 51.79       | 51.70 | 52.45                             | 52.57 | 54.30             | 52.06 | 51.69 | 51.63 | 51.82 | 51.86 |        |
| 6                                | 51.38 | 51.64 | 51.82       | 51.70 | 52.21                             | 52.46 | 53.85             | 52.05 | 51.68 | 51.63 | 51.82 | 51.85 |        |
| 7                                | 51.34 | 51.76 | 51.77       | 52.82 | 52.15                             | 52.48 | 53.44             | 52.00 | 51.54 | 51.62 | 51.82 | 51.81 |        |
| 8                                | 51.33 | 51.69 | 51.73       | 53.96 | 52.10                             | 52.88 | 53.14             | 51.98 | 51.66 | 51.61 | 51.83 | 51.83 |        |
| 9                                | 51.39 | 51.67 | 51.69       | 53.15 | 52.61                             | 52.70 | 52.76             | 51.93 | 51.66 | 51.61 | 51.83 | 51.86 |        |
| 10                               | 51.44 | 51.65 | 51.64       | 54.77 | 52.71                             | 52.79 | 52.79             | 51.91 | 51.66 | 51.61 | 51.83 | 51.85 |        |
| 11                               | 51.51 | 52.64 | 51.71       | 53.83 | 57.16                             | 52.65 | 52.71             | 51.91 | 51.66 | 51.61 | 51.82 | 51.83 |        |
| 12                               | 51.42 | 51.69 | 51.85       | 52.68 | 55.38                             | 52.90 | 52.63             | 51.91 | 51.66 | 51.61 | 51.82 | 51.81 |        |
| 13                               | 51.33 | 51.66 | 51.69       | 52.46 | 54.03                             | 53.53 | 52.68             | 51.91 | 51.66 | 51.60 | 51.81 | 51.79 |        |
| 14                               | 51.39 | 51.64 | 52.12       | 52.46 | 54.00                             | 54.43 | 52.49             | 51.90 | 51.66 | 51.59 | 51.80 | 51.81 |        |
| 15                               | 51.47 | 51.64 | 51.84       | 52.21 | 54.97                             | 53.79 | 52.42             | 51.90 | 51.66 | 51.58 | 51.80 | 51.82 |        |
| 16                               | 51.51 | 51.64 | 51.76       | 52.06 | 53.82                             | 53.72 | 52.37             | 51.89 | 52.09 | 51.58 | 51.79 | 51.86 |        |
| 17                               | 51.31 | 51.64 | 51.74       | 52.13 | 54.28                             | 54.43 | 52.41             | 51.87 | 51.97 | 51.57 | 51.78 | 51.86 |        |
| 18                               | 51.37 | 51.65 | 51.71       | 52.01 | 53.19                             | 55.12 | 52.66             | 51.86 | 51.82 | 51.57 | 51.77 | 51.85 |        |
| 19                               | 51.42 | 51.68 | 51.70       | 51.95 | 52.76                             | 54.41 | 53.40             | 51.86 | 51.76 | 51.59 | 51.76 | 51.83 |        |
| 20                               | 51.46 | 51.67 | 51.93       | 51.93 | 52.98                             | 54.64 | 54.32             | 51.84 | 51.73 | 51.61 | 51.77 | 51.81 |        |
| 21                               | 51.46 | 51.68 | 51.92       | 51.95 | 52.59                             | 55.06 | 52.66             | 51.80 | 51.68 | 51.61 | 51.85 | 51.84 |        |
| 22                               | 51.50 | 51.67 | 54.67       | 51.78 | 54.49                             | 56.99 | 52.46             | 51.78 | 51.66 | 51.61 | 51.85 | 51.82 |        |
| 23                               | 51.37 | 51.66 | 52.68       | 51.76 | 54.12                             | 55.20 | 52.37             | 51.78 | 51.66 | 51.61 | 51.83 | 51.81 |        |
| 24                               | 51.35 | 51.66 | 51.84       | 55.82 | 53.32                             | 54.73 | 52.61             | 51.78 | 51.66 | 51.59 | 51.78 | 51.87 |        |
| 25                               | 51.89 | 51.66 | 51.80       | 55.25 | 53.09                             | 54.89 | 52.42             | 51.77 | 51.66 | 51.69 | 51.75 | 51.93 |        |
| 26                               | 51.71 | 51.63 | 51.79       | 54.30 | 53.28                             | 54.37 | 53.16             | 51.77 | 51.66 | 51.69 | 51.72 | 51.96 |        |
| 27                               | 51.69 | 51.61 | 51.78       | 52.71 | 52.91                             | 54.83 | 52.56             | 51.77 | 51.66 | 51.69 | 51.71 | 51.95 |        |
| 28                               | 51.67 | 51.61 | 51.79       | 52.34 | 52.58                             | 58.52 | 52.36             | 51.76 | 51.65 | 51.68 | 51.71 | 51.94 |        |
| 29                               | 51.65 | 51.61 | 51.74       | 55.37 | 52.55                             | 56.83 | 52.28             | 51.76 | 51.65 | 51.67 |       | 51.93 |        |
| 30                               | 51.62 | 51.61 | 51.70       | 54.24 | 52.70                             | 56.24 | 52.28             | 51.76 | 51.65 | 51.66 |       | 51.90 |        |
| 31                               |       | 51.61 |             | 54.06 | 52.83                             |       | 52.39             |       | 51.65 | 51.66 |       | 51.89 |        |
| Mean                             | 51.48 | 51.68 | 51.89       | 52.85 | 53.36                             | 54.13 | 53.08             | 51.92 | 51.70 | 51.63 | 51.80 | 51.85 |        |
| Max                              | 51.89 | 52.64 | 54.67       | 55.82 | 57.16                             | 58.52 | 55.46             | 52.44 | 52.09 | 51.69 | 51.85 | 51.96 | 58.52  |
| Min                              | 51.31 | 51.61 | 51.60       | 51.70 | 52.10                             | 52.29 | 52.28             | 51.76 | 51.54 | 51.57 | 51.71 | 51.74 | 51.31  |
| Annual Max Momentary Gage Height |       | 59.01 | m. (MSL.) , |       | at 06.00 Hours , on Sep 28 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 50.06 | m. (MSL.) , |       | River Bed                         | 49.58 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 59.58 | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 59.39 | m. (MSL.) , |       | Drainage Area                     |       | Square Kilometers |       |       |       |       |       |        |

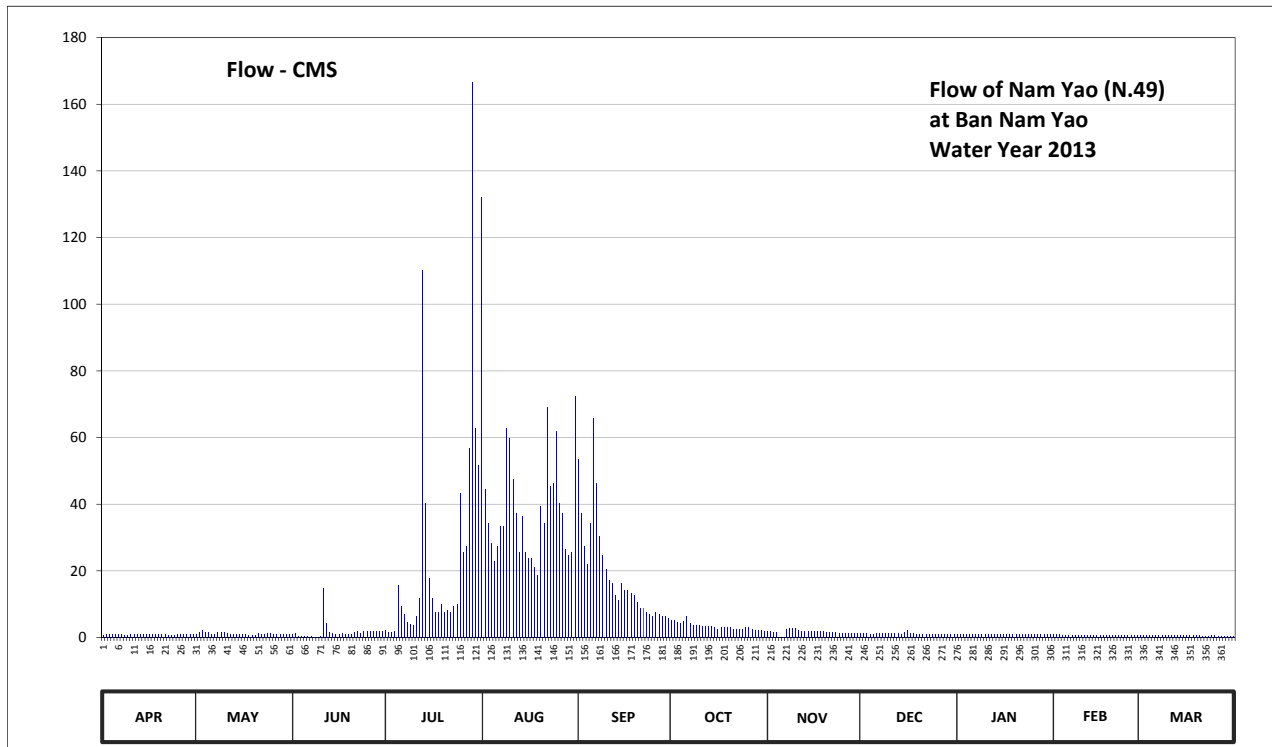




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|--------------------------|--------|-------|-------|------|------|----------------|
| 1              | 1.70                                                            | 1.94                     | 1.70  | 2.36                 | 9.91   | 9.93   | 10.14                    | 7.18   | 2.42  | 2.06  | 0.00 | 0.00 |                |
| 2              | 1.88                                                            | 1.88                     | 1.70  | 2.36                 | 9.83   | 6.97   | 10.12                    | 6.13   | 2.36  | 2.06  | 0.00 | 0.00 |                |
| 3              | 0.25                                                            | 1.76                     | 1.70  | 2.30                 | 9.91   | 7.39   | 10.22                    | 5.37   | 2.36  | 2.00  | 0.00 | 0.00 |                |
| 4              | 0.35                                                            | 1.76                     | 1.70  | 2.30                 | 9.83   | 6.13   | 10.06                    | 4.92   | 2.30  | 1.94  | 0.00 | 0.00 |                |
| 5              | 0.62                                                            | 1.94                     | 2.84  | 2.30                 | 7.25   | 8.09   | 10.04                    | 4.59   | 2.24  | 1.88  | 0.00 | 0.00 |                |
| 6              | 0.40                                                            | 1.94                     | 3.03  | 2.30                 | 5.57   | 7.32   | 9.96                     | 4.52   | 2.18  | 1.88  | 0.00 | 0.00 |                |
| 7              | 0.20                                                            | 2.66                     | 2.72  | 9.80                 | 5.18   | 7.46   | 9.90                     | 4.20   | 1.34  | 1.82  | 0.00 | 0.00 |                |
| 8              | 0.15                                                            | 2.24                     | 2.48  | 9.98                 | 4.85   | 9.81   | 9.85                     | 4.07   | 2.06  | 1.76  | 0.00 | 0.00 |                |
| 9              | 0.45                                                            | 2.12                     | 2.24  | 9.85                 | 8.38   | 9.05   | 9.50                     | 3.75   | 2.06  | 1.76  | 0.00 | 0.00 |                |
| 10             | 0.74                                                            | 2.00                     | 1.94  | 10.11                | 9.13   | 9.73   | 9.73                     | 3.62   | 2.06  | 1.76  | 0.00 | 0.00 |                |
| 11             | 1.16                                                            | 8.60                     | 2.36  | 9.96                 | 10.48  | 8.68   | 9.13                     | 3.62   | 2.06  | 1.76  | 0.00 | 0.00 |                |
| 12             | 0.62                                                            | 2.24                     | 3.22  | 8.90                 | 10.20  | 9.82   | 8.53                     | 3.62   | 2.06  | 1.76  | 0.00 | 0.00 |                |
| 13             | 0.15                                                            | 2.06                     | 2.24  | 7.32                 | 9.99   | 9.91   | 8.90                     | 3.62   | 2.06  | 1.70  | 0.00 | 0.00 |                |
| 14             | 0.45                                                            | 1.94                     | 4.98  | 7.32                 | 9.99   | 10.06  | 7.53                     | 3.55   | 2.06  | 1.64  | 0.00 | 0.00 |                |
| 15             | 0.92                                                            | 1.94                     | 3.16  | 5.57                 | 10.14  | 9.96   | 7.04                     | 3.55   | 2.06  | 1.58  | 0.00 | 0.00 |                |
| 16             | 1.16                                                            | 1.94                     | 2.66  | 4.59                 | 9.96   | 9.94   | 6.69                     | 3.48   | 4.78  | 1.58  | 0.00 | 0.00 |                |
| 17             | 0.05                                                            | 1.94                     | 2.54  | 5.05                 | 10.03  | 10.06  | 6.97                     | 3.35   | 4.01  | 1.52  | 0.00 | 0.00 |                |
| 18             | 0.35                                                            | 2.00                     | 2.36  | 4.26                 | 9.86   | 10.16  | 8.75                     | 3.29   | 3.03  | 1.52  | 0.00 | 0.00 |                |
| 19             | 0.62                                                            | 2.18                     | 2.30  | 3.88                 | 9.50   | 10.05  | 9.89                     | 3.29   | 2.66  | 1.64  | 0.00 | 0.00 |                |
| 20             | 0.86                                                            | 2.12                     | 3.75  | 3.75                 | 9.83   | 10.09  | 10.04                    | 3.16   | 2.48  | 1.76  | 0.00 | 0.00 |                |
| 21             | 0.86                                                            | 2.18                     | 3.68  | 3.88                 | 8.23   | 10.15  | 8.75                     | 2.90   | 2.18  | 1.76  | 0.00 | 0.00 |                |
| 22             | 1.10                                                            | 2.12                     | 10.09 | 2.78                 | 10.07  | 10.46  | 7.32                     | 2.78   | 2.06  | 1.76  | 0.00 | 0.00 |                |
| 23             | 0.35                                                            | 2.06                     | 8.90  | 2.66                 | 10.01  | 10.18  | 6.69                     | 2.78   | 2.06  | 1.76  | 0.00 | 0.00 |                |
| 24             | 0.25                                                            | 2.06                     | 3.16  | 10.27                | 9.88   | 10.10  | 8.38                     | 2.78   | 2.06  | 1.64  | 0.00 | 0.00 |                |
| 25             | 3.48                                                            | 2.06                     | 2.90  | 10.18                | 9.85   | 10.13  | 7.04                     | 2.72   | 2.06  | 0.00  | 0.00 | 0.00 |                |
| 26             | 2.36                                                            | 1.88                     | 2.84  | 10.04                | 9.88   | 10.05  | 9.86                     | 2.72   | 2.06  | 0.00  | 0.00 | 0.00 |                |
| 27             | 2.24                                                            | 1.76                     | 2.78  | 9.13                 | 9.82   | 10.12  | 8.02                     | 2.72   | 2.06  | 0.00  | 0.00 | 0.00 |                |
| 28             | 2.12                                                            | 1.76                     | 2.84  | 6.48                 | 8.16   | 10.70  | 6.62                     | 2.66   | 2.00  | 0.00  | 0.00 | 0.00 |                |
| 29             | 2.00                                                            | 1.76                     | 2.54  | 10.20                | 7.95   | 10.43  | 6.06                     | 2.66   | 2.00  | 0.00  |      | 0.00 |                |
| 30             | 1.82                                                            | 1.76                     | 2.30  | 10.03                | 9.05   | 10.34  | 6.06                     | 2.66   | 2.00  | 0.00  |      | 0.00 |                |
| 31             |                                                                 | 1.76                     |       | 10.00                | 9.80   |        | 6.83                     |        | 2.00  | 0.00  |      | 0.00 |                |
| Total          | 29.66                                                           | 68.36                    | 93.65 | 199.91               | 282.52 | 283.27 | 264.62                   | 110.26 | 71.18 | 42.30 | 0.00 | 0.00 | 1445.73 CMSDAY |
| Mean           | 0.99                                                            | 2.21                     | 3.12  | 6.45                 | 9.11   | 9.44   | 8.54                     | 3.68   | 2.30  | 1.36  | 0.00 | 0.00 | 3.96 CMS       |
| Max            | 3.48                                                            | 8.60                     | 10.09 | 10.27                | 10.48  | 10.70  | 10.22                    | 7.18   | 4.78  | 2.06  | 0.00 | 0.00 | 10.70 CMS      |
| Min            | 0.05                                                            | 1.76                     | 1.70  | 2.30                 | 4.85   | 6.13   | 6.06                     | 2.66   | 1.34  | 0.00  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 2.56                                                            | 5.91                     | 8.09  | 17.27                | 24.41  | 24.48  | 22.86                    | 9.53   | 6.15  | 3.66  | 0.00 | 0.00 | 124.91 MCM     |
| Momentary Peak | 10.77 CMS. at 59.01 m. (MSL.) at 06.00 Hours , on Sep 28 , 2013 |                          |       |                      |        |        |                          |        |       |       |      |      |                |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |       | Momentary Peak Yield |        | *****  | Liters/Second/Square KM. |        |       |       |      |      |                |

| Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014 |        |        |             |        |                                   |        |                   |        |        |        |        |        |        |
|------------------------------------------------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| Date                                                                   | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
| 1                                                                      | 265.70 | 265.75 | 265.74      | 265.41 | 266.73                            | 266.06 | 265.50            | 265.40 | 265.80 | 265.74 | 265.73 | 265.67 |        |
| 2                                                                      | 265.72 | 265.86 | 265.82      | 265.38 | 265.97                            | 265.90 | 265.50            | 265.39 | 265.80 | 265.74 | 265.73 | 265.67 |        |
| 3                                                                      | 265.72 | 265.92 | 265.50      | 265.37 | 265.87                            | 265.80 | 265.48            | 265.38 | 265.80 | 265.74 | 265.72 | 265.66 |        |
| 4                                                                      | 265.72 | 265.83 | 265.53      | 265.40 | 265.81                            | 265.74 | 265.47            | 265.38 | 265.72 | 265.74 | 265.71 | 265.66 |        |
| 5                                                                      | 265.72 | 265.83 | 265.56      | 265.66 | 265.75                            | 265.87 | 265.49            | 265.40 | 265.72 | 265.74 | 265.70 | 265.66 |        |
| 6                                                                      | 265.72 | 265.77 | 265.59      | 265.57 | 265.80                            | 266.18 | 265.52            | 265.44 | 265.79 | 265.74 | 265.70 | 265.65 |        |
| 7                                                                      | 265.72 | 265.75 | 265.54      | 265.53 | 265.86                            | 265.99 | 265.47            | 265.97 | 265.79 | 265.74 | 265.70 | 265.65 |        |
| 8                                                                      | 265.71 | 265.83 | 265.49      | 265.48 | 265.86                            | 265.83 | 265.45            | 265.98 | 265.79 | 265.74 | 265.70 | 265.64 |        |
| 9                                                                      | 265.71 | 265.83 | 265.48      | 265.46 | 266.15                            | 265.77 | 265.45            | 265.98 | 265.78 | 265.74 | 265.70 | 265.64 |        |
| 10                                                                     | 265.73 | 265.83 | 265.51      | 265.45 | 266.12                            | 265.72 | 265.45            | 265.98 | 265.78 | 265.74 | 265.70 | 265.64 |        |
| 11                                                                     | 265.75 | 265.78 | 265.65      | 265.52 | 266.00                            | 265.68 | 265.44            | 265.92 | 265.78 | 265.74 | 265.69 | 265.64 |        |
| 12                                                                     | 265.75 | 265.74 | 265.47      | 265.61 | 265.90                            | 265.67 | 265.44            | 265.90 | 265.78 | 265.74 | 265.69 | 265.64 |        |
| 13                                                                     | 265.74 | 265.76 | 265.38      | 266.56 | 265.78                            | 265.62 | 265.44            | 265.90 | 265.78 | 265.74 | 265.69 | 265.64 |        |
| 14                                                                     | 265.74 | 265.74 | 265.35      | 265.93 | 265.89                            | 265.60 | 265.44            | 265.89 | 265.77 | 265.74 | 265.69 | 265.64 |        |
| 15                                                                     | 265.74 | 265.73 | 265.34      | 265.69 | 265.78                            | 265.67 | 265.43            | 265.89 | 265.83 | 265.74 | 265.68 | 265.64 |        |
| 16                                                                     | 265.73 | 265.73 | 265.33      | 265.61 | 265.76                            | 265.64 | 265.42            | 265.89 | 265.91 | 265.74 | 265.68 | 265.64 |        |
| 17                                                                     | 265.73 | 265.72 | 265.35      | 265.54 | 265.76                            | 265.64 | 265.43            | 265.89 | 265.78 | 265.74 | 265.68 | 265.64 |        |
| 18                                                                     | 265.73 | 265.71 | 265.33      | 265.54 | 265.73                            | 265.63 | 265.43            | 265.88 | 265.78 | 265.74 | 265.68 | 265.64 |        |
| 19                                                                     | 265.72 | 265.71 | 265.33      | 265.58 | 265.70                            | 265.62 | 265.43            | 265.87 | 265.77 | 265.74 | 265.68 | 265.64 |        |
| 20                                                                     | 265.72 | 265.71 | 265.34      | 265.54 | 265.92                            | 265.59 | 265.43            | 265.84 | 265.75 | 265.74 | 265.68 | 265.64 |        |
| 21                                                                     | 265.72 | 265.82 | 265.37      | 265.55 | 265.87                            | 265.56 | 265.42            | 265.84 | 265.75 | 265.74 | 265.68 | 265.62 |        |
| 22                                                                     | 265.71 | 265.73 | 265.40      | 265.54 | 266.21                            | 265.56 | 265.42            | 265.84 | 265.75 | 265.74 | 265.68 | 265.62 |        |
| 23                                                                     | 265.71 | 265.72 | 265.36      | 265.57 | 265.98                            | 265.54 | 265.42            | 265.84 | 265.75 | 265.74 | 265.68 | 265.62 |        |
| 24                                                                     | 265.71 | 265.78 | 265.39      | 265.58 | 265.99                            | 265.53 | 265.42            | 265.82 | 265.75 | 265.74 | 265.68 | 265.64 |        |
| 25                                                                     | 265.73 | 265.78 | 265.40      | 265.96 | 266.14                            | 265.52 | 265.43            | 265.82 | 265.75 | 265.74 | 265.68 | 265.63 |        |
| 26                                                                     | 265.76 | 265.77 | 265.40      | 265.78 | 265.93                            | 265.54 | 265.43            | 265.82 | 265.74 | 265.74 | 265.68 | 265.62 |        |
| 27                                                                     | 265.76 | 265.75 | 265.39      | 265.80 | 265.90                            | 265.53 | 265.42            | 265.82 | 265.74 | 265.74 | 265.68 | 265.62 |        |
| 28                                                                     | 265.76 | 265.72 | 265.40      | 266.09 | 265.79                            | 265.52 | 265.41            | 265.80 | 265.74 | 265.74 | 265.68 | 265.62 |        |
| 29                                                                     | 265.74 | 265.72 | 265.40      | 266.97 | 265.77                            | 265.52 | 265.41            | 265.80 | 265.74 | 265.73 |        | 265.62 |        |
| 30                                                                     | 265.74 | 265.72 | 265.40      | 266.15 | 265.78                            | 265.51 | 265.41            | 265.80 | 265.74 | 265.73 |        | 265.62 |        |
| 31                                                                     |        | 265.74 |             | 266.04 | 266.24                            |        | 265.40            |        | 265.74 | 265.73 |        | 265.62 |        |
| Mean                                                                   | 265.73 | 265.77 | 265.45      | 265.71 | 265.93                            | 265.68 | 265.44            | 265.78 | 265.77 | 265.74 | 265.69 | 265.64 |        |
| Max                                                                    | 265.76 | 265.92 | 265.82      | 266.97 | 266.73                            | 266.18 | 265.52            | 265.98 | 265.91 | 265.74 | 265.73 | 265.67 | 266.97 |
| Min                                                                    | 265.70 | 265.71 | 265.33      | 265.37 | 265.70                            | 265.51 | 265.40            | 265.38 | 265.72 | 265.73 | 265.68 | 265.62 | 265.33 |
| Annual Max Momentary Gage Height                                       |        | 267.82 | m. (MSL.) , |        | at 08.00 Hours , on Jul 13 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation                                          |        | 263.98 | m. (MSL.) , |        | River Bed                         | 264.24 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation                                                    |        | 273.20 | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation                                                   |        | 275.27 | m. (MSL.) , |        | Drainage Area                     | 153    | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug     | Sep      | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|---------|----------|--------------------------|-------|-------|-------|-------|-------|----------------|
| 1              | 0.80                                                              | 1.05                     | 1.00  | 2.33                 | 131.90  | 53.65    | 5.30                     | 2.00  | 1.30  | 1.00  | 0.95  | 0.71  |                |
| 2              | 0.90                                                              | 1.72                     | 1.44  | 1.72                 | 44.44   | 37.30    | 5.30                     | 1.86  | 1.30  | 1.00  | 0.95  | 0.71  |                |
| 3              | 0.90                                                              | 2.20                     | 0.30  | 1.58                 | 34.36   | 27.50    | 4.64                     | 1.72  | 1.30  | 1.00  | 0.90  | 0.68  |                |
| 4              | 0.90                                                              | 1.51                     | 0.36  | 2.00                 | 28.48   | 22.16    | 4.31                     | 1.72  | 0.90  | 1.00  | 0.85  | 0.68  |                |
| 5              | 0.90                                                              | 1.51                     | 0.42  | 15.64                | 23.05   | 34.36    | 4.97                     | 0.15  | 0.90  | 1.00  | 0.80  | 0.68  |                |
| 6              | 0.90                                                              | 1.15                     | 0.48  | 9.43                 | 27.50   | 65.95    | 6.48                     | 0.21  | 1.25  | 1.00  | 0.80  | 0.65  |                |
| 7              | 0.90                                                              | 1.05                     | 0.38  | 7.07                 | 33.38   | 46.48    | 4.31                     | 2.70  | 1.25  | 1.00  | 0.80  | 0.65  |                |
| 8              | 0.85                                                              | 1.51                     | 0.28  | 4.64                 | 33.38   | 30.44    | 3.65                     | 2.80  | 1.25  | 1.00  | 0.80  | 0.62  |                |
| 9              | 0.85                                                              | 1.51                     | 0.27  | 3.98                 | 62.87   | 24.83    | 3.65                     | 2.80  | 1.20  | 1.00  | 0.80  | 0.62  |                |
| 10             | 0.95                                                              | 1.51                     | 0.32  | 3.65                 | 59.80   | 20.38    | 3.65                     | 2.80  | 1.20  | 1.00  | 0.80  | 0.62  |                |
| 11             | 1.05                                                              | 1.20                     | 14.90 | 6.48                 | 47.50   | 17.12    | 3.32                     | 2.20  | 1.20  | 1.00  | 0.77  | 0.62  |                |
| 12             | 1.05                                                              | 1.00                     | 4.31  | 11.94                | 37.30   | 16.38    | 3.32                     | 2.00  | 1.20  | 1.00  | 0.77  | 0.62  |                |
| 13             | 1.00                                                              | 1.10                     | 1.72  | 110.00               | 25.72   | 12.68    | 3.32                     | 2.00  | 1.20  | 1.00  | 0.77  | 0.62  |                |
| 14             | 1.00                                                              | 1.00                     | 1.30  | 40.36                | 36.32   | 11.20    | 3.32                     | 1.93  | 1.15  | 1.00  | 0.77  | 0.62  |                |
| 15             | 1.00                                                              | 0.95                     | 1.16  | 17.86                | 25.72   | 16.38    | 2.99                     | 1.93  | 1.51  | 1.00  | 0.74  | 0.62  |                |
| 16             | 0.95                                                              | 0.95                     | 1.02  | 11.94                | 23.94   | 14.16    | 2.66                     | 1.93  | 2.10  | 1.00  | 0.74  | 0.62  |                |
| 17             | 0.95                                                              | 0.90                     | 1.30  | 7.66                 | 23.94   | 14.16    | 2.99                     | 1.93  | 1.20  | 1.00  | 0.74  | 0.62  |                |
| 18             | 0.95                                                              | 0.85                     | 1.02  | 7.66                 | 21.27   | 13.42    | 2.99                     | 1.86  | 1.20  | 1.00  | 0.74  | 0.62  |                |
| 19             | 0.90                                                              | 0.85                     | 1.02  | 10.02                | 18.60   | 12.68    | 2.99                     | 1.79  | 1.15  | 1.00  | 0.74  | 0.62  |                |
| 20             | 0.90                                                              | 0.85                     | 1.16  | 7.66                 | 39.34   | 10.61    | 2.99                     | 1.58  | 1.05  | 1.00  | 0.74  | 0.62  |                |
| 21             | 0.90                                                              | 1.44                     | 1.58  | 8.25                 | 34.36   | 8.84     | 2.66                     | 1.58  | 1.05  | 1.00  | 0.74  | 0.56  |                |
| 22             | 0.85                                                              | 0.95                     | 2.00  | 7.66                 | 69.10   | 8.84     | 2.66                     | 1.58  | 1.05  | 1.00  | 0.74  | 0.56  |                |
| 23             | 0.85                                                              | 0.90                     | 1.44  | 9.43                 | 45.46   | 7.66     | 2.66                     | 1.58  | 1.05  | 1.00  | 0.74  | 0.56  |                |
| 24             | 0.85                                                              | 1.20                     | 1.86  | 10.02                | 46.48   | 7.07     | 2.66                     | 1.44  | 1.05  | 1.00  | 0.74  | 0.62  |                |
| 25             | 0.95                                                              | 1.20                     | 2.00  | 43.42                | 61.85   | 6.48     | 2.99                     | 1.44  | 1.05  | 1.00  | 0.74  | 0.59  |                |
| 26             | 1.10                                                              | 1.15                     | 2.00  | 25.72                | 40.36   | 7.66     | 2.99                     | 1.44  | 1.00  | 1.00  | 0.74  | 0.56  |                |
| 27             | 1.10                                                              | 1.05                     | 1.86  | 27.50                | 37.30   | 7.07     | 2.66                     | 1.44  | 1.00  | 1.00  | 0.74  | 0.56  |                |
| 28             | 1.10                                                              | 0.90                     | 2.00  | 56.72                | 26.61   | 6.48     | 2.33                     | 1.30  | 1.00  | 1.00  | 0.74  | 0.56  |                |
| 29             | 1.00                                                              | 0.90                     | 2.00  | 166.50               | 24.83   | 6.48     | 2.33                     | 1.30  | 1.00  | 0.95  |       | 0.56  |                |
| 30             | 1.00                                                              | 0.90                     | 2.00  | 62.87                | 25.72   | 5.89     | 2.33                     | 1.30  | 1.00  | 0.95  |       | 0.56  |                |
| 31             |                                                                   | 1.00                     |       | 51.60                | 72.40   |          | 2.00                     |       | 1.00  | 0.95  |       | 0.56  |                |
| Total          | 28.30                                                             | 35.96                    | 52.90 | 753.31               | 1263.28 | 574.31   | 105.42                   | 52.31 | 36.06 | 30.85 | 21.89 | 19.07 | 2973.66 CMSDAY |
| Mean           | 0.94                                                              | 1.16                     | 1.76  | 24.30                | 40.75   | 19.14    | 3.40                     | 1.74  | 1.16  | 1.00  | 0.78  | 0.62  | 8.15 CMS       |
| Max            | 1.10                                                              | 2.20                     | 14.90 | 166.50               | 131.90  | 65.95    | 6.48                     | 2.80  | 2.10  | 1.00  | 0.95  | 0.71  | 166.50 CMS     |
| Min            | 0.80                                                              | 0.85                     | 0.27  | 1.58                 | 18.60   | 5.89     | 2.00                     | 0.15  | 0.90  | 0.95  | 0.74  | 0.56  | 0.15 CMS       |
| Runoff         | 2.45                                                              | 3.11                     | 4.57  | 65.09                | 109.15  | 49.62    | 9.11                     | 4.52  | 3.12  | 2.67  | 1.89  | 1.65  | 256.92 MCM     |
| Momentary Peak | 324.40 CMS. at 267.82 m. (MSL.) at 08.00 Hours , on Jul 13 , 2013 |                          |       |                      |         |          |                          |       |       |       |       |       |                |
| Runoff Yield   | 53.25                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |         | 2120.261 | Liters/Second/Square KM. |       |       |       |       |       |                |

## WATER YEAR : 2013

## NAN RIVER BASIN

### Khlong Wang Pong at Ban Wang Pong , Phetchabun (N.54

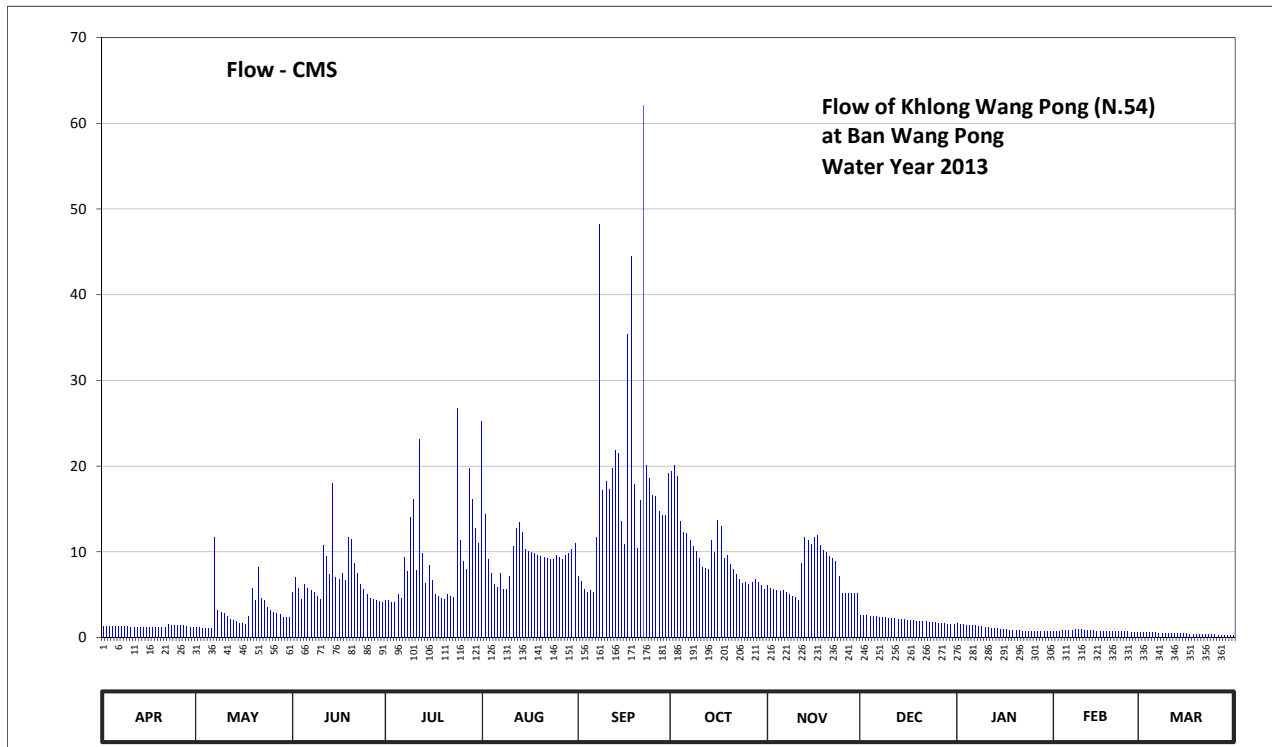
Lat 16 - 19 - 34 N    Long 100 - 48 - 17 E

**Location :** on left bank at the bridge on road

|                                         |                                                                                           |           |               |          |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Wang Pong | <b>Amphoe</b> | Chon Dan | <b>Changwat</b>  | Phetchabun         |
| <b>Drainage Area</b>                    | 174                                                                                       | sq.km.    |               |          |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +104.350                                                                                  | m. (MSL.) |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |          |                  |                    |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |           |               |          | <b>Elevation</b> | +107.656 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |           |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |           |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |           |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly Stable by some scouring.                                                           |           |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +107.920 m.(MSL.), records are channel flow only.       |           |               |          |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 11 discharge measurements made in 2013. |           |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

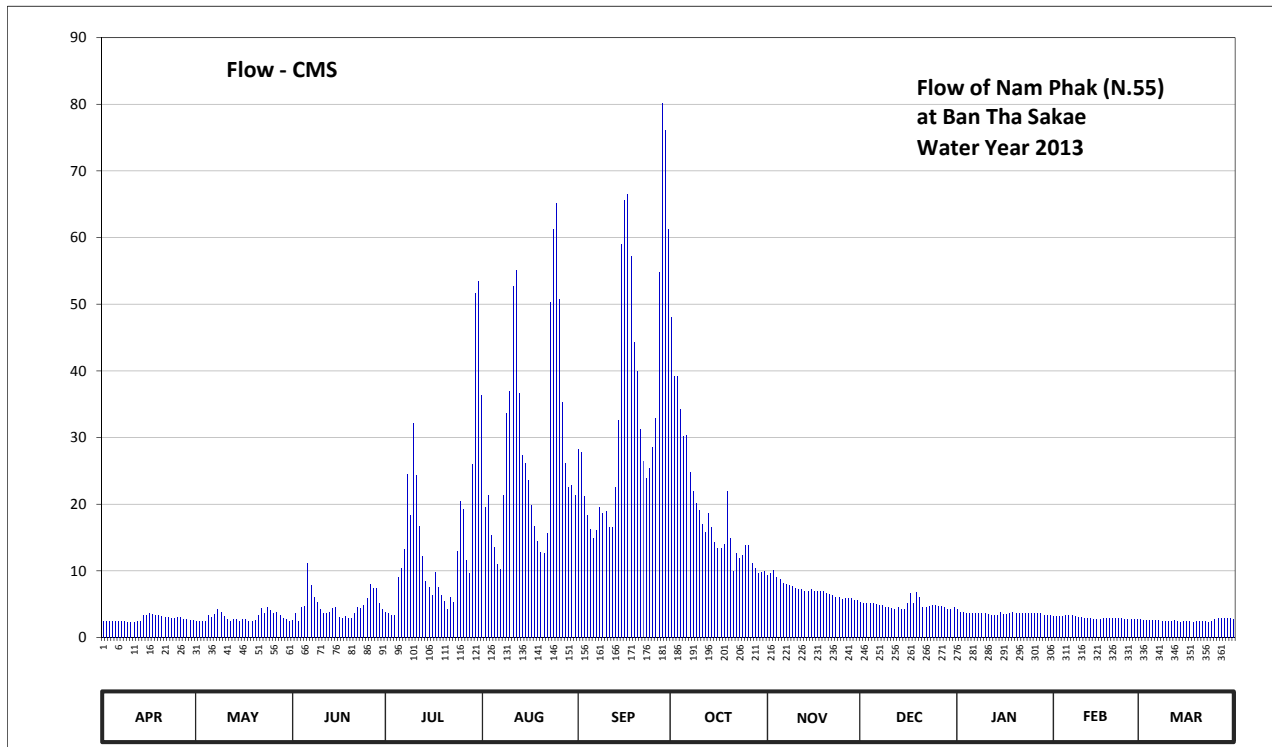
| Date                             |    | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 104.13 | 104.12 | 104.46                                          | 104.39 | 105.72 | 104.61 | 105.40 | 104.52 | 104.25 | 104.17 | 104.08 | 104.06 |        |
|                                  | 2  | 104.13 | 104.12 | 104.60                                          | 104.39 | 105.10 | 104.56 | 105.44 | 104.50 | 104.25 | 104.16 | 104.08 | 104.06 |        |
|                                  | 3  | 104.13 | 104.11 | 104.50                                          | 104.37 | 104.75 | 104.49 | 105.37 | 104.49 | 104.25 | 104.16 | 104.08 | 104.06 |        |
|                                  | 4  | 104.13 | 104.11 | 104.40                                          | 104.37 | 104.63 | 104.46 | 105.05 | 104.48 | 104.24 | 104.15 | 104.09 | 104.06 |        |
|                                  | 5  | 104.13 | 104.11 | 104.53                                          | 104.44 | 104.53 | 104.48 | 104.97 | 104.47 | 104.24 | 104.15 | 104.09 | 104.06 |        |
|                                  | 6  | 104.13 | 104.11 | 104.50                                          | 104.41 | 104.51 | 104.46 | 104.96 | 104.48 | 104.24 | 104.14 | 104.09 | 104.06 |        |
|                                  | 7  | 104.13 | 104.93 | 104.48                                          | 104.77 | 104.63 | 104.93 | 104.91 | 104.46 | 104.23 | 104.14 | 104.09 | 104.05 |        |
|                                  | 8  | 104.13 | 104.30 | 104.46                                          | 104.65 | 104.49 | 106.85 | 104.86 | 104.44 | 104.23 | 104.13 | 104.10 | 104.05 |        |
|                                  | 9  | 104.13 | 104.28 | 104.43                                          | 105.08 | 104.49 | 105.27 | 104.82 | 104.43 | 104.23 | 104.13 | 104.10 | 104.05 |        |
|                                  | 10 | 104.12 | 104.27 | 104.40                                          | 105.21 | 104.61 | 105.33 | 104.76 | 104.42 | 104.22 | 104.12 | 104.10 | 104.05 |        |
|                                  | 11 | 104.12 | 104.24 | 104.87                                          | 104.66 | 104.86 | 105.28 | 104.69 | 104.39 | 104.22 | 104.12 | 104.09 | 104.05 |        |
|                                  | 12 | 104.12 | 104.21 | 104.78                                          | 105.61 | 105.00 | 105.42 | 104.68 | 104.72 | 104.22 | 104.11 | 104.09 | 104.05 |        |
|                                  | 13 | 104.12 | 104.20 | 104.62                                          | 104.80 | 105.04 | 105.54 | 104.67 | 104.93 | 104.21 | 104.11 | 104.09 | 104.05 |        |
|                                  | 14 | 104.12 | 104.19 | 105.32                                          | 104.54 | 104.97 | 105.52 | 104.91 | 104.91 | 104.21 | 104.11 | 104.09 | 104.05 |        |
|                                  | 15 | 104.12 | 104.17 | 104.60                                          | 104.70 | 104.84 | 105.05 | 104.81 | 104.88 | 104.21 | 104.10 | 104.08 | 104.05 |        |
|                                  | 16 | 104.12 | 104.17 | 104.58                                          | 104.57 | 104.82 | 104.88 | 105.06 | 104.93 | 104.20 | 104.10 | 104.08 | 104.05 |        |
|                                  | 17 | 104.12 | 104.16 | 104.63                                          | 104.44 | 104.81 | 106.25 | 105.01 | 104.95 | 104.20 | 104.10 | 104.08 | 104.04 |        |
|                                  | 18 | 104.12 | 104.24 | 104.57                                          | 104.43 | 104.80 | 106.68 | 104.76 | 104.87 | 104.20 | 104.09 | 104.08 | 104.04 |        |
|                                  | 19 | 104.12 | 104.50 | 104.93                                          | 104.41 | 104.79 | 105.31 | 104.79 | 104.83 | 104.19 | 104.09 | 104.08 | 104.04 |        |
|                                  | 20 | 104.12 | 104.39 | 104.92                                          | 104.40 | 104.78 | 104.85 | 104.71 | 104.81 | 104.19 | 104.09 | 104.08 | 104.04 |        |
|                                  | 21 | 104.12 | 104.69 | 104.72                                          | 104.44 | 104.77 | 105.20 | 104.67 | 104.78 | 104.19 | 104.09 | 104.07 | 104.04 |        |
|                                  | 22 | 104.16 | 104.41 | 104.63                                          | 104.43 | 104.76 | 107.47 | 104.62 | 104.76 | 104.19 | 104.08 | 104.07 | 104.04 |        |
|                                  | 23 | 104.15 | 104.39 | 104.53                                          | 104.42 | 104.75 | 105.44 | 104.58 | 104.74 | 104.18 | 104.08 | 104.07 | 104.04 |        |
|                                  | 24 | 104.15 | 104.33 | 104.49                                          | 105.80 | 104.75 | 105.35 | 104.54 | 104.61 | 104.18 | 104.08 | 104.07 | 104.04 |        |
|                                  | 25 | 104.15 | 104.30 | 104.44                                          | 104.91 | 104.79 | 105.24 | 104.55 | 104.45 | 104.18 | 104.08 | 104.07 | 104.04 |        |
|                                  | 26 | 104.15 | 104.28 | 104.41                                          | 104.74 | 104.77 | 105.23 | 104.53 | 104.45 | 104.17 | 104.08 | 104.06 | 104.03 |        |
|                                  | 27 | 104.14 | 104.27 | 104.40                                          | 104.67 | 104.75 | 105.12 | 104.55 | 104.45 | 104.17 | 104.08 | 104.06 | 104.03 |        |
|                                  | 28 | 104.13 | 104.26 | 104.39                                          | 105.42 | 104.79 | 105.09 | 104.58 | 104.45 | 104.17 | 104.07 | 104.06 | 104.03 |        |
|                                  | 29 | 104.12 | 104.23 | 104.38                                          | 105.21 | 104.80 | 105.09 | 104.55 | 104.45 | 104.16 | 104.07 |        | 104.03 |        |
|                                  | 30 | 104.12 | 104.23 | 104.37                                          | 105.00 | 104.84 | 105.39 | 104.52 | 104.45 | 104.16 | 104.07 |        | 104.03 |        |
|                                  | 31 |        | 104.23 |                                                 | 104.89 | 104.89 |        | 104.49 |        | 104.16 | 104.07 |        | 104.03 |        |
| Mean                             |    | 104.13 | 104.28 | 104.58                                          | 104.73 | 104.80 | 105.29 | 104.80 | 104.62 | 104.20 | 104.11 | 104.08 | 104.05 |        |
| Max                              |    | 104.16 | 104.93 | 105.32                                          | 105.80 | 105.72 | 107.47 | 105.44 | 104.95 | 104.25 | 104.17 | 104.10 | 104.06 | 107.47 |
| Min                              |    | 104.12 | 104.11 | 104.37                                          | 104.37 | 104.49 | 104.46 | 104.49 | 104.39 | 104.16 | 104.07 | 104.06 | 104.03 | 104.03 |
| Annual Max Momentary Gage Height |    |        | 108.15 | m. (MSL.) , at 12.00 Hours , on Sep 22 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 104.35 | m. (MSL.) , River Bed 103.92 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 107.91 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 108.14 | m. (MSL.) , Drainage Area 174 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 1.30                                                             | 1.20                     | 5.28   | 4.37                 | 25.28  | 7.23    | 19.40                    | 6.06   | 2.60  | 1.70  | 0.80  | 0.60  |                |
| 2              | 1.30                                                             | 1.20                     | 7.10   | 4.37                 | 14.40  | 6.58    | 20.12                    | 5.80   | 2.60  | 1.60  | 0.80  | 0.60  |                |
| 3              | 1.30                                                             | 1.10                     | 5.80   | 4.11                 | 9.10   | 5.67    | 18.89                    | 5.67   | 2.60  | 1.60  | 0.80  | 0.60  |                |
| 4              | 1.30                                                             | 1.10                     | 4.50   | 4.11                 | 7.49   | 5.28    | 13.60                    | 5.54   | 2.48  | 1.50  | 0.90  | 0.60  |                |
| 5              | 1.30                                                             | 1.10                     | 6.19   | 5.02                 | 6.19   | 5.54    | 12.32                    | 5.41   | 2.48  | 1.50  | 0.90  | 0.60  |                |
| 6              | 1.30                                                             | 1.10                     | 5.80   | 4.63                 | 5.93   | 5.28    | 12.16                    | 5.54   | 2.48  | 1.40  | 0.90  | 0.60  |                |
| 7              | 1.30                                                             | 11.68                    | 5.54   | 9.38                 | 7.49   | 11.68   | 11.36                    | 5.28   | 2.36  | 1.40  | 0.90  | 0.50  |                |
| 8              | 1.30                                                             | 3.20                     | 5.28   | 7.75                 | 5.67   | 48.20   | 10.64                    | 5.02   | 2.36  | 1.30  | 1.00  | 0.50  |                |
| 9              | 1.30                                                             | 2.96                     | 4.89   | 14.08                | 5.67   | 17.19   | 10.08                    | 4.89   | 2.36  | 1.30  | 1.00  | 0.50  |                |
| 10             | 1.20                                                             | 2.84                     | 4.50   | 16.17                | 7.23   | 18.21   | 9.24                     | 4.76   | 2.24  | 1.20  | 1.00  | 0.50  |                |
| 11             | 1.20                                                             | 2.48                     | 10.78  | 7.88                 | 10.64  | 17.36   | 8.27                     | 4.37   | 2.24  | 1.20  | 0.90  | 0.50  |                |
| 12             | 1.20                                                             | 2.12                     | 9.52   | 23.19                | 12.80  | 19.76   | 8.14                     | 8.68   | 2.24  | 1.10  | 0.90  | 0.50  |                |
| 13             | 1.20                                                             | 2.00                     | 7.36   | 9.80                 | 13.44  | 21.92   | 8.01                     | 11.68  | 2.12  | 1.10  | 0.90  | 0.50  |                |
| 14             | 1.20                                                             | 1.90                     | 18.04  | 6.32                 | 12.32  | 21.56   | 11.36                    | 11.36  | 2.12  | 1.10  | 0.90  | 0.50  |                |
| 15             | 1.20                                                             | 1.70                     | 7.10   | 8.40                 | 10.36  | 13.60   | 9.94                     | 10.92  | 2.12  | 1.00  | 0.80  | 0.50  |                |
| 16             | 1.20                                                             | 1.70                     | 6.84   | 6.71                 | 10.08  | 10.92   | 13.76                    | 11.68  | 2.00  | 1.00  | 0.80  | 0.50  |                |
| 17             | 1.20                                                             | 1.60                     | 7.49   | 5.02                 | 9.94   | 35.40   | 12.96                    | 12.00  | 2.00  | 1.00  | 0.80  | 0.40  |                |
| 18             | 1.20                                                             | 2.48                     | 6.71   | 4.89                 | 9.80   | 44.46   | 9.24                     | 10.78  | 2.00  | 0.90  | 0.80  | 0.40  |                |
| 19             | 1.20                                                             | 5.80                     | 11.68  | 4.63                 | 9.66   | 17.87   | 9.66                     | 10.22  | 1.90  | 0.90  | 0.80  | 0.40  |                |
| 20             | 1.20                                                             | 4.37                     | 11.52  | 4.50                 | 9.52   | 10.50   | 8.54                     | 9.94   | 1.90  | 0.90  | 0.80  | 0.40  |                |
| 21             | 1.20                                                             | 8.27                     | 8.68   | 5.02                 | 9.38   | 16.00   | 8.01                     | 9.52   | 1.90  | 0.90  | 0.70  | 0.40  |                |
| 22             | 1.60                                                             | 4.63                     | 7.49   | 4.89                 | 9.24   | 62.11   | 7.36                     | 9.24   | 1.90  | 0.80  | 0.70  | 0.40  |                |
| 23             | 1.50                                                             | 4.37                     | 6.19   | 4.76                 | 9.10   | 20.12   | 6.84                     | 8.96   | 1.80  | 0.80  | 0.70  | 0.40  |                |
| 24             | 1.50                                                             | 3.59                     | 5.67   | 26.80                | 9.10   | 18.55   | 6.32                     | 7.23   | 1.80  | 0.80  | 0.70  | 0.40  |                |
| 25             | 1.50                                                             | 3.20                     | 5.02   | 11.36                | 9.66   | 16.68   | 6.45                     | 5.15   | 1.80  | 0.80  | 0.70  | 0.40  |                |
| 26             | 1.50                                                             | 2.96                     | 4.63   | 8.96                 | 9.38   | 16.51   | 6.19                     | 5.15   | 1.70  | 0.80  | 0.60  | 0.30  |                |
| 27             | 1.40                                                             | 2.84                     | 4.50   | 8.01                 | 9.10   | 14.72   | 6.45                     | 5.15   | 1.70  | 0.80  | 0.60  | 0.30  |                |
| 28             | 1.30                                                             | 2.72                     | 4.37   | 19.76                | 9.66   | 14.24   | 6.84                     | 5.15   | 1.70  | 0.70  | 0.60  | 0.30  |                |
| 29             | 1.20                                                             | 2.36                     | 4.24   | 16.17                | 9.80   | 14.24   | 6.45                     | 5.15   | 1.60  | 0.70  |       | 0.30  |                |
| 30             | 1.20                                                             | 2.36                     | 4.11   | 12.80                | 10.36  | 19.23   | 6.06                     | 5.15   | 1.60  | 0.70  |       | 0.30  |                |
| 31             |                                                                  | 2.36                     |        | 11.06                | 11.06  |         | 5.67                     |        | 1.60  | 0.70  |       | 0.30  |                |
| Total          | 38.80                                                            | 93.29                    | 206.82 | 284.92               | 308.85 | 556.61  | 310.33                   | 221.45 | 64.30 | 33.20 | 22.70 | 14.00 | 2155.27 CMSDAY |
| Mean           | 1.29                                                             | 3.01                     | 6.89   | 9.19                 | 9.96   | 18.55   | 10.01                    | 7.38   | 2.07  | 1.07  | 0.81  | 0.45  | 5.90 CMS       |
| Max            | 1.60                                                             | 11.68                    | 18.04  | 26.80                | 25.28  | 62.11   | 20.12                    | 12.00  | 2.60  | 1.70  | 1.00  | 0.60  | 62.11 CMS      |
| Min            | 1.20                                                             | 1.10                     | 4.11   | 4.11                 | 5.67   | 5.28    | 5.67                     | 4.37   | 1.60  | 0.70  | 0.60  | 0.30  | 0.30 CMS       |
| Runoff         | 3.35                                                             | 8.06                     | 17.87  | 24.62                | 26.69  | 48.09   | 26.81                    | 19.13  | 5.56  | 2.87  | 1.96  | 1.21  | 186.22 MCM     |
| Momentary Peak | 78.00 CMS. at 108.15 m. (MSL.) at 12.00 Hours , on Sep 22 , 2013 |                          |        |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 33.94                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 448.276 | Liters/Second/Square KM. |        |       |       |       |       |                |

| Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014 |        |        |             |        |                                   |        |                   |        |        |        |        |        |        |
|------------------------------------------------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| Date                                                                   | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
| 1                                                                      | 183.28 | 183.28 | 183.29      | 183.42 | 186.29                            | 185.72 | 187.02            | 184.04 | 183.59 | 183.47 | 183.36 | 183.30 |        |
| 2                                                                      | 183.28 | 183.28 | 183.40      | 183.41 | 185.02                            | 185.69 | 186.48            | 184.07 | 183.58 | 183.43 | 183.36 | 183.29 |        |
| 3                                                                      | 183.28 | 183.27 | 183.28      | 183.38 | 185.16                            | 185.15 | 186.48            | 184.11 | 183.58 | 183.43 | 183.36 | 183.29 |        |
| 4                                                                      | 183.27 | 183.27 | 183.51      | 183.37 | 184.63                            | 184.91 | 186.15            | 184.01 | 183.57 | 183.41 | 183.36 | 183.29 |        |
| 5                                                                      | 183.27 | 183.37 | 183.53      | 184.00 | 184.46                            | 184.72 | 185.86            | 183.98 | 183.57 | 183.40 | 183.38 | 183.29 |        |
| 6                                                                      | 183.27 | 183.34 | 184.22      | 184.14 | 184.20                            | 184.59 | 185.87            | 183.90 | 183.56 | 183.40 | 183.37 | 183.29 |        |
| 7                                                                      | 183.27 | 183.39 | 183.88      | 184.43 | 184.12                            | 184.70 | 185.45            | 183.89 | 183.55 | 183.41 | 183.37 | 183.29 |        |
| 8                                                                      | 183.27 | 183.48 | 183.67      | 185.43 | 185.16                            | 185.02 | 185.22            | 183.88 | 183.55 | 183.41 | 183.36 | 183.28 |        |
| 9                                                                      | 183.26 | 183.43 | 183.59      | 184.91 | 186.11                            | 184.93 | 185.07            | 183.85 | 183.51 | 183.40 | 183.35 | 183.28 |        |
| 10                                                                     | 183.26 | 183.36 | 183.48      | 186.00 | 186.33                            | 184.96 | 184.97            | 183.83 | 183.50 | 183.40 | 183.34 | 183.28 |        |
| 11                                                                     | 183.26 | 183.31 | 183.41      | 185.41 | 187.28                            | 184.74 | 184.78            | 183.81 | 183.49 | 183.39 | 183.33 | 183.28 |        |
| 12                                                                     | 183.28 | 183.28 | 183.41      | 184.75 | 187.40                            | 184.74 | 184.67            | 183.81 | 183.48 | 183.38 | 183.32 | 183.29 |        |
| 13                                                                     | 183.28 | 183.30 | 183.42      | 184.32 | 186.31                            | 185.27 | 184.93            | 183.78 | 183.50 | 183.37 | 183.32 | 183.28 |        |
| 14                                                                     | 183.38 | 183.30 | 183.49      | 183.95 | 185.66                            | 186.03 | 184.74            | 183.78 | 183.48 | 183.38 | 183.31 | 183.26 |        |
| 15                                                                     | 183.37 | 183.28 | 183.51      | 183.84 | 185.57                            | 187.60 | 184.53            | 183.81 | 183.47 | 183.42 | 183.31 | 183.28 |        |
| 16                                                                     | 183.40 | 183.30 | 183.35      | 183.71 | 185.35                            | 187.89 | 184.45            | 183.78 | 183.58 | 183.39 | 183.31 | 183.27 |        |
| 17                                                                     | 183.39 | 183.30 | 183.33      | 184.08 | 185.04                            | 187.92 | 184.45            | 183.77 | 183.74 | 183.39 | 183.33 | 183.28 |        |
| 18                                                                     | 183.38 | 183.28 | 183.36      | 183.84 | 184.76                            | 187.51 | 184.51            | 183.78 | 183.58 | 183.41 | 183.33 | 183.26 |        |
| 19                                                                     | 183.37 | 183.28 | 183.33      | 183.70 | 184.54                            | 186.80 | 185.22            | 183.77 | 183.76 | 183.43 | 183.33 | 183.27 |        |
| 20                                                                     | 183.36 | 183.29 | 183.32      | 183.61 | 184.39                            | 186.53 | 184.59            | 183.74 | 183.68 | 183.41 | 183.32 | 183.28 |        |
| 21                                                                     | 183.35 | 183.38 | 183.41      | 183.48 | 184.36                            | 185.93 | 184.10            | 183.72 | 183.51 | 183.41 | 183.32 | 183.27 |        |
| 22                                                                     | 183.34 | 183.49 | 183.51      | 183.68 | 184.66                            | 185.59 | 184.37            | 183.70 | 183.51 | 183.41 | 183.32 | 183.27 |        |
| 23                                                                     | 183.33 | 183.41 | 183.49      | 183.59 | 187.15                            | 185.38 | 184.29            | 183.68 | 183.53 | 183.41 | 183.32 | 183.26 |        |
| 24                                                                     | 183.32 | 183.50 | 183.55      | 184.40 | 187.70                            | 185.50 | 184.33            | 183.67 | 183.54 | 183.41 | 183.30 | 183.28 |        |
| 25                                                                     | 183.34 | 183.46 | 183.66      | 185.09 | 187.87                            | 185.74 | 184.48            | 183.64 | 183.55 | 183.41 | 183.30 | 183.31 |        |
| 26                                                                     | 183.34 | 183.40 | 183.89      | 184.99 | 187.17                            | 186.05 | 184.48            | 183.65 | 183.52 | 183.41 | 183.30 | 183.32 |        |
| 27                                                                     | 183.31 | 183.42 | 183.82      | 184.26 | 186.22                            | 187.39 | 184.22            | 183.65 | 183.53 | 183.41 | 183.30 | 183.33 |        |
| 28                                                                     | 183.30 | 183.37 | 183.82      | 184.07 | 185.57                            | 188.40 | 184.14            | 183.66 | 183.51 | 183.41 | 183.30 | 183.32 |        |
| 29                                                                     | 183.29 | 183.32 | 183.57      | 185.55 | 185.27                            | 188.27 | 184.07            | 183.62 | 183.48 | 183.38 |        | 183.32 |        |
| 30                                                                     | 183.29 | 183.30 | 183.47      | 187.22 | 185.29                            | 187.70 | 184.08            | 183.62 | 183.47 | 183.38 |        | 183.32 |        |
| 31                                                                     |        | 183.28 |             | 187.32 | 185.16                            |        | 184.10            |        | 183.50 | 183.37 |        | 183.31 |        |
| Mean                                                                   | 183.31 | 183.35 | 183.53      | 184.43 | 185.62                            | 186.05 | 184.91            | 183.80 | 183.55 | 183.40 | 183.33 | 183.29 |        |
| Max                                                                    | 183.40 | 183.50 | 184.22      | 187.32 | 187.87                            | 188.40 | 187.02            | 184.11 | 183.76 | 183.47 | 183.38 | 183.33 | 188.40 |
| Min                                                                    | 183.26 | 183.27 | 183.28      | 183.37 | 184.12                            | 184.59 | 184.07            | 183.62 | 183.47 | 183.37 | 183.30 | 183.26 | 183.26 |
| Annual Max Momentary Gage Height                                       | 188.53 |        | m. (MSL.) , |        | at 18.00 Hours , on Sep 28 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation                                          | 182.83 |        | m. (MSL.) , |        | River Bed                         | 182.87 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation                                                    | 192.26 |        | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation                                                   | 191.18 |        | m. (MSL.) , |        | Drainage Area                     | 971    | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                        | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|-------|------------------------------------------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|--------|-------|-------|----------------|
| 1              | 2.52  | 2.52                                                       | 2.61   | 3.78                 | 36.35  | 28.28   | 47.96                    | 9.40   | 5.31   | 4.23   | 3.24  | 2.70  |                |
| 2              | 2.52  | 2.52                                                       | 3.60   | 3.69                 | 19.64  | 27.86   | 39.20                    | 9.70   | 5.22   | 3.87   | 3.24  | 2.61  |                |
| 3              | 2.52  | 2.43                                                       | 2.52   | 3.42                 | 21.32  | 21.20   | 39.20                    | 10.10  | 5.22   | 3.87   | 3.24  | 2.61  |                |
| 4              | 2.43  | 2.43                                                       | 4.59   | 3.33                 | 15.33  | 18.41   | 34.30                    | 9.10   | 5.13   | 3.69   | 3.24  | 2.61  |                |
| 5              | 2.43  | 3.33                                                       | 4.77   | 9.00                 | 13.60  | 16.32   | 30.24                    | 8.82   | 5.13   | 3.60   | 3.42  | 2.61  |                |
| 6              | 2.43  | 3.06                                                       | 11.20  | 10.40                | 11.00  | 14.90   | 30.38                    | 8.10   | 5.04   | 3.60   | 3.33  | 2.61  |                |
| 7              | 2.43  | 3.51                                                       | 7.92   | 13.30                | 10.20  | 16.10   | 24.80                    | 8.01   | 4.95   | 3.69   | 3.33  | 2.61  |                |
| 8              | 2.43  | 4.32                                                       | 6.03   | 24.56                | 21.32  | 19.64   | 22.04                    | 7.92   | 4.95   | 3.69   | 3.24  | 2.52  |                |
| 9              | 2.34  | 3.87                                                       | 5.31   | 18.41                | 33.74  | 18.63   | 20.24                    | 7.65   | 4.59   | 3.60   | 3.15  | 2.52  |                |
| 10             | 2.34  | 3.24                                                       | 4.32   | 32.20                | 36.95  | 18.96   | 19.07                    | 7.47   | 4.50   | 3.60   | 3.06  | 2.52  |                |
| 11             | 2.34  | 2.79                                                       | 3.69   | 24.32                | 52.72  | 16.54   | 16.98                    | 7.29   | 4.41   | 3.51   | 2.97  | 2.52  |                |
| 12             | 2.52  | 2.52                                                       | 3.69   | 16.65                | 55.00  | 16.54   | 15.77                    | 7.29   | 4.32   | 3.42   | 2.88  | 2.61  |                |
| 13             | 2.52  | 2.70                                                       | 3.78   | 12.20                | 36.65  | 22.64   | 18.63                    | 7.02   | 4.50   | 3.33   | 2.88  | 2.52  |                |
| 14             | 3.42  | 2.70                                                       | 4.41   | 8.55                 | 27.44  | 32.62   | 16.54                    | 7.02   | 4.32   | 3.42   | 2.79  | 2.34  |                |
| 15             | 3.33  | 2.52                                                       | 4.59   | 7.56                 | 26.24  | 59.00   | 14.30                    | 7.29   | 4.23   | 3.78   | 2.79  | 2.52  |                |
| 16             | 3.60  | 2.70                                                       | 3.15   | 6.39                 | 23.60  | 65.65   | 13.50                    | 7.02   | 5.22   | 3.51   | 2.79  | 2.43  |                |
| 17             | 3.51  | 2.70                                                       | 2.97   | 9.80                 | 19.88  | 66.40   | 13.50                    | 6.93   | 6.66   | 3.51   | 2.97  | 2.52  |                |
| 18             | 3.42  | 2.52                                                       | 3.24   | 7.56                 | 16.76  | 57.20   | 14.10                    | 7.02   | 5.22   | 3.69   | 2.97  | 2.34  |                |
| 19             | 3.33  | 2.52                                                       | 2.97   | 6.30                 | 14.40  | 44.20   | 22.04                    | 6.93   | 6.84   | 3.87   | 2.97  | 2.43  |                |
| 20             | 3.24  | 2.61                                                       | 2.88   | 5.49                 | 12.90  | 39.95   | 14.90                    | 6.66   | 6.12   | 3.69   | 2.88  | 2.52  |                |
| 21             | 3.15  | 3.42                                                       | 3.69   | 4.32                 | 12.60  | 31.22   | 10.00                    | 6.48   | 4.59   | 3.69   | 2.88  | 2.43  |                |
| 22             | 3.06  | 4.41                                                       | 4.59   | 6.12                 | 15.66  | 26.48   | 12.70                    | 6.30   | 4.59   | 3.69   | 2.88  | 2.43  |                |
| 23             | 2.97  | 3.69                                                       | 4.41   | 5.31                 | 50.30  | 23.96   | 11.90                    | 6.12   | 4.77   | 3.69   | 2.88  | 2.34  |                |
| 24             | 2.88  | 4.50                                                       | 4.95   | 13.00                | 61.20  | 25.40   | 12.30                    | 6.03   | 4.86   | 3.69   | 2.70  | 2.52  |                |
| 25             | 3.06  | 4.14                                                       | 5.94   | 20.48                | 65.15  | 28.56   | 13.80                    | 5.76   | 4.95   | 3.69   | 2.70  | 2.79  |                |
| 26             | 3.06  | 3.60                                                       | 8.01   | 19.29                | 50.66  | 32.90   | 13.80                    | 5.85   | 4.68   | 3.69   | 2.70  | 2.88  |                |
| 27             | 2.79  | 3.78                                                       | 7.38   | 11.60                | 35.30  | 54.81   | 11.20                    | 5.85   | 4.77   | 3.69   | 2.70  | 2.97  |                |
| 28             | 2.70  | 3.33                                                       | 7.38   | 9.70                 | 26.24  | 80.20   | 10.40                    | 5.94   | 4.59   | 3.69   | 2.70  | 2.88  |                |
| 29             | 2.61  | 2.88                                                       | 5.13   | 26.00                | 22.64  | 76.17   | 9.70                     | 5.58   | 4.32   | 3.42   |       | 2.88  |                |
| 30             | 2.61  | 2.70                                                       | 4.23   | 51.58                | 22.88  | 61.20   | 9.80                     | 5.58   | 4.23   | 3.42   |       | 2.88  |                |
| 31             |       | 2.52                                                       |        | 53.48                | 21.32  |         | 10.00                    |        | 4.50   | 3.33   |       | 2.79  |                |
| Total          | 84.51 | 96.48                                                      | 143.95 | 447.79               | 888.99 | 1061.94 | 593.29                   | 216.23 | 152.73 | 112.86 | 83.52 | 80.46 | 3962.75 CMSDAY |
| Mean           | 2.82  | 3.11                                                       | 4.80   | 14.44                | 28.68  | 35.40   | 19.14                    | 7.21   | 4.93   | 3.64   | 2.98  | 2.60  | 10.86 CMS      |
| Max            | 3.60  | 4.50                                                       | 11.20  | 53.48                | 65.15  | 80.20   | 47.96                    | 10.10  | 6.84   | 4.23   | 3.42  | 2.97  | 80.20 CMS      |
| Min            | 2.34  | 2.43                                                       | 2.52   | 3.33                 | 10.20  | 14.90   | 9.70                     | 5.58   | 4.23   | 3.33   | 2.70  | 2.34  | 2.34 CMS       |
| Runoff         | 7.30  | 8.34                                                       | 12.44  | 38.69                | 76.81  | 91.75   | 51.26                    | 18.68  | 13.20  | 9.75   | 7.22  | 6.95  | 342.38 MCM     |
| Momentary Peak | 84.75 | CMS. at 188.53 m. (MSL.) at 18.00 Hours , on Sep 28 , 2013 |        |                      |        |         |                          |        |        |        |       |       |                |
| Runoff Yield   | 11.18 | Liters/Second/Square KM.                                   |        | Momentary Peak Yield |        | 87.281  | Liters/Second/Square KM. |        |        |        |       |       |                |

**WATER YEAR : 2013****NAN RIVER BASIN****Nam Fua at Ban Nam Fua , Phitsanulok (N.58)**

Lat 17 - 08 - 45 N Long 100 - 56 - 04 E

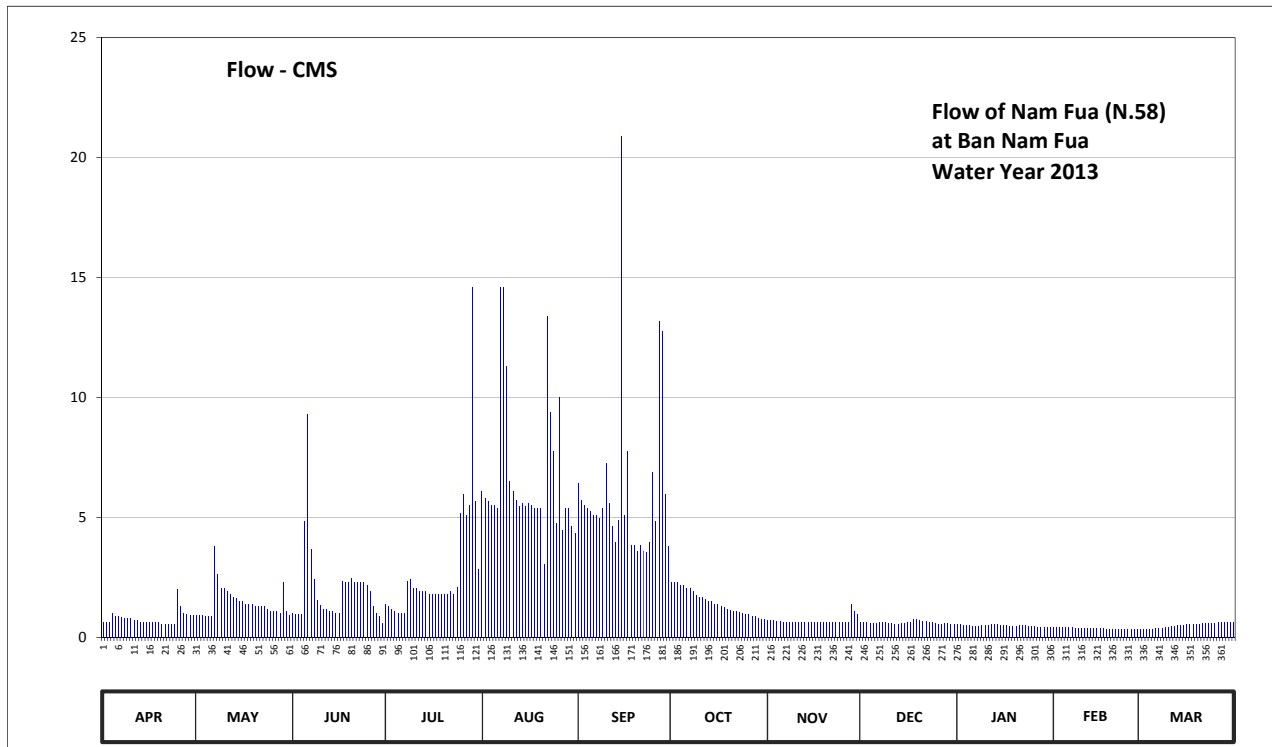
**Location : on left bank at the bridge of Nakhon Thai - Dan Sai Road from the guidpost 11.5**

|                                         |                                                                                           |           |                  |             |                    |             |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|------------------|-------------|--------------------|-------------|
|                                         | <b>Ban</b>                                                                                | Nam Fua   | <b>Amphoe</b>    | Nakhon Thai | <b>Changwat</b>    | Phitsanulok |
| <b>Drainage Area</b>                    | 317                                                                                       | sq.km.    |                  |             |                    |             |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |                  |             |                    |             |
| <b>Zero Gage at Bottom</b>              | +208.360                                                                                  | m. (MSL.) |                  |             |                    |             |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |                  |             |                    |             |
| <b>Location BM</b>                      | On left bank about 16 meters from the top staff gage.                                     |           | <b>Elevation</b> |             | +214.931 m. (MSL.) |             |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |                  |             |                    |             |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |                  |             |                    |             |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                              |           |                  |             |                    |             |
| <b>Rating Operation</b>                 |                                                                                           |           |                  |             |                    |             |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |           |                  |             |                    |             |
| <b>Rated by Flot</b>                    | -                                                                                         |           |                  |             |                    |             |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |           |                  |             |                    |             |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |                  |             |                    |             |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |                  |             |                    |             |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 20 discharge measurements made in 2013. |           |                  |             |                    |             |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May         | Jun    | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|-------------|--------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 209.36 | 209.43      | 209.46 | 209.54 | 210.30 | 210.35        | 209.70                            | 209.38            | 209.36 | 209.34 | 209.31 | 209.29 |        |
| 2                                | 209.36 | 209.43      | 209.44 | 209.52 | 210.26 | 210.25        | 209.70                            | 209.38            | 209.36 | 209.34 | 209.31 | 209.29 |        |
| 3                                | 209.36 | 209.43      | 209.44 | 209.50 | 210.24 | 210.22        | 209.70                            | 209.38            | 209.36 | 209.33 | 209.31 | 209.29 |        |
| 4                                | 209.46 | 209.42      | 209.44 | 209.48 | 210.22 | 210.20        | 209.68                            | 209.37            | 209.35 | 209.33 | 209.31 | 209.29 |        |
| 5                                | 209.42 | 209.42      | 210.12 | 209.46 | 210.22 | 210.18        | 209.68                            | 209.37            | 209.35 | 209.33 | 209.31 | 209.29 |        |
| 6                                | 209.42 | 209.42      | 210.70 | 209.46 | 210.20 | 210.16        | 209.66                            | 209.36            | 209.35 | 209.32 | 209.31 | 209.30 |        |
| 7                                | 209.41 | 209.95      | 209.93 | 209.46 | 211.20 | 210.16        | 209.66                            | 209.36            | 209.36 | 209.32 | 209.31 | 209.30 |        |
| 8                                | 209.40 | 209.76      | 209.72 | 209.71 | 211.20 | 210.14        | 209.64                            | 209.36            | 209.36 | 209.32 | 209.30 | 209.30 |        |
| 9                                | 209.40 | 209.66      | 209.57 | 209.72 | 210.90 | 210.20        | 209.61                            | 209.36            | 209.36 | 209.33 | 209.30 | 209.31 |        |
| 10                               | 209.40 | 209.66      | 209.53 | 209.66 | 210.36 | 210.46        | 209.60                            | 209.36            | 209.35 | 209.33 | 209.30 | 209.31 |        |
| 11                               | 209.38 | 209.64      | 209.50 | 209.66 | 210.30 | 210.23        | 209.60                            | 209.36            | 209.35 | 209.33 | 209.30 | 209.32 |        |
| 12                               | 209.38 | 209.62      | 209.50 | 209.64 | 210.25 | 210.09        | 209.58                            | 209.36            | 209.34 | 209.34 | 209.30 | 209.32 |        |
| 13                               | 209.36 | 209.60      | 209.48 | 209.64 | 210.21 | 209.98        | 209.56                            | 209.36            | 209.34 | 209.34 | 209.30 | 209.33 |        |
| 14                               | 209.36 | 209.59      | 209.48 | 209.64 | 210.23 | 210.13        | 209.56                            | 209.36            | 209.35 | 209.34 | 209.30 | 209.33 |        |
| 15                               | 209.36 | 209.56      | 209.46 | 209.62 | 210.21 | 211.60        | 209.54                            | 209.36            | 209.35 | 209.33 | 209.30 | 209.33 |        |
| 16                               | 209.36 | 209.56      | 209.46 | 209.62 | 210.23 | 210.16        | 209.54                            | 209.36            | 209.36 | 209.33 | 209.30 | 209.34 |        |
| 17                               | 209.36 | 209.54      | 209.71 | 209.62 | 210.22 | 210.52        | 209.52                            | 209.36            | 209.36 | 209.33 | 209.30 | 209.34 |        |
| 18                               | 209.36 | 209.54      | 209.70 | 209.62 | 210.20 | 209.96        | 209.51                            | 209.36            | 209.39 | 209.32 | 209.29 | 209.34 |        |
| 19                               | 209.36 | 209.54      | 209.70 | 209.62 | 210.20 | 209.96        | 209.50                            | 209.36            | 209.39 | 209.32 | 209.29 | 209.34 |        |
| 20                               | 209.34 | 209.52      | 209.73 | 209.62 | 210.20 | 209.92        | 209.49                            | 209.36            | 209.38 | 209.32 | 209.29 | 209.34 |        |
| 21                               | 209.34 | 209.52      | 209.70 | 209.62 | 209.83 | 209.96        | 209.48                            | 209.36            | 209.37 | 209.33 | 209.29 | 209.35 |        |
| 22                               | 209.34 | 209.52      | 209.70 | 209.64 | 211.10 | 209.92        | 209.48                            | 209.36            | 209.37 | 209.33 | 209.29 | 209.35 |        |
| 23                               | 209.34 | 209.52      | 209.70 | 209.62 | 210.71 | 209.91        | 209.47                            | 209.36            | 209.36 | 209.33 | 209.29 | 209.35 |        |
| 24                               | 209.34 | 209.50      | 209.70 | 209.67 | 210.52 | 209.98        | 209.46                            | 209.36            | 209.36 | 209.32 | 209.29 | 209.35 |        |
| 25                               | 209.65 | 209.48      | 209.68 | 210.17 | 210.11 | 210.41        | 209.44                            | 209.36            | 209.35 | 209.32 | 209.29 | 209.35 |        |
| 26                               | 209.52 | 209.48      | 209.64 | 210.28 | 210.77 | 210.12        | 209.44                            | 209.36            | 209.34 | 209.32 | 209.29 | 209.36 |        |
| 27                               | 209.46 | 209.48      | 209.52 | 210.16 | 210.06 | 211.08        | 209.42                            | 209.36            | 209.34 | 209.31 | 209.29 | 209.36 |        |
| 28                               | 209.44 | 209.46      | 209.45 | 210.22 | 210.20 | 211.04        | 209.42                            | 209.54            | 209.35 | 209.31 | 209.29 | 209.36 |        |
| 29                               | 209.43 | 209.70      | 209.42 | 211.20 | 210.20 | 210.28        | 209.40                            | 209.48            | 209.35 | 209.31 |        | 209.36 |        |
| 30                               | 209.43 | 209.48      | 209.35 | 210.24 | 210.09 | 209.95        | 209.39                            | 209.44            | 209.34 | 209.31 |        | 209.36 |        |
| 31                               |        | 209.43      |        | 209.79 | 210.04 |               | 209.39                            |                   | 209.34 | 209.31 |        | 209.36 |        |
| Mean                             | 209.40 | 209.54      | 209.63 | 209.76 | 210.35 | 210.25        | 209.54                            | 209.38            | 209.36 | 209.33 | 209.30 | 209.33 |        |
| Max                              | 209.65 | 209.95      | 210.70 | 211.20 | 211.20 | 211.60        | 209.70                            | 209.54            | 209.39 | 209.34 | 209.31 | 209.36 | 211.60 |
| Min                              | 209.34 | 209.42      | 209.35 | 209.46 | 209.83 | 209.91        | 209.39                            | 209.36            | 209.34 | 209.31 | 209.29 | 209.29 | 209.29 |
| Annual Max Momentary Gage Height | 212.36 | m. (MSL.) , |        |        |        |               | at 09.00 Hours , on Sep 15 , 2013 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 208.36 | m. (MSL.) , |        |        |        | River Bed     | 209.16                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              | 214.91 | m. (MSL.) , |        |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             | 214.91 | m. (MSL.) , |        |        |        | Drainage Area | 317                               | Square Kilometers |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                        | Jun   | Jul                  | Aug    | Sep     | Oct   | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual |        |
|----------------|-------|------------------------------------------------------------|-------|----------------------|--------|---------|-------|--------------------------|-------|-------|-------|-------|--------|--------|
| 1              | 0.64  | 0.92                                                       | 1.04  | 1.40                 | 6.10   | 6.45    | 2.30  | 0.72                     | 0.64  | 0.56  | 0.44  | 0.36  |        |        |
| 2              | 0.64  | 0.92                                                       | 0.96  | 1.30                 | 5.82   | 5.75    | 2.30  | 0.72                     | 0.64  | 0.56  | 0.44  | 0.36  |        |        |
| 3              | 0.64  | 0.92                                                       | 0.96  | 1.20                 | 5.68   | 5.54    | 2.30  | 0.72                     | 0.64  | 0.52  | 0.44  | 0.36  |        |        |
| 4              | 1.04  | 0.88                                                       | 0.96  | 1.12                 | 5.54   | 5.40    | 2.18  | 0.68                     | 0.60  | 0.52  | 0.44  | 0.36  |        |        |
| 5              | 0.88  | 0.88                                                       | 4.84  | 1.04                 | 5.54   | 5.26    | 2.18  | 0.68                     | 0.60  | 0.52  | 0.44  | 0.36  |        |        |
| 6              | 0.88  | 0.88                                                       | 9.30  | 1.04                 | 5.40   | 5.12    | 2.06  | 0.64                     | 0.60  | 0.48  | 0.44  | 0.40  |        |        |
| 7              | 0.84  | 3.80                                                       | 3.68  | 1.04                 | 14.60  | 5.12    | 2.06  | 0.64                     | 0.64  | 0.48  | 0.44  | 0.40  |        |        |
| 8              | 0.80  | 2.66                                                       | 2.42  | 2.36                 | 14.60  | 4.98    | 1.94  | 0.64                     | 0.64  | 0.48  | 0.40  | 0.40  |        |        |
| 9              | 0.80  | 2.06                                                       | 1.55  | 2.42                 | 11.30  | 5.40    | 1.76  | 0.64                     | 0.64  | 0.52  | 0.40  | 0.44  |        |        |
| 10             | 0.80  | 2.06                                                       | 1.35  | 2.06                 | 6.52   | 7.28    | 1.70  | 0.64                     | 0.60  | 0.52  | 0.40  | 0.44  |        |        |
| 11             | 0.72  | 1.94                                                       | 1.20  | 2.06                 | 6.10   | 5.61    | 1.70  | 0.64                     | 0.60  | 0.52  | 0.40  | 0.48  |        |        |
| 12             | 0.72  | 1.82                                                       | 1.20  | 1.94                 | 5.75   | 4.64    | 1.60  | 0.64                     | 0.56  | 0.56  | 0.40  | 0.48  |        |        |
| 13             | 0.64  | 1.70                                                       | 1.12  | 1.94                 | 5.47   | 3.98    | 1.50  | 0.64                     | 0.56  | 0.56  | 0.40  | 0.52  |        |        |
| 14             | 0.64  | 1.65                                                       | 1.12  | 1.94                 | 5.61   | 4.91    | 1.50  | 0.64                     | 0.60  | 0.56  | 0.40  | 0.52  |        |        |
| 15             | 0.64  | 1.50                                                       | 1.04  | 1.82                 | 5.47   | 20.90   | 1.40  | 0.64                     | 0.60  | 0.52  | 0.40  | 0.52  |        |        |
| 16             | 0.64  | 1.50                                                       | 1.04  | 1.82                 | 5.61   | 5.12    | 1.40  | 0.64                     | 0.64  | 0.52  | 0.40  | 0.56  |        |        |
| 17             | 0.64  | 1.40                                                       | 2.36  | 1.82                 | 5.54   | 7.76    | 1.30  | 0.64                     | 0.64  | 0.52  | 0.40  | 0.56  |        |        |
| 18             | 0.64  | 1.40                                                       | 2.30  | 1.82                 | 5.40   | 3.86    | 1.25  | 0.64                     | 0.76  | 0.48  | 0.36  | 0.56  |        |        |
| 19             | 0.64  | 1.40                                                       | 2.30  | 1.82                 | 5.40   | 3.86    | 1.20  | 0.64                     | 0.76  | 0.48  | 0.36  | 0.56  |        |        |
| 20             | 0.56  | 1.30                                                       | 2.48  | 1.82                 | 5.40   | 3.62    | 1.16  | 0.64                     | 0.72  | 0.48  | 0.36  | 0.56  |        |        |
| 21             | 0.56  | 1.30                                                       | 2.30  | 1.82                 | 3.08   | 3.86    | 1.12  | 0.64                     | 0.68  | 0.52  | 0.36  | 0.60  |        |        |
| 22             | 0.56  | 1.30                                                       | 2.30  | 1.94                 | 13.40  | 3.62    | 1.12  | 0.64                     | 0.68  | 0.52  | 0.36  | 0.60  |        |        |
| 23             | 0.56  | 1.30                                                       | 2.30  | 1.82                 | 9.40   | 3.56    | 1.08  | 0.64                     | 0.64  | 0.52  | 0.36  | 0.60  |        |        |
| 24             | 0.56  | 1.20                                                       | 2.30  | 2.12                 | 7.76   | 3.98    | 1.04  | 0.64                     | 0.64  | 0.48  | 0.36  | 0.60  |        |        |
| 25             | 2.00  | 1.12                                                       | 2.18  | 5.19                 | 4.77   | 6.88    | 0.96  | 0.64                     | 0.60  | 0.48  | 0.36  | 0.60  |        |        |
| 26             | 1.30  | 1.12                                                       | 1.94  | 5.96                 | 10.00  | 4.84    | 0.96  | 0.64                     | 0.56  | 0.48  | 0.36  | 0.64  |        |        |
| 27             | 1.04  | 1.12                                                       | 1.30  | 5.12                 | 4.46   | 13.18   | 0.88  | 0.64                     | 0.56  | 0.44  | 0.36  | 0.64  |        |        |
| 28             | 0.96  | 1.04                                                       | 1.00  | 5.54                 | 5.40   | 12.74   | 0.88  | 1.40                     | 0.60  | 0.44  | 0.36  | 0.64  |        |        |
| 29             | 0.92  | 2.30                                                       | 0.88  | 14.60                | 5.40   | 5.96    | 0.80  | 1.12                     | 0.60  | 0.44  |       | 0.64  |        |        |
| 30             | 0.92  | 1.12                                                       | 0.60  | 5.68                 | 4.64   | 3.80    | 0.76  | 0.96                     | 0.56  | 0.44  |       | 0.64  |        |        |
| 31             |       | 0.92                                                       |       | 2.84                 | 4.34   |         | 0.76  |                          | 0.56  | 0.44  |       | 0.64  |        |        |
| Total          | 23.82 | 45.43                                                      | 60.32 | 86.41                | 209.50 | 182.98  | 45.15 | 21.08                    | 19.36 | 15.56 | 11.04 | 16.04 | 736.69 | CMSDAY |
| Mean           | 0.79  | 1.47                                                       | 2.01  | 2.79                 | 6.76   | 6.10    | 1.46  | 0.70                     | 0.62  | 0.50  | 0.39  | 0.52  | 2.02   | CMS    |
| Max            | 2.00  | 3.80                                                       | 9.30  | 14.60                | 14.60  | 20.90   | 2.30  | 1.40                     | 0.76  | 0.56  | 0.44  | 0.64  | 20.90  | CMS    |
| Min            | 0.56  | 0.88                                                       | 0.60  | 1.04                 | 3.08   | 3.56    | 0.76  | 0.64                     | 0.56  | 0.44  | 0.36  | 0.36  | 0.36   | CMS    |
| Runoff         | 2.06  | 3.93                                                       | 5.21  | 7.47                 | 18.10  | 15.81   | 3.90  | 1.82                     | 1.67  | 1.34  | 0.95  | 1.39  | 63.65  | MCM    |
| Momentary Peak | 44.40 | CMS. at 212.36 m. (MSL.) at 09.00 Hours , on Sep 15 , 2013 |       |                      |        |         |       |                          |       |       |       |       |        |        |
| Runoff Yield   | 6.37  | Liters/Second/Square KM.                                   |       | Momentary Peak Yield |        | 140.063 |       | Liters/Second/Square KM. |       |       |       |       |        |        |

## WATER YEAR : 2013

## NAN RIVER BASIN

**Lam Nam Khan at Ban Na Pho Na Chan , Phitsanulok (N.59**

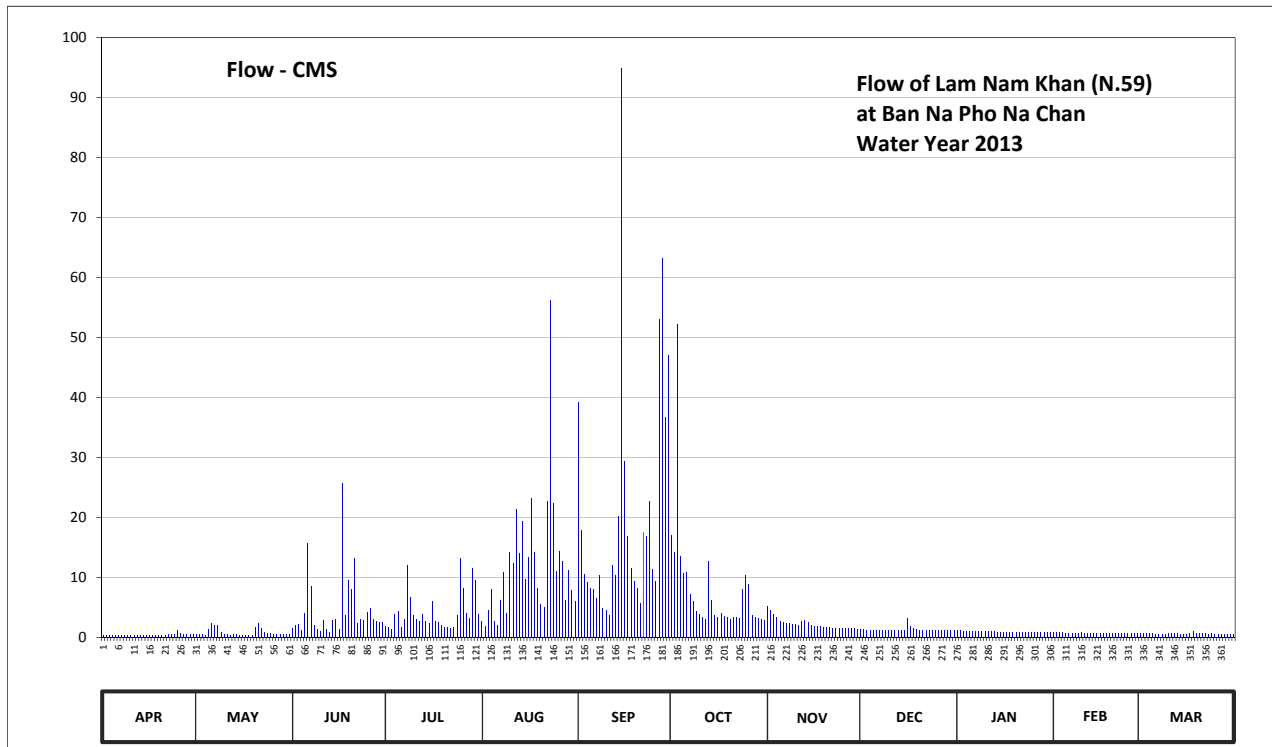
Lat 17 - 01 - 49 N    Long 100 - 50 - 35 E

**Location : on left bank at Ban Na Pho Na Chan**

|                                         |                                                                                           |                |               |             |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Na Pho Na Chan | <b>Amphoe</b> | Nakhon Thai | <b>Changwat</b>  | Phitsanulok        |
| <b>Drainage Area</b>                    | 415                                                                                       | sq.km.         |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +197.680                                                                                  | m. (MSL.)      |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |             |                  |                    |
| <b>Location BM</b>                      | On left bank about 25 meters from the top staff gage.                                     |                |               |             | <b>Elevation</b> | +206.935 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                              |                |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |                |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |                |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |             |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |                |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 200.36 | 200.48 | 201.16                                          | 201.27 | 201.59 | 205.38 | 204.15 | 202.33 | 201.04 | 200.91 | 200.72 | 200.61 |        |
| 2                                | 200.35 | 200.47 | 201.36                                          | 201.22 | 201.28 | 204.23 | 203.83 | 202.14 | 201.03 | 200.91 | 200.71 | 200.61 |        |
| 3                                | 200.36 | 200.46 | 201.45                                          | 201.08 | 202.16 | 203.32 | 205.72 | 201.98 | 201.00 | 200.90 | 200.70 | 200.60 |        |
| 4                                | 200.36 | 200.45 | 200.99                                          | 201.98 | 202.88 | 203.10 | 203.75 | 201.82 | 200.99 | 200.88 | 200.69 | 200.60 |        |
| 5                                | 200.34 | 201.06 | 202.03                                          | 202.12 | 201.63 | 202.92 | 203.34 | 201.63 | 200.97 | 200.87 | 200.63 | 200.57 |        |
| 6                                | 200.37 | 201.50 | 204.00                                          | 201.22 | 201.42 | 202.88 | 203.36 | 201.57 | 200.96 | 200.86 | 200.68 | 200.56 |        |
| 7                                | 200.39 | 201.37 | 202.99                                          | 201.74 | 202.53 | 202.59 | 202.73 | 201.49 | 200.97 | 200.85 | 200.67 | 200.55 |        |
| 8                                | 200.44 | 201.35 | 201.35                                          | 203.52 | 203.37 | 203.29 | 202.51 | 201.48 | 200.97 | 200.84 | 200.63 | 200.54 |        |
| 9                                | 200.43 | 200.72 | 201.09                                          | 202.61 | 202.04 | 202.24 | 202.13 | 201.46 | 200.96 | 200.83 | 200.61 | 200.53 |        |
| 10                               | 200.42 | 200.56 | 200.84                                          | 201.92 | 203.83 | 202.14 | 201.96 | 201.43 | 200.95 | 200.83 | 200.71 | 200.63 |        |
| 11                               | 200.41 | 200.48 | 201.65                                          | 201.74 | 203.58 | 201.93 | 201.83 | 201.41 | 200.93 | 200.82 | 200.63 | 200.61 |        |
| 12                               | 200.42 | 200.36 | 201.03                                          | 201.62 | 204.53 | 203.52 | 201.71 | 201.62 | 200.95 | 200.81 | 200.60 | 200.60 |        |
| 13                               | 200.41 | 200.48 | 200.74                                          | 201.99 | 203.81 | 203.29 | 203.62 | 201.65 | 200.98 | 200.80 | 200.60 | 200.58 |        |
| 14                               | 200.40 | 200.47 | 201.66                                          | 201.59 | 204.37 | 204.44 | 202.52 | 201.55 | 200.98 | 200.78 | 200.62 | 200.56 |        |
| 15                               | 200.41 | 200.42 | 201.72                                          | 201.48 | 203.18 | 206.22 | 201.93 | 201.37 | 200.97 | 200.77 | 200.61 | 200.55 |        |
| 16                               | 200.41 | 200.43 | 201.08                                          | 202.48 | 203.72 | 204.98 | 201.85 | 201.34 | 201.78 | 200.76 | 200.61 | 200.54 |        |
| 17                               | 200.38 | 200.44 | 204.81                                          | 201.60 | 204.65 | 204.12 | 202.00 | 201.31 | 201.28 | 200.75 | 200.61 | 200.61 |        |
| 18                               | 200.39 | 200.38 | 201.94                                          | 201.56 | 203.83 | 203.46 | 201.90 | 201.27 | 201.11 | 200.74 | 200.60 | 200.85 |        |
| 19                               | 200.39 | 200.37 | 203.17                                          | 201.41 | 202.92 | 203.13 | 201.83 | 201.24 | 201.04 | 200.73 | 200.58 | 200.68 |        |
| 20                               | 200.40 | 201.26 | 202.89                                          | 201.24 | 202.38 | 202.93 | 201.75 | 201.22 | 200.97 | 200.72 | 200.57 | 200.63 |        |
| 21                               | 200.42 | 201.51 | 203.70                                          | 201.26 | 202.30 | 202.43 | 201.83 | 201.20 | 200.96 | 200.72 | 200.58 | 200.60 |        |
| 22                               | 200.53 | 201.12 | 201.48                                          | 201.18 | 204.62 | 204.20 | 201.82 | 201.17 | 200.95 | 200.73 | 200.57 | 200.58 |        |
| 23                               | 200.51 | 200.69 | 201.72                                          | 201.19 | 205.83 | 204.13 | 201.80 | 201.16 | 200.95 | 200.73 | 200.57 | 200.56 |        |
| 24                               | 200.50 | 200.63 | 201.66                                          | 201.92 | 204.60 | 204.62 | 202.89 | 201.13 | 200.95 | 200.73 | 200.60 | 200.57 |        |
| 25                               | 201.00 | 200.60 | 202.08                                          | 203.70 | 203.38 | 203.42 | 203.28 | 201.13 | 200.94 | 200.73 | 200.60 | 200.56 |        |
| 26                               | 200.63 | 200.56 | 202.25                                          | 202.92 | 203.85 | 203.13 | 203.04 | 201.13 | 200.93 | 200.73 | 200.60 | 200.55 |        |
| 27                               | 200.53 | 200.52 | 201.71                                          | 202.01 | 203.61 | 205.74 | 201.93 | 201.13 | 200.93 | 200.72 | 200.59 | 200.53 |        |
| 28                               | 200.50 | 200.50 | 201.62                                          | 201.78 | 202.54 | 206.02 | 201.84 | 201.15 | 200.92 | 200.70 | 200.61 | 200.52 |        |
| 29                               | 200.47 | 200.50 | 201.58                                          | 203.46 | 203.41 | 205.29 | 201.76 | 201.12 | 200.92 | 200.71 |        | 200.51 |        |
| 30                               | 200.46 | 200.51 | 201.56                                          | 203.17 | 202.86 | 205.60 | 201.71 | 201.10 | 200.91 | 200.71 |        | 200.51 |        |
| 31                               |        | 200.48 |                                                 | 201.98 | 202.51 |        | 201.65 |        | 200.91 | 200.70 |        | 200.50 |        |
| Mean                             | 200.45 | 200.68 | 201.91                                          | 201.93 | 203.20 | 203.82 | 202.52 | 201.42 | 201.00 | 200.78 | 200.63 | 200.58 |        |
| Max                              | 201.00 | 201.51 | 204.81                                          | 203.70 | 205.83 | 206.22 | 205.72 | 202.33 | 201.78 | 200.91 | 200.72 | 200.85 | 206.22 |
| Min                              | 200.34 | 200.36 | 200.74                                          | 201.08 | 201.28 | 201.93 | 201.65 | 201.10 | 200.91 | 200.70 | 200.57 | 200.50 | 200.34 |
| Annual Max Momentary Gage Height |        | 206.26 | m. (MSL.) , at 09.00 Hours , on Sep 15 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 197.68 | m. (MSL.) , River Bed 200.04 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 207.54 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 207.56 | m. (MSL.) , Drainage Area 415 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------|--------------------------|-------|-------|-------|-------|----------------|
| 1              | 0.36                                                              | 0.52                     | 1.62   | 1.84                 | 2.67   | 39.24   | 17.15  | 5.29                     | 1.38  | 1.17  | 0.88  | 0.72  |                |
| 2              | 0.35                                                              | 0.51                     | 2.02   | 1.74                 | 1.86   | 17.93   | 14.27  | 4.49                     | 1.36  | 1.17  | 0.87  | 0.72  |                |
| 3              | 0.36                                                              | 0.49                     | 2.25   | 1.46                 | 4.56   | 10.64   | 52.16  | 3.93                     | 1.30  | 1.15  | 0.85  | 0.70  |                |
| 4              | 0.36                                                              | 0.48                     | 1.29   | 3.93                 | 8.04   | 9.25    | 13.65  | 3.37                     | 1.29  | 1.12  | 0.84  | 0.70  |                |
| 5              | 0.34                                                              | 1.42                     | 4.10   | 4.42                 | 2.79   | 8.26    | 10.78  | 2.79                     | 1.26  | 1.10  | 0.75  | 0.66  |                |
| 6              | 0.37                                                              | 2.40                     | 15.80  | 1.74                 | 2.16   | 8.04    | 10.92  | 2.61                     | 1.24  | 1.09  | 0.82  | 0.64  |                |
| 7              | 0.39                                                              | 2.04                     | 8.65   | 3.12                 | 6.25   | 6.55    | 7.25   | 2.37                     | 1.26  | 1.08  | 0.81  | 0.63  |                |
| 8              | 0.46                                                              | 2.00                     | 2.00   | 12.04                | 10.99  | 10.43   | 6.15   | 2.34                     | 1.26  | 1.06  | 0.75  | 0.61  |                |
| 9              | 0.44                                                              | 0.88                     | 1.48   | 6.65                 | 4.14   | 4.88    | 4.46   | 2.28                     | 1.24  | 1.05  | 0.72  | 0.60  |                |
| 10             | 0.43                                                              | 0.64                     | 1.06   | 3.72                 | 14.27  | 4.49    | 3.86   | 2.19                     | 1.22  | 1.05  | 0.87  | 0.75  |                |
| 11             | 0.42                                                              | 0.52                     | 2.85   | 3.12                 | 12.46  | 3.75    | 3.40   | 2.13                     | 1.19  | 1.03  | 0.75  | 0.72  |                |
| 12             | 0.43                                                              | 0.36                     | 1.36   | 2.76                 | 21.49  | 12.04   | 3.03   | 2.76                     | 1.22  | 1.01  | 0.70  | 0.70  |                |
| 13             | 0.42                                                              | 0.52                     | 0.91   | 3.97                 | 14.09  | 10.43   | 12.74  | 2.85                     | 1.27  | 1.00  | 0.70  | 0.67  |                |
| 14             | 0.40                                                              | 0.51                     | 2.88   | 2.67                 | 19.47  | 20.32   | 6.20   | 2.55                     | 1.27  | 0.97  | 0.73  | 0.64  |                |
| 15             | 0.42                                                              | 0.43                     | 3.06   | 2.34                 | 9.69   | 94.80   | 3.75   | 2.04                     | 1.26  | 0.96  | 0.72  | 0.63  |                |
| 16             | 0.42                                                              | 0.44                     | 1.46   | 6.00                 | 13.44  | 29.38   | 3.48   | 1.98                     | 3.24  | 0.94  | 0.72  | 0.61  |                |
| 17             | 0.38                                                              | 0.46                     | 25.81  | 2.70                 | 23.20  | 16.88   | 4.00   | 1.92                     | 1.86  | 0.93  | 0.72  | 0.72  |                |
| 18             | 0.39                                                              | 0.38                     | 3.79   | 2.58                 | 14.27  | 11.62   | 3.65   | 1.84                     | 1.52  | 0.91  | 0.70  | 1.08  |                |
| 19             | 0.39                                                              | 0.37                     | 9.64   | 2.13                 | 8.26   | 9.42    | 3.40   | 1.78                     | 1.38  | 0.89  | 0.67  | 0.82  |                |
| 20             | 0.40                                                              | 1.82                     | 8.09   | 1.78                 | 5.51   | 8.31    | 3.15   | 1.74                     | 1.26  | 0.88  | 0.66  | 0.75  |                |
| 21             | 0.43                                                              | 2.43                     | 13.30  | 1.82                 | 5.15   | 5.75    | 3.40   | 1.70                     | 1.24  | 0.88  | 0.67  | 0.70  |                |
| 22             | 0.60                                                              | 1.54                     | 2.34   | 1.66                 | 22.72  | 17.60   | 3.37   | 1.64                     | 1.22  | 0.89  | 0.66  | 0.67  |                |
| 23             | 0.56                                                              | 0.84                     | 3.06   | 1.68                 | 56.26  | 16.97   | 3.30   | 1.62                     | 1.22  | 0.89  | 0.66  | 0.64  |                |
| 24             | 0.55                                                              | 0.75                     | 2.88   | 3.72                 | 22.40  | 22.72   | 8.09   | 1.56                     | 1.22  | 0.89  | 0.70  | 0.66  |                |
| 25             | 1.30                                                              | 0.70                     | 4.28   | 13.30                | 11.06  | 11.34   | 10.36  | 1.56                     | 1.21  | 0.89  | 0.70  | 0.64  |                |
| 26             | 0.75                                                              | 0.64                     | 4.93   | 8.26                 | 14.45  | 9.42    | 8.92   | 1.56                     | 1.19  | 0.89  | 0.70  | 0.63  |                |
| 27             | 0.60                                                              | 0.58                     | 3.03   | 4.03                 | 12.67  | 53.02   | 3.75   | 1.56                     | 1.19  | 0.88  | 0.69  | 0.60  |                |
| 28             | 0.55                                                              | 0.55                     | 2.76   | 3.24                 | 6.30   | 63.20   | 3.44   | 1.60                     | 1.18  | 0.85  | 0.72  | 0.58  |                |
| 29             | 0.51                                                              | 0.55                     | 2.64   | 11.62                | 11.27  | 36.72   | 3.18   | 1.54                     | 1.18  | 0.87  |       | 0.56  |                |
| 30             | 0.49                                                              | 0.56                     | 2.58   | 9.64                 | 7.93   | 47.00   | 3.03   | 1.50                     | 1.17  | 0.87  |       | 0.56  |                |
| 31             |                                                                   | 0.52                     |        | 3.93                 | 6.15   |         | 2.85   |                          | 1.17  | 0.85  |       | 0.55  |                |
| Total          | 14.27                                                             | 26.85                    | 141.92 | 133.61               | 375.97 | 620.40  | 241.14 | 69.09                    | 41.47 | 30.21 | 20.73 | 20.86 | 1736.52 CMSDAY |
| Mean           | 0.48                                                              | 0.87                     | 4.73   | 4.31                 | 12.13  | 20.68   | 7.78   | 2.30                     | 1.34  | 0.97  | 0.74  | 0.67  | 4.76 CMS       |
| Max            | 1.30                                                              | 2.43                     | 25.81  | 13.30                | 56.26  | 94.80   | 52.16  | 5.29                     | 3.24  | 1.17  | 0.88  | 1.08  | 94.80 CMS      |
| Min            | 0.34                                                              | 0.36                     | 0.91   | 1.46                 | 1.86   | 3.75    | 2.85   | 1.50                     | 1.17  | 0.85  | 0.66  | 0.55  | 0.34 CMS       |
| Runoff         | 1.23                                                              | 2.32                     | 12.26  | 11.54                | 32.48  | 53.60   | 20.83  | 5.97                     | 3.58  | 2.61  | 1.79  | 1.80  | 150.04 MCM     |
| Momentary Peak | 100.40 CMS. at 206.26 m. (MSL.) at 09.00 Hours , on Sep 15 , 2013 |                          |        |                      |        |         |        |                          |       |       |       |       |                |
| Runoff Yield   | 11.46                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 241.928 |        | Liters/Second/Square KM. |       |       |       |       |                |

**WATER YEAR : 2013**

## NAN RIVER BASIN

### Nan River at Ban Hat Song Khwae , Uttaradit (N.60)

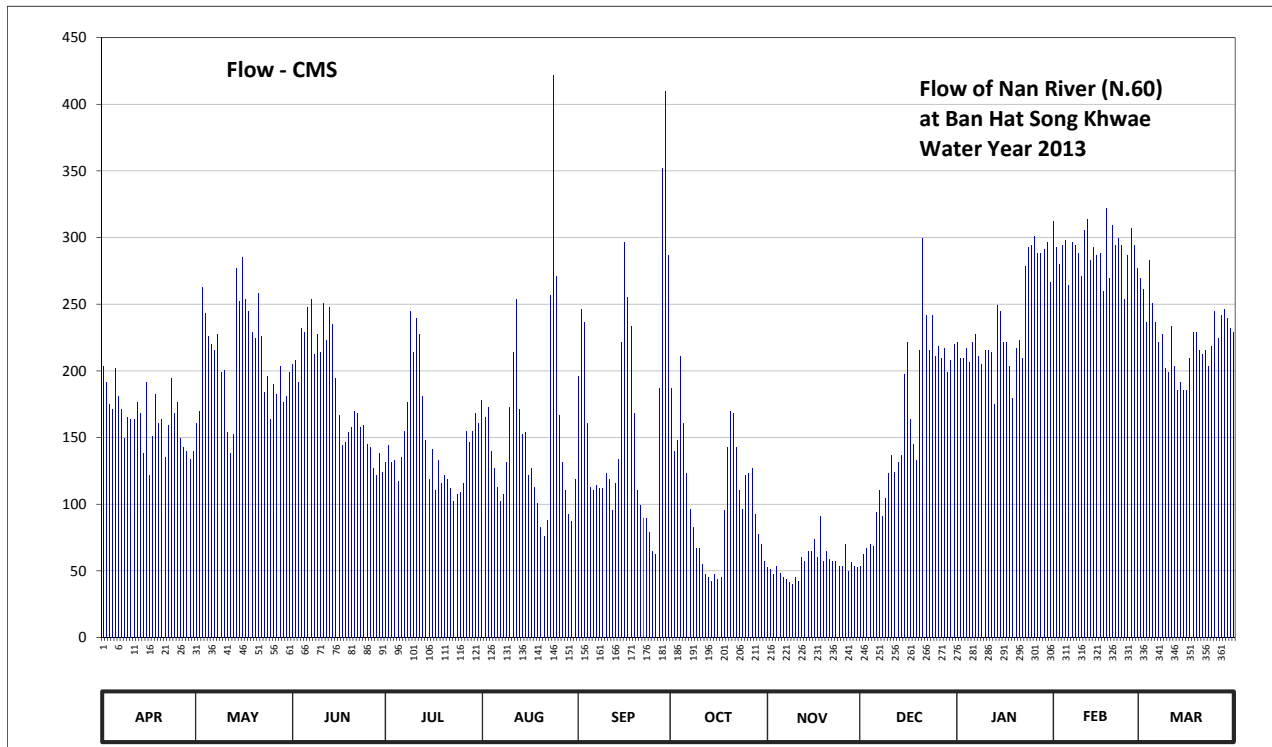
Lat 17 - 24 - 54 N    Long 100 - 07 - 58 E

**Location : on right bank about 1 kilometer downstream from Wat Hat Song Khwae.**

|                                         |                                                                             |                |               |      |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|----------------|---------------|------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Hat Song Khwae | <b>Amphoe</b> | Tron | <b>Changwat</b>  | Uttaradit         |
| <b>Drainage Area</b>                    | 18,447                                                                      | sq.km.         |               |      |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |                |               |      |                  |                   |
| <b>Zero Gage at Bottom</b>              | +48.500                                                                     | m. (MSL.)      |               |      |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                |               |      |                  |                   |
| <b>Location BM</b>                      | On right bank near the Meteorological Station.                              |                |               |      | <b>Elevation</b> | +57.592 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |                |               |      |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |                |               |      |                  |                   |
| <b>Period of Available Gage Records</b> | 1986 to date                                                                |                |               |      |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |                |               |      |                  |                   |
| <b>Period of Rating</b>                 | 1986 to date                                                                |                |               |      |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |                |               |      |                  |                   |
| <b>Rated by Current Meter</b>           | 1986 to date                                                                |                |               |      |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                |               |      |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                |               |      |                  |                   |
| <b>General Description</b>              | Records very good. Flow effected by Sirikit Dam reservior.                  |                |               |      |                  |                   |
|                                         | Stage-discharge relation defined by 24 discharge measurements made in 2013. |                |               |      |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

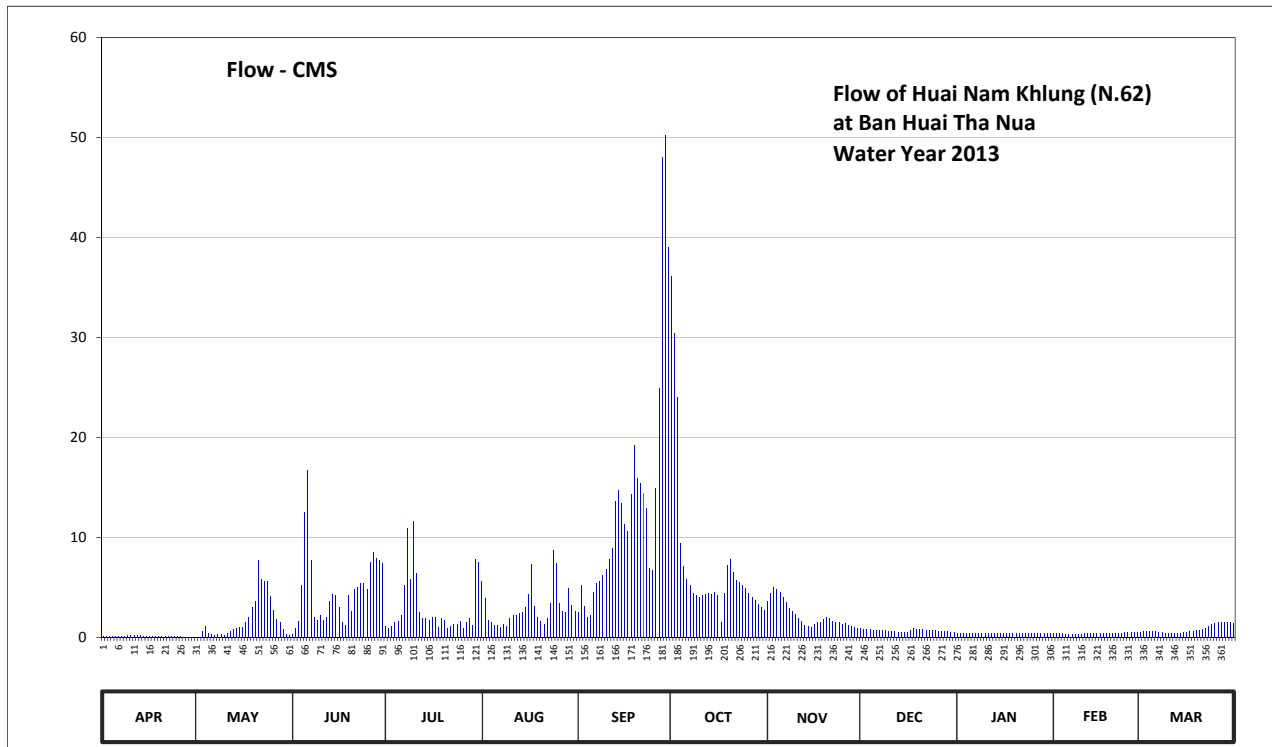
| Date                             | Apr   | May   | Jun   | Jul         | Aug   | Sep                               | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 49.90 | 49.62 | 49.91 | 49.41       | 49.73 | 49.85                             | 49.79 | 48.82             | 48.83 | 50.02 | 50.60 | 50.33 |        |
| 2                                | 49.82 | 49.68 | 49.93 | 49.50       | 49.65 | 50.18                             | 49.47 | 48.81             | 48.90 | 49.94 | 50.48 | 50.28 |        |
| 3                                | 49.71 | 50.29 | 49.82 | 49.41       | 49.70 | 50.12                             | 49.53 | 48.78             | 48.94 | 49.94 | 50.40 | 50.12 |        |
| 4                                | 49.69 | 50.16 | 50.09 | 49.42       | 49.47 | 49.62                             | 49.95 | 48.83             | 48.96 | 49.99 | 50.49 | 50.42 |        |
| 5                                | 49.89 | 50.05 | 50.07 | 49.31       | 49.38 | 49.28                             | 49.62 | 48.79             | 48.95 | 49.92 | 50.51 | 50.21 |        |
| 6                                | 49.75 | 50.01 | 50.19 | 49.44       | 49.28 | 49.26                             | 49.35 | 48.76             | 49.14 | 50.02 | 50.30 | 50.12 |        |
| 7                                | 49.69 | 49.98 | 50.23 | 49.58       | 49.20 | 49.29                             | 49.16 | 48.75             | 49.26 | 50.06 | 50.50 | 50.02 |        |
| 8                                | 49.54 | 50.06 | 49.96 | 49.72       | 49.24 | 49.27                             | 49.06 | 48.73             | 49.12 | 49.95 | 50.49 | 50.06 |        |
| 9                                | 49.65 | 49.87 | 50.06 | 50.17       | 49.41 | 49.27                             | 48.94 | 48.72             | 49.22 | 49.91 | 50.45 | 49.89 |        |
| 10                               | 49.64 | 49.88 | 49.97 | 49.97       | 49.70 | 49.35                             | 48.94 | 48.76             | 49.35 | 49.98 | 50.34 | 49.87 |        |
| 11                               | 49.64 | 49.57 | 50.21 | 50.14       | 49.97 | 49.32                             | 48.84 | 48.74             | 49.45 | 49.98 | 50.56 | 50.10 |        |
| 12                               | 49.72 | 49.46 | 50.03 | 50.06       | 50.23 | 49.15                             | 48.78 | 48.88             | 49.36 | 49.97 | 50.61 | 49.90 |        |
| 13                               | 49.67 | 49.56 | 50.19 | 49.75       | 49.69 | 49.30                             | 48.76 | 48.86             | 49.41 | 49.71 | 50.42 | 49.78 |        |
| 14                               | 49.46 | 50.38 | 50.11 | 49.53       | 49.56 | 49.43                             | 48.74 | 48.92             | 49.45 | 50.20 | 50.48 | 49.82 |        |
| 15                               | 49.82 | 50.22 | 49.84 | 49.32       | 49.57 | 50.02                             | 48.78 | 48.92             | 49.86 | 50.17 | 50.44 | 49.78 |        |
| 16                               | 49.34 | 50.43 | 49.66 | 49.48       | 49.34 | 50.50                             | 48.75 | 48.99             | 50.02 | 50.02 | 50.45 | 49.78 |        |
| 17                               | 49.55 | 50.23 | 49.50 | 49.26       | 49.38 | 50.24                             | 48.76 | 48.88             | 49.64 | 50.02 | 50.27 | 49.94 |        |
| 18                               | 49.76 | 50.17 | 49.52 | 49.42       | 49.28 | 50.10                             | 49.15 | 49.12             | 49.51 | 49.90 | 50.66 | 50.07 |        |
| 19                               | 49.62 | 50.07 | 49.57 | 49.30       | 49.19 | 49.67                             | 49.49 | 48.86             | 49.42 | 49.74 | 50.33 | 50.07 |        |
| 20                               | 49.64 | 50.04 | 49.60 | 49.34       | 49.06 | 49.26                             | 49.68 | 48.92             | 49.98 | 49.99 | 50.58 | 49.98 |        |
| 21                               | 49.44 | 50.26 | 49.68 | 49.32       | 49.01 | 49.18                             | 49.67 | 48.87             | 50.52 | 50.03 | 50.49 | 49.96 |        |
| 22                               | 49.61 | 50.05 | 49.67 | 49.27       | 49.10 | 49.11                             | 49.49 | 48.86             | 50.15 | 49.94 | 50.52 | 49.98 |        |
| 23                               | 49.84 | 49.77 | 49.60 | 49.20       | 50.25 | 49.11                             | 49.26 | 48.86             | 49.98 | 50.39 | 50.49 | 49.90 |        |
| 24                               | 49.67 | 49.85 | 49.61 | 49.24       | 51.28 | 49.03                             | 49.16 | 48.83             | 50.15 | 50.48 | 50.23 | 50.00 |        |
| 25                               | 49.72 | 49.64 | 49.51 | 49.25       | 50.34 | 48.92                             | 49.34 | 48.83             | 49.95 | 50.49 | 50.44 | 50.17 |        |
| 26                               | 49.54 | 49.81 | 49.49 | 49.30       | 49.66 | 48.90                             | 49.35 | 48.96             | 50.00 | 50.53 | 50.57 | 50.04 |        |
| 27                               | 49.49 | 49.76 | 49.38 | 49.58       | 49.41 | 49.79                             | 49.38 | 48.80             | 49.94 | 50.45 | 50.49 | 50.15 |        |
| 28                               | 49.47 | 49.90 | 49.34 | 49.52       | 49.26 | 50.85                             | 49.13 | 48.85             | 49.99 | 50.45 | 50.38 | 50.18 |        |
| 29                               | 49.43 | 49.72 | 49.46 | 49.58       | 49.13 | 51.21                             | 49.02 | 48.83             | 49.87 | 50.47 |       | 50.14 |        |
| 30                               | 49.47 | 49.75 | 49.36 | 49.67       | 49.09 | 50.44                             | 48.96 | 48.82             | 49.93 | 50.50 |       | 50.09 |        |
| 31                               |       | 49.87 |       | 49.62       | 49.32 |                                   | 48.86 |                   | 50.01 | 50.31 |       | 50.07 |        |
| Mean                             | 49.64 | 49.94 | 49.79 | 49.52       | 49.54 | 49.63                             | 49.20 | 48.84             | 49.59 | 50.11 | 50.46 | 50.04 |        |
| Max                              | 49.90 | 50.43 | 50.23 | 50.17       | 51.28 | 51.21                             | 49.95 | 49.12             | 50.52 | 50.53 | 50.66 | 50.42 | 51.28  |
| Min                              | 49.34 | 49.46 | 49.34 | 49.20       | 49.01 | 48.90                             | 48.74 | 48.72             | 48.83 | 49.71 | 50.23 | 49.78 | 48.72  |
| Annual Max Momentary Gage Height |       | 51.36 |       | m. (MSL.) , |       | at 09.00 Hours , on Aug 24 , 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 48.50 |       | m. (MSL.) , |       | River Bed                         | 44.81 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              |       | 60.35 |       | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |        |
| Right Bank Elevation             |       | 59.85 |       | m. (MSL.) , |       | Drainage Area                     | 18447 | Square Kilometers |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr     | May                                                       | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|---------|-----------------------------------------------------------|---------|---------|----------------------|---------|---------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 203.00  | 161.00                                                    | 204.50  | 131.40  | 177.50               | 195.50  | 186.50  | 52.50   | 53.75                    | 221.10  | 312.00  | 269.15  |          |        |
| 2              | 191.00  | 170.00                                                    | 207.50  | 144.00  | 165.50               | 245.90  | 139.80  | 51.25   | 62.50                    | 209.00  | 292.80  | 261.40  |          |        |
| 3              | 174.50  | 262.95                                                    | 191.00  | 131.40  | 173.00               | 236.60  | 148.20  | 47.50   | 67.50                    | 209.00  | 280.00  | 236.60  |          |        |
| 4              | 171.50  | 242.80                                                    | 231.95  | 132.80  | 139.80               | 161.00  | 210.50  | 53.75   | 70.00                    | 216.50  | 294.40  | 283.20  |          |        |
| 5              | 201.50  | 225.75                                                    | 228.85  | 117.40  | 127.20               | 113.20  | 161.00  | 48.75   | 68.75                    | 206.00  | 297.60  | 250.55  |          |        |
| 6              | 180.50  | 219.55                                                    | 247.45  | 135.60  | 113.20               | 110.40  | 123.00  | 45.00   | 93.90                    | 221.10  | 264.50  | 236.60  |          |        |
| 7              | 171.50  | 215.00                                                    | 253.65  | 155.20  | 102.00               | 114.60  | 96.60   | 43.75   | 110.40                   | 227.30  | 296.00  | 221.10  |          |        |
| 8              | 149.60  | 227.30                                                    | 212.00  | 176.00  | 107.60               | 111.80  | 83.10   | 41.25   | 91.20                    | 210.50  | 294.40  | 227.30  |          |        |
| 9              | 165.50  | 198.50                                                    | 227.30  | 244.35  | 131.40               | 111.80  | 67.50   | 40.00   | 104.80                   | 204.50  | 288.00  | 201.50  |          |        |
| 10             | 164.00  | 200.00                                                    | 213.50  | 213.50  | 173.00               | 123.00  | 67.50   | 45.00   | 123.00                   | 215.00  | 270.70  | 198.50  |          |        |
| 11             | 164.00  | 153.80                                                    | 250.55  | 239.70  | 213.50               | 118.80  | 55.00   | 42.50   | 137.00                   | 215.00  | 305.60  | 233.50  |          |        |
| 12             | 176.00  | 138.40                                                    | 222.65  | 227.30  | 253.65               | 95.25   | 47.50   | 60.00   | 124.40                   | 213.50  | 313.60  | 203.00  |          |        |
| 13             | 168.50  | 152.40                                                    | 247.45  | 180.50  | 171.50               | 116.00  | 45.00   | 57.50   | 131.40                   | 174.50  | 283.20  | 185.00  |          |        |
| 14             | 138.40  | 276.90                                                    | 235.05  | 148.20  | 152.40               | 134.20  | 42.50   | 65.00   | 137.00                   | 249.00  | 292.80  | 191.00  |          |        |
| 15             | 191.00  | 252.10                                                    | 194.00  | 118.80  | 153.80               | 221.10  | 47.50   | 65.00   | 197.00                   | 244.35  | 286.40  | 185.00  |          |        |
| 16             | 121.60  | 284.80                                                    | 167.00  | 141.20  | 121.60               | 296.00  | 43.75   | 73.75   | 221.10                   | 221.10  | 288.00  | 185.00  |          |        |
| 17             | 151.00  | 253.65                                                    | 144.00  | 110.40  | 127.20               | 255.20  | 45.00   | 60.00   | 164.00                   | 221.10  | 259.85  | 209.00  |          |        |
| 18             | 182.00  | 244.35                                                    | 146.80  | 132.80  | 113.20               | 233.50  | 95.25   | 91.20   | 145.40                   | 203.00  | 321.60  | 228.85  |          |        |
| 19             | 161.00  | 228.85                                                    | 153.80  | 116.00  | 100.65               | 168.50  | 142.60  | 57.50   | 132.80                   | 179.00  | 269.15  | 228.85  |          |        |
| 20             | 164.00  | 224.20                                                    | 158.00  | 121.60  | 83.10                | 110.40  | 170.00  | 65.00   | 215.00                   | 216.50  | 308.80  | 215.00  |          |        |
| 21             | 135.60  | 258.30                                                    | 170.00  | 118.80  | 76.35                | 99.30   | 168.50  | 58.75   | 299.20                   | 222.65  | 294.40  | 212.00  |          |        |
| 22             | 159.50  | 225.75                                                    | 168.50  | 111.80  | 88.50                | 89.85   | 142.60  | 57.50   | 241.25                   | 209.00  | 299.20  | 215.00  |          |        |
| 23             | 194.00  | 183.50                                                    | 158.00  | 102.00  | 256.75               | 89.85   | 110.40  | 57.50   | 215.00                   | 278.45  | 294.40  | 203.00  |          |        |
| 24             | 168.50  | 195.50                                                    | 159.50  | 107.60  | 421.60               | 79.05   | 96.60   | 53.75   | 241.25                   | 292.80  | 253.65  | 218.00  |          |        |
| 25             | 176.00  | 164.00                                                    | 145.40  | 109.00  | 270.70               | 65.00   | 121.60  | 53.75   | 210.50                   | 294.40  | 286.40  | 244.35  |          |        |
| 26             | 149.60  | 189.50                                                    | 142.60  | 116.00  | 167.00               | 62.50   | 123.00  | 70.00   | 218.00                   | 300.80  | 307.20  | 224.20  |          |        |
| 27             | 142.60  | 182.00                                                    | 127.20  | 155.20  | 131.40               | 186.50  | 127.20  | 50.00   | 209.00                   | 288.00  | 294.40  | 241.25  |          |        |
| 28             | 139.80  | 203.00                                                    | 121.60  | 146.80  | 110.40               | 352.00  | 92.55   | 56.25   | 216.50                   | 288.00  | 276.90  | 245.90  |          |        |
| 29             | 134.20  | 176.00                                                    | 138.40  | 155.20  | 92.55                | 409.70  | 77.70   | 53.75   | 198.50                   | 291.20  |         | 239.70  |          |        |
| 30             | 139.80  | 180.50                                                    | 124.40  | 168.50  | 87.15                | 286.40  | 70.00   | 52.50   | 207.50                   | 296.00  |         | 231.95  |          |        |
| 31             |         | 198.50                                                    |         | 161.00  | 118.80               |         | 57.50   |         | 219.55                   | 266.05  |         | 228.85  |          |        |
| Total          | 4929.70 | 6488.85                                                   | 5592.60 | 4570.05 | 4722.00              | 4992.90 | 3205.45 | 1669.95 | 4927.15                  | 7304.40 | 8125.95 | 6954.30 | 63483.30 | CMSDAY |
| Mean           | 164.32  | 209.32                                                    | 186.42  | 147.42  | 152.32               | 166.43  | 103.40  | 55.67   | 158.94                   | 235.63  | 290.21  | 224.33  | 173.93   | CMS    |
| Max            | 203.00  | 284.80                                                    | 253.65  | 244.35  | 421.60               | 409.70  | 210.50  | 91.20   | 299.20                   | 300.80  | 321.60  | 283.20  | 421.60   | CMS    |
| Min            | 121.60  | 138.40                                                    | 121.60  | 102.00  | 76.35                | 62.50   | 42.50   | 40.00   | 53.75                    | 174.50  | 253.65  | 185.00  | 40.00    | CMS    |
| Runoff         | 425.93  | 560.64                                                    | 483.20  | 394.85  | 407.98               | 431.39  | 276.95  | 144.28  | 425.71                   | 631.10  | 702.08  | 600.85  | 5484.96  | MCM    |
| Momentary Peak | 435.20  | CMS. at 51.36 m. (MSL.) at 09.00 Hours , on Aug 24 , 2013 |         |         |                      |         |         |         |                          |         |         |         |          |        |
| Runoff Yield   | 9.43    | Liters/Second/Square KM.                                  |         |         | Momentary Peak Yield |         |         | 23.592  | Liters/Second/Square KM. |         |         |         |          |        |



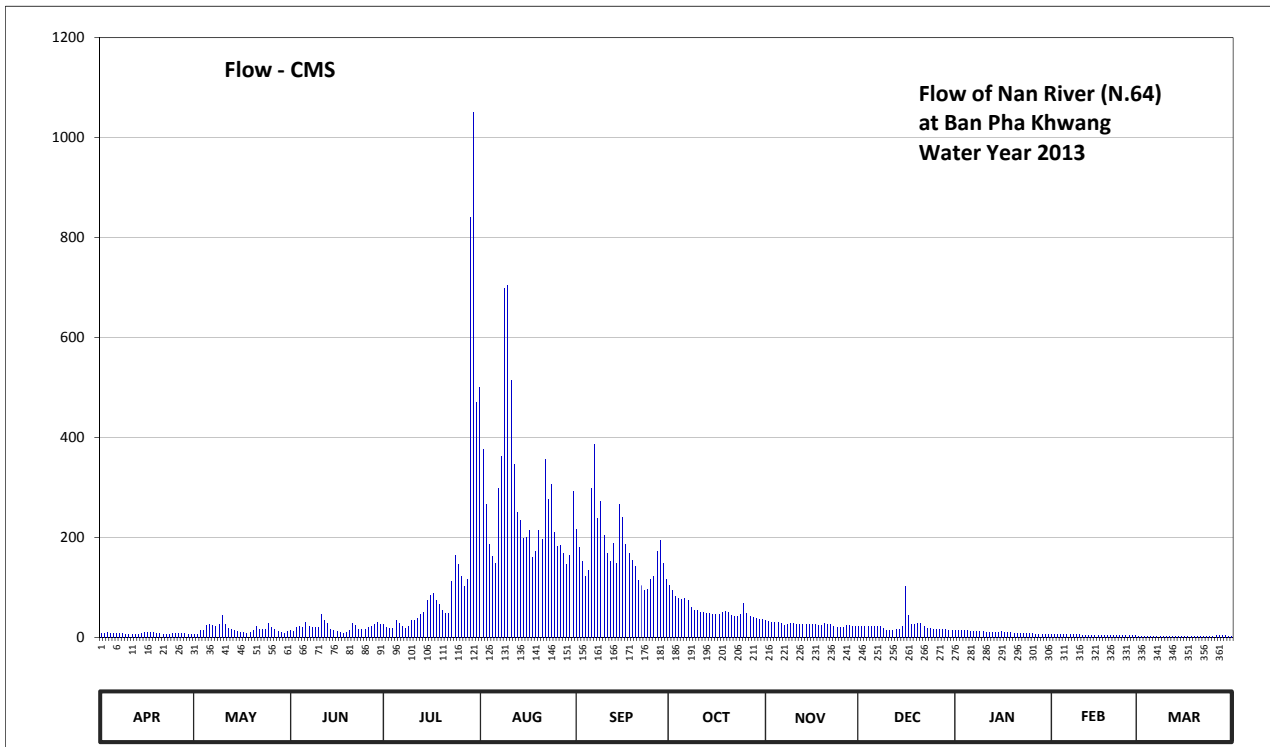


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|-------|----------------|
| 1              | 0.17                                                             | 0.02                     | 0.35   | 1.10                 | 5.61  | 2.58    | 36.16                    | 3.60  | 0.94  | 0.50  | 0.40  | 0.54  |                |
| 2              | 0.17                                                             | 0.00                     | 0.98   | 0.94                 | 3.96  | 5.28    | 30.40                    | 4.50  | 0.90  | 0.50  | 0.40  | 0.62  |                |
| 3              | 0.17                                                             | 0.66                     | 1.62   | 1.18                 | 1.78  | 3.12    | 24.02                    | 5.08  | 0.86  | 0.50  | 0.40  | 0.62  |                |
| 4              | 0.15                                                             | 1.18                     | 5.28   | 1.50                 | 1.50  | 2.10    | 9.45                     | 4.83  | 0.82  | 0.48  | 0.40  | 0.66  |                |
| 5              | 0.15                                                             | 0.48                     | 12.60  | 1.70                 | 1.30  | 2.28    | 7.16                     | 4.56  | 0.78  | 0.48  | 0.37  | 0.62  |                |
| 6              | 0.15                                                             | 0.37                     | 16.76  | 2.22                 | 1.26  | 4.56    | 5.80                     | 4.08  | 0.74  | 0.48  | 0.37  | 0.62  |                |
| 7              | 0.17                                                             | 0.28                     | 7.72   | 5.28                 | 1.02  | 5.47    | 5.22                     | 3.54  | 0.70  | 0.45  | 0.37  | 0.54  |                |
| 8              | 0.17                                                             | 0.37                     | 2.10   | 11.00                | 1.34  | 5.61    | 4.44                     | 2.94  | 0.70  | 0.45  | 0.37  | 0.54  |                |
| 9              | 0.20                                                             | 0.32                     | 1.74   | 5.80                 | 1.14  | 6.20    | 4.20                     | 2.64  | 0.70  | 0.45  | 0.37  | 0.50  |                |
| 10             | 0.20                                                             | 0.28                     | 2.22   | 11.60                | 1.90  | 6.84    | 4.02                     | 2.34  | 0.66  | 0.45  | 0.37  | 0.50  |                |
| 11             | 0.20                                                             | 0.43                     | 1.74   | 6.44                 | 2.22  | 7.80    | 4.26                     | 1.98  | 0.62  | 0.48  | 0.40  | 0.48  |                |
| 12             | 0.20                                                             | 0.62                     | 2.02   | 2.58                 | 2.22  | 8.92    | 4.32                     | 1.66  | 0.62  | 0.48  | 0.40  | 0.48  |                |
| 13             | 0.20                                                             | 0.86                     | 3.66   | 1.94                 | 2.40  | 13.68   | 4.50                     | 1.30  | 0.58  | 0.48  | 0.40  | 0.50  |                |
| 14             | 0.17                                                             | 0.98                     | 4.32   | 1.94                 | 2.58  | 14.78   | 4.32                     | 1.10  | 0.58  | 0.45  | 0.43  | 0.50  |                |
| 15             | 0.17                                                             | 1.06                     | 4.20   | 1.74                 | 3.00  | 13.46   | 4.56                     | 1.02  | 0.54  | 0.45  | 0.43  | 0.54  |                |
| 16             | 0.17                                                             | 1.02                     | 3.00   | 2.10                 | 4.38  | 11.40   | 4.20                     | 1.38  | 0.54  | 0.45  | 0.43  | 0.54  |                |
| 17             | 0.17                                                             | 1.50                     | 1.58   | 2.06                 | 7.32  | 10.62   | 1.54                     | 1.54  | 0.78  | 0.45  | 0.45  | 0.62  |                |
| 18             | 0.17                                                             | 2.02                     | 1.22   | 1.02                 | 3.18  | 14.34   | 4.50                     | 1.58  | 0.98  | 0.45  | 0.45  | 0.62  |                |
| 19             | 0.15                                                             | 3.00                     | 4.26   | 1.90                 | 2.10  | 19.24   | 7.24                     | 1.82  | 0.90  | 0.43  | 0.48  | 0.74  |                |
| 20             | 0.15                                                             | 3.66                     | 2.64   | 1.74                 | 1.66  | 15.99   | 7.80                     | 2.10  | 0.90  | 0.43  | 0.48  | 0.74  |                |
| 21             | 0.15                                                             | 7.72                     | 4.89   | 0.94                 | 1.34  | 15.44   | 6.52                     | 1.90  | 0.82  | 0.43  | 0.48  | 0.86  |                |
| 22             | 0.15                                                             | 5.80                     | 5.08   | 1.18                 | 1.90  | 14.45   | 5.74                     | 1.70  | 0.78  | 0.43  | 0.48  | 0.98  |                |
| 23             | 0.15                                                             | 5.61                     | 5.47   | 1.34                 | 3.42  | 12.91   | 5.54                     | 1.54  | 0.74  | 0.43  | 0.48  | 1.18  |                |
| 24             | 0.15                                                             | 5.67                     | 5.47   | 1.38                 | 8.76  | 6.92    | 5.22                     | 1.50  | 0.70  | 0.43  | 0.54  | 1.38  |                |
| 25             | 0.13                                                             | 4.14                     | 4.89   | 1.62                 | 7.48  | 6.76    | 4.95                     | 1.34  | 0.70  | 0.43  | 0.54  | 1.46  |                |
| 26             | 0.10                                                             | 2.76                     | 7.56   | 0.94                 | 3.48  | 15.00   | 4.50                     | 1.46  | 0.66  | 0.40  | 0.54  | 1.58  |                |
| 27             | 0.07                                                             | 1.82                     | 8.60   | 1.50                 | 2.64  | 24.93   | 4.02                     | 1.30  | 0.66  | 0.40  | 0.54  | 1.58  |                |
| 28             | 0.02                                                             | 1.50                     | 7.96   | 1.90                 | 2.52  | 47.99   | 3.72                     | 1.14  | 0.62  | 0.40  | 0.54  | 1.54  |                |
| 29             | 0.00                                                             | 0.86                     | 7.72   | 1.30                 | 4.95  | 50.27   | 3.36                     | 1.06  | 0.62  | 0.40  |       | 1.50  |                |
| 30             | 0.00                                                             | 0.35                     | 7.40   | 7.80                 | 3.30  | 39.01   | 3.00                     | 0.94  | 0.58  | 0.40  |       | 1.50  |                |
| 31             |                                                                  | 0.25                     |        | 7.56                 | 2.64  |         | 2.76                     |       | 0.54  | 0.40  |       | 1.46  |                |
| Total          | 4.37                                                             | 55.59                    | 145.05 | 93.24                | 94.30 | 407.95  | 227.44                   | 67.47 | 22.26 | 13.84 | 12.31 | 26.54 | 1170.36 CMSDAY |
| Mean           | 0.15                                                             | 1.79                     | 4.84   | 3.01                 | 3.04  | 13.60   | 7.34                     | 2.25  | 0.72  | 0.45  | 0.44  | 0.86  | 3.21 CMS       |
| Max            | 0.20                                                             | 7.72                     | 16.76  | 11.60                | 8.76  | 50.27   | 36.16                    | 5.08  | 0.98  | 0.50  | 0.54  | 1.58  | 50.27 CMS      |
| Min            | 0.00                                                             | 0.00                     | 0.35   | 0.94                 | 1.02  | 2.10    | 1.54                     | 0.94  | 0.54  | 0.40  | 0.37  | 0.48  | 0.00 CMS       |
| Runoff         | 0.38                                                             | 4.80                     | 12.53  | 8.06                 | 8.15  | 35.25   | 19.65                    | 5.83  | 1.92  | 1.20  | 1.06  | 2.29  | 101.12 MCM     |
| Momentary Peak | 53.80 CMS. at 195.51 m. (MSL.) at 06.00 Hours , on Sep 29 , 2013 |                          |        |                      |       |         |                          |       |       |       |       |       |                |
| Runoff Yield   | 9.08                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |       | 152.408 | Liters/Second/Square KM. |       |       |       |       |       |                |







Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May    | Jun                      | Jul     | Aug     | Sep                  | Oct     | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|------------------------------------------------------------------|--------|--------------------------|---------|---------|----------------------|---------|--------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 8.50                                                             | 7.15   | 14.45                    | 27.45   | 499.30  | 218.05               | 105.70  | 35.05  | 23.65                    | 15.30  | 7.15   | 2.88   |          |        |
| 2              | 9.35                                                             | 7.60   | 13.60                    | 21.75   | 376.40  | 180.25               | 94.00   | 33.15  | 22.70                    | 14.45  | 7.15   | 3.72   |          |        |
| 3              | 11.05                                                            | 15.30  | 20.80                    | 19.85   | 266.65  | 151.90               | 82.30   | 31.25  | 22.70                    | 14.45  | 7.15   | 3.72   |          |        |
| 4              | 9.35                                                             | 15.30  | 22.70                    | 19.85   | 187.00  | 123.90               | 78.55   | 30.30  | 22.70                    | 14.45  | 6.70   | 3.72   |          |        |
| 5              | 9.35                                                             | 25.55  | 20.80                    | 35.05   | 162.70  | 134.35               | 77.33   | 30.30  | 22.70                    | 14.45  | 6.70   | 3.72   |          |        |
| 6              | 8.50                                                             | 27.45  | 31.25                    | 28.40   | 149.20  | 299.50               | 78.55   | 28.40  | 22.70                    | 13.60  | 6.70   | 3.44   |          |        |
| 7              | 8.50                                                             | 24.60  | 23.65                    | 23.65   | 298.00  | 386.00               | 74.88   | 24.60  | 22.70                    | 12.75  | 6.25   | 3.44   |          |        |
| 8              | 8.05                                                             | 22.70  | 21.75                    | 19.85   | 362.50  | 239.65               | 61.40   | 26.50  | 22.70                    | 13.60  | 6.25   | 3.16   |          |        |
| 9              | 7.60                                                             | 27.45  | 20.80                    | 23.65   | 698.20  | 273.40               | 55.48   | 28.40  | 18.90                    | 12.75  | 6.25   | 3.16   |          |        |
| 10             | 7.60                                                             | 44.20  | 21.75                    | 34.10   | 703.30  | 205.90               | 54.45   | 28.40  | 15.30                    | 12.75  | 6.25   | 3.16   |          |        |
| 11             | 7.60                                                             | 26.50  | 47.28                    | 34.10   | 514.60  | 169.45               | 51.37   | 26.50  | 15.30                    | 11.90  | 5.35   | 3.16   |          |        |
| 12             | 7.60                                                             | 19.85  | 34.10                    | 39.07   | 346.00  | 153.25               | 51.37   | 27.45  | 15.30                    | 11.90  | 5.35   | 2.88   |          |        |
| 13             | 7.60                                                             | 17.00  | 28.40                    | 47.28   | 250.45  | 189.70               | 49.33   | 27.45  | 16.15                    | 11.05  | 5.35   | 2.88   |          |        |
| 14             | 8.05                                                             | 15.30  | 17.00                    | 51.37   | 234.25  | 149.20               | 48.30   | 27.45  | 16.15                    | 11.05  | 4.90   | 3.16   |          |        |
| 15             | 10.20                                                            | 12.75  | 14.45                    | 74.88   | 199.15  | 268.00               | 46.25   | 26.50  | 22.70                    | 11.90  | 4.90   | 3.16   |          |        |
| 16             | 10.20                                                            | 11.90  | 12.75                    | 84.90   | 201.85  | 241.00               | 46.25   | 26.50  | 103.10                   | 12.75  | 4.90   | 2.88   |          |        |
| 17             | 11.05                                                            | 11.05  | 10.20                    | 88.80   | 215.35  | 187.00               | 47.28   | 26.50  | 45.22                    | 10.20  | 4.90   | 2.88   |          |        |
| 18             | 10.20                                                            | 8.50   | 9.35                     | 74.88   | 160.00  | 168.10               | 51.37   | 25.55  | 26.50                    | 10.20  | 4.90   | 2.60   |          |        |
| 19             | 8.50                                                             | 10.20  | 10.20                    | 67.52   | 172.15  | 155.95               | 53.43   | 25.55  | 27.45                    | 10.20  | 4.90   | 2.60   |          |        |
| 20             | 8.05                                                             | 14.45  | 14.45                    | 54.45   | 215.35  | 143.80               | 50.35   | 28.40  | 29.35                    | 9.35   | 4.45   | 2.60   |          |        |
| 21             | 7.60                                                             | 22.70  | 29.35                    | 48.30   | 196.45  | 114.80               | 44.20   | 27.45  | 28.40                    | 8.50   | 4.00   | 2.60   |          |        |
| 22             | 7.60                                                             | 17.00  | 25.55                    | 49.33   | 358.00  | 104.40               | 43.18   | 26.50  | 23.65                    | 8.50   | 4.00   | 2.60   |          |        |
| 23             | 7.60                                                             | 17.95  | 17.00                    | 113.50  | 276.10  | 94.00                | 43.18   | 22.70  | 19.85                    | 8.50   | 4.00   | 2.60   |          |        |
| 24             | 8.05                                                             | 17.95  | 16.15                    | 165.40  | 307.00  | 97.90                | 47.28   | 21.75  | 18.90                    | 8.50   | 4.00   | 2.88   |          |        |
| 25             | 8.05                                                             | 29.35  | 16.15                    | 146.50  | 211.30  | 116.10               | 68.75   | 20.80  | 17.00                    | 8.05   | 4.00   | 2.88   |          |        |
| 26             | 8.50                                                             | 20.80  | 20.80                    | 122.60  | 182.95  | 122.60               | 48.30   | 20.80  | 17.00                    | 8.05   | 4.00   | 4.45   |          |        |
| 27             | 8.50                                                             | 17.00  | 22.70                    | 103.10  | 184.30  | 172.15               | 43.18   | 24.60  | 17.00                    | 7.60   | 4.00   | 4.45   |          |        |
| 28             | 8.05                                                             | 13.60  | 26.50                    | 116.10  | 168.10  | 195.10               | 40.10   | 24.60  | 16.15                    | 7.60   | 4.00   | 4.45   |          |        |
| 29             | 7.15                                                             | 11.05  | 30.30                    | 840.60  | 147.85  | 149.20               | 38.05   | 23.65  | 16.15                    | 7.60   |        | 4.00   |          |        |
| 30             | 7.15                                                             | 9.35   | 27.45                    | 1049.60 | 164.05  | 117.40               | 36.00   | 23.65  | 15.30                    | 7.60   |        | 3.72   |          |        |
| 31             |                                                                  | 12.75  |                          | 470.40  | 292.30  |                      | 36.00   |        | 15.30                    | 7.15   |        | 3.44   |          |        |
| Total          | 255.15                                                           | 554.30 | 641.68                   | 4096.28 | 8700.80 | 5322.00              | 1746.16 | 800.70 | 738.67                   | 336.70 | 148.45 | 100.99 | 23441.88 | CMSDAY |
| Mean           | 8.51                                                             | 17.88  | 21.39                    | 132.14  | 280.67  | 177.40               | 56.33   | 26.69  | 23.83                    | 10.86  | 5.30   | 3.26   | 64.22    | CMS    |
| Max            | 11.05                                                            | 44.20  | 47.28                    | 1049.60 | 703.30  | 386.00               | 105.70  | 35.05  | 103.10                   | 15.30  | 7.15   | 4.45   | 1049.60  | CMS    |
| Min            | 7.15                                                             | 7.15   | 9.35                     | 19.85   | 147.85  | 94.00                | 36.00   | 20.80  | 15.30                    | 7.15   | 4.00   | 2.60   | 2.60     | CMS    |
| Runoff         | 22.05                                                            | 47.89  | 55.44                    | 353.92  | 751.75  | 459.82               | 150.87  | 69.18  | 63.82                    | 29.09  | 12.83  | 8.73   | 2025.38  | MCM    |
| Momentary Peak | 1330.80 CMS. at 219.82 m. (MSL.) at 01.00 Hours , on Jul 3, 2013 |        |                          |         |         |                      |         |        |                          |        |        |        |          |        |
| Runoff Yield   | 18.48                                                            |        | Liters/Second/Square KM. |         |         | Momentary Peak Yield | 382.854 |        | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**

**NAN RIVER BASIN**

**Nam Yao at Ban Pang Sa , Nan (N.65)**

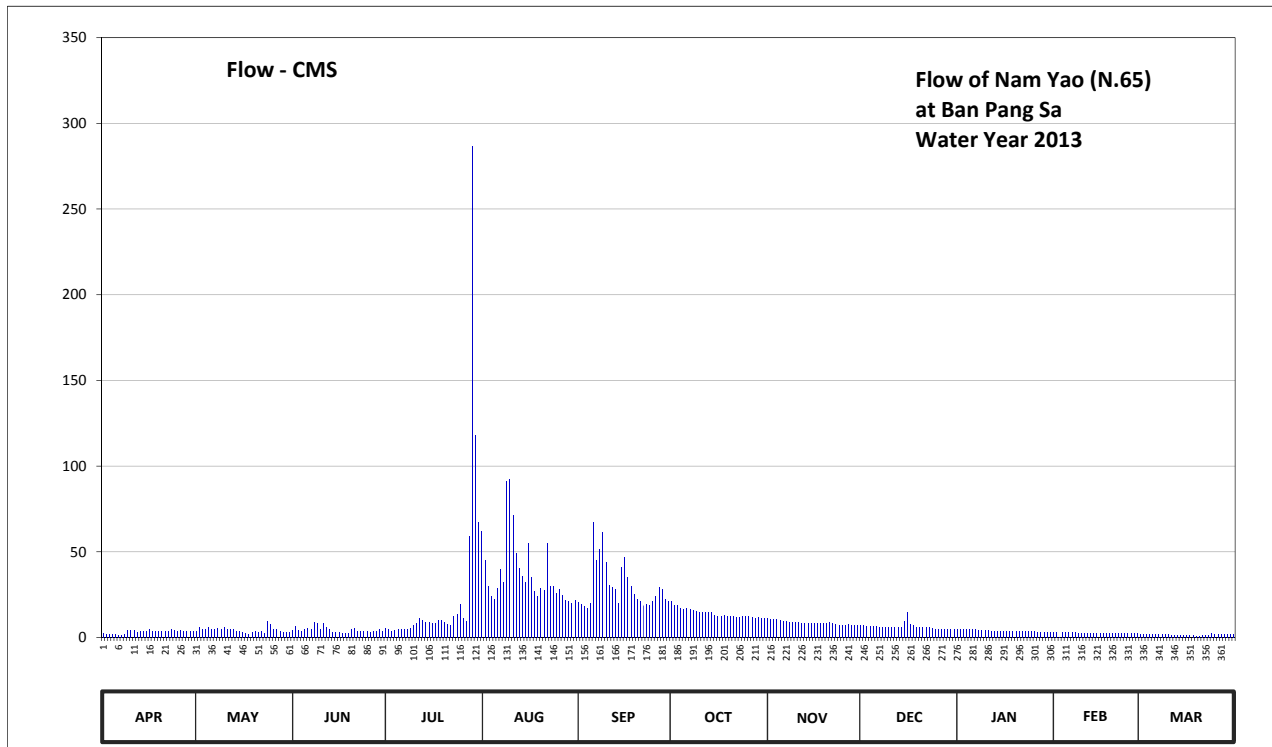
Lat 19 - 13 - 47 N    Long 100 - 45 - 27 E

**Location : on right bank at the bridge on highway.**

|                                         |                                                                                           |           |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Pang Sa   | <b>Amphoe</b> | Tha Wang Pha | <b>Changwat</b>  | Nan                |
| <b>Drainage Area</b>                    | 621                                                                                       | sq.km.    |               |              |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |           |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +248.891                                                                                  | m. (MSL.) |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |           |               |              |                  |                    |
| <b>Location BM</b>                      | On right bank about 20 meters from the top staff gage.                                    |           |               |              | <b>Elevation</b> | +257.381 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |           |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |              |                  |                    |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |           |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |           |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |              |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 44 discharge measurements made in 2013. |           |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 249.50 | 249.55 | 249.56                                          | 249.60 | 250.75 | 249.99 | 250.01 | 249.75 | 249.64 | 249.58 | 249.53 | 249.48 |        |
| 2                                | 249.47 | 249.62 | 249.63                                          | 249.58 | 250.45 | 249.96 | 249.94 | 249.74 | 249.64 | 249.58 | 249.53 | 249.48 |        |
| 3                                | 249.46 | 249.59 | 249.56                                          | 249.55 | 250.18 | 249.93 | 249.94 | 249.74 | 249.63 | 249.57 | 249.31 | 249.47 |        |
| 4                                | 249.46 | 249.58 | 249.55                                          | 249.56 | 250.06 | 249.91 | 249.91 | 249.74 | 249.63 | 249.57 | 249.52 | 249.47 |        |
| 5                                | 249.45 | 249.62 | 249.58                                          | 249.57 | 250.03 | 249.98 | 249.89 | 249.72 | 249.63 | 249.57 | 249.52 | 249.47 |        |
| 6                                | 249.44 | 249.59 | 249.60                                          | 249.59 | 250.16 | 250.85 | 249.90 | 249.71 | 249.63 | 249.57 | 249.52 | 249.46 |        |
| 7                                | 249.44 | 249.59 | 249.57                                          | 249.58 | 250.36 | 250.45 | 249.89 | 249.70 | 249.62 | 249.57 | 249.52 | 249.46 |        |
| 8                                | 249.45 | 249.60 | 249.69                                          | 249.58 | 250.22 | 250.57 | 249.88 | 249.69 | 249.62 | 249.56 | 249.52 | 249.46 |        |
| 9                                | 249.56 | 249.58 | 249.67                                          | 249.60 | 251.25 | 250.74 | 249.86 | 249.69 | 249.62 | 249.56 | 249.51 | 249.46 |        |
| 10                               | 249.56 | 249.61 | 249.59                                          | 249.64 | 251.27 | 250.43 | 249.84 | 249.69 | 249.62 | 249.56 | 249.51 | 249.46 |        |
| 11                               | 249.56 | 249.57 | 249.68                                          | 249.68 | 250.92 | 250.19 | 249.84 | 249.69 | 249.61 | 249.56 | 249.51 | 249.44 |        |
| 12                               | 249.52 | 249.57 | 249.62                                          | 249.76 | 250.53 | 250.17 | 249.84 | 249.68 | 249.61 | 249.55 | 249.51 | 249.43 |        |
| 13                               | 249.55 | 249.57 | 249.57                                          | 249.73 | 250.37 | 250.14 | 249.84 | 249.68 | 249.61 | 249.55 | 249.51 | 249.43 |        |
| 14                               | 249.54 | 249.55 | 249.53                                          | 249.69 | 250.29 | 249.97 | 249.84 | 249.67 | 249.61 | 249.55 | 249.51 | 249.43 |        |
| 15                               | 249.55 | 249.54 | 249.53                                          | 249.69 | 250.22 | 250.38 | 249.80 | 249.67 | 249.71 | 249.55 | 249.51 | 249.43 |        |
| 16                               | 249.57 | 249.53 | 249.52                                          | 249.68 | 250.63 | 250.48 | 249.78 | 249.67 | 249.84 | 249.55 | 249.51 | 249.42 |        |
| 17                               | 249.55 | 249.49 | 249.51                                          | 249.68 | 250.28 | 250.28 | 249.79 | 249.67 | 249.66 | 249.55 | 249.51 | 249.42 |        |
| 18                               | 249.55 | 249.48 | 249.50                                          | 249.72 | 250.12 | 250.18 | 249.80 | 249.67 | 249.65 | 249.55 | 249.51 | 249.41 |        |
| 19                               | 249.54 | 249.52 | 249.50                                          | 249.73 | 250.06 | 250.09 | 249.79 | 249.67 | 249.62 | 249.54 | 249.50 | 249.40 |        |
| 20                               | 249.54 | 249.55 | 249.58                                          | 249.69 | 250.16 | 250.03 | 249.79 | 249.68 | 249.62 | 249.54 | 249.50 | 249.40 |        |
| 21                               | 249.54 | 249.53 | 249.60                                          | 249.66 | 250.13 | 250.01 | 249.78 | 249.69 | 249.61 | 249.54 | 249.50 | 249.43 |        |
| 22                               | 249.54 | 249.54 | 249.54                                          | 249.65 | 250.63 | 249.94 | 249.77 | 249.68 | 249.61 | 249.54 | 249.50 | 249.42 |        |
| 23                               | 249.58 | 249.51 | 249.55                                          | 249.78 | 250.18 | 249.96 | 249.77 | 249.66 | 249.61 | 249.54 | 249.49 | 249.41 |        |
| 24                               | 249.56 | 249.70 | 249.54                                          | 249.81 | 250.18 | 249.95 | 249.79 | 249.65 | 249.60 | 249.54 | 249.49 | 249.49 |        |
| 25                               | 249.55 | 249.66 | 249.54                                          | 249.96 | 250.10 | 250.00 | 249.79 | 249.65 | 249.59 | 249.54 | 249.49 | 249.48 |        |
| 26                               | 249.56 | 249.59 | 249.52                                          | 249.75 | 250.14 | 250.06 | 249.78 | 249.65 | 249.59 | 249.54 | 249.49 | 249.47 |        |
| 27                               | 249.55 | 249.57 | 249.54                                          | 249.70 | 250.08 | 250.17 | 249.77 | 249.66 | 249.59 | 249.53 | 249.49 | 249.46 |        |
| 28                               | 249.55 | 249.54 | 249.55                                          | 250.70 | 250.02 | 250.14 | 249.76 | 249.65 | 249.59 | 249.53 | 249.49 | 249.46 |        |
| 29                               | 249.54 | 249.53 | 249.57                                          | 253.98 | 250.00 | 250.03 | 249.77 | 249.65 | 249.58 | 249.53 |        | 249.46 |        |
| 30                               | 249.54 | 249.53 | 249.55                                          | 251.69 | 249.98 | 250.00 | 249.76 | 249.65 | 249.58 | 249.53 |        | 249.46 |        |
| 31                               |        | 249.53 |                                                 | 250.85 | 250.02 |        | 249.76 |        | 249.57 | 249.53 |        | 249.46 |        |
| Mean                             | 249.53 | 249.57 | 249.57                                          | 249.95 | 250.32 | 250.17 | 249.83 | 249.68 | 249.62 | 249.55 | 249.50 | 249.45 |        |
| Max                              | 249.58 | 249.70 | 249.69                                          | 253.98 | 251.27 | 250.85 | 250.01 | 249.75 | 249.84 | 249.58 | 249.53 | 249.49 | 253.98 |
| Min                              | 249.44 | 249.48 | 249.50                                          | 249.55 | 249.98 | 249.91 | 249.76 | 249.65 | 249.57 | 249.53 | 249.31 | 249.40 | 249.31 |
| Annual Max Momentary Gage Height |        | 255.41 | m. (MSL.) , at 10.00 Hours , on Jul 29 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 248.89 | m. (MSL.) , River Bed 249.05 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |        | 256.72 | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |        | 256.70 | m. (MSL.) , Drainage Area 621 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|-------|-------|----------------|
| 1              | 2.50                                                              | 4.00                     | 4.30   | 5.50                 | 61.87   | 20.61   | 21.50                    | 11.20  | 7.02   | 4.90   | 3.40  | 2.20  |                |
| 2              | 2.05                                                              | 6.26                     | 6.64   | 4.90                 | 45.00   | 19.42   | 18.63                    | 10.82  | 7.02   | 4.90   | 3.40  | 2.20  |                |
| 3              | 1.90                                                              | 5.20                     | 4.30   | 4.00                 | 30.00   | 18.23   | 18.63                    | 10.82  | 6.64   | 4.60   | 0.37  | 2.05  |                |
| 4              | 1.90                                                              | 4.90                     | 4.00   | 4.30                 | 24.00   | 17.45   | 17.45                    | 10.82  | 6.64   | 4.60   | 3.10  | 2.05  |                |
| 5              | 1.75                                                              | 6.26                     | 4.90   | 4.60                 | 22.50   | 20.21   | 16.65                    | 10.06  | 6.64   | 4.60   | 3.10  | 2.05  |                |
| 6              | 1.60                                                              | 5.20                     | 5.50   | 5.20                 | 29.00   | 67.53   | 17.05                    | 9.68   | 6.64   | 4.60   | 3.10  | 1.90  |                |
| 7              | 1.60                                                              | 5.20                     | 4.60   | 4.90                 | 39.96   | 45.00   | 16.65                    | 9.30   | 6.26   | 4.60   | 3.10  | 1.90  |                |
| 8              | 1.75                                                              | 5.50                     | 8.92   | 4.90                 | 32.12   | 51.72   | 16.26                    | 8.92   | 6.26   | 4.30   | 3.10  | 1.90  |                |
| 9              | 4.30                                                              | 4.90                     | 8.16   | 5.50                 | 91.25   | 61.31   | 15.47                    | 8.92   | 6.26   | 4.30   | 2.80  | 1.90  |                |
| 10             | 4.30                                                              | 5.88                     | 5.20   | 7.02                 | 92.47   | 43.88   | 14.68                    | 8.92   | 6.26   | 4.30   | 2.80  | 1.90  |                |
| 11             | 4.30                                                              | 4.60                     | 8.54   | 8.54                 | 71.48   | 30.50   | 14.68                    | 8.92   | 5.88   | 4.30   | 2.80  | 1.60  |                |
| 12             | 3.10                                                              | 4.60                     | 6.26   | 11.58                | 49.48   | 29.50   | 14.68                    | 8.54   | 5.88   | 4.00   | 2.80  | 1.45  |                |
| 13             | 4.00                                                              | 4.60                     | 4.60   | 10.44                | 40.52   | 28.00   | 14.68                    | 8.54   | 5.88   | 4.00   | 2.80  | 1.45  |                |
| 14             | 3.70                                                              | 4.00                     | 3.40   | 8.92                 | 36.04   | 19.82   | 14.68                    | 8.16   | 5.88   | 4.00   | 2.80  | 1.45  |                |
| 15             | 4.00                                                              | 3.70                     | 3.40   | 8.92                 | 32.12   | 41.08   | 13.10                    | 8.16   | 9.68   | 4.00   | 2.80  | 1.45  |                |
| 16             | 4.60                                                              | 3.40                     | 3.10   | 8.54                 | 55.09   | 46.68   | 12.34                    | 8.16   | 14.68  | 4.00   | 2.80  | 1.30  |                |
| 17             | 4.00                                                              | 2.35                     | 2.80   | 8.54                 | 35.48   | 35.48   | 12.72                    | 8.16   | 7.78   | 4.00   | 2.80  | 1.30  |                |
| 18             | 4.00                                                              | 2.20                     | 2.50   | 10.06                | 27.00   | 30.00   | 13.10                    | 8.16   | 7.40   | 4.00   | 2.80  | 1.15  |                |
| 19             | 3.70                                                              | 3.10                     | 2.50   | 10.44                | 24.00   | 25.50   | 12.72                    | 8.16   | 6.26   | 3.70   | 2.50  | 1.00  |                |
| 20             | 3.70                                                              | 4.00                     | 4.90   | 8.92                 | 29.00   | 22.50   | 12.72                    | 8.54   | 6.26   | 3.70   | 2.50  | 1.00  |                |
| 21             | 3.70                                                              | 3.40                     | 5.50   | 7.78                 | 27.50   | 21.50   | 12.34                    | 8.92   | 5.88   | 3.70   | 2.50  | 1.45  |                |
| 22             | 3.70                                                              | 3.70                     | 3.70   | 7.40                 | 55.09   | 18.63   | 11.96                    | 8.54   | 5.88   | 3.70   | 2.50  | 1.30  |                |
| 23             | 4.90                                                              | 2.80                     | 4.00   | 12.34                | 30.00   | 19.42   | 11.96                    | 7.78   | 5.88   | 3.70   | 2.35  | 1.15  |                |
| 24             | 4.30                                                              | 9.30                     | 3.70   | 13.49                | 30.00   | 19.02   | 12.72                    | 7.40   | 5.50   | 3.70   | 2.35  | 2.35  |                |
| 25             | 4.00                                                              | 7.78                     | 3.70   | 19.42                | 26.00   | 21.00   | 12.72                    | 7.40   | 5.20   | 3.70   | 2.35  | 2.20  |                |
| 26             | 4.30                                                              | 5.20                     | 3.10   | 11.20                | 28.00   | 24.00   | 12.34                    | 7.40   | 5.20   | 3.70   | 2.35  | 2.05  |                |
| 27             | 4.00                                                              | 4.60                     | 3.70   | 9.30                 | 25.00   | 29.50   | 11.96                    | 7.78   | 5.20   | 3.40   | 2.35  | 1.90  |                |
| 28             | 4.00                                                              | 3.70                     | 4.00   | 59.05                | 22.00   | 28.00   | 11.58                    | 7.40   | 5.20   | 3.40   | 2.35  | 1.90  |                |
| 29             | 3.70                                                              | 3.40                     | 4.60   | 286.44               | 21.00   | 22.50   | 11.96                    | 7.40   | 4.90   | 3.40   |       | 1.90  |                |
| 30             | 3.70                                                              | 3.40                     | 4.00   | 118.09               | 20.21   | 21.00   | 11.58                    | 7.40   | 4.90   | 3.40   |       | 1.90  |                |
| 31             |                                                                   | 3.40                     |        | 67.53                | 22.00   |         | 11.58                    |        | 4.60   | 3.40   |       | 1.90  |                |
| Total          | 103.05                                                            | 140.53                   | 138.52 | 757.76               | 1175.18 | 898.99  | 441.09                   | 260.38 | 199.56 | 124.60 | 74.77 | 53.20 | 4367.63 CMSDAY |
| Mean           | 3.44                                                              | 4.53                     | 4.62   | 24.44                | 37.91   | 29.97   | 14.23                    | 8.68   | 6.44   | 4.02   | 2.67  | 1.72  | 11.97 CMS      |
| Max            | 4.90                                                              | 9.30                     | 8.92   | 286.44               | 92.47   | 67.53   | 21.50                    | 11.20  | 14.68  | 4.90   | 3.40  | 2.35  | 286.44 CMS     |
| Min            | 1.60                                                              | 2.20                     | 2.50   | 4.00                 | 20.21   | 17.45   | 11.58                    | 7.40   | 4.60   | 3.40   | 0.37  | 1.00  | 0.37 CMS       |
| Runoff         | 8.90                                                              | 12.14                    | 11.97  | 65.47                | 101.54  | 77.67   | 38.11                    | 22.50  | 17.24  | 10.77  | 6.46  | 4.60  | 377.36 MCM     |
| Momentary Peak | 408.08 CMS. at 255.41 m. (MSL.) at 10.00 Hours , on Jul 29 , 2013 |                          |        |                      |         |         |                          |        |        |        |       |       |                |
| Runoff Yield   | 19.27                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 657.134 | Liters/Second/Square KM. |        |        |        |       |       |                |

**WATER YEAR : 2013****NAN RIVER BASIN****Huai Om Sing at Ban Noen Phoem , Phitsanulok (N.66)**

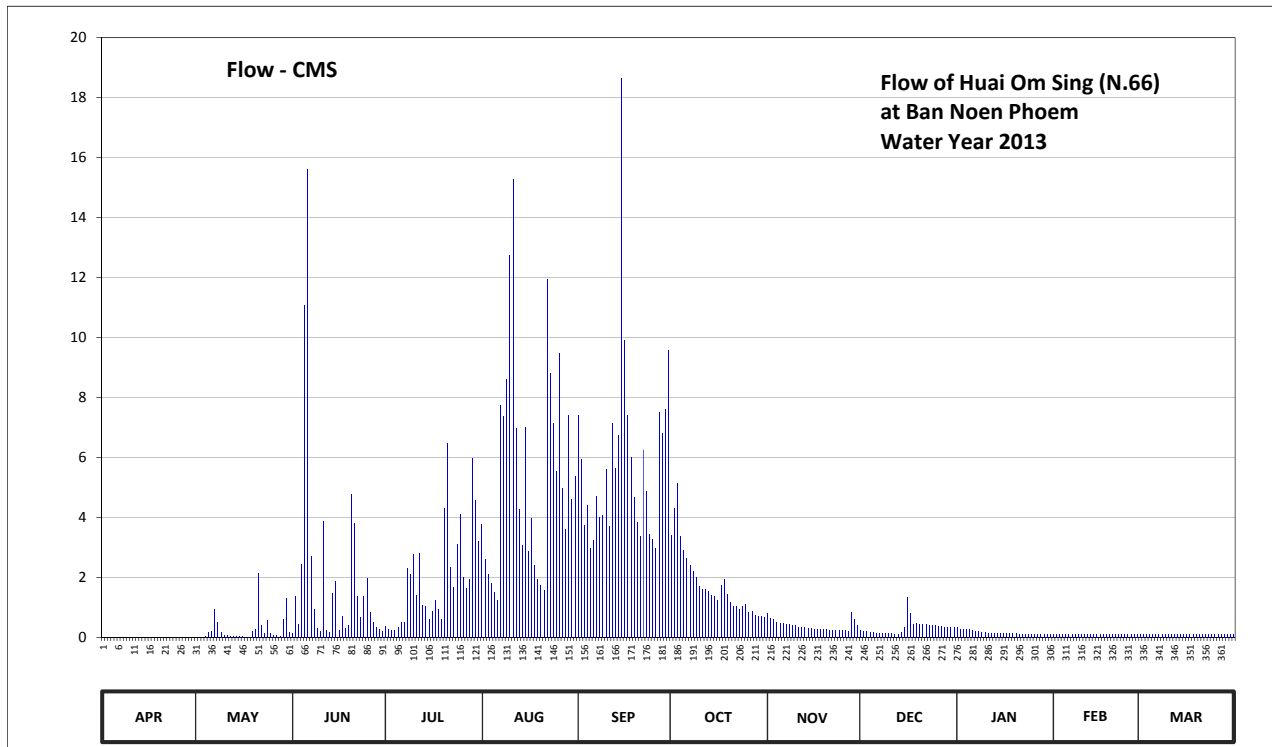
Lat 17 - 07 - 22 N Long 100 - 53 - 58 E

**Location : on right bank at Ban Om Sing.**

|                                         |                                                                                           |            |               |             |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Noen Phoem | <b>Amphoe</b> | Nakhon Thai | <b>Changwat</b>  | Phitsanulok        |
| <b>Drainage Area</b>                    | 152                                                                                       | sq.km.     |               |             |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |             |                  |                    |
| <b>Zero Gage at Bottom</b>              | +201.220                                                                                  | m. (MSL.)  |               |             |                  |                    |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |            |               |             |                  |                    |
| <b>Location BM</b>                      | On right bank about 8 meters from the top staff gage.                                     |            |               |             | <b>Elevation</b> | +208.617 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |            |               |             |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |            |               |             |                  |                    |
| <b>Period of Available Gage Records</b> | 1995 to date                                                                              |            |               |             |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |            |               |             |                  |                    |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |            |               |             |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |             |                  |                    |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |            |               |             |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable with variable water surface slope.                                          |            |               |             |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |             |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 18 discharge measurements made in 2013. |            |               |             |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug    | Sep           | Oct                               | Nov               | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|--------|---------------|-----------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1                                | 202.20 | 202.20 | 202.45      | 202.64 | 203.82 | 204.74        | 203.72                            | 202.84            | 202.54 | 202.62 | 202.42 | 202.42 |        |
| 2                                | 202.20 | 202.20 | 203.04      | 202.58 | 203.46 | 204.41        | 203.98                            | 202.78            | 202.52 | 202.60 | 202.42 | 202.42 |        |
| 3                                | 202.20 | 202.16 | 202.67      | 202.55 | 203.29 | 203.81        | 204.21                            | 202.76            | 202.50 | 202.59 | 202.42 | 202.42 |        |
| 4                                | 202.20 | 202.32 | 203.40      | 202.54 | 203.19 | 204.00        | 203.71                            | 202.71            | 202.48 | 202.58 | 202.42 | 202.42 |        |
| 5                                | 202.20 | 202.47 | 205.44      | 202.62 | 203.09 | 203.58        | 203.55                            | 202.69            | 202.47 | 202.57 | 202.42 | 202.42 |        |
| 6                                | 202.20 | 202.51 | 206.22      | 202.70 | 203.00 | 203.67        | 203.47                            | 202.69            | 202.46 | 202.55 | 202.42 | 202.42 |        |
| 7                                | 202.20 | 202.90 | 203.49      | 202.70 | 204.81 | 204.09        | 203.39                            | 202.68            | 202.45 | 202.53 | 202.42 | 202.42 |        |
| 8                                | 202.20 | 202.70 | 202.89      | 203.36 | 204.73 | 203.89        | 203.32                            | 202.67            | 202.45 | 202.51 | 202.42 | 202.42 |        |
| 9                                | 202.20 | 202.47 | 202.61      | 203.29 | 204.98 | 203.91        | 203.25                            | 202.66            | 202.44 | 202.49 | 202.42 | 202.42 |        |
| 10                               | 202.20 | 202.38 | 202.52      | 203.51 | 205.74 | 204.33        | 203.15                            | 202.65            | 202.43 | 202.47 | 202.42 | 202.42 |        |
| 11                               | 202.20 | 202.34 | 203.85      | 203.05 | 206.16 | 203.80        | 203.12                            | 202.63            | 202.43 | 202.45 | 202.42 | 202.42 |        |
| 12                               | 202.20 | 202.32 | 202.54      | 203.52 | 204.64 | 204.68        | 203.12                            | 202.62            | 202.42 | 202.44 | 202.42 | 202.42 |        |
| 13                               | 202.20 | 202.30 | 202.47      | 202.94 | 203.97 | 204.34        | 203.10                            | 202.62            | 202.42 | 202.44 | 202.42 | 202.42 |        |
| 14                               | 202.20 | 202.29 | 203.08      | 202.93 | 203.61 | 204.59        | 203.06                            | 202.61            | 202.49 | 202.44 | 202.42 | 202.42 |        |
| 15                               | 202.20 | 202.28 | 203.21      | 202.76 | 204.65 | 206.70        | 203.04                            | 202.61            | 202.62 | 202.44 | 202.42 | 202.42 |        |
| 16                               | 202.20 | 202.27 | 202.56      | 202.87 | 203.54 | 205.23        | 203.00                            | 202.60            | 203.03 | 202.43 | 202.42 | 202.42 |        |
| 17                               | 202.20 | 202.26 | 202.81      | 203.00 | 203.88 | 204.74        | 203.17                            | 202.60            | 202.84 | 202.43 | 202.42 | 202.42 |        |
| 18                               | 202.20 | 202.25 | 202.61      | 202.89 | 203.39 | 204.43        | 203.23                            | 202.59            | 202.68 | 202.43 | 202.42 | 202.42 |        |
| 19                               | 202.20 | 202.52 | 202.65      | 202.76 | 203.23 | 204.08        | 203.07                            | 202.58            | 202.69 | 202.43 | 202.42 | 202.42 |        |
| 20                               | 202.20 | 202.57 | 204.11      | 203.98 | 203.17 | 203.84        | 202.98                            | 202.57            | 202.68 | 202.43 | 202.42 | 202.42 |        |
| 21                               | 202.20 | 203.30 | 203.83      | 204.53 | 203.11 | 203.71        | 202.93                            | 202.56            | 202.68 | 202.42 | 202.42 | 202.42 |        |
| 22                               | 202.20 | 202.65 | 203.04      | 203.37 | 205.60 | 204.48        | 202.93                            | 202.55            | 202.67 | 202.42 | 202.42 | 202.42 |        |
| 23                               | 202.20 | 202.45 | 202.79      | 203.14 | 205.02 | 204.14        | 202.89                            | 202.55            | 202.66 | 202.42 | 202.42 | 202.42 |        |
| 24                               | 202.20 | 202.74 | 203.04      | 203.62 | 204.68 | 203.73        | 202.93                            | 202.55            | 202.65 | 202.42 | 202.42 | 202.42 |        |
| 25                               | 202.20 | 202.46 | 203.24      | 203.92 | 204.31 | 203.68        | 202.96                            | 202.54            | 202.65 | 202.42 | 202.42 | 202.42 |        |
| 26                               | 202.20 | 202.38 | 202.86      | 203.25 | 205.15 | 203.58        | 202.86                            | 202.54            | 202.64 | 202.42 | 202.42 | 202.42 |        |
| 27                               | 202.20 | 202.35 | 202.71      | 203.13 | 204.17 | 204.76        | 202.87                            | 202.53            | 202.64 | 202.42 | 202.42 | 202.42 |        |
| 28                               | 202.20 | 202.32 | 202.62      | 203.23 | 203.77 | 204.60        | 202.82                            | 202.86            | 202.63 | 202.42 | 202.42 | 202.42 |        |
| 29                               | 202.20 | 202.75 | 202.57      | 204.42 | 204.74 | 204.78        | 202.81                            | 202.75            | 202.63 | 202.42 |        | 202.42 |        |
| 30                               | 202.20 | 203.02 | 202.51      | 204.05 | 204.06 | 205.17        | 202.81                            | 202.66            | 202.62 | 202.42 |        | 202.42 |        |
| 31                               |        | 202.49 |             | 203.66 | 204.27 |               | 202.80                            |                   | 202.62 | 202.42 |        | 202.42 |        |
| Mean                             | 202.20 | 202.47 | 203.13      | 203.21 | 204.17 | 204.32        | 203.17                            | 202.64            | 202.58 | 202.47 | 202.42 | 202.42 |        |
| Max                              | 202.20 | 203.30 | 206.22      | 204.53 | 206.16 | 206.70        | 204.21                            | 202.86            | 203.03 | 202.62 | 202.42 | 202.42 | 206.70 |
| Min                              | 202.20 | 202.16 | 202.45      | 202.54 | 203.00 | 203.58        | 202.80                            | 202.53            | 202.42 | 202.42 | 202.42 | 202.42 | 202.16 |
| Annual Max Momentary Gage Height |        | 207.04 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |
|                                  |        |        |             |        |        |               | at 06.00 Hours , on Sep 15 , 2012 |                   |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 201.22 | m. (MSL.) , |        |        | River Bed     | 202.03                            | m. (MSL.)         |        |        |        |        |        |
| Left Bank Elevation              |        | 208.49 | m. (MSL.) , |        |        |               |                                   |                   |        |        |        |        |        |
| Right Bank Elevation             |        | 208.45 | m. (MSL.) , |        |        | Drainage Area | 152                               | Square Kilometers |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun   | Jul   | Aug                  | Sep    | Oct   | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual |        |
|----------------|-------|------------------------------------------------------------|-------|-------|----------------------|--------|-------|---------|--------------------------|------|------|------|--------|--------|
| 1              | 0.00  | 0.00                                                       | 0.15  | 0.38  | 3.77                 | 7.43   | 3.42  | 0.80    | 0.24                     | 0.34 | 0.12 | 0.12 |        |        |
| 2              | 0.00  | 0.00                                                       | 1.37  | 0.28  | 2.63                 | 5.95   | 4.33  | 0.66    | 0.22                     | 0.30 | 0.12 | 0.12 |        |        |
| 3              | 0.00  | 0.00                                                       | 0.44  | 0.25  | 2.12                 | 3.74   | 5.14  | 0.62    | 0.20                     | 0.29 | 0.12 | 0.12 |        |        |
| 4              | 0.00  | 0.06                                                       | 2.45  | 0.24  | 1.82                 | 4.40   | 3.39  | 0.52    | 0.18                     | 0.28 | 0.12 | 0.12 |        |        |
| 5              | 0.00  | 0.17                                                       | 11.07 | 0.34  | 1.52                 | 2.99   | 2.90  | 0.48    | 0.17                     | 0.27 | 0.12 | 0.12 |        |        |
| 6              | 0.00  | 0.21                                                       | 15.62 | 0.50  | 1.25                 | 3.26   | 2.66  | 0.48    | 0.16                     | 0.25 | 0.12 | 0.12 |        |        |
| 7              | 0.00  | 0.95                                                       | 2.72  | 0.50  | 7.75                 | 4.71   | 2.42  | 0.46    | 0.15                     | 0.23 | 0.12 | 0.12 |        |        |
| 8              | 0.00  | 0.50                                                       | 0.93  | 2.33  | 7.38                 | 4.02   | 2.21  | 0.44    | 0.15                     | 0.21 | 0.12 | 0.12 |        |        |
| 9              | 0.00  | 0.17                                                       | 0.32  | 2.12  | 8.60                 | 4.09   | 2.00  | 0.42    | 0.14                     | 0.19 | 0.12 | 0.12 |        |        |
| 10             | 0.00  | 0.09                                                       | 0.22  | 2.78  | 12.74                | 5.62   | 1.70  | 0.40    | 0.13                     | 0.17 | 0.12 | 0.12 |        |        |
| 11             | 0.00  | 0.07                                                       | 3.88  | 1.40  | 15.26                | 3.70   | 1.61  | 0.36    | 0.13                     | 0.15 | 0.12 | 0.12 |        |        |
| 12             | 0.00  | 0.06                                                       | 0.24  | 2.81  | 6.98                 | 7.16   | 1.61  | 0.34    | 0.12                     | 0.14 | 0.12 | 0.12 |        |        |
| 13             | 0.00  | 0.05                                                       | 0.17  | 1.07  | 4.30                 | 5.66   | 1.55  | 0.34    | 0.12                     | 0.14 | 0.12 | 0.12 |        |        |
| 14             | 0.00  | 0.04                                                       | 1.49  | 1.04  | 3.08                 | 6.75   | 1.43  | 0.32    | 0.19                     | 0.14 | 0.12 | 0.12 |        |        |
| 15             | 0.00  | 0.04                                                       | 1.88  | 0.62  | 7.02                 | 18.65  | 1.37  | 0.32    | 0.34                     | 0.14 | 0.12 | 0.12 |        |        |
| 16             | 0.00  | 0.04                                                       | 0.26  | 0.87  | 2.87                 | 9.91   | 1.25  | 0.30    | 1.34                     | 0.13 | 0.12 | 0.12 |        |        |
| 17             | 0.00  | 0.03                                                       | 0.72  | 1.25  | 3.98                 | 7.43   | 1.76  | 0.30    | 0.80                     | 0.13 | 0.12 | 0.12 |        |        |
| 18             | 0.00  | 0.03                                                       | 0.32  | 0.93  | 2.42                 | 6.03   | 1.94  | 0.29    | 0.46                     | 0.13 | 0.12 | 0.12 |        |        |
| 19             | 0.00  | 0.22                                                       | 0.40  | 0.62  | 1.94                 | 4.68   | 1.46  | 0.28    | 0.48                     | 0.13 | 0.12 | 0.12 |        |        |
| 20             | 0.00  | 0.27                                                       | 4.79  | 4.33  | 1.76                 | 3.84   | 1.19  | 0.27    | 0.46                     | 0.13 | 0.12 | 0.12 |        |        |
| 21             | 0.00  | 2.15                                                       | 3.81  | 6.49  | 1.58                 | 3.39   | 1.04  | 0.26    | 0.46                     | 0.12 | 0.12 | 0.12 |        |        |
| 22             | 0.00  | 0.40                                                       | 1.37  | 2.36  | 11.95                | 6.26   | 1.04  | 0.25    | 0.44                     | 0.12 | 0.12 | 0.12 |        |        |
| 23             | 0.00  | 0.15                                                       | 0.68  | 1.67  | 8.80                 | 4.89   | 0.93  | 0.25    | 0.42                     | 0.12 | 0.12 | 0.12 |        |        |
| 24             | 0.00  | 0.58                                                       | 1.37  | 3.11  | 7.16                 | 3.45   | 1.04  | 0.25    | 0.40                     | 0.12 | 0.12 | 0.12 |        |        |
| 25             | 0.00  | 0.16                                                       | 1.97  | 4.12  | 5.54                 | 3.29   | 1.13  | 0.24    | 0.40                     | 0.12 | 0.12 | 0.12 |        |        |
| 26             | 0.00  | 0.09                                                       | 0.85  | 2.00  | 9.47                 | 2.99   | 0.85  | 0.24    | 0.38                     | 0.12 | 0.12 | 0.12 |        |        |
| 27             | 0.00  | 0.08                                                       | 0.52  | 1.64  | 5.00                 | 7.52   | 0.87  | 0.23    | 0.38                     | 0.12 | 0.12 | 0.12 |        |        |
| 28             | 0.00  | 0.06                                                       | 0.34  | 1.94  | 3.60                 | 6.80   | 0.75  | 0.85    | 0.36                     | 0.12 | 0.12 | 0.12 |        |        |
| 29             | 0.00  | 0.60                                                       | 0.27  | 5.99  | 7.43                 | 7.61   | 0.72  | 0.60    | 0.36                     | 0.12 |      | 0.12 |        |        |
| 30             | 0.00  | 1.31                                                       | 0.21  | 4.58  | 4.61                 | 9.58   | 0.72  | 0.42    | 0.34                     | 0.12 |      | 0.12 |        |        |
| 31             |       | 0.19                                                       |       | 3.23  | 5.38                 |        | 0.70  |         | 0.34                     | 0.12 |      | 0.12 |        |        |
| Total          | 0.00  | 8.77                                                       | 60.83 | 61.79 | 169.71               | 175.80 | 55.13 | 11.99   | 10.46                    | 5.21 | 3.36 | 3.72 | 566.77 | CMSDAY |
| Mean           | 0.00  | 0.28                                                       | 2.03  | 1.99  | 5.47                 | 5.86   | 1.78  | 0.40    | 0.34                     | 0.17 | 0.12 | 0.12 | 1.55   | CMS    |
| Max            | 0.00  | 2.15                                                       | 15.62 | 6.49  | 15.26                | 18.65  | 5.14  | 0.85    | 1.34                     | 0.34 | 0.12 | 0.12 | 18.65  | CMS    |
| Min            | 0.00  | 0.00                                                       | 0.15  | 0.24  | 1.25                 | 2.99   | 0.70  | 0.23    | 0.12                     | 0.12 | 0.12 | 0.12 | 0.00   | CMS    |
| Runoff         | 0.00  | 0.76                                                       | 5.26  | 5.34  | 14.66                | 15.19  | 4.76  | 1.04    | 0.90                     | 0.45 | 0.29 | 0.32 | 48.97  | MCM    |
| Momentary Peak | 20.86 | CMS. at 207.04 m. (MSL.) at 06.00 Hours , on Sep 15 , 2013 |       |       |                      |        |       |         |                          |      |      |      |        |        |
| Runoff Yield   | 10.22 | Liters/Second/Square KM.                                   |       |       | Momentary Peak Yield |        |       | 137.237 | Liters/Second/Square KM. |      |      |      |        |        |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Ban Koei Chai, Nakhon Sawan (N.67)**

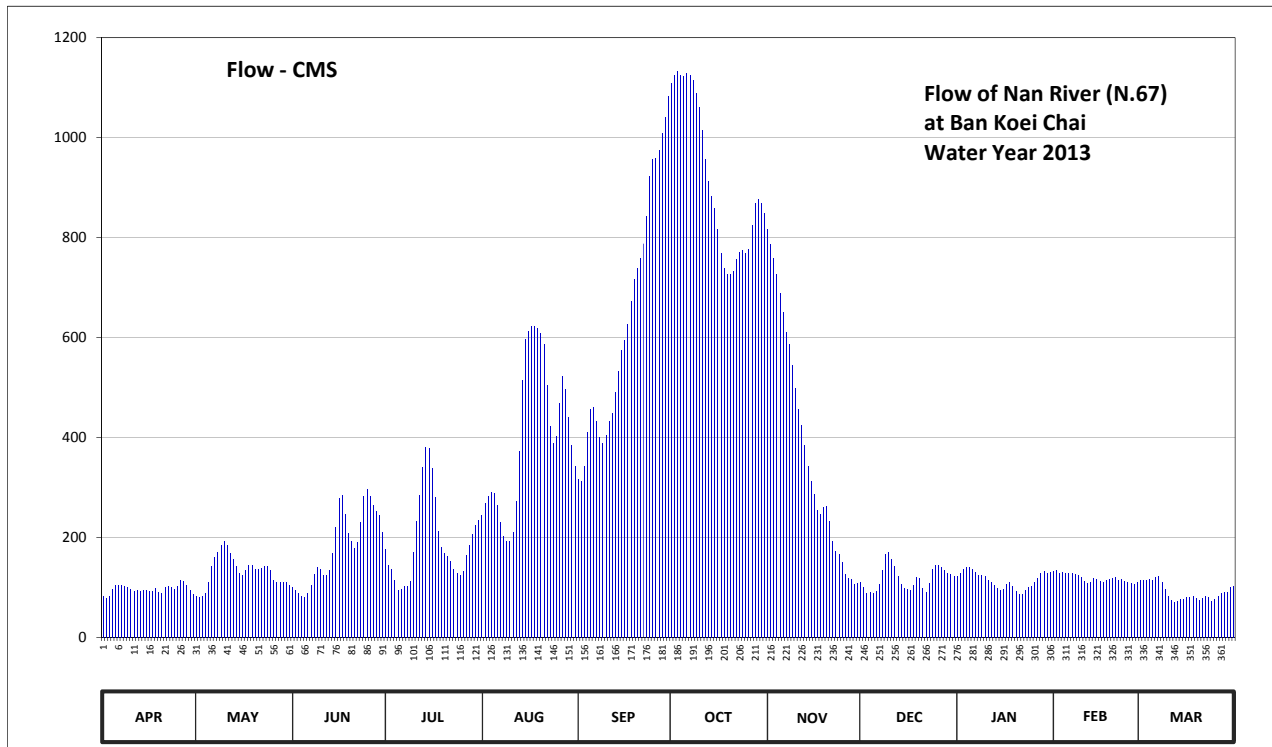
Lat 15 - 52 - 05 N Long 100 - 16 - 07 E

**Location : on right bank at the bridge near Wat Koei Chai Nua**

|                                         |                                                                             |           |               |            |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Koei Chai | <b>Amphoe</b> | Chum Saeng | <b>Changwat</b>  | Nakhon Sawan      |
| <b>Drainage Area</b>                    | 57,384                                                                      | sq.km.    |               |            |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                      | m. (MSL.) |               |            |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |            |                  |                   |
| <b>Location BM</b>                      | On right bank near the gage observe's house                                 |           |               |            | <b>Elevation</b> | +27.470 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |            |                  |                   |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                |           |               |            |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |           |               |            |                  |                   |
| <b>Period of Rating</b>                 | 1997 to date                                                                |           |               |            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |            |                  |                   |
| <b>Rated by Current Meter</b>           | 1997 to date                                                                |           |               |            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |           |               |            |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |            |                  |                   |
| <b>General Description</b>              | Records good. Flow effected by Mae Yom side flow.                           |           |               |            |                  |                   |
|                                         | Stage-discharge relation defined by 58 discharge measurements made in 2013. |           |               |            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 19.12 | 19.14 | 19.38       | 20.30 | 20.94                            | 21.54 | 26.91             | 25.45 | 19.50 | 19.66 | 19.79 | 19.57 |        |
| 2                                | 19.05 | 19.09 | 19.30       | 19.94 | 21.15                            | 21.51 | 26.98             | 25.27 | 19.38 | 19.73 | 19.80 | 19.56 |        |
| 3                                | 19.13 | 19.12 | 19.20       | 19.85 | 21.26                            | 21.74 | 27.01             | 25.09 | 19.22 | 19.83 | 19.75 | 19.57 |        |
| 4                                | 19.33 | 19.20 | 19.14       | 19.56 | 21.34                            | 22.26 | 26.98             | 24.87 | 19.24 | 19.88 | 19.76 | 19.59 |        |
| 5                                | 19.45 | 19.51 | 19.10       | 19.30 | 21.31                            | 22.58 | 26.97             | 24.60 | 19.20 | 19.89 | 19.73 | 19.56 |        |
| 6                                | 19.44 | 19.92 | 19.20       | 19.32 | 21.12                            | 22.61 | 26.99             | 24.27 | 19.27 | 19.83 | 19.73 | 19.63 |        |
| 7                                | 19.43 | 20.12 | 19.43       | 19.40 | 20.81                            | 22.41 | 26.98             | 23.86 | 19.47 | 19.77 | 19.73 | 19.66 |        |
| 8                                | 19.40 | 20.23 | 19.72       | 19.40 | 20.56                            | 22.19 | 26.93             | 23.50 | 19.82 | 19.68 | 19.71 | 19.50 |        |
| 9                                | 19.38 | 20.36 | 19.88       | 19.55 | 20.44                            | 22.10 | 26.82             | 23.16 | 20.17 | 19.69 | 19.68 | 19.33 |        |
| 10                               | 19.32 | 20.44 | 19.84       | 20.23 | 20.45                            | 22.22 | 26.70             | 22.85 | 20.22 | 19.67 | 19.64 | 19.13 |        |
| 11                               | 19.27 | 20.37 | 19.69       | 20.83 | 20.63                            | 22.41 | 26.49             | 22.58 | 20.06 | 19.57 | 19.54 | 18.99 |        |
| 12                               | 19.29 | 20.19 | 19.69       | 21.29 | 21.18                            | 22.52 | 26.21             | 22.35 | 19.92 | 19.51 | 19.49 | 18.92 |        |
| 13                               | 19.28 | 20.07 | 19.82       | 21.73 | 21.97                            | 22.80 | 25.99             | 22.07 | 19.67 | 19.45 | 19.52 | 18.97 |        |
| 14                               | 19.29 | 19.90 | 20.19       | 22.04 | 22.96                            | 23.08 | 25.82             | 21.75 | 19.47 | 19.37 | 19.60 | 19.03 |        |
| 15                               | 19.31 | 19.74 | 20.71       | 22.03 | 23.65                            | 23.36 | 25.69             | 21.52 | 19.36 | 19.31 | 19.59 | 19.02 |        |
| 16                               | 19.27 | 19.69 | 21.24       | 21.71 | 23.88                            | 23.63 | 25.46             | 21.30 | 19.34 | 19.33 | 19.53 | 19.08 |        |
| 17                               | 19.28 | 19.81 | 21.28       | 21.25 | 23.98                            | 24.04 | 25.16             | 21.03 | 19.29 | 19.47 | 19.52 | 19.11 |        |
| 18                               | 19.35 | 19.93 | 20.95       | 20.65 | 23.98                            | 24.48 | 24.95             | 20.95 | 19.43 | 19.51 | 19.57 | 19.14 |        |
| 19                               | 19.24 | 19.93 | 20.60       | 20.33 | 23.95                            | 24.80 | 24.87             | 21.09 | 19.63 | 19.40 | 19.59 | 19.06 |        |
| 20                               | 19.21 | 19.83 | 20.44       | 20.21 | 23.82                            | 24.96 | 24.87             | 21.10 | 19.61 | 19.26 | 19.60 | 19.00 |        |
| 21                               | 19.38 | 19.85 | 20.31       | 20.13 | 23.52                            | 25.09 | 24.92             | 20.82 | 19.37 | 19.18 | 19.63 | 19.07 |        |
| 22                               | 19.40 | 19.87 | 20.42       | 20.03 | 22.89                            | 25.28 | 25.08             | 20.44 | 19.23 | 19.19 | 19.57 | 19.13 |        |
| 23                               | 19.38 | 19.90 | 20.80       | 19.84 | 22.34                            | 25.60 | 25.17             | 20.24 | 19.49 | 19.29 | 19.58 | 19.08 |        |
| 24                               | 19.34 | 19.92 | 21.27       | 19.74 | 22.10                            | 26.04 | 25.20             | 20.17 | 19.83 | 19.39 | 19.55 | 18.98 |        |
| 25                               | 19.41 | 19.81 | 21.39       | 19.69 | 22.20                            | 26.21 | 25.15             | 19.99 | 19.94 | 19.40 | 19.51 | 19.03 |        |
| 26                               | 19.56 | 19.57 | 21.27       | 19.79 | 22.66                            | 26.22 | 25.21             | 19.70 | 19.94 | 19.50 | 19.49 | 19.13 |        |
| 27                               | 19.54 | 19.50 | 21.11       | 20.16 | 23.01                            | 26.30 | 25.50             | 19.62 | 19.88 | 19.60 | 19.47 | 19.21 |        |
| 28                               | 19.45 | 19.52 | 21.01       | 20.38 | 22.84                            | 26.46 | 25.75             | 19.58 | 19.82 | 19.75 | 19.52 | 19.24 |        |
| 29                               | 19.30 | 19.50 | 20.94       | 20.58 | 22.47                            | 26.61 | 25.79             | 19.46 | 19.75 | 19.78 |       | 19.25 |        |
| 30                               | 19.19 | 19.51 | 20.63       | 20.75 | 22.07                            | 26.79 | 25.75             | 19.48 | 19.72 | 19.75 |       | 19.39 |        |
| 31                               |       | 19.45 |             | 20.84 | 21.74                            |       | 25.64             |       | 19.66 | 19.76 |       | 19.41 |        |
| Mean                             | 19.33 | 19.77 | 20.27       | 20.35 | 22.17                            | 23.93 | 25.93             | 21.94 | 19.61 | 19.56 | 19.61 | 19.24 |        |
| Max                              | 19.56 | 20.44 | 21.39       | 22.04 | 23.98                            | 26.79 | 27.01             | 25.45 | 20.22 | 19.89 | 19.80 | 19.66 | 27.01  |
| Min                              | 19.05 | 19.09 | 19.10       | 19.30 | 20.44                            | 21.51 | 24.87             | 19.46 | 19.20 | 19.18 | 19.47 | 18.92 | 18.92  |
| Annual Max Momentary Gage Height | 27.02 |       | m. (MSL.) , |       | at 08.00 Hours , on Oct 3 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , |       | River Bed                        | 14.01 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 28.92 |       | m. (MSL.) , |       |                                  |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 28.21 |       | m. (MSL.) , |       | Drainage Area                    | 57384 | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug      | Sep      | Oct      | Nov                      | Dec     | Jan     | Feb     | Mar     | Annual    |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|---------|-----------|--------|
| 1              | 82.40                                                            | 83.80                    | 100.60  | 178.00               | 245.40   | 316.20   | 1109.30  | 815.50                   | 110.00  | 122.80  | 133.20  | 115.60  |           |        |
| 2              | 78.00                                                            | 80.40                    | 95.00   | 145.60               | 269.00   | 312.30   | 1125.40  | 786.20                   | 100.60  | 128.40  | 134.00  | 114.80  |           |        |
| 3              | 83.10                                                            | 82.40                    | 88.00   | 138.00               | 282.20   | 342.20   | 1132.50  | 758.50                   | 89.40   | 136.40  | 130.00  | 115.60  |           |        |
| 4              | 97.10                                                            | 88.00                    | 83.80   | 114.80               | 291.80   | 411.40   | 1125.40  | 725.80                   | 90.80   | 140.40  | 130.80  | 117.20  |           |        |
| 5              | 106.00                                                           | 110.80                   | 81.00   | 95.00                | 288.20   | 457.00   | 1123.10  | 688.00                   | 88.00   | 141.20  | 128.40  | 114.80  |           |        |
| 6              | 105.20                                                           | 143.80                   | 88.00   | 96.40                | 265.40   | 461.50   | 1127.70  | 649.70                   | 92.90   | 136.40  | 128.40  | 120.40  |           |        |
| 7              | 104.40                                                           | 161.80                   | 104.40  | 102.00               | 231.10   | 432.40   | 1125.40  | 610.80                   | 107.60  | 131.60  | 128.40  | 122.80  |           |        |
| 8              | 102.00                                                           | 171.70                   | 127.60  | 102.00               | 204.00   | 401.60   | 1113.90  | 586.00                   | 135.60  | 124.40  | 126.80  | 110.00  |           |        |
| 9              | 100.60                                                           | 184.00                   | 140.40  | 114.00               | 192.00   | 389.00   | 1088.60  | 544.00                   | 166.30  | 125.20  | 124.40  | 97.10   |           |        |
| 10             | 96.40                                                            | 192.00                   | 137.20  | 171.70               | 193.00   | 405.80   | 1061.00  | 497.50                   | 170.80  | 123.60  | 121.20  | 83.10   |           |        |
| 11             | 92.90                                                            | 185.00                   | 125.20  | 233.30               | 211.30   | 432.40   | 1014.90  | 457.00                   | 156.40  | 115.60  | 113.20  | 74.40   |           |        |
| 12             | 94.30                                                            | 168.10                   | 125.20  | 285.80               | 272.60   | 448.00   | 956.10   | 424.00                   | 143.80  | 110.80  | 109.20  | 70.20   |           |        |
| 13             | 93.60                                                            | 157.30                   | 135.60  | 340.90               | 372.10   | 490.00   | 913.10   | 385.10                   | 123.60  | 106.00  | 111.60  | 73.20   |           |        |
| 14             | 94.30                                                            | 142.00                   | 168.10  | 381.20               | 514.00   | 532.00   | 881.60   | 343.50                   | 107.60  | 99.90   | 118.00  | 76.80   |           |        |
| 15             | 95.70                                                            | 129.20                   | 220.10  | 379.90               | 595.50   | 574.00   | 858.20   | 313.60                   | 99.20   | 95.70   | 117.20  | 76.20   |           |        |
| 16             | 92.90                                                            | 125.20                   | 279.80  | 338.30               | 612.40   | 594.10   | 817.20   | 287.00                   | 97.80   | 97.10   | 112.40  | 79.80   |           |        |
| 17             | 93.60                                                            | 134.80                   | 284.60  | 281.00               | 621.20   | 626.60   | 769.00   | 255.30                   | 94.30   | 107.60  | 111.60  | 81.70   |           |        |
| 18             | 98.50                                                            | 144.70                   | 246.50  | 213.50               | 621.20   | 672.80   | 737.50   | 246.50                   | 104.40  | 110.80  | 115.60  | 83.80   |           |        |
| 19             | 90.80                                                            | 144.70                   | 208.00  | 181.00               | 618.50   | 716.00   | 725.80   | 261.90                   | 120.40  | 102.00  | 117.20  | 78.60   |           |        |
| 20             | 88.70                                                            | 136.40                   | 192.00  | 169.90               | 607.60   | 739.00   | 725.80   | 263.00                   | 118.80  | 92.20   | 118.00  | 75.00   |           |        |
| 21             | 100.60                                                           | 138.00                   | 179.00  | 162.70               | 587.20   | 758.50   | 733.00   | 232.20                   | 99.90   | 86.60   | 120.40  | 79.20   |           |        |
| 22             | 102.00                                                           | 139.60                   | 190.00  | 153.70               | 503.50   | 787.80   | 757.00   | 192.00                   | 90.10   | 87.30   | 115.60  | 83.10   |           |        |
| 23             | 100.60                                                           | 142.00                   | 230.00  | 137.20               | 422.60   | 842.00   | 770.50   | 172.60                   | 109.20  | 94.30   | 116.40  | 79.80   |           |        |
| 24             | 97.80                                                            | 143.80                   | 283.40  | 129.20               | 389.00   | 922.60   | 775.00   | 166.30                   | 136.40  | 101.30  | 114.00  | 73.80   |           |        |
| 25             | 102.80                                                           | 134.80                   | 297.80  | 125.20               | 403.00   | 956.10   | 767.50   | 150.10                   | 145.60  | 102.00  | 110.80  | 76.80   |           |        |
| 26             | 114.80                                                           | 115.60                   | 283.40  | 133.20               | 469.00   | 958.20   | 776.60   | 126.00                   | 145.60  | 110.00  | 109.20  | 83.10   |           |        |
| 27             | 113.20                                                           | 110.00                   | 264.20  | 165.40               | 521.50   | 975.00   | 824.00   | 119.60                   | 140.40  | 118.00  | 107.60  | 88.70   |           |        |
| 28             | 106.00                                                           | 111.60                   | 253.10  | 186.00               | 496.00   | 1008.60  | 869.00   | 116.40                   | 135.60  | 130.00  | 111.60  | 90.80   |           |        |
| 29             | 95.00                                                            | 110.00                   | 245.40  | 206.00               | 440.80   | 1041.20  | 876.20   | 106.80                   | 130.00  | 132.40  |         | 91.50   |           |        |
| 30             | 87.30                                                            | 110.80                   | 211.30  | 224.50               | 385.10   | 1081.70  | 869.00   | 108.40                   | 127.60  | 130.00  |         | 101.30  |           |        |
| 31             |                                                                  | 106.00                   |         | 234.40               | 342.20   |          | 849.20   |                          | 122.80  | 130.80  |         | 102.80  |           |        |
| Total          | 2910.60                                                          | 4128.30                  | 5468.70 | 5919.80              | 12468.40 | 19086.00 | 28398.50 | 11389.30                 | 3701.50 | 3570.80 | 3335.20 | 2832.00 | 103209.10 | CMSDAY |
| Mean           | 97.00                                                            | 133.20                   | 182.30  | 191.00               | 402.20   | 636.20   | 916.10   | 379.60                   | 119.40  | 115.20  | 119.10  | 91.40   | 282.80    | CMS    |
| Max            | 114.80                                                           | 192.00                   | 297.80  | 381.20               | 621.20   | 1081.70  | 1132.50  | 815.50                   | 170.80  | 141.20  | 134.00  | 122.80  | 1132.50   | CMS    |
| Min            | 78.00                                                            | 80.40                    | 81.00   | 95.00                | 192.00   | 312.30   | 725.80   | 106.80                   | 88.00   | 86.60   | 107.60  | 70.20   | 70.20     | CMS    |
| Runoff         | 251.48                                                           | 356.69                   | 472.50  | 511.47               | 1077.27  | 1649.03  | 2453.63  | 984.04                   | 319.81  | 308.52  | 288.16  | 244.68  | 8917.27   | MCM    |
| Momentary Peak | 1135.00 CMS. at 27.02 m. (MSL.) at 08.00 Hours , on Oct 3 , 2013 |                          |         |                      |          |          |          |                          |         |         |         |         |           |        |
| Runoff Yield   | 4.93                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |          |          | 19.779   | Liters/Second/Square KM. |         |         |         |         |           |        |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Ban Tha Takhian , Phitsanulok (N.68)**

Lat 16 - 52 - 15 N Long 100 - 14 - 36 E

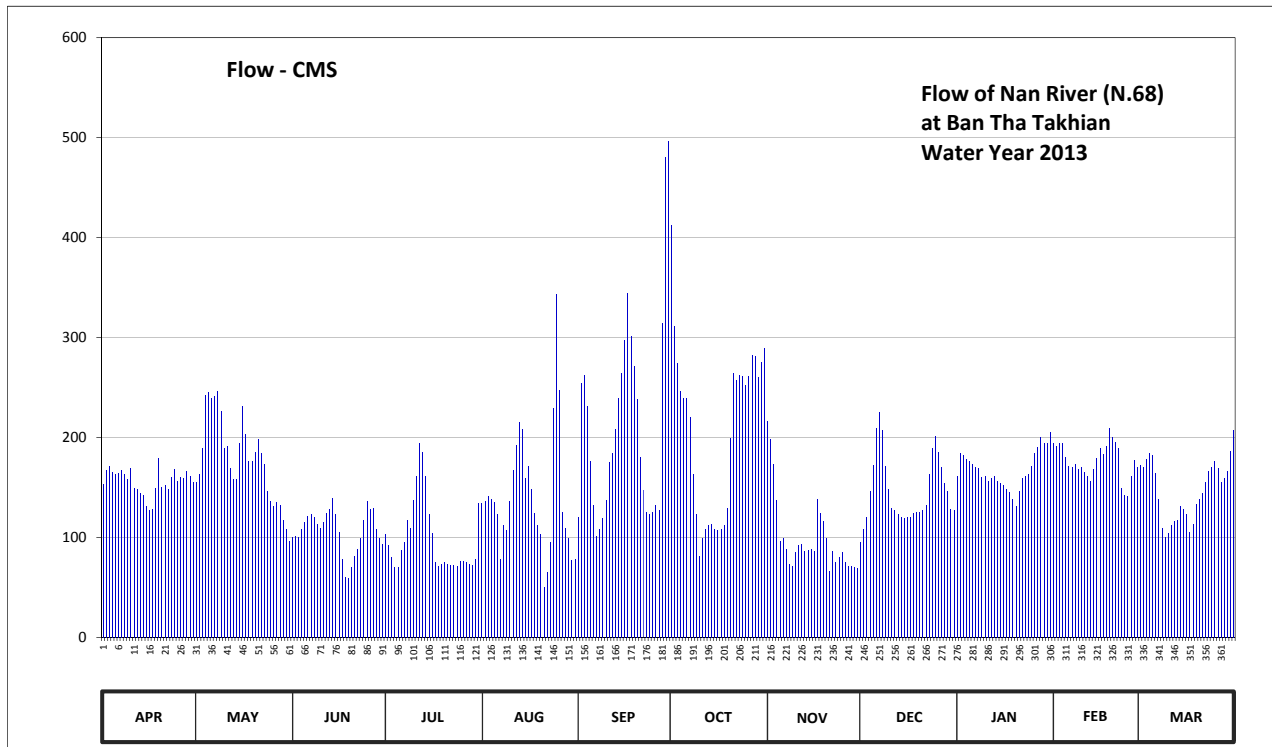
**Location : on right bank at Ban Tha Takhian.**

|                                         |                                                                             |                    |               |               |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|--------------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | <b>Tha Takhian</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b>  | <b>Phitsanulok</b> |
| <b>Drainage Area</b>                    | 25,018                                                                      | sq.km.             |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                       | gage               |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +35.000                                                                     | m. (MSL.)          |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-                                                                       | H.D.               |               |               |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                           |                    |               |               | <b>Elevation</b> | +48.620 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.        |                    |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                               |                    |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                |                    |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |                    |               |               |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                |                    |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |                    |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                |                    |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                    |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                    |               |               |                  |                    |
| <b>General Description</b>              | Records good. Flow effected by Mae Yom side flow.                           |                    |               |               |                  |                    |
|                                         | Stage-discharge relation defined by 31 discharge measurements made in 2013. |                    |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep                               | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 37.41 | 37.43 | 36.90       | 36.93 | 37.24 | 37.11                             | 39.61 | 37.97             | 36.85 | 37.49 | 37.78 | 37.59 |        |
| 2                                | 37.54 | 37.50 | 36.92       | 36.82 | 37.26 | 38.30                             | 38.78 | 37.81             | 36.98 | 37.69 | 37.75 | 37.57 |        |
| 3                                | 37.58 | 37.73 | 36.90       | 36.70 | 37.30 | 38.37                             | 38.47 | 37.60             | 37.10 | 37.67 | 37.78 | 37.64 |        |
| 4                                | 37.52 | 38.19 | 36.98       | 36.59 | 37.28 | 38.10                             | 38.23 | 37.27             | 37.35 | 37.64 | 37.78 | 37.69 |        |
| 5                                | 37.50 | 38.22 | 37.05       | 36.59 | 37.25 | 37.62                             | 38.17 | 36.87             | 37.59 | 37.62 | 37.66 | 37.67 |        |
| 6                                | 37.51 | 38.17 | 37.12       | 36.77 | 37.13 | 37.22                             | 38.17 | 36.89             | 37.91 | 37.60 | 37.58 | 37.51 |        |
| 7                                | 37.54 | 38.18 | 37.13       | 36.85 | 36.68 | 36.92                             | 38.00 | 36.78             | 38.05 | 37.57 | 37.57 | 37.28 |        |
| 8                                | 37.50 | 38.23 | 37.10       | 37.08 | 37.03 | 36.99                             | 37.50 | 36.63             | 37.89 | 37.56 | 37.60 | 37.00 |        |
| 9                                | 37.46 | 38.06 | 37.04       | 37.00 | 36.97 | 37.09                             | 37.13 | 36.60             | 37.58 | 37.48 | 37.55 | 36.91 |        |
| 10                               | 37.56 | 37.73 | 37.00       | 37.27 | 37.26 | 37.27                             | 36.71 | 36.75             | 37.37 | 37.49 | 37.57 | 36.95 |        |
| 11                               | 37.38 | 37.75 | 37.05       | 37.49 | 37.54 | 37.61                             | 36.89 | 36.82             | 37.20 | 37.44 | 37.52 | 37.02 |        |
| 12                               | 37.37 | 37.56 | 37.14       | 37.78 | 37.76 | 37.69                             | 36.99 | 36.84             | 37.17 | 37.47 | 37.49 | 37.06 |        |
| 13                               | 37.33 | 37.46 | 37.18       | 37.70 | 37.96 | 37.90                             | 37.03 | 36.76             | 37.13 | 37.49 | 37.44 | 37.08 |        |
| 14                               | 37.31 | 37.46 | 37.29       | 37.49 | 37.90 | 38.17                             | 37.04 | 36.77             | 37.11 | 37.44 | 37.55 | 37.21 |        |
| 15                               | 37.21 | 37.78 | 37.13       | 37.13 | 37.47 | 38.38                             | 36.98 | 36.78             | 37.09 | 37.42 | 37.65 | 37.18 |        |
| 16                               | 37.17 | 38.10 | 36.96       | 36.94 | 37.58 | 38.67                             | 36.97 | 36.76             | 37.10 | 37.40 | 37.73 | 37.13 |        |
| 17                               | 37.18 | 37.86 | 36.68       | 36.65 | 37.37 | 39.06                             | 36.98 | 37.28             | 37.11 | 37.37 | 37.68 | 36.96 |        |
| 18                               | 37.38 | 37.62 | 36.48       | 36.60 | 37.15 | 38.70                             | 37.03 | 37.15             | 37.14 | 37.34 | 37.75 | 37.04 |        |
| 19                               | 37.65 | 37.62 | 36.46       | 36.63 | 37.03 | 38.44                             | 37.20 | 37.06             | 37.16 | 37.28 | 37.91 | 37.23 |        |
| 20                               | 37.39 | 37.70 | 36.59       | 36.65 | 36.93 | 38.16                             | 37.82 | 36.89             | 37.16 | 37.21 | 37.83 | 37.28 |        |
| 21                               | 37.40 | 37.81 | 36.71       | 36.63 | 36.35 | 37.66                             | 38.38 | 36.55             | 37.17 | 37.35 | 37.79 | 37.33 |        |
| 22                               | 37.37 | 37.69 | 36.78       | 36.62 | 36.53 | 37.36                             | 38.32 | 36.76             | 37.22 | 37.47 | 37.73 | 37.43 |        |
| 23                               | 37.48 | 37.60 | 36.89       | 36.61 | 36.85 | 37.16                             | 38.37 | 36.65             | 37.50 | 37.49 | 37.38 | 37.53 |        |
| 24                               | 37.55 | 37.35 | 37.08       | 36.60 | 38.08 | 37.13                             | 38.36 | 36.70             | 37.73 | 37.50 | 37.31 | 37.57 |        |
| 25                               | 37.44 | 37.26 | 37.26       | 36.66 | 39.05 | 37.16                             | 38.28 | 36.75             | 37.84 | 37.58 | 37.30 | 37.62 |        |
| 26                               | 37.48 | 37.21 | 37.18       | 36.66 | 38.24 | 37.22                             | 38.36 | 36.65             | 37.70 | 37.69 | 37.49 | 37.56 |        |
| 27                               | 37.47 | 37.25 | 37.20       | 36.65 | 37.16 | 37.17                             | 38.54 | 36.60             | 37.57 | 37.74 | 37.63 | 37.43 |        |
| 28                               | 37.53 | 37.22 | 36.98       | 36.63 | 37.00 | 38.81                             | 38.53 | 36.60             | 37.42 | 37.83 | 37.57 | 37.47 |        |
| 29                               | 37.49 | 37.08 | 36.89       | 36.62 | 36.89 | 40.15                             | 38.35 | 36.59             | 37.35 | 37.78 |       | 37.53 |        |
| 30                               | 37.43 | 36.99 | 36.84       | 36.68 | 36.67 | 40.28                             | 38.48 | 36.58             | 37.19 | 37.78 |       | 37.71 |        |
| 31                               |       | 36.86 |             | 37.24 | 36.68 |                                   | 38.60 |                   | 37.17 | 37.87 |       | 37.89 |        |
| Mean                             | 37.44 | 37.63 | 36.96       | 36.88 | 37.28 | 37.93                             | 37.88 | 36.89             | 37.35 | 37.54 | 37.62 | 37.36 |        |
| Max                              | 37.65 | 38.23 | 37.29       | 37.78 | 39.05 | 40.28                             | 39.61 | 37.97             | 38.05 | 37.87 | 37.91 | 37.89 | 40.28  |
| Min                              | 37.17 | 36.86 | 36.46       | 36.59 | 36.35 | 36.92                             | 36.71 | 36.55             | 36.85 | 37.21 | 37.30 | 36.91 | 36.35  |
| Annual Max Momentary Gage Height | 40.40 |       | m. (MSL.) , |       |       | at 06.00 Hours , on Sep 30 , 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 35.00 |       | m. (MSL.) , |       |       | River Bed                         | 31.64 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 48.37 |       | m. (MSL.) , |       |       |                                   |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 48.36 |       | m. (MSL.) , |       |       | Drainage Area                     | 25018 | Square Kilometers |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                       | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 153.10                                                    | 155.30                   | 100.00  | 103.00  | 134.40               | 121.00  | 412.25  | 216.55  | 95.00                    | 161.90  | 194.70  | 172.90  |          |        |
| 2              | 167.40                                                    | 163.00                   | 102.00  | 92.00   | 136.60               | 254.50  | 310.60  | 198.15  | 108.00                   | 184.35  | 191.25  | 170.70  |          |        |
| 3              | 171.80                                                    | 188.95                   | 100.00  | 80.50   | 141.00               | 262.55  | 274.05  | 174.00  | 120.00                   | 182.05  | 194.70  | 178.60  |          |        |
| 4              | 165.20                                                    | 241.85                   | 108.00  | 70.15   | 138.80               | 231.50  | 246.45  | 137.70  | 146.50                   | 178.60  | 194.70  | 184.35  |          |        |
| 5              | 163.00                                                    | 245.30                   | 115.00  | 70.15   | 135.50               | 176.30  | 239.55  | 97.00   | 172.90                   | 176.30  | 180.90  | 182.05  |          |        |
| 6              | 164.10                                                    | 239.55                   | 122.00  | 87.15   | 123.00               | 132.20  | 239.55  | 99.00   | 209.65                   | 174.00  | 171.80  | 164.10  |          |        |
| 7              | 167.40                                                    | 240.70                   | 123.00  | 95.00   | 78.60                | 102.00  | 220.00  | 88.10   | 225.75                   | 170.70  | 170.70  | 138.80  |          |        |
| 8              | 163.00                                                    | 246.45                   | 120.00  | 118.00  | 113.00               | 109.00  | 163.00  | 73.85   | 207.35                   | 169.60  | 174.00  | 110.00  |          |        |
| 9              | 158.60                                                    | 226.90                   | 114.00  | 110.00  | 107.00               | 119.00  | 123.00  | 71.00   | 171.80                   | 160.80  | 168.50  | 101.00  |          |        |
| 10             | 169.60                                                    | 188.95                   | 110.00  | 137.70  | 136.60               | 137.70  | 81.45   | 85.25   | 148.70                   | 161.90  | 170.70  | 105.00  |          |        |
| 11             | 149.80                                                    | 191.25                   | 115.00  | 161.90  | 167.40               | 175.15  | 99.00   | 92.00   | 130.00                   | 156.40  | 165.20  | 112.00  |          |        |
| 12             | 148.70                                                    | 169.60                   | 124.00  | 194.70  | 192.40               | 184.35  | 109.00  | 94.00   | 127.00                   | 159.70  | 161.90  | 116.00  |          |        |
| 13             | 144.30                                                    | 158.60                   | 128.00  | 185.50  | 215.40               | 208.50  | 113.00  | 86.20   | 123.00                   | 161.90  | 156.40  | 118.00  |          |        |
| 14             | 142.10                                                    | 158.60                   | 139.90  | 161.90  | 208.50               | 239.55  | 114.00  | 87.15   | 121.00                   | 156.40  | 168.50  | 131.10  |          |        |
| 15             | 131.10                                                    | 194.70                   | 123.00  | 123.00  | 159.70               | 263.70  | 108.00  | 88.10   | 119.00                   | 154.20  | 179.75  | 128.00  |          |        |
| 16             | 127.00                                                    | 231.50                   | 106.00  | 104.00  | 171.80               | 297.40  | 107.00  | 86.20   | 120.00                   | 152.00  | 188.95  | 123.00  |          |        |
| 17             | 128.00                                                    | 203.90                   | 78.60   | 75.75   | 148.70               | 344.20  | 108.00  | 138.80  | 121.00                   | 148.70  | 183.20  | 106.00  |          |        |
| 18             | 149.80                                                    | 176.30                   | 60.80   | 71.00   | 125.00               | 301.00  | 113.00  | 125.00  | 124.00                   | 145.40  | 191.25  | 114.00  |          |        |
| 19             | 179.75                                                    | 176.30                   | 59.10   | 73.85   | 113.00               | 270.60  | 130.00  | 116.00  | 126.00                   | 138.80  | 209.65  | 133.30  |          |        |
| 20             | 150.90                                                    | 185.50                   | 70.15   | 75.75   | 103.00               | 238.40  | 199.30  | 99.00   | 126.00                   | 131.10  | 200.45  | 138.80  |          |        |
| 21             | 152.00                                                    | 198.15                   | 81.45   | 73.85   | 50.50                | 180.90  | 263.70  | 66.75   | 127.00                   | 146.50  | 195.85  | 144.30  |          |        |
| 22             | 148.70                                                    | 184.35                   | 88.10   | 72.90   | 65.05                | 147.60  | 256.80  | 86.20   | 132.20                   | 159.70  | 188.95  | 155.30  |          |        |
| 23             | 160.80                                                    | 174.00                   | 99.00   | 71.95   | 95.00                | 126.00  | 262.55  | 75.75   | 163.00                   | 161.90  | 149.80  | 166.30  |          |        |
| 24             | 168.50                                                    | 146.50                   | 118.00  | 71.00   | 229.20               | 123.00  | 261.40  | 80.50   | 188.95                   | 163.00  | 142.10  | 170.70  |          |        |
| 25             | 156.40                                                    | 136.60                   | 136.60  | 76.70   | 343.00               | 126.00  | 252.20  | 85.25   | 201.60                   | 171.80  | 141.00  | 176.30  |          |        |
| 26             | 160.80                                                    | 131.10                   | 128.00  | 76.70   | 247.60               | 132.20  | 261.40  | 75.75   | 185.50                   | 184.35  | 161.90  | 169.60  |          |        |
| 27             | 159.70                                                    | 135.50                   | 130.00  | 75.75   | 126.00               | 127.00  | 282.10  | 71.00   | 170.70                   | 190.10  | 177.45  | 155.30  |          |        |
| 28             | 166.30                                                    | 132.20                   | 108.00  | 73.85   | 110.00               | 314.20  | 280.95  | 71.00   | 154.20                   | 200.45  | 170.70  | 159.70  |          |        |
| 29             | 161.90                                                    | 118.00                   | 99.00   | 72.90   | 99.00                | 479.75  | 260.25  | 70.15   | 146.50                   | 194.70  |         | 166.30  |          |        |
| 30             | 155.30                                                    | 109.00                   | 94.00   | 78.60   | 77.65                | 496.40  | 275.20  | 69.30   | 129.00                   | 194.70  |         | 186.65  |          |        |
| 31             |                                                           | 96.00                    |         | 134.40  | 78.60                |         | 289.00  |         | 127.00                   | 205.05  |         | 207.35  |          |        |
| Total          | 4685.05                                                   | 5544.60                  | 3200.70 | 3069.60 | 4371.00              | 6421.65 | 6455.75 | 3004.70 | 4568.30                  | 5197.05 | 4944.95 | 4585.50 | 56048.85 | CMSDAY |
| Mean           | 156.17                                                    | 178.86                   | 106.69  | 99.02   | 141.00               | 214.06  | 208.25  | 100.16  | 147.36                   | 167.65  | 176.61  | 147.92  | 153.56   | CMS    |
| Max            | 179.75                                                    | 246.45                   | 139.90  | 194.70  | 343.00               | 496.40  | 412.25  | 216.55  | 225.75                   | 205.05  | 209.65  | 207.35  | 496.40   | CMS    |
| Min            | 127.00                                                    | 96.00                    | 59.10   | 70.15   | 50.50                | 102.00  | 81.45   | 66.75   | 95.00                    | 131.10  | 141.00  | 101.00  | 50.50    | CMS    |
| Runoff         | 404.79                                                    | 479.05                   | 276.54  | 265.21  | 377.65               | 554.83  | 557.78  | 259.61  | 394.70                   | 449.03  | 427.24  | 396.19  | 4842.62  | MCM    |
| Momentary Peak | CMS. at 40.40 m. (MSL.) at 06.00 Hours , on Sep 30 , 2013 |                          |         |         |                      |         |         |         |                          |         |         |         |          |        |
| Runoff Yield   | 6.14                                                      | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | 20.465  | Liters/Second/Square KM. |         |         |         |          |        |

**WATER YEAR : 2013**

## NAN RIVER BASIN

### Khlong Tron at Ban Wang Pla Kod , Uttaradit (N.72)

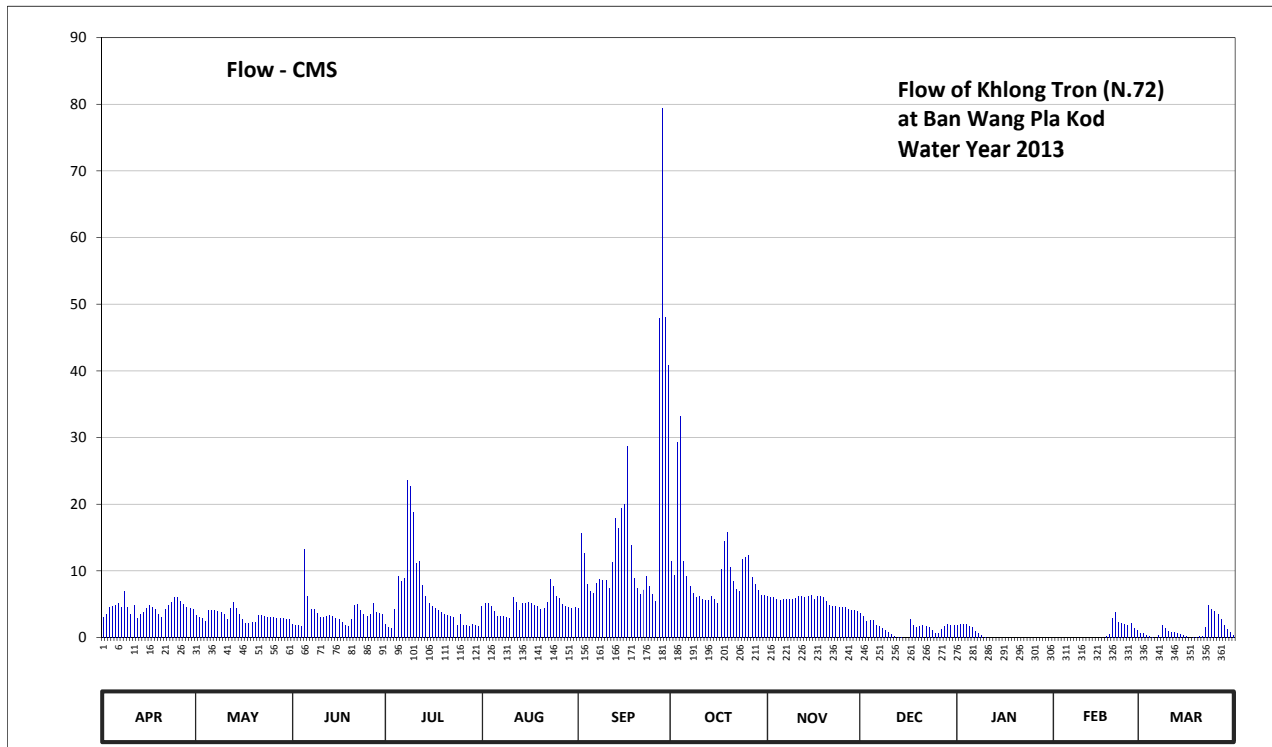
Lat 17 - 27 - 24 N    Long 100 - 16 - 39 E

**Location : on right bank at Ban Wang Pla Kod.**

|                                         |                                                                                          |              |               |                 |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|--------------|---------------|-----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Wang Pla Kod | <b>Amphoe</b> | Thong Saen Khan | <b>Changwat</b>  | Uttaradit         |
| <b>Drainage Area</b>                    | 225                                                                                      | sq.km.       |               |                 |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                               |              |               |                 |                  |                   |
| <b>Zero Gage at Bottom</b>              | +60.891                                                                                  | m. (MSL.)    |               |                 |                  |                   |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                               |              |               |                 |                  |                   |
| <b>Location BM</b>                      | On right bank near the gage site.                                                        |              |               |                 | <b>Elevation</b> | +69.454 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                     |              |               |                 |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |              |               |                 |                  |                   |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                             |              |               |                 |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |              |               |                 |                  |                   |
| <b>Period of Rating</b>                 | 2005 to date                                                                             |              |               |                 |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |              |               |                 |                  |                   |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                             |              |               |                 |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                           |              |               |                 |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |              |               |                 |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 8 discharge measurements made in 2013. |              |               |                 |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

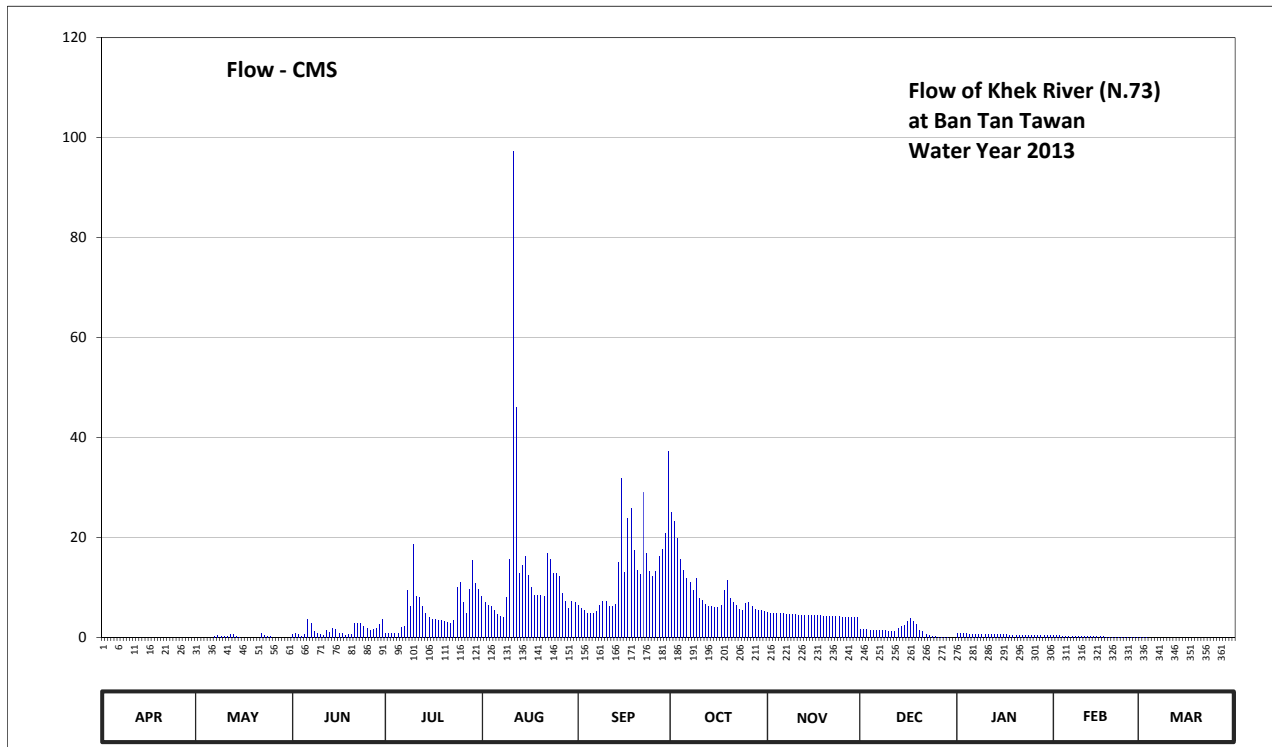
| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 61.94 | 61.97 | 61.81       | 61.80 | 62.13                             | 62.09 | 62.69             | 62.27 | 62.01 | 61.79 | 61.16 | 61.49 |        |
| 2                                | 61.99 | 61.94 | 61.78       | 61.71 | 62.18                             | 62.97 | 62.54             | 62.26 | 61.95 | 61.80 | 61.16 | 61.47 |        |
| 3                                | 62.11 | 61.92 | 61.76       | 61.68 | 62.18                             | 62.76 | 63.69             | 62.26 | 61.85 | 61.81 | 61.16 | 61.39 |        |
| 4                                | 62.12 | 61.86 | 61.74       | 62.08 | 62.12                             | 62.43 | 63.88             | 62.24 | 61.87 | 61.80 | 61.16 | 61.31 |        |
| 5                                | 62.14 | 62.06 | 62.81       | 62.52 | 62.04                             | 62.34 | 62.68             | 62.22 | 61.87 | 61.75 | 61.16 | 61.24 |        |
| 6                                | 62.17 | 62.06 | 62.28       | 62.47 | 61.96                             | 62.32 | 62.52             | 62.23 | 61.79 | 61.70 | 61.16 | 61.18 |        |
| 7                                | 62.11 | 62.06 | 62.08       | 62.50 | 61.96                             | 62.44 | 62.41             | 62.24 | 61.74 | 61.58 | 61.16 | 61.40 |        |
| 8                                | 62.34 | 62.04 | 62.07       | 63.39 | 61.96                             | 62.49 | 62.31             | 62.24 | 61.69 | 61.49 | 61.17 | 61.79 |        |
| 9                                | 62.11 | 62.02 | 62.00       | 63.34 | 61.94                             | 62.48 | 62.26             | 62.24 | 61.62 | 61.37 | 61.17 | 61.69 |        |
| 10                               | 61.99 | 61.99 | 61.94       | 63.14 | 61.92                             | 62.48 | 62.27             | 62.25 | 61.55 | 61.27 | 61.17 | 61.59 |        |
| 11                               | 62.14 | 61.89 | 61.93       | 62.66 | 62.26                             | 62.39 | 62.24             | 62.28 | 61.44 | 61.16 | 61.18 | 61.56 |        |
| 12                               | 61.92 | 62.09 | 61.95       | 62.69 | 62.19                             | 62.67 | 62.22             | 62.27 | 61.32 | 61.14 | 61.18 | 61.52 |        |
| 13                               | 61.99 | 62.19 | 61.97       | 62.42 | 62.06                             | 63.09 | 62.22             | 62.26 | 61.25 | 61.13 | 61.18 | 61.49 |        |
| 14                               | 62.03 | 62.09 | 61.95       | 62.28 | 62.17                             | 63.01 | 62.27             | 62.27 | 61.22 | 61.12 | 61.18 | 61.46 |        |
| 15                               | 62.09 | 61.99 | 61.92       | 62.18 | 62.17                             | 63.17 | 62.23             | 62.29 | 61.19 | 61.12 | 61.19 | 61.37 |        |
| 16                               | 62.14 | 61.89 | 61.89       | 62.12 | 62.19                             | 63.20 | 62.17             | 62.24 | 61.14 | 61.12 | 61.19 | 61.28 |        |
| 17                               | 62.10 | 61.82 | 61.83       | 62.09 | 62.18                             | 63.66 | 62.61             | 62.28 | 61.90 | 61.13 | 61.19 | 61.16 |        |
| 18                               | 62.07 | 61.82 | 61.77       | 62.06 | 62.14                             | 62.84 | 62.89             | 62.27 | 61.79 | 61.13 | 61.34 | 61.21 |        |
| 19                               | 61.99 | 61.83 | 61.74       | 62.03 | 62.12                             | 62.50 | 62.98             | 62.26 | 61.72 | 61.13 | 61.44 | 61.26 |        |
| 20                               | 61.94 | 61.83 | 61.89       | 61.99 | 62.08                             | 62.38 | 62.62             | 62.20 | 61.74 | 61.13 | 61.92 | 61.29 |        |
| 21                               | 62.07 | 61.97 | 62.14       | 61.97 | 62.09                             | 62.30 | 62.47             | 62.15 | 61.77 | 61.14 | 62.02 | 61.33 |        |
| 22                               | 62.14 | 61.97 | 62.16       | 61.95 | 62.19                             | 62.36 | 62.37             | 62.12 | 61.74 | 61.14 | 61.84 | 61.70 |        |
| 23                               | 62.19 | 61.96 | 62.06       | 61.93 | 62.49                             | 62.52 | 62.34             | 62.12 | 61.72 | 61.14 | 61.82 | 62.14 |        |
| 24                               | 62.26 | 61.94 | 61.99       | 61.79 | 62.41                             | 62.41 | 62.70             | 62.11 | 61.62 | 61.14 | 61.80 | 62.08 |        |
| 25                               | 62.26 | 61.94 | 61.95       | 61.99 | 62.28                             | 62.30 | 62.72             | 62.10 | 61.51 | 61.15 | 61.78 | 62.04 |        |
| 26                               | 62.21 | 61.94 | 61.99       | 61.79 | 62.25                             | 62.20 | 62.74             | 62.10 | 61.50 | 61.15 | 61.82 | 61.99 |        |
| 27                               | 62.16 | 61.91 | 62.18       | 61.76 | 62.16                             | 64.51 | 62.51             | 62.08 | 61.64 | 61.15 | 61.69 | 61.89 |        |
| 28                               | 62.11 | 61.91 | 62.03       | 61.74 | 62.13                             | 65.64 | 62.43             | 62.06 | 61.73 | 61.15 | 61.62 | 61.79 |        |
| 29                               | 62.09 | 61.91 | 62.00       | 61.81 | 62.10                             | 64.52 | 62.36             | 62.05 | 61.80 | 61.15 |       | 61.64 |        |
| 30                               | 62.07 | 61.89 | 61.99       | 61.79 | 62.09                             | 64.22 | 62.29             | 62.04 | 61.76 | 61.15 |       | 61.54 |        |
| 31                               |       | 61.89 |             | 61.75 | 62.11                             |       | 62.29             |       | 61.77 | 61.16 |       | 61.39 |        |
| Mean                             | 62.10 | 61.95 | 61.99       | 62.17 | 62.14                             | 62.89 | 62.55             | 62.20 | 61.65 | 61.30 | 61.39 | 61.54 |        |
| Max                              | 62.34 | 62.19 | 62.81       | 63.39 | 62.49                             | 65.64 | 63.88             | 62.29 | 62.01 | 61.81 | 62.02 | 62.14 | 65.64  |
| Min                              | 61.92 | 61.82 | 61.74       | 61.68 | 61.92                             | 62.09 | 62.17             | 62.04 | 61.14 | 61.12 | 61.16 | 61.16 | 61.12  |
| Annual Max Momentary Gage Height |       | 65.94 | m. (MSL.) , |       | at 15.00 Hours , on Sep 28 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 60.89 | m. (MSL.) , |       | River Bed                         | 58.99 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 68.22 | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 68.25 | m. (MSL.) , |       | Drainage Area                     | 225   | Square Kilometers |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun    | Jul    | Aug                  | Sep    | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual  |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|---------|--------|
| 1              | 3.12                                                            | 3.36                     | 2.08   | 2.00   | 4.77                 | 4.41   | 11.55   | 6.17                     | 3.69  | 1.95  | 0.00  | 0.67  |         |        |
| 2              | 3.52                                                            | 3.12                     | 1.90   | 1.55   | 5.22                 | 15.75  | 9.42    | 6.06                     | 3.20  | 2.00  | 0.00  | 0.61  |         |        |
| 3              | 4.59                                                            | 2.96                     | 1.80   | 1.40   | 5.22                 | 12.60  | 29.31   | 6.06                     | 2.40  | 2.08  | 0.00  | 0.38  |         |        |
| 4              | 4.68                                                            | 2.48                     | 1.70   | 4.32   | 4.68                 | 7.99   | 33.16   | 5.84                     | 2.56  | 2.00  | 0.00  | 0.22  |         |        |
| 5              | 4.86                                                            | 4.14                     | 13.35  | 9.16   | 3.96                 | 6.94   | 11.40   | 5.62                     | 2.56  | 1.75  | 0.00  | 0.08  |         |        |
| 6              | 5.13                                                            | 4.14                     | 6.28   | 8.51   | 3.28                 | 6.72   | 9.16    | 5.73                     | 1.95  | 1.50  | 0.00  | 0.00  |         |        |
| 7              | 4.59                                                            | 4.14                     | 4.32   | 8.90   | 3.28                 | 8.12   | 7.73    | 5.84                     | 1.70  | 0.94  | 0.00  | 0.40  |         |        |
| 8              | 6.94                                                            | 3.96                     | 4.23   | 23.61  | 3.28                 | 8.77   | 6.61    | 5.84                     | 1.45  | 0.67  | 0.00  | 1.95  |         |        |
| 9              | 4.59                                                            | 3.78                     | 3.60   | 22.66  | 3.12                 | 8.64   | 6.06    | 5.84                     | 1.10  | 0.34  | 0.00  | 1.45  |         |        |
| 10             | 3.52                                                            | 3.52                     | 3.12   | 18.86  | 2.96                 | 8.64   | 6.17    | 5.95                     | 0.85  | 0.14  | 0.00  | 0.97  |         |        |
| 11             | 4.86                                                            | 2.72                     | 3.04   | 11.10  | 6.06                 | 7.49   | 5.84    | 6.28                     | 0.52  | 0.00  | 0.00  | 0.88  |         |        |
| 12             | 2.96                                                            | 4.41                     | 3.20   | 11.55  | 5.31                 | 11.25  | 5.62    | 6.17                     | 0.24  | 0.00  | 0.00  | 0.76  |         |        |
| 13             | 3.52                                                            | 5.31                     | 3.36   | 7.86   | 4.14                 | 17.91  | 5.62    | 6.06                     | 0.10  | 0.00  | 0.00  | 0.67  |         |        |
| 14             | 3.87                                                            | 4.41                     | 3.20   | 6.28   | 5.13                 | 16.39  | 6.17    | 6.17                     | 0.04  | 0.00  | 0.00  | 0.58  |         |        |
| 15             | 4.41                                                            | 3.52                     | 2.96   | 5.22   | 5.13                 | 19.43  | 5.73    | 6.39                     | 0.00  | 0.00  | 0.00  | 0.34  |         |        |
| 16             | 4.86                                                            | 2.72                     | 2.72   | 4.68   | 5.31                 | 20.00  | 5.13    | 5.84                     | 0.00  | 0.00  | 0.00  | 0.16  |         |        |
| 17             | 4.50                                                            | 2.16                     | 2.24   | 4.41   | 5.22                 | 28.74  | 10.35   | 6.28                     | 2.80  | 0.00  | 0.00  | 0.00  |         |        |
| 18             | 4.23                                                            | 2.16                     | 1.85   | 4.14   | 4.86                 | 13.80  | 14.55   | 6.17                     | 1.95  | 0.00  | 0.28  | 0.02  |         |        |
| 19             | 3.52                                                            | 2.24                     | 1.70   | 3.87   | 4.68                 | 8.90   | 15.90   | 6.06                     | 1.60  | 0.00  | 0.52  | 0.12  |         |        |
| 20             | 3.12                                                            | 2.24                     | 2.72   | 3.52   | 4.32                 | 7.38   | 10.50   | 5.40                     | 1.70  | 0.00  | 2.96  | 0.18  |         |        |
| 21             | 4.23                                                            | 3.36                     | 4.86   | 3.36   | 4.41                 | 6.50   | 8.51    | 4.95                     | 1.85  | 0.00  | 3.78  | 0.26  |         |        |
| 22             | 4.86                                                            | 3.36                     | 5.04   | 3.20   | 5.31                 | 7.16   | 7.27    | 4.68                     | 1.70  | 0.00  | 2.32  | 1.50  |         |        |
| 23             | 5.31                                                            | 3.28                     | 4.14   | 3.04   | 8.77                 | 9.16   | 6.94    | 4.68                     | 1.60  | 0.00  | 2.16  | 4.86  |         |        |
| 24             | 6.06                                                            | 3.12                     | 3.52   | 1.95   | 7.73                 | 7.73   | 11.70   | 4.59                     | 1.10  | 0.00  | 2.00  | 4.32  |         |        |
| 25             | 6.06                                                            | 3.12                     | 3.20   | 3.52   | 6.28                 | 6.50   | 12.00   | 4.50                     | 0.73  | 0.00  | 1.90  | 3.96  |         |        |
| 26             | 5.51                                                            | 3.12                     | 3.52   | 1.95   | 5.95                 | 5.40   | 12.30   | 4.50                     | 0.70  | 0.00  | 2.16  | 3.52  |         |        |
| 27             | 5.04                                                            | 2.88                     | 5.22   | 1.80   | 5.04                 | 47.84  | 9.03    | 4.32                     | 1.20  | 0.00  | 1.45  | 2.72  |         |        |
| 28             | 4.59                                                            | 2.88                     | 3.87   | 1.70   | 4.77                 | 79.48  | 7.99    | 4.14                     | 1.65  | 0.00  | 1.10  | 1.95  |         |        |
| 29             | 4.41                                                            | 2.88                     | 3.60   | 2.08   | 4.50                 | 48.08  | 7.16    | 4.05                     | 2.00  | 0.00  |       | 1.20  |         |        |
| 30             | 4.23                                                            | 2.72                     | 3.52   | 1.95   | 4.41                 | 40.88  | 6.39    | 3.96                     | 1.80  | 0.00  |       | 0.82  |         |        |
| 31             |                                                                 | 2.72                     |        | 1.75   | 4.59                 |        | 6.39    |                          | 1.85  | 0.00  |       | 0.38  |         |        |
| Total          | 135.69                                                          | 100.93                   | 109.86 | 189.90 | 151.69               | 498.60 | 311.66  | 164.14                   | 46.59 | 13.37 | 20.63 | 35.93 | 1778.99 | CMSDAY |
| Mean           | 4.52                                                            | 3.26                     | 3.66   | 6.13   | 4.89                 | 16.62  | 10.05   | 5.47                     | 1.50  | 0.43  | 0.74  | 1.16  | 4.87    | CMS    |
| Max            | 6.94                                                            | 5.31                     | 13.35  | 23.61  | 8.77                 | 79.48  | 33.16   | 6.39                     | 3.69  | 2.08  | 3.78  | 4.86  | 79.48   | CMS    |
| Min            | 2.96                                                            | 2.16                     | 1.70   | 1.40   | 2.96                 | 4.41   | 5.13    | 3.96                     | 0.00  | 0.00  | 0.00  | 0.00  | 0.00    | CMS    |
| Runoff         | 11.72                                                           | 8.72                     | 9.49   | 16.41  | 13.11                | 43.08  | 26.93   | 14.18                    | 4.03  | 1.16  | 1.78  | 3.10  | 153.71  | MCM    |
| Momentary Peak | 89.22 CMS. at 65.94 m. (MSL.) at 15.00 Hours , on Sep 28 , 2013 |                          |        |        |                      |        |         |                          |       |       |       |       |         |        |
| Runoff Yield   | 21.66                                                           | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        | 396.533 | Liters/Second/Square KM. |       |       |       |       |         |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec   | Jan   | Feb  | Mar  | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------|--------------------------|-------|-------|------|------|----------------|
| 1              | 0.00                                                              | 0.00                     | 0.65  | 0.80                 | 8.36   | 6.44    | 25.02  | 5.08                     | 1.75  | 0.85  | 0.40 | 0.05 |                |
| 2              | 0.00                                                              | 0.00                     | 0.85  | 0.85                 | 7.08   | 5.96    | 23.40  | 5.00                     | 1.65  | 0.85  | 0.40 | 0.05 |                |
| 3              | 0.00                                                              | 0.00                     | 0.65  | 0.85                 | 6.60   | 5.48    | 19.89  | 4.95                     | 1.60  | 0.80  | 0.40 | 0.05 |                |
| 4              | 0.00                                                              | 0.00                     | 0.35  | 0.90                 | 6.28   | 5.00    | 15.72  | 4.90                     | 1.55  | 0.80  | 0.35 | 0.00 |                |
| 5              | 0.00                                                              | 0.00                     | 0.65  | 0.90                 | 5.48   | 4.90    | 13.40  | 4.85                     | 1.55  | 0.75  | 0.35 | 0.00 |                |
| 6              | 0.00                                                              | 0.00                     | 3.75  | 2.10                 | 4.65   | 4.80    | 11.88  | 4.80                     | 1.55  | 0.75  | 0.35 | 0.00 |                |
| 7              | 0.00                                                              | 0.35                     | 2.85  | 2.25                 | 4.30   | 5.32    | 11.08  | 4.75                     | 1.50  | 0.75  | 0.35 | 0.00 |                |
| 8              | 0.00                                                              | 0.40                     | 1.30  | 9.56                 | 4.20   | 6.60    | 9.48   | 4.70                     | 1.50  | 0.70  | 0.30 | 0.00 |                |
| 9              | 0.00                                                              | 0.25                     | 0.85  | 6.28                 | 8.12   | 7.24    | 11.80  | 4.65                     | 1.40  | 0.70  | 0.30 | 0.00 |                |
| 10             | 0.00                                                              | 0.20                     | 0.65  | 18.68                | 15.64  | 7.40    | 7.96   | 4.60                     | 1.35  | 0.70  | 0.30 | 0.00 |                |
| 11             | 0.00                                                              | 0.20                     | 0.55  | 8.28                 | 97.22  | 6.36    | 7.48   | 4.55                     | 1.35  | 0.65  | 0.25 | 0.00 |                |
| 12             | 0.00                                                              | 0.60                     | 1.40  | 8.12                 | 46.09  | 6.28    | 6.68   | 4.55                     | 1.30  | 0.65  | 0.25 | 0.00 |                |
| 13             | 0.00                                                              | 0.60                     | 1.10  | 6.28                 | 13.00  | 6.76    | 6.36   | 4.50                     | 1.95  | 0.65  | 0.25 | 0.00 |                |
| 14             | 0.00                                                              | 0.30                     | 1.85  | 4.90                 | 14.52  | 15.08   | 6.20   | 4.50                     | 2.35  | 0.60  | 0.20 | 0.00 |                |
| 15             | 0.00                                                              | 0.15                     | 1.70  | 4.10                 | 16.28  | 31.80   | 6.12   | 4.45                     | 2.45  | 0.60  | 0.20 | 0.00 |                |
| 16             | 0.00                                                              | 0.00                     | 0.95  | 3.75                 | 12.44  | 13.08   | 6.04   | 4.45                     | 3.20  | 0.60  | 0.20 | 0.00 |                |
| 17             | 0.00                                                              | 0.00                     | 0.80  | 3.70                 | 10.04  | 23.94   | 6.52   | 4.40                     | 3.85  | 0.60  | 0.20 | 0.00 |                |
| 18             | 0.00                                                              | 0.00                     | 0.50  | 3.45                 | 8.44   | 25.83   | 9.48   | 4.40                     | 3.35  | 0.55  | 0.15 | 0.00 |                |
| 19             | 0.00                                                              | 0.00                     | 0.60  | 3.50                 | 8.52   | 17.56   | 11.48  | 4.35                     | 2.65  | 0.55  | 0.15 | 0.00 |                |
| 20             | 0.00                                                              | 0.00                     | 0.65  | 3.30                 | 8.52   | 13.48   | 7.80   | 4.35                     | 1.40  | 0.55  | 0.15 | 0.00 |                |
| 21             | 0.00                                                              | 0.00                     | 2.85  | 3.05                 | 8.36   | 12.68   | 7.08   | 4.30                     | 1.20  | 0.50  | 0.15 | 0.00 |                |
| 22             | 0.00                                                              | 0.90                     | 2.90  | 2.85                 | 17.00  | 29.10   | 6.60   | 4.30                     | 0.75  | 0.50  | 0.15 | 0.00 |                |
| 23             | 0.00                                                              | 0.55                     | 2.80  | 3.50                 | 15.72  | 16.84   | 5.72   | 4.25                     | 0.50  | 0.50  | 0.10 | 0.00 |                |
| 24             | 0.00                                                              | 0.30                     | 2.20  | 10.12                | 12.84  | 13.24   | 5.56   | 4.25                     | 0.35  | 0.50  | 0.10 | 0.00 |                |
| 25             | 0.00                                                              | 0.25                     | 1.85  | 11.16                | 12.92  | 12.36   | 6.84   | 4.20                     | 0.30  | 0.45  | 0.10 | 0.00 |                |
| 26             | 0.00                                                              | 0.00                     | 1.45  | 7.16                 | 12.28  | 13.24   | 7.00   | 4.20                     | 0.15  | 0.45  | 0.05 | 0.00 |                |
| 27             | 0.00                                                              | 0.00                     | 1.60  | 4.80                 | 8.84   | 16.28   | 6.28   | 4.20                     | 0.15  | 0.45  | 0.05 | 0.00 |                |
| 28             | 0.00                                                              | 0.00                     | 1.85  | 9.72                 | 7.32   | 17.64   | 5.80   | 4.15                     | 0.15  | 0.45  | 0.05 | 0.00 |                |
| 29             | 0.00                                                              | 0.00                     | 2.70  | 15.56                | 5.96   | 20.85   | 5.48   | 4.15                     | 0.05  | 0.45  |      | 0.00 |                |
| 30             | 0.00                                                              | 0.00                     | 3.75  | 10.92                | 7.24   | 37.25   | 5.40   | 4.15                     | 0.00  | 0.45  |      | 0.00 |                |
| 31             |                                                                   | 0.00                     |       | 9.80                 | 7.08   |         | 5.24   |                          | 0.00  | 0.45  |      | 0.00 |                |
| Total          | 0.00                                                              | 5.05                     | 46.60 | 181.19               | 421.34 | 408.79  | 290.79 | 134.93                   | 42.85 | 18.80 | 6.25 | 0.15 | 1556.74 CMSDAY |
| Mean           | 0.00                                                              | 0.16                     | 1.55  | 5.84                 | 13.59  | 13.63   | 9.38   | 4.50                     | 1.38  | 0.61  | 0.22 | 0.00 | 4.27 CMS       |
| Max            | 0.00                                                              | 0.90                     | 3.75  | 18.68                | 97.22  | 37.25   | 25.02  | 5.08                     | 3.85  | 0.85  | 0.40 | 0.05 | 97.22 CMS      |
| Min            | 0.00                                                              | 0.00                     | 0.35  | 0.80                 | 4.20   | 4.80    | 5.24   | 4.15                     | 0.00  | 0.45  | 0.05 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                              | 0.44                     | 4.03  | 15.66                | 36.40  | 35.32   | 25.12  | 11.66                    | 3.70  | 1.62  | 0.54 | 0.01 | 134.50 MCM     |
| Momentary Peak | 101.91 CMS. at 690.33 m. (MSL.) at 18.00 Hours , on Aug 11 , 2013 |                          |       |                      |        |         |        |                          |       |       |      |      |                |
| Runoff Yield   | 20.02                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 487.451 |        | Liters/Second/Square KM. |       |       |      |      |                |

**WATER YEAR : 2013**

## NAN RIVER BASIN

### Nan River at Bang Krathum , Phitsanulok (N.74)

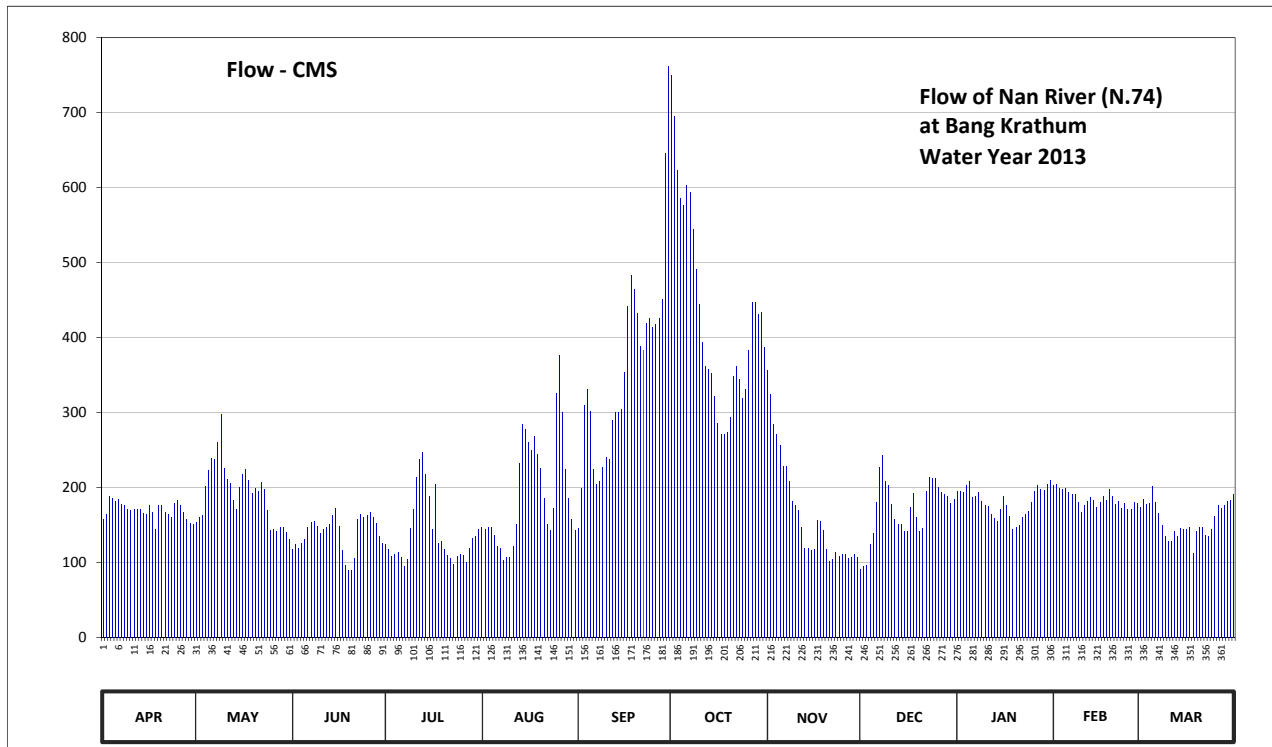
Lat 16 - 34 - 38 N    Long 100 - 14 - 33 E

**Location : on left bank at Bang Krathum.**

|                                         | Ban                                                                                       | Amphoe    | Bang Krathum | Changwat         | Phitsanulok       |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|--------------|------------------|-------------------|
| <b>Drainage Area</b>                    | 25,489                                                                                    | sq.km.    |              |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |              |                  |                   |
| <b>Zero Gage at Bottom</b>              | +29.360                                                                                   | m. (MSL.) |              |                  |                   |
| <b>Bench Mark</b>                       | B.M.- H.D.                                                                                |           |              |                  |                   |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |           |              | <b>Elevation</b> | +44.315 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |              |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |              |                  |                   |
| <b>Period of Available Gage Records</b> | 2001 to date                                                                              |           |              |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |              |                  |                   |
| <b>Period of Rating</b>                 | 2001 to date                                                                              |           |              |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |              |                  |                   |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                              |           |              |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |              |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |              |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 30 discharge measurements made in 2013. |           |              |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 31.52 | 31.48 | 31.09                                             | 31.16 | 31.42 | 31.40 | 36.08 | 33.29 | 30.77 | 31.90 | 31.97 | 31.69 |        |
| 2                                | 31.60 | 31.55 | 31.17                                             | 31.09 | 31.38 | 31.94 | 35.72 | 33.04 | 30.83 | 31.90 | 31.98 | 31.80 |        |
| 3                                | 31.83 | 31.58 | 31.11                                             | 30.98 | 31.41 | 32.92 | 35.22 | 32.72 | 30.84 | 31.89 | 31.94 | 31.73 |        |
| 4                                | 31.81 | 31.96 | 31.18                                             | 31.02 | 31.41 | 33.09 | 34.96 | 32.60 | 31.17 | 31.97 | 31.92 | 31.74 |        |
| 5                                | 31.77 | 32.16 | 31.23                                             | 31.04 | 31.29 | 32.86 | 34.90 | 32.47 | 31.33 | 32.03 | 31.93 | 31.96 |        |
| 6                                | 31.80 | 32.32 | 31.42                                             | 30.96 | 31.13 | 32.18 | 35.08 | 32.21 | 31.76 | 31.82 | 31.89 | 31.76 |        |
| 7                                | 31.73 | 32.30 | 31.49                                             | 30.82 | 31.11 | 31.99 | 35.02 | 32.22 | 32.20 | 31.84 | 31.86 | 31.61 |        |
| 8                                | 31.72 | 32.51 | 31.50                                             | 30.94 | 30.92 | 32.02 | 34.68 | 32.03 | 32.36 | 31.88 | 31.86 | 31.44 |        |
| 9                                | 31.67 | 32.82 | 31.43                                             | 31.40 | 30.96 | 32.20 | 34.29 | 31.77 | 32.02 | 31.77 | 31.76 | 31.28 |        |
| 10                               | 31.65 | 32.19 | 31.32                                             | 31.66 | 30.97 | 32.33 | 33.95 | 31.71 | 31.97 | 31.71 | 31.63 | 31.21 |        |
| 11                               | 31.67 | 32.05 | 31.38                                             | 32.08 | 31.13 | 32.30 | 33.57 | 31.65 | 31.73 | 31.70 | 31.71 | 31.21 |        |
| 12                               | 31.67 | 32.00 | 31.42                                             | 32.31 | 31.45 | 32.76 | 33.34 | 31.42 | 31.52 | 31.59 | 31.77 | 31.35 |        |
| 13                               | 31.67 | 31.78 | 31.46                                             | 32.40 | 32.26 | 32.85 | 33.30 | 31.11 | 31.45 | 31.54 | 31.82 | 31.28 |        |
| 14                               | 31.61 | 31.66 | 31.58                                             | 32.11 | 32.71 | 32.85 | 33.26 | 31.11 | 31.46 | 31.50 | 31.78 | 31.40 |        |
| 15                               | 31.59 | 31.95 | 31.68                                             | 31.84 | 32.66 | 32.88 | 33.02 | 31.08 | 31.35 | 31.67 | 31.69 | 31.38 |        |
| 16                               | 31.72 | 32.11 | 31.43                                             | 31.39 | 32.51 | 33.27 | 32.73 | 31.09 | 31.36 | 31.84 | 31.75 | 31.39 |        |
| 17                               | 31.63 | 32.18 | 31.07                                             | 31.98 | 32.42 | 33.93 | 32.60 | 31.51 | 31.69 | 31.71 | 31.84 | 31.42 |        |
| 18                               | 31.39 | 32.04 | 30.85                                             | 31.18 | 32.58 | 34.24 | 32.60 | 31.50 | 31.87 | 31.57 | 31.79 | 31.03 |        |
| 19                               | 31.71 | 31.87 | 30.76                                             | 31.20 | 32.37 | 34.10 | 32.62 | 31.37 | 31.56 | 31.38 | 31.92 | 31.35 |        |
| 20                               | 31.72 | 31.93 | 30.76                                             | 31.09 | 32.19 | 33.86 | 32.79 | 31.09 | 31.36 | 31.41 | 31.83 | 31.41 |        |
| 21                               | 31.63 | 31.90 | 30.95                                             | 31.00 | 31.81 | 33.53 | 33.23 | 30.91 | 31.40 | 31.44 | 31.73 | 31.41 |        |
| 22                               | 31.59 | 32.01 | 31.53                                             | 30.95 | 31.45 | 33.50 | 33.33 | 30.94 | 31.90 | 31.56 | 31.77 | 31.30 |        |
| 23                               | 31.56 | 31.92 | 31.59                                             | 30.86 | 31.37 | 33.76 | 33.20 | 31.04 | 32.07 | 31.60 | 31.68 | 31.28 |        |
| 24                               | 31.74 | 31.65 | 31.56                                             | 30.98 | 31.68 | 33.81 | 33.00 | 30.98 | 32.06 | 31.64 | 31.74 | 31.39 |        |
| 25                               | 31.79 | 31.37 | 31.58                                             | 31.01 | 33.05 | 33.72 | 33.09 | 31.01 | 32.06 | 31.76 | 31.67 | 31.57 |        |
| 26                               | 31.72 | 31.39 | 31.62                                             | 31.00 | 33.45 | 33.75 | 33.49 | 31.01 | 31.95 | 31.90 | 31.67 | 31.71 |        |
| 27                               | 31.62 | 31.35 | 31.55                                             | 30.89 | 32.85 | 33.81 | 33.97 | 30.95 | 31.88 | 31.97 | 31.76 | 31.68 |        |
| 28                               | 31.52 | 31.42 | 31.47                                             | 31.11 | 32.18 | 34.00 | 33.97 | 30.97 | 31.86 | 31.92 | 31.74 | 31.72 |        |
| 29                               | 31.47 | 31.42 | 31.28                                             | 31.25 | 31.81 | 35.38 | 33.85 | 31.02 | 31.84 | 31.91 |       | 31.77 |        |
| 30                               | 31.46 | 31.34 | 31.18                                             | 31.28 | 31.52 | 36.16 | 33.87 | 30.96 | 31.74 | 31.98 |       | 31.78 |        |
| 31                               |       | 31.24 |                                                   | 31.38 | 31.37 |       | 33.52 |       | 31.80 | 32.04 |       | 31.86 |        |
| Mean                             | 31.65 | 31.85 | 31.32                                             | 31.30 | 31.83 | 33.25 | 33.81 | 31.56 | 31.65 | 31.75 | 31.80 | 31.51 |        |
| Max                              | 31.83 | 32.82 | 31.68                                             | 32.40 | 33.45 | 36.16 | 36.08 | 33.29 | 32.36 | 32.04 | 31.98 | 31.96 | 36.16  |
| Min                              | 31.39 | 31.24 | 30.76                                             | 30.82 | 30.92 | 31.40 | 32.60 | 30.91 | 30.77 | 31.38 | 31.63 | 31.03 | 30.76  |
| Annual Max Momentary Gage Height | 36.24 |       | m. (MSL.) , at 18.00 Hours , on Sep 30 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 29.36 |       | m. (MSL.) , River Bed 27.78 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 44.41 |       | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 44.47 |       | m. (MSL.) , Drainage Area 25489 Square Kilometers |       |       |       |       |       |       |       |       |       |        |

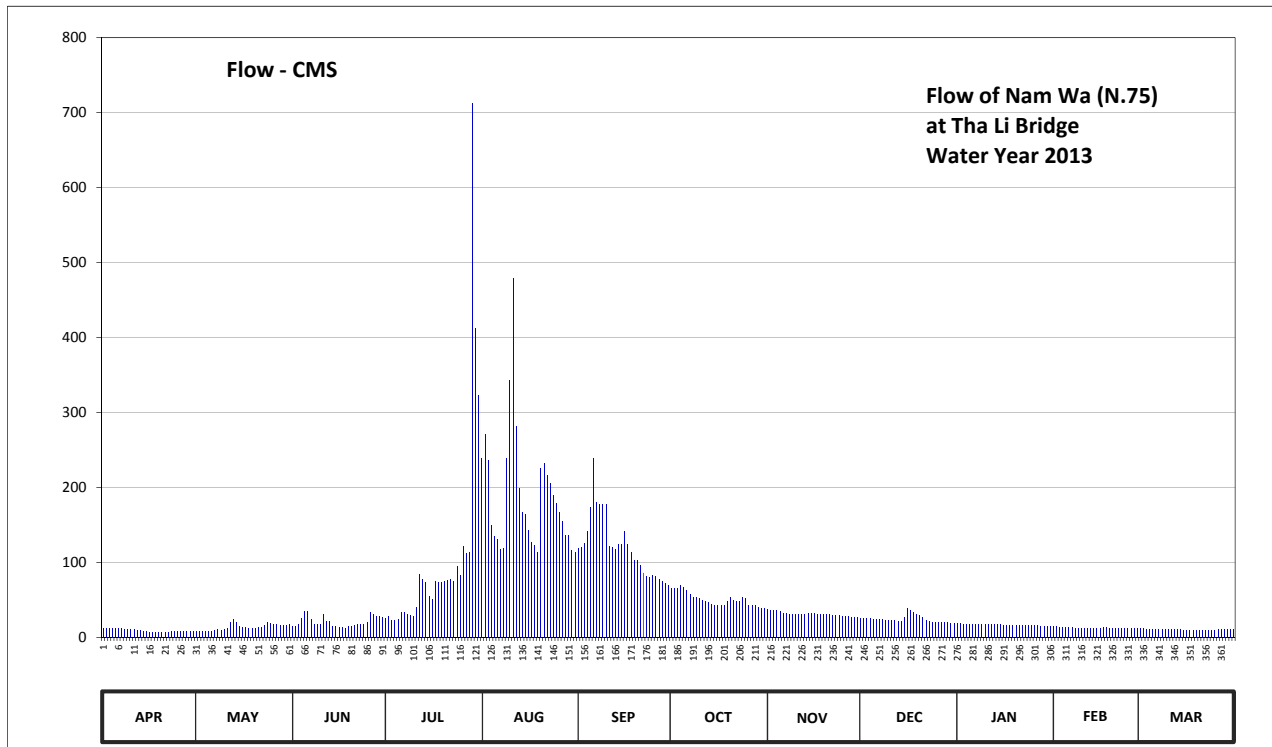


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 157.40                                                           | 153.60                   | 118.10  | 124.40               | 147.90  | 146.00   | 749.40                   | 355.70  | 90.75   | 195.50  | 202.85  | 174.00  |          |        |
| 2              | 165.00                                                           | 160.25                   | 125.30  | 118.10               | 144.20  | 199.70   | 695.40                   | 324.00  | 95.55   | 195.50  | 203.90  | 185.00  |          |        |
| 3              | 188.15                                                           | 163.10                   | 119.90  | 108.30               | 146.95  | 309.40   | 622.90                   | 285.40  | 96.40   | 194.45  | 199.70  | 178.00  |          |        |
| 4              | 186.05                                                           | 201.80                   | 126.20  | 111.80               | 146.95  | 330.25   | 585.20                   | 271.00  | 125.30  | 202.85  | 197.60  | 179.00  |          |        |
| 5              | 182.00                                                           | 222.80                   | 130.70  | 113.60               | 136.10  | 302.20   | 576.50                   | 256.05  | 139.70  | 209.15  | 198.65  | 201.80  |          |        |
| 6              | 185.00                                                           | 239.60                   | 147.90  | 106.60               | 121.70  | 224.90   | 602.60                   | 228.05  | 181.00  | 187.10  | 194.45  | 181.00  |          |        |
| 7              | 178.00                                                           | 237.50                   | 154.55  | 94.70                | 119.90  | 204.95   | 593.90                   | 229.10  | 227.00  | 189.20  | 191.30  | 166.00  |          |        |
| 8              | 177.00                                                           | 260.65                   | 155.50  | 104.90               | 103.20  | 208.10   | 544.60                   | 209.15  | 243.80  | 193.40  | 191.30  | 149.80  |          |        |
| 9              | 172.00                                                           | 297.40                   | 148.85  | 146.00               | 106.60  | 227.00   | 490.15                   | 182.00  | 208.10  | 182.00  | 181.00  | 135.20  |          |        |
| 10             | 170.00                                                           | 225.95                   | 138.80  | 171.00               | 107.45  | 240.65   | 444.25                   | 176.00  | 202.85  | 176.00  | 168.00  | 128.90  |          |        |
| 11             | 172.00                                                           | 211.25                   | 144.20  | 214.40               | 121.70  | 237.50   | 392.95                   | 170.00  | 178.00  | 175.00  | 176.00  | 128.90  |          |        |
| 12             | 172.00                                                           | 206.00                   | 147.90  | 238.55               | 150.75  | 290.20   | 362.20                   | 147.90  | 157.40  | 164.05  | 182.00  | 141.50  |          |        |
| 13             | 172.00                                                           | 183.00                   | 151.70  | 248.00               | 233.30  | 301.00   | 357.00                   | 119.90  | 150.75  | 159.30  | 187.10  | 135.20  |          |        |
| 14             | 166.00                                                           | 171.00                   | 163.10  | 217.55               | 284.20  | 301.00   | 351.80                   | 119.90  | 151.70  | 155.50  | 183.00  | 146.00  |          |        |
| 15             | 164.05                                                           | 200.75                   | 173.00  | 189.20               | 278.20  | 304.60   | 321.50                   | 117.20  | 141.50  | 172.00  | 174.00  | 144.20  |          |        |
| 16             | 177.00                                                           | 217.55                   | 148.85  | 145.10               | 260.65  | 353.10   | 286.60                   | 118.10  | 142.40  | 189.20  | 180.00  | 145.10  |          |        |
| 17             | 168.00                                                           | 224.90                   | 116.30  | 203.90               | 250.30  | 441.55   | 271.00                   | 156.45  | 174.00  | 176.00  | 189.20  | 147.90  |          |        |
| 18             | 145.10                                                           | 210.20                   | 97.25   | 126.20               | 268.70  | 483.40   | 271.00                   | 155.50  | 192.35  | 162.15  | 184.00  | 112.70  |          |        |
| 19             | 176.00                                                           | 192.35                   | 90.00   | 128.00               | 244.85  | 464.50   | 273.40                   | 143.30  | 161.20  | 144.20  | 197.60  | 141.50  |          |        |
| 20             | 177.00                                                           | 198.65                   | 90.00   | 118.10               | 225.95  | 432.10   | 293.80                   | 118.10  | 142.40  | 146.95  | 188.15  | 146.95  |          |        |
| 21             | 168.00                                                           | 195.50                   | 105.75  | 110.00               | 186.05  | 387.55   | 347.90                   | 102.35  | 146.00  | 149.80  | 178.00  | 146.95  |          |        |
| 22             | 164.05                                                           | 207.05                   | 158.35  | 105.75               | 150.75  | 383.50   | 360.90                   | 104.90  | 195.50  | 161.20  | 182.00  | 137.00  |          |        |
| 23             | 161.20                                                           | 197.60                   | 164.05  | 98.10                | 143.30  | 418.60   | 344.00                   | 113.60  | 213.35  | 165.00  | 173.00  | 135.20  |          |        |
| 24             | 179.00                                                           | 170.00                   | 161.20  | 108.30               | 173.00  | 425.35   | 319.00                   | 108.30  | 212.30  | 169.00  | 179.00  | 145.10  |          |        |
| 25             | 184.00                                                           | 143.30                   | 163.10  | 110.90               | 325.25  | 413.20   | 330.25                   | 110.90  | 212.30  | 181.00  | 172.00  | 162.15  |          |        |
| 26             | 177.00                                                           | 145.10                   | 167.00  | 110.00               | 376.75  | 417.25   | 382.15                   | 110.90  | 200.75  | 195.50  | 172.00  | 176.00  |          |        |
| 27             | 167.00                                                           | 141.50                   | 160.25  | 100.65               | 301.00  | 425.35   | 446.95                   | 105.75  | 193.40  | 202.85  | 181.00  | 173.00  |          |        |
| 28             | 157.40                                                           | 147.90                   | 152.65  | 119.90               | 224.90  | 451.00   | 446.95                   | 107.45  | 191.30  | 197.60  | 179.00  | 177.00  |          |        |
| 29             | 152.65                                                           | 147.90                   | 135.20  | 132.50               | 186.05  | 646.10   | 430.75                   | 111.80  | 189.20  | 196.55  |         | 182.00  |          |        |
| 30             | 151.70                                                           | 140.60                   | 126.20  | 135.20               | 157.40  | 761.80   | 433.45                   | 106.60  | 179.00  | 203.90  |         | 183.00  |          |        |
| 31             |                                                                  | 131.60                   |         | 144.20               | 143.30  |          | 386.20                   |         | 185.00  | 210.20  |         | 191.30  |          |        |
| Total          | 5111.75                                                          | 5946.35                  | 4181.85 | 4303.90              | 5967.30 | 10731.80 | 13314.65                 | 4965.35 | 5320.25 | 5602.10 | 5185.80 | 4877.35 | 75508.45 | CMSDAY |
| Mean           | 170.39                                                           | 191.82                   | 139.40  | 138.84               | 192.49  | 357.73   | 429.50                   | 165.51  | 171.62  | 180.71  | 185.21  | 157.33  | 206.87   | CMS    |
| Max            | 188.15                                                           | 297.40                   | 173.00  | 248.00               | 376.75  | 761.80   | 749.40                   | 355.70  | 243.80  | 210.20  | 203.90  | 201.80  | 761.80   | CMS    |
| Min            | 145.10                                                           | 131.60                   | 90.00   | 94.70                | 103.20  | 146.00   | 271.00                   | 102.35  | 90.75   | 144.20  | 168.00  | 112.70  | 90.00    | CMS    |
| Runoff         | 441.66                                                           | 513.77                   | 361.31  | 371.86               | 515.58  | 927.23   | 1150.39                  | 429.01  | 459.67  | 484.02  | 448.05  | 421.40  | 6523.93  | MCM    |
| Momentary Peak | 774.40 CMS. at 36.24 m. (MSL.) at 18.00 Hours , on Sep 30 , 2013 |                          |         |                      |         |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 8.12                                                             | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 30.382   | Liters/Second/Square KM. |         |         |         |         |         |          |        |

| Date                             | Apr    | May    | Jun                                              | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 184.16 | 184.02 | 184.20                                           | 184.45 | 187.37 | 186.02 | 185.21 | 184.68 | 184.46 | 184.30 | 184.20 | 184.13 |        |
| 2                                | 184.14 | 184.02 | 184.20                                           | 184.51 | 187.65 | 186.04 | 185.20 | 184.67 | 184.45 | 184.30 | 184.20 | 184.13 |        |
| 3                                | 184.14 | 184.02 | 184.28                                           | 184.40 | 187.35 | 186.11 | 185.20 | 184.66 | 184.44 | 184.28 | 184.19 | 184.12 |        |
| 4                                | 184.14 | 184.02 | 184.45                                           | 184.40 | 186.41 | 186.31 | 185.26 | 184.66 | 184.44 | 184.28 | 184.19 | 184.12 |        |
| 5                                | 184.14 | 184.04 | 184.64                                           | 184.43 | 186.23 | 186.69 | 185.23 | 184.64 | 184.43 | 184.28 | 184.18 | 184.12 |        |
| 6                                | 184.13 | 184.04 | 184.65                                           | 184.62 | 186.17 | 187.38 | 185.16 | 184.59 | 184.42 | 184.28 | 184.18 | 184.11 |        |
| 7                                | 184.13 | 184.06 | 184.41                                           | 184.61 | 186.01 | 186.77 | 185.07 | 184.58 | 184.41 | 184.28 | 184.17 | 184.11 |        |
| 8                                | 184.12 | 184.12 | 184.26                                           | 184.57 | 186.03 | 186.74 | 185.00 | 184.57 | 184.41 | 184.28 | 184.16 | 184.11 |        |
| 9                                | 184.11 | 184.06 | 184.26                                           | 184.53 | 187.38 | 186.74 | 184.99 | 184.57 | 184.40 | 184.27 | 184.15 | 184.11 |        |
| 10                               | 184.10 | 184.09 | 184.26                                           | 184.52 | 188.17 | 186.74 | 184.96 | 184.57 | 184.40 | 184.27 | 184.15 | 184.11 |        |
| 11                               | 184.10 | 184.14 | 184.55                                           | 184.75 | 188.98 | 186.06 | 184.91 | 184.56 | 184.39 | 184.27 | 184.14 | 184.10 |        |
| 12                               | 184.06 | 184.32 | 184.36                                           | 185.51 | 187.74 | 186.04 | 184.89 | 184.56 | 184.39 | 184.26 | 184.14 | 184.10 |        |
| 13                               | 184.05 | 184.43 | 184.38                                           | 185.40 | 186.97 | 186.01 | 184.86 | 184.56 | 184.38 | 184.26 | 184.14 | 184.10 |        |
| 14                               | 184.04 | 184.32 | 184.21                                           | 185.34 | 186.61 | 186.09 | 184.81 | 184.59 | 184.38 | 184.26 | 184.15 | 184.09 |        |
| 15                               | 184.03 | 184.20 | 184.20                                           | 185.02 | 186.59 | 186.09 | 184.79 | 184.59 | 184.48 | 184.26 | 184.16 | 184.08 |        |
| 16                               | 184.01 | 184.19 | 184.19                                           | 184.94 | 186.33 | 186.31 | 184.79 | 184.58 | 184.72 | 184.25 | 184.16 | 184.08 |        |
| 17                               | 184.00 | 184.18 | 184.17                                           | 185.35 | 186.13 | 186.09 | 184.79 | 184.56 | 184.66 | 184.25 | 184.17 | 184.07 |        |
| 18                               | 183.99 | 184.16 | 184.16                                           | 185.34 | 186.08 | 185.96 | 184.80 | 184.56 | 184.61 | 184.25 | 184.17 | 184.07 |        |
| 19                               | 183.98 | 184.16 | 184.20                                           | 185.34 | 185.95 | 185.81 | 184.90 | 184.56 | 184.57 | 184.24 | 184.16 | 184.07 |        |
| 20                               | 183.98 | 184.15 | 184.21                                           | 185.36 | 187.25 | 185.80 | 185.00 | 184.56 | 184.53 | 184.24 | 184.16 | 184.06 |        |
| 21                               | 183.98 | 184.17 | 184.24                                           | 185.38 | 187.31 | 185.70 | 184.91 | 184.55 | 184.48 | 184.24 | 184.16 | 184.06 |        |
| 22                               | 183.98 | 184.17 | 184.26                                           | 185.40 | 187.16 | 185.53 | 184.88 | 184.54 | 184.40 | 184.24 | 184.15 | 184.06 |        |
| 23                               | 184.02 | 184.24 | 184.26                                           | 185.36 | 187.04 | 185.47 | 184.90 | 184.53 | 184.36 | 184.24 | 184.15 | 184.07 |        |
| 24                               | 184.02 | 184.34 | 184.27                                           | 185.68 | 186.88 | 185.44 | 184.99 | 184.53 | 184.34 | 184.24 | 184.14 | 184.08 |        |
| 25                               | 184.02 | 184.31 | 184.32                                           | 185.49 | 186.76 | 185.48 | 184.97 | 184.52 | 184.33 | 184.23 | 184.14 | 184.08 |        |
| 26                               | 184.02 | 184.28 | 184.61                                           | 186.05 | 186.61 | 185.46 | 184.80 | 184.51 | 184.33 | 184.23 | 184.14 | 184.09 |        |
| 27                               | 184.02 | 184.26 | 184.56                                           | 185.94 | 186.48 | 185.40 | 184.79 | 184.50 | 184.32 | 184.23 | 184.13 | 184.10 |        |
| 28                               | 184.02 | 184.25 | 184.51                                           | 185.96 | 186.24 | 185.35 | 184.79 | 184.49 | 184.32 | 184.22 | 184.13 | 184.10 |        |
| 29                               | 184.02 | 184.25 | 184.50                                           | 190.11 | 186.25 | 185.30 | 184.75 | 184.49 | 184.32 | 184.22 |        | 184.10 |        |
| 30                               | 184.02 | 184.24 | 184.49                                           | 188.61 | 185.99 | 185.26 | 184.73 | 184.49 | 184.31 | 184.21 |        | 184.09 |        |
| 31                               |        | 184.26 |                                                  | 188.04 | 185.95 |        | 184.72 |        | 184.31 | 184.21 |        | 184.09 |        |
| Mean                             | 184.06 | 184.18 | 184.34                                           | 185.46 | 186.78 | 186.01 | 184.94 | 184.57 | 184.43 | 184.25 | 184.16 | 184.09 |        |
| Max                              | 184.16 | 184.43 | 184.65                                           | 190.11 | 188.98 | 187.38 | 185.26 | 184.68 | 184.72 | 184.30 | 184.20 | 184.13 | 190.11 |
| Min                              | 183.98 | 184.02 | 184.16                                           | 184.40 | 185.95 | 185.26 | 184.72 | 184.49 | 184.31 | 184.21 | 184.13 | 184.06 | 183.98 |
| Annual Max Momentary Gage Height | 190.78 |        | m. (MSL.) , at 12.00 Hours , on Jul 29 , 2013    |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 182.80 |        | m. (MSL.) , River Bed 181.21 m. (MSL.)           |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 196.56 |        | m. (MSL.) ,                                      |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 196.48 |        | m. (MSL.) , Drainage Area 2170 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

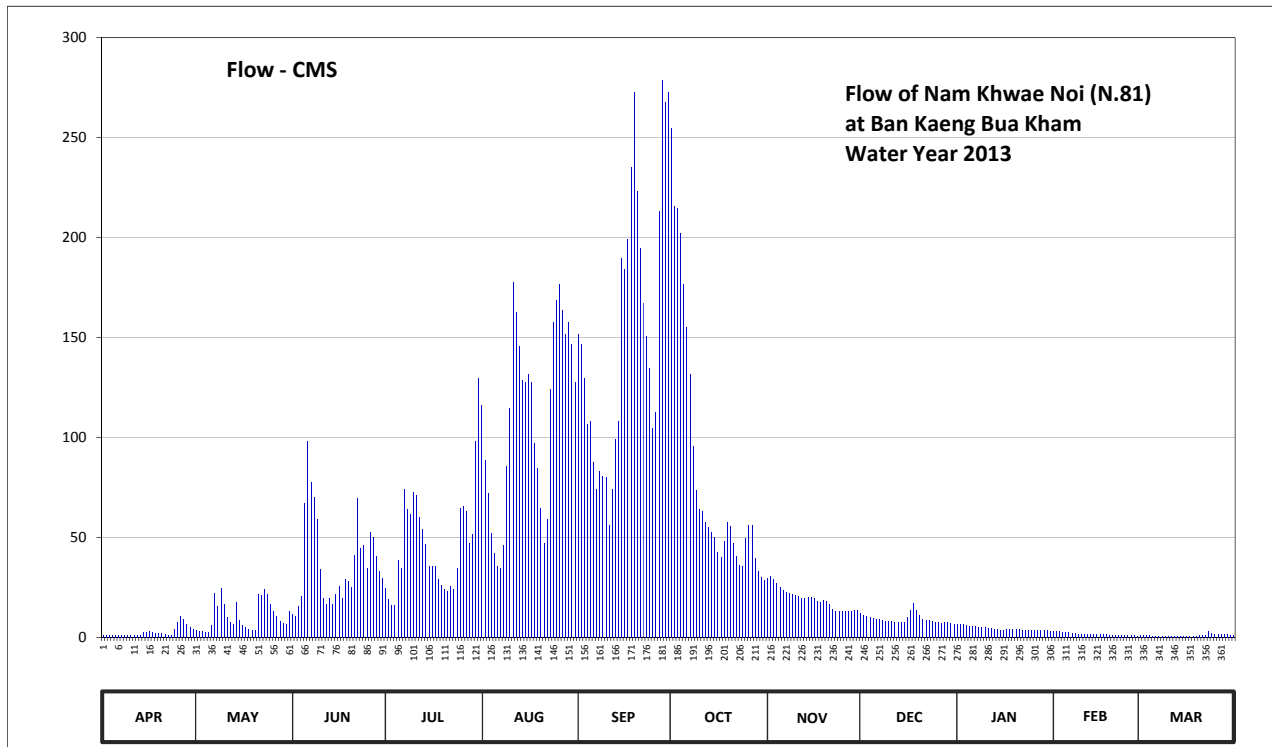




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                        | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|------------------------------------------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|--------|----------|--------|
| 1              | 13.28  | 8.20                                                       | 14.80  | 25.87                | 238.85  | 119.05  | 66.60                    | 37.20  | 26.35  | 19.15  | 14.80  | 12.14  |          |        |
| 2              | 12.52  | 8.20                                                       | 14.80  | 28.72                | 271.25  | 120.60  | 66.00                    | 36.67  | 25.87  | 19.15  | 14.80  | 12.14  |          |        |
| 3              | 12.52  | 8.20                                                       | 18.28  | 23.50                | 236.75  | 126.03  | 66.00                    | 36.15  | 25.40  | 18.28  | 14.42  | 11.76  |          |        |
| 4              | 12.52  | 8.20                                                       | 25.87  | 23.50                | 149.85  | 141.80  | 69.60                    | 36.15  | 25.40  | 18.28  | 14.42  | 11.76  |          |        |
| 5              | 12.52  | 8.90                                                       | 35.10  | 24.92                | 135.40  | 173.65  | 67.80                    | 35.10  | 24.92  | 18.28  | 14.04  | 11.76  |          |        |
| 6              | 12.14  | 8.90                                                       | 35.62  | 34.05                | 130.68  | 239.90  | 63.70                    | 32.52  | 24.45  | 18.28  | 14.04  | 11.38  |          |        |
| 7              | 12.14  | 9.60                                                       | 23.98  | 33.52                | 118.27  | 180.45  | 58.53                    | 32.05  | 23.98  | 18.28  | 13.66  | 11.38  |          |        |
| 8              | 11.76  | 11.76                                                      | 17.41  | 31.58                | 119.82  | 177.90  | 54.50                    | 31.58  | 23.98  | 18.28  | 13.28  | 11.38  |          |        |
| 9              | 11.38  | 9.60                                                       | 17.41  | 29.67                | 239.90  | 177.90  | 53.95                    | 31.58  | 23.50  | 17.85  | 12.90  | 11.38  |          |        |
| 10             | 11.00  | 10.65                                                      | 17.41  | 29.20                | 342.50  | 177.90  | 52.30                    | 31.58  | 23.50  | 17.85  | 12.90  | 11.38  |          |        |
| 11             | 11.00  | 12.52                                                      | 30.62  | 40.87                | 479.20  | 122.15  | 49.55                    | 31.10  | 23.07  | 17.85  | 12.52  | 11.00  |          |        |
| 12             | 9.60   | 20.02                                                      | 21.76  | 84.87                | 282.50  | 120.60  | 48.45                    | 31.10  | 23.07  | 17.41  | 12.52  | 11.00  |          |        |
| 13             | 9.25   | 24.92                                                      | 22.63  | 78.00                | 199.15  | 118.27  | 46.80                    | 31.10  | 22.63  | 17.41  | 12.52  | 11.00  |          |        |
| 14             | 8.90   | 20.02                                                      | 15.24  | 74.40                | 166.85  | 124.47  | 44.05                    | 32.52  | 22.63  | 17.41  | 12.90  | 10.65  |          |        |
| 15             | 8.55   | 14.80                                                      | 14.80  | 55.65                | 165.15  | 124.47  | 42.97                    | 32.52  | 27.30  | 17.41  | 13.28  | 10.30  |          |        |
| 16             | 7.85   | 14.42                                                      | 14.42  | 51.20                | 143.40  | 141.80  | 42.97                    | 32.05  | 39.30  | 16.98  | 13.28  | 10.30  |          |        |
| 17             | 7.50   | 14.04                                                      | 13.66  | 75.00                | 127.58  | 124.47  | 42.97                    | 31.10  | 36.15  | 16.98  | 13.66  | 9.95   |          |        |
| 18             | 7.22   | 13.28                                                      | 13.28  | 74.40                | 123.70  | 114.60  | 43.50                    | 31.10  | 33.52  | 16.98  | 13.66  | 9.95   |          |        |
| 19             | 6.94   | 13.28                                                      | 14.80  | 74.40                | 113.87  | 103.72  | 49.00                    | 31.10  | 31.58  | 16.54  | 13.28  | 9.95   |          |        |
| 20             | 6.94   | 12.90                                                      | 15.24  | 75.60                | 226.25  | 103.00  | 54.50                    | 31.10  | 29.67  | 16.54  | 13.28  | 9.60   |          |        |
| 21             | 6.94   | 13.66                                                      | 16.54  | 76.80                | 232.55  | 96.75   | 49.55                    | 30.62  | 27.30  | 16.54  | 13.28  | 9.60   |          |        |
| 22             | 6.94   | 13.66                                                      | 17.41  | 78.00                | 217.20  | 86.13   | 47.90                    | 30.15  | 23.50  | 16.54  | 12.90  | 9.60   |          |        |
| 23             | 8.20   | 16.54                                                      | 17.41  | 75.60                | 205.80  | 82.38   | 49.00                    | 29.67  | 21.76  | 16.54  | 12.90  | 9.95   |          |        |
| 24             | 8.20   | 20.89                                                      | 17.85  | 95.50                | 190.60  | 80.50   | 53.95                    | 29.67  | 20.89  | 16.54  | 12.52  | 10.30  |          |        |
| 25             | 8.20   | 19.59                                                      | 20.02  | 83.63                | 179.60  | 83.00   | 52.85                    | 29.20  | 20.46  | 16.10  | 12.52  | 10.30  |          |        |
| 26             | 8.20   | 18.28                                                      | 33.52  | 121.38               | 166.85  | 81.75   | 43.50                    | 28.72  | 20.46  | 16.10  | 12.52  | 10.65  |          |        |
| 27             | 8.20   | 17.41                                                      | 31.10  | 113.15               | 155.80  | 78.00   | 42.97                    | 28.25  | 20.02  | 16.10  | 12.14  | 11.00  |          |        |
| 28             | 8.20   | 16.98                                                      | 28.72  | 114.60               | 136.20  | 75.00   | 42.97                    | 27.78  | 20.02  | 15.67  | 12.14  | 11.00  |          |        |
| 29             | 8.20   | 16.98                                                      | 28.25  | 712.20               | 137.00  | 72.00   | 40.87                    | 27.78  | 20.02  | 15.67  |        | 11.00  |          |        |
| 30             | 8.20   | 16.54                                                      | 27.78  | 411.75               | 116.78  | 69.60   | 39.82                    | 27.78  | 19.59  | 15.24  |        | 10.65  |          |        |
| 31             |        | 17.41                                                      |        | 323.00               | 113.87  |         | 39.30                    |        | 19.59  | 15.24  |        | 10.65  |          |        |
| Total          | 285.01 | 440.35                                                     | 635.73 | 3174.53              | 5863.17 | 3637.84 | 1586.42                  | 944.99 | 769.88 | 531.47 | 371.08 | 334.86 | 18575.33 | CMSDAY |
| Mean           | 9.50   | 14.20                                                      | 21.19  | 102.40               | 189.13  | 121.26  | 51.17                    | 31.50  | 24.83  | 17.14  | 13.25  | 10.80  | 50.89    | CMS    |
| Max            | 13.28  | 24.92                                                      | 35.62  | 712.20               | 479.20  | 239.90  | 69.60                    | 37.20  | 39.30  | 19.15  | 14.80  | 12.14  | 712.20   | CMS    |
| Min            | 6.94   | 8.20                                                       | 13.28  | 23.50                | 113.87  | 69.60   | 39.30                    | 27.78  | 19.59  | 15.24  | 12.14  | 9.60   | 6.94     | CMS    |
| Runoff         | 24.63  | 38.05                                                      | 54.93  | 274.28               | 506.58  | 314.31  | 137.07                   | 81.65  | 66.52  | 45.92  | 32.06  | 28.93  | 1604.91  | MCM    |
| Momentary Peak | 863.40 | CMS. at 190.78 m. (MSL.) at 12.00 Hours , on Jul 29 , 2013 |        |                      |         |         |                          |        |        |        |        |        |          |        |
| Runoff Yield   | 23.45  | Liters/Second/Square KM.                                   |        | Momentary Peak Yield |         | 397.880 | Liters/Second/Square KM. |        |        |        |        |        |          |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb   | Mar   | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|---------|--------------------------|--------|-------|-------|----------|--------|
| 1              | 1.30                                                              | 3.50                     | 11.80   | 24.70   | 116.00               | 151.60  | 254.80  | 29.64   | 12.20                    | 6.90   | 3.29  | 1.10  |          |        |
| 2              | 1.20                                                              | 3.29                     | 10.60   | 19.24   | 88.50                | 146.80  | 215.80  | 30.76   | 11.00                    | 6.90   | 3.29  | 1.10  |          |        |
| 3              | 1.10                                                              | 3.08                     | 15.64   | 16.08   | 72.00                | 129.40  | 214.40  | 29.08   | 10.60                    | 6.60   | 3.08  | 1.00  |          |        |
| 4              | 1.20                                                              | 2.87                     | 20.62   | 16.08   | 52.30                | 106.50  | 201.80  | 27.40   | 10.20                    | 6.00   | 2.87  | 1.00  |          |        |
| 5              | 1.20                                                              | 2.87                     | 67.20   | 38.85   | 42.10                | 108.30  | 176.40  | 25.24   | 9.80                     | 5.75   | 2.66  | 0.90  |          |        |
| 6              | 1.30                                                              | 6.30                     | 98.40   | 34.95   | 35.60                | 87.60   | 155.20  | 23.62   | 9.40                     | 5.75   | 2.66  | 0.90  |          |        |
| 7              | 1.20                                                              | 22.00                    | 77.60   | 74.40   | 34.95                | 74.40   | 131.50  | 22.54   | 9.00                     | 5.50   | 2.45  | 0.90  |          |        |
| 8              | 1.30                                                              | 15.64                    | 70.40   | 64.00   | 46.00                | 83.20   | 95.70   | 22.00   | 8.70                     | 5.25   | 2.03  | 0.80  |          |        |
| 9              | 1.20                                                              | 24.70                    | 59.30   | 61.60   | 85.80                | 80.80   | 73.60   | 21.54   | 8.40                     | 5.25   | 1.82  | 0.80  |          |        |
| 10             | 1.20                                                              | 16.52                    | 34.30   | 72.80   | 115.00               | 80.00   | 64.00   | 21.08   | 8.40                     | 5.00   | 1.82  | 0.70  |          |        |
| 11             | 1.10                                                              | 10.20                    | 19.70   | 71.20   | 177.70               | 56.50   | 63.20   | 20.62   | 8.10                     | 4.75   | 1.61  | 0.70  |          |        |
| 12             | 1.10                                                              | 7.80                     | 16.96   | 60.00   | 162.40               | 74.40   | 57.90   | 19.70   | 7.80                     | 4.75   | 1.61  | 0.70  |          |        |
| 13             | 1.20                                                              | 6.90                     | 19.70   | 54.40   | 145.60               | 99.30   | 55.10   | 19.70   | 7.80                     | 4.25   | 1.61  | 0.70  |          |        |
| 14             | 2.87                                                              | 17.86                    | 16.96   | 46.70   | 128.35               | 108.30  | 53.00   | 20.16   | 7.80                     | 4.00   | 1.82  | 0.70  |          |        |
| 15             | 2.87                                                              | 8.70                     | 21.54   | 35.60   | 127.30               | 189.40  | 50.20   | 20.16   | 7.80                     | 3.75   | 1.82  | 0.70  |          |        |
| 16             | 3.08                                                              | 6.00                     | 25.78   | 35.60   | 131.50               | 184.20  | 42.75   | 19.70   | 10.20                    | 3.75   | 1.82  | 0.80  |          |        |
| 17             | 2.87                                                              | 5.00                     | 19.70   | 35.60   | 127.30               | 199.00  | 40.15   | 18.32   | 13.88                    | 4.25   | 1.61  | 0.70  |          |        |
| 18             | 2.24                                                              | 4.25                     | 29.08   | 29.08   | 97.50                | 235.00  | 48.10   | 17.86   | 17.40                    | 4.25   | 1.61  | 0.70  |          |        |
| 19             | 2.45                                                              | 3.50                     | 27.96   | 26.32   | 84.90                | 272.40  | 57.90   | 18.78   | 13.88                    | 4.25   | 1.40  | 0.90  |          |        |
| 20             | 2.45                                                              | 3.50                     | 25.24   | 24.16   | 64.80                | 223.00  | 55.80   | 18.32   | 11.00                    | 4.25   | 1.40  | 1.00  |          |        |
| 21             | 1.82                                                              | 21.54                    | 41.45   | 23.08   | 47.40                | 194.80  | 47.40   | 16.96   | 9.40                     | 4.00   | 1.30  | 1.10  |          |        |
| 22             | 1.40                                                              | 21.08                    | 69.60   | 25.78   | 59.30                | 167.30  | 40.80   | 14.32   | 8.70                     | 3.75   | 1.30  | 1.20  |          |        |
| 23             | 1.40                                                              | 24.16                    | 44.70   | 24.16   | 124.15               | 150.40  | 36.25   | 13.44   | 8.70                     | 3.75   | 1.30  | 3.29  |          |        |
| 24             | 4.50                                                              | 21.54                    | 46.00   | 34.95   | 157.60               | 134.65  | 35.60   | 13.44   | 8.10                     | 3.50   | 1.30  | 2.03  |          |        |
| 25             | 7.80                                                              | 16.52                    | 34.95   | 64.80   | 168.60               | 104.70  | 49.50   | 13.44   | 7.80                     | 3.50   | 1.10  | 1.61  |          |        |
| 26             | 10.60                                                             | 13.44                    | 53.00   | 65.60   | 176.40               | 113.00  | 56.50   | 13.00   | 7.80                     | 3.75   | 1.00  | 1.82  |          |        |
| 27             | 9.40                                                              | 10.60                    | 50.20   | 63.20   | 163.60               | 213.00  | 56.50   | 13.00   | 7.20                     | 3.75   | 1.00  | 1.82  |          |        |
| 28             | 6.90                                                              | 8.40                     | 40.80   | 47.40   | 151.60               | 278.80  | 39.50   | 13.00   | 7.50                     | 3.75   | 0.90  | 1.61  |          |        |
| 29             | 5.25                                                              | 7.20                     | 33.00   | 51.60   | 157.60               | 267.60  | 33.00   | 13.88   | 7.50                     | 3.75   |       | 1.61  |          |        |
| 30             | 4.25                                                              | 6.60                     | 29.64   | 98.40   | 146.80               | 272.40  | 30.20   | 13.88   | 7.20                     | 3.50   |       | 1.30  |          |        |
| 31             |                                                                   | 13.44                    |         | 129.40  | 127.30               |         | 28.52   |         | 6.90                     | 3.29   |       | 1.20  |          |        |
| Total          | 87.75                                                             | 339.00                   | 1131.82 | 1469.73 | 3415.95              | 4586.75 | 2561.07 | 584.58  | 290.16                   | 141.44 | 51.48 | 35.39 | 14695.12 | CMSDAY |
| Mean           | 2.93                                                              | 10.94                    | 37.73   | 47.41   | 110.19               | 152.89  | 82.62   | 19.49   | 9.36                     | 4.56   | 1.84  | 1.14  | 40.26    | CMS    |
| Max            | 10.60                                                             | 24.70                    | 98.40   | 129.40  | 177.70               | 278.80  | 254.80  | 30.76   | 17.40                    | 6.90   | 3.29  | 3.29  | 278.80   | CMS    |
| Min            | 1.10                                                              | 2.87                     | 10.60   | 16.08   | 34.95                | 56.50   | 28.52   | 13.00   | 6.90                     | 3.29   | 0.90  | 0.70  | 0.70     | CMS    |
| Runoff         | 7.58                                                              | 29.29                    | 97.79   | 126.99  | 295.14               | 396.30  | 221.28  | 50.51   | 25.07                    | 12.22  | 4.45  | 3.06  | 1269.66  | MCM    |
| Momentary Peak | 360.90 CMS. at 164.87 m. (MSL.) at 18.00 Hours , on Sep 27 , 2013 |                          |         |         |                      |         |         |         |                          |        |       |       |          |        |
| Runoff Yield   | 12.90                                                             | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | 115.673 | Liters/Second/Square KM. |        |       |       |          |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Chao Phraya River at Khai Chira Prawat, Nakhon Sawan (C.2)**

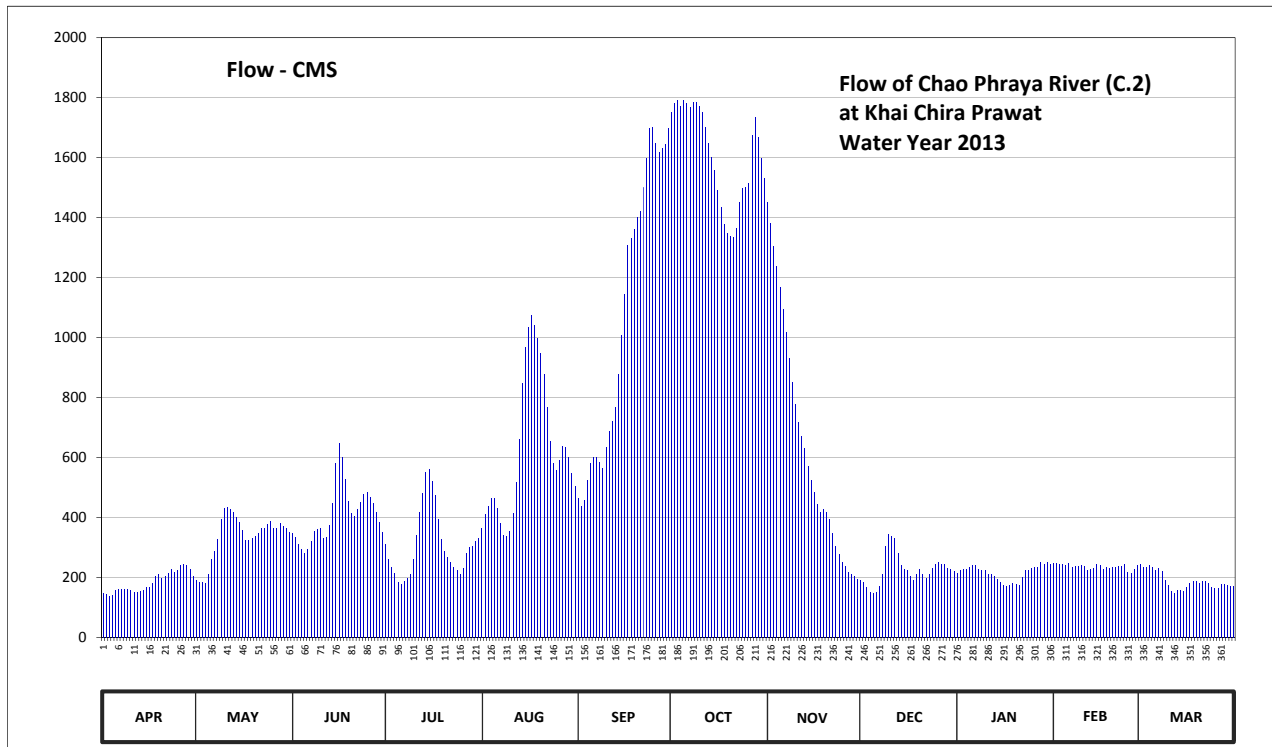
Lat 15 - 40 - 15 N    Long 100 - 06 - 49 E

**Location :** on left bank at Ban Phai Lom

|                                         |                                                                                 |           |               |        |                  |                   |
|-----------------------------------------|---------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                      | Phai Lom  | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Nakhon Sawan      |
| <b>Drainage Area</b>                    | 109,973                                                                         | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                          |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                          | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                       |           |               |        |                  |                   |
| <b>Location BM</b>                      | About 20.00 meters west of the gage site                                        |           |               |        | <b>Elevation</b> | +25.628 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                       |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                  |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1914 to date                                                                    |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                 |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1956 to date                                                                    |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                               |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1956 to date                                                                    |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                   |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                               |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Flow effected by Phumiphol Dam, Sirikit Dam and Phrom Phiram Dam. |           |               |        |                  |                   |
|                                         | Stage-discharge relation defined by 51 discharge measurements made in 2013.     |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                                | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|----------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 17.88 | 18.15 | 18.87                                              | 18.72 | 18.94 | 19.32 | 23.05 | 22.30 | 18.16 | 18.28 | 18.44 | 18.43 |        |
| 2                                | 17.87 | 18.11 | 18.82                                              | 18.51 | 19.13 | 19.23 | 23.12 | 22.11 | 18.11 | 18.33 | 18.44 | 18.38 |        |
| 3                                | 17.82 | 18.11 | 18.73                                              | 18.37 | 19.23 | 19.30 | 23.15 | 21.91 | 18.01 | 18.35 | 18.42 | 18.38 |        |
| 4                                | 17.85 | 18.09 | 18.65                                              | 18.28 | 19.32 | 19.54 | 23.10 | 21.73 | 17.92 | 18.34 | 18.43 | 18.41 |        |
| 5                                | 17.95 | 18.26 | 18.59                                              | 18.11 | 19.33 | 19.74 | 23.15 | 21.55 | 17.90 | 18.38 | 18.40 | 18.38 |        |
| 6                                | 17.98 | 18.50 | 18.65                                              | 18.08 | 19.21 | 19.81 | 23.12 | 21.35 | 17.92 | 18.40 | 18.44 | 18.33 |        |
| 7                                | 17.97 | 18.62 | 18.77                                              | 18.13 | 19.02 | 19.80 | 23.09 | 21.13 | 18.04 | 18.40 | 18.38 | 18.36 |        |
| 8                                | 17.97 | 18.79 | 18.90                                              | 18.19 | 18.85 | 19.75 | 23.13 | 20.88 | 18.26 | 18.34 | 18.39 | 18.30 |        |
| 9                                | 17.97 | 19.06 | 18.93                                              | 18.26 | 18.83 | 19.68 | 23.13 | 20.63 | 18.70 | 18.33 | 18.39 | 18.15 |        |
| 10                               | 17.95 | 19.21 | 18.94                                              | 18.51 | 18.91 | 19.92 | 23.10 | 20.39 | 18.86 | 18.32 | 18.41 | 18.05 |        |
| 11                               | 17.91 | 19.22 | 18.81                                              | 18.85 | 19.14 | 20.09 | 23.05 | 20.19 | 18.84 | 18.26 | 18.39 | 17.94 |        |
| 12                               | 17.91 | 19.19 | 18.82                                              | 19.15 | 19.52 | 20.20 | 22.93 | 20.04 | 18.80 | 18.25 | 18.33 | 17.88 |        |
| 13                               | 17.94 | 19.15 | 18.99                                              | 19.38 | 20.01 | 20.36 | 22.80 | 19.90 | 18.60 | 18.23 | 18.34 | 17.96 |        |
| 14                               | 17.96 | 19.09 | 19.27                                              | 19.64 | 20.62 | 20.71 | 22.68 | 19.71 | 18.41 | 18.17 | 18.36 | 17.95 |        |
| 15                               | 18.01 | 19.03 | 19.74                                              | 19.67 | 20.99 | 21.10 | 22.57 | 19.54 | 18.34 | 18.12 | 18.42 | 17.94 |        |
| 16                               | 18.02 | 18.92 | 19.96                                              | 19.53 | 21.18 | 21.49 | 22.40 | 19.39 | 18.32 | 18.05 | 18.40 | 18.01 |        |
| 17                               | 18.09 | 18.78 | 19.80                                              | 19.36 | 21.29 | 21.92 | 22.25 | 19.25 | 18.23 | 18.03 | 18.35 | 18.09 |        |
| 18                               | 18.22 | 18.78 | 19.55                                              | 19.07 | 21.20 | 21.98 | 22.10 | 19.15 | 18.15 | 18.06 | 18.38 | 18.13 |        |
| 19                               | 18.25 | 18.80 | 19.29                                              | 18.79 | 21.07 | 22.06 | 22.02 | 19.19 | 18.26 | 18.09 | 18.36 | 18.14 |        |
| 20                               | 18.19 | 18.83 | 19.14                                              | 18.62 | 20.93 | 22.16 | 22.00 | 19.16 | 18.34 | 18.07 | 18.38 | 18.09 |        |
| 21                               | 18.23 | 18.87 | 19.10                                              | 18.53 | 20.71 | 22.22 | 21.99 | 19.06 | 18.26 | 18.06 | 18.37 | 18.13 |        |
| 22                               | 18.27 | 18.94 | 19.20                                              | 18.46 | 20.36 | 22.43 | 22.07 | 18.88 | 18.19 | 18.21 | 18.39 | 18.14 |        |
| 23                               | 18.34 | 18.95 | 19.28                                              | 18.37 | 19.98 | 22.67 | 22.30 | 18.69 | 18.26 | 18.33 | 18.39 | 18.10 |        |
| 24                               | 18.29 | 19.00 | 19.37                                              | 18.32 | 19.74 | 22.92 | 22.42 | 18.58 | 18.36 | 18.32 | 18.43 | 18.02 |        |
| 25                               | 18.33 | 19.04 | 19.39                                              | 18.26 | 19.66 | 22.93 | 22.43 | 18.46 | 18.43 | 18.36 | 18.29 | 17.99 |        |
| 26                               | 18.41 | 18.95 | 19.34                                              | 18.36 | 19.77 | 22.80 | 22.46 | 18.39 | 18.45 | 18.37 | 18.28 | 17.99 |        |
| 27                               | 18.43 | 18.95 | 19.27                                              | 18.60 | 19.93 | 22.72 | 22.87 | 18.29 | 18.43 | 18.38 | 18.34 | 18.07 |        |
| 28                               | 18.40 | 19.01 | 19.16                                              | 18.68 | 19.92 | 22.76 | 23.01 | 18.25 | 18.42 | 18.46 | 18.41 | 18.08 |        |
| 29                               | 18.34 | 18.97 | 19.03                                              | 18.69 | 19.81 | 22.79 | 22.85 | 18.22 | 18.36 | 18.43 |       | 18.05 |        |
| 30                               | 18.22 | 18.94 | 18.89                                              | 18.76 | 19.62 | 22.92 | 22.67 | 18.17 | 18.34 | 18.45 |       | 18.04 |        |
| 31                               |       | 18.89 |                                                    | 18.80 | 19.47 |       | 22.51 |       | 18.30 | 18.43 |       | 18.04 |        |
| Mean                             | 18.10 | 18.81 | 19.11                                              | 18.68 | 19.86 | 21.18 | 22.69 | 19.82 | 18.32 | 18.28 | 18.38 | 18.13 |        |
| Max                              | 18.43 | 19.22 | 19.96                                              | 19.67 | 21.29 | 22.93 | 23.15 | 22.30 | 18.86 | 18.46 | 18.44 | 18.43 | 23.15  |
| Min                              | 17.82 | 18.09 | 18.59                                              | 18.08 | 18.83 | 19.23 | 21.99 | 18.17 | 17.90 | 18.03 | 18.28 | 17.88 | 17.82  |
| Annual Max Momentary Gage Height |       | 23.18 | m. (MSL.) , at 03.00 Hours , on Oct 3 , 2013       |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 13.43 m. (MSL.)              |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 25.60 | m. (MSL.) ,                                        |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 26.46 | m. (MSL.) , Drainage Area 109973 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun      | Jul                  | Aug      | Sep      | Oct      | Nov                      | Dec     | Jan     | Feb     | Mar     | Annual    |        |
|----------------|------------------------------------------------------------------|--------------------------|----------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|---------|-----------|--------|
| 1              | 147.20                                                           | 191.00                   | 346.80   | 310.80               | 363.60   | 463.60   | 1751.00  | 1452.00                  | 192.80  | 216.00  | 248.00  | 246.00  |           |        |
| 2              | 145.80                                                           | 183.80                   | 334.80   | 262.20               | 411.80   | 438.40   | 1780.40  | 1379.80                  | 183.80  | 226.00  | 248.00  | 236.00  |           |        |
| 3              | 138.80                                                           | 183.80                   | 313.20   | 234.00               | 438.40   | 458.00   | 1793.00  | 1303.80                  | 167.60  | 230.00  | 244.00  | 236.00  |           |        |
| 4              | 143.00                                                           | 180.40                   | 294.00   | 216.00               | 463.60   | 525.20   | 1772.00  | 1235.40                  | 153.20  | 228.00  | 246.00  | 242.00  |           |        |
| 5              | 158.00                                                           | 212.00                   | 279.80   | 183.80               | 466.40   | 582.00   | 1793.00  | 1167.00                  | 150.00  | 236.00  | 240.00  | 236.00  |           |        |
| 6              | 162.80                                                           | 260.00                   | 294.00   | 178.80               | 432.80   | 603.00   | 1780.40  | 1094.00                  | 153.20  | 240.00  | 248.00  | 226.00  |           |        |
| 7              | 161.20                                                           | 286.80                   | 322.80   | 187.40               | 383.20   | 600.00   | 1767.80  | 1016.20                  | 172.40  | 240.00  | 236.00  | 232.00  |           |        |
| 8              | 161.20                                                           | 327.60                   | 354.00   | 198.20               | 342.00   | 585.00   | 1784.60  | 931.60                   | 212.00  | 228.00  | 238.00  | 220.00  |           |        |
| 9              | 161.20                                                           | 393.60                   | 361.20   | 212.00               | 337.20   | 564.40   | 1784.60  | 851.60                   | 306.00  | 226.00  | 238.00  | 191.00  |           |        |
| 10             | 158.00                                                           | 432.80                   | 363.60   | 262.20               | 356.40   | 636.00   | 1772.00  | 777.00                   | 344.40  | 224.00  | 242.00  | 174.00  |           |        |
| 11             | 151.60                                                           | 435.60                   | 332.40   | 342.00               | 414.40   | 687.00   | 1751.00  | 717.00                   | 339.60  | 212.00  | 238.00  | 156.40  |           |        |
| 12             | 151.60                                                           | 427.40                   | 334.80   | 417.00               | 519.60   | 720.00   | 1700.60  | 672.00                   | 330.00  | 210.00  | 226.00  | 147.20  |           |        |
| 13             | 156.40                                                           | 417.00                   | 375.60   | 480.40               | 663.00   | 768.00   | 1648.00  | 630.00                   | 282.00  | 206.00  | 228.00  | 159.60  |           |        |
| 14             | 159.60                                                           | 401.40                   | 449.60   | 553.20               | 848.40   | 877.20   | 1600.00  | 573.00                   | 242.00  | 194.60  | 232.00  | 158.00  |           |        |
| 15             | 167.60                                                           | 385.80                   | 582.00   | 561.60               | 968.60   | 1006.00  | 1556.00  | 525.20                   | 228.00  | 185.60  | 244.00  | 156.40  |           |        |
| 16             | 169.20                                                           | 358.80                   | 648.00   | 522.40               | 1033.20  | 1144.40  | 1490.00  | 483.20                   | 224.00  | 174.00  | 240.00  | 167.60  |           |        |
| 17             | 180.40                                                           | 325.20                   | 600.00   | 474.80               | 1072.40  | 1307.60  | 1433.00  | 444.00                   | 206.00  | 170.80  | 230.00  | 180.40  |           |        |
| 18             | 204.00                                                           | 325.20                   | 528.00   | 396.20               | 1040.00  | 1330.40  | 1376.00  | 417.00                   | 191.00  | 175.60  | 236.00  | 187.40  |           |        |
| 19             | 210.00                                                           | 330.00                   | 455.20   | 327.60               | 995.80   | 1360.80  | 1345.60  | 427.40                   | 212.00  | 180.40  | 232.00  | 189.20  |           |        |
| 20             | 198.20                                                           | 337.20                   | 414.40   | 286.80               | 948.20   | 1398.80  | 1338.00  | 419.60                   | 228.00  | 177.20  | 236.00  | 180.40  |           |        |
| 21             | 206.00                                                           | 346.80                   | 404.00   | 266.60               | 877.20   | 1421.60  | 1334.20  | 393.60                   | 212.00  | 175.60  | 234.00  | 187.40  |           |        |
| 22             | 214.00                                                           | 363.60                   | 430.00   | 252.00               | 768.00   | 1501.40  | 1364.60  | 349.20                   | 198.20  | 202.00  | 238.00  | 189.20  |           |        |
| 23             | 228.00                                                           | 366.00                   | 452.40   | 234.00               | 654.00   | 1596.00  | 1452.00  | 303.60                   | 212.00  | 226.00  | 238.00  | 182.00  |           |        |
| 24             | 218.00                                                           | 378.00                   | 477.60   | 224.00               | 582.00   | 1696.40  | 1497.60  | 277.60                   | 232.00  | 224.00  | 246.00  | 169.20  |           |        |
| 25             | 226.00                                                           | 388.40                   | 483.20   | 212.00               | 558.80   | 1700.60  | 1501.40  | 252.00                   | 246.00  | 232.00  | 218.00  | 164.40  |           |        |
| 26             | 242.00                                                           | 366.00                   | 469.20   | 232.00               | 591.00   | 1648.00  | 1512.80  | 238.00                   | 250.00  | 234.00  | 216.00  | 164.40  |           |        |
| 27             | 246.00                                                           | 366.00                   | 449.60   | 282.00               | 639.00   | 1616.00  | 1676.00  | 218.00                   | 246.00  | 236.00  | 228.00  | 177.20  |           |        |
| 28             | 240.00                                                           | 380.60                   | 419.60   | 301.20               | 636.00   | 1632.00  | 1734.20  | 210.00                   | 244.00  | 252.00  | 242.00  | 178.80  |           |        |
| 29             | 228.00                                                           | 370.80                   | 385.80   | 303.60               | 603.00   | 1644.00  | 1668.00  | 204.00                   | 232.00  | 246.00  |         | 174.00  |           |        |
| 30             | 204.00                                                           | 363.60                   | 351.60   | 320.40               | 547.60   | 1696.40  | 1596.00  | 194.60                   | 228.00  | 250.00  |         | 172.40  |           |        |
| 31             |                                                                  | 351.60                   |          | 330.00               | 505.60   |          | 1532.00  |                          | 220.00  | 246.00  |         | 172.40  |           |        |
| Total          | 5537.80                                                          | 10436.80                 | 12307.20 | 9565.20              | 19461.20 | 32208.20 | 49885.80 | 19157.40                 | 7038.20 | 6703.80 | 6630.00 | 5853.00 | 184784.60 | CMSDAY |
| Mean           | 184.60                                                           | 336.70                   | 410.20   | 308.60               | 627.80   | 1073.60  | 1609.20  | 638.60                   | 227.00  | 216.30  | 236.80  | 188.80  | 506.30    | CMS    |
| Max            | 246.00                                                           | 435.60                   | 648.00   | 561.60               | 1072.40  | 1700.60  | 1793.00  | 1452.00                  | 344.40  | 252.00  | 248.00  | 246.00  | 1793.00   | CMS    |
| Min            | 138.80                                                           | 180.40                   | 279.80   | 178.80               | 337.20   | 438.40   | 1334.20  | 194.60                   | 150.00  | 170.80  | 216.00  | 147.20  | 138.80    | CMS    |
| Runoff         | 478.47                                                           | 901.74                   | 1063.34  | 826.43               | 1681.45  | 2782.79  | 4310.13  | 1655.20                  | 608.10  | 579.21  | 572.83  | 505.70  | 15965.39  | MCM    |
| Momentary Peak | 1805.60 CMS. at 23.18 m. (MSL.) at 03.00 Hours , on Oct 3 , 2013 |                          |          |                      |          |          |          |                          |         |         |         |         |           |        |
| Runoff Yield   | 4.60                                                             | Liters/Second/Square KM. |          | Momentary Peak Yield |          |          | 16.419   | Liters/Second/Square KM. |         |         |         |         |           |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

### Chao Phraya River at Ban Bang Phutsa, Sing Buri (C.3)

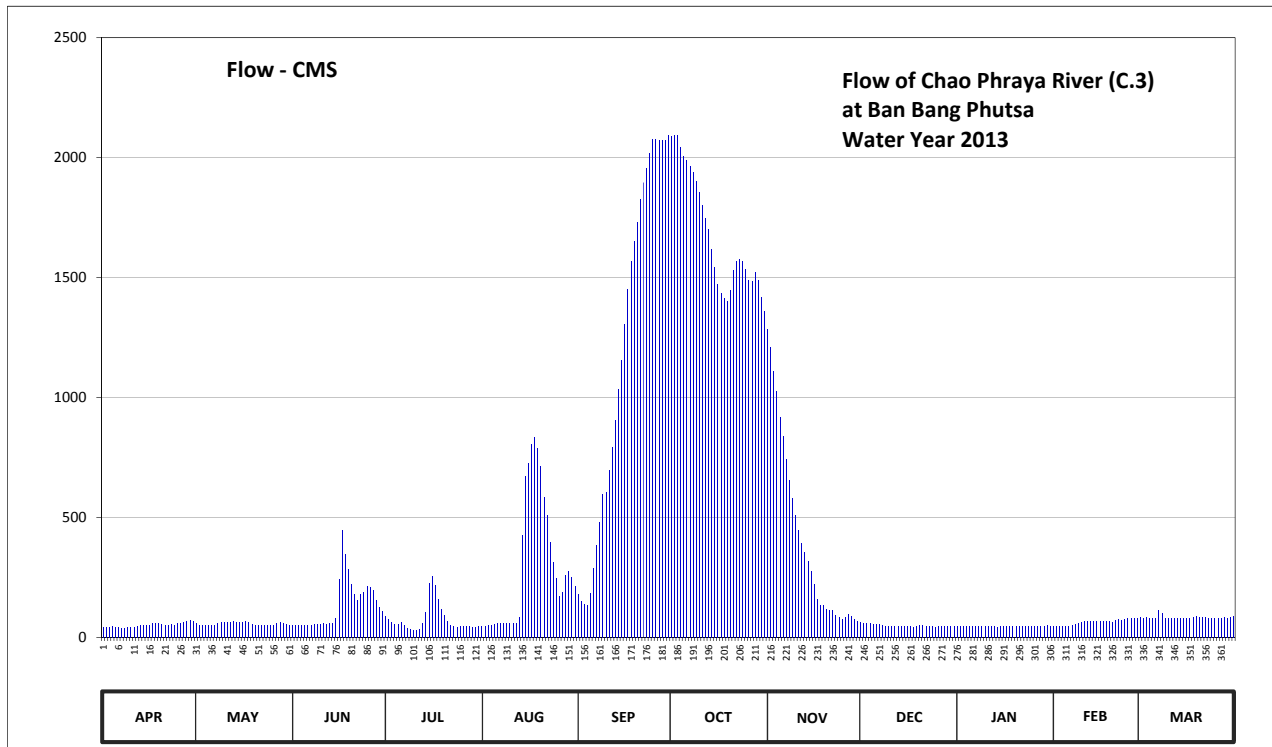
Lat 14 - 53 - 50 N    Long 100 - 24 - 18 E

**Location : on right bank at Ban Bang Phutsa**

|                                         |                                                                                           |             |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Bang Phutsa | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Sing Buri         |
| <b>Drainage Area</b>                    | 118,752                                                                                   | sq.km.      |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |             |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)   |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank at the bridge                                                               |             |               |        | <b>Elevation</b> | +11.880 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |             |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |             |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1950 to date                                                                              |             |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |             |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1950 to date                                                                              |             |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1950 to date                                                                              |             |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                             |             |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 41 discharge measurements made in 2013. |             |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug                               | Sep   | Oct    | Nov  | Dec               | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|-----------------------------------|-------|--------|------|-------------------|------|------|------|--------|
| 1                                | 1.60  | 1.82 | 1.70        | 2.25 | 1.63                              | 3.22  | 11.47  | 8.68 | 1.88              | 1.66 | 1.66 | 2.16 |        |
| 2                                | 1.58  | 1.73 | 1.69        | 2.05 | 1.63                              | 2.92  | 11.48  | 8.39 | 1.82              | 1.66 | 1.64 | 2.12 |        |
| 3                                | 1.58  | 1.71 | 1.69        | 1.86 | 1.69                              | 2.80  | 11.48  | 8.01 | 1.80              | 1.66 | 1.63 | 2.15 |        |
| 4                                | 1.62  | 1.71 | 1.69        | 1.74 | 1.71                              | 2.78  | 11.31  | 7.69 | 1.81              | 1.65 | 1.62 | 2.14 |        |
| 5                                | 1.59  | 1.72 | 1.70        | 1.77 | 1.77                              | 3.28  | 11.19  | 7.26 | 1.78              | 1.62 | 1.62 | 2.11 |        |
| 6                                | 1.56  | 1.67 | 1.71        | 1.86 | 1.84                              | 4.11  | 11.12  | 6.93 | 1.78              | 1.66 | 1.62 | 2.14 |        |
| 7                                | 1.53  | 1.72 | 1.73        | 1.67 | 1.80                              | 4.72  | 11.05  | 6.52 | 1.77              | 1.66 | 1.69 | 2.53 |        |
| 8                                | 1.54  | 1.84 | 1.74        | 1.51 | 1.81                              | 5.25  | 10.96  | 6.13 | 1.70              | 1.64 | 1.74 | 2.41 |        |
| 9                                | 1.57  | 1.88 | 1.76        | 1.45 | 1.83                              | 5.86  | 10.84  | 5.77 | 1.63              | 1.61 | 1.80 | 2.13 |        |
| 10                               | 1.56  | 1.90 | 1.77        | 1.41 | 1.84                              | 5.90  | 10.68  | 5.41 | 1.61              | 1.61 | 1.88 | 2.10 |        |
| 11                               | 1.56  | 1.89 | 1.79        | 1.40 | 1.84                              | 6.32  | 10.50  | 5.07 | 1.61              | 1.66 | 1.91 | 2.13 |        |
| 12                               | 1.64  | 1.89 | 1.77        | 1.45 | 1.82                              | 6.74  | 10.31  | 4.77 | 1.63              | 1.62 | 1.92 | 2.10 |        |
| 13                               | 1.68  | 1.91 | 1.80        | 1.84 | 2.15                              | 7.21  | 10.14  | 4.54 | 1.62              | 1.61 | 1.92 | 2.09 |        |
| 14                               | 1.70  | 1.89 | 1.81        | 2.44 | 4.95                              | 7.72  | 9.86   | 4.31 | 1.64              | 1.60 | 1.93 | 2.11 |        |
| 15                               | 1.69  | 1.90 | 2.10        | 3.62 | 6.21                              | 8.19  | 9.60   | 4.04 | 1.63              | 1.61 | 1.93 | 2.11 |        |
| 16                               | 1.71  | 1.87 | 3.78        | 3.88 | 6.46                              | 8.75  | 9.36   | 3.60 | 1.64              | 1.62 | 1.96 | 2.14 |        |
| 17                               | 1.84  | 1.95 | 5.07        | 3.56 | 6.79                              | 9.28  | 9.22   | 3.03 | 1.63              | 1.64 | 1.96 | 2.14 |        |
| 18                               | 1.84  | 1.87 | 4.50        | 3.03 | 6.92                              | 9.69  | 9.15   | 2.79 | 1.59              | 1.63 | 1.93 | 2.15 |        |
| 19                               | 1.82  | 1.76 | 4.10        | 2.59 | 6.72                              | 9.97  | 9.10   | 2.77 | 1.65              | 1.64 | 1.91 | 2.21 |        |
| 20                               | 1.77  | 1.72 | 3.60        | 2.27 | 6.39                              | 10.25 | 9.26   | 2.57 | 1.71              | 1.64 | 1.88 | 2.20 |        |
| 21                               | 1.73  | 1.71 | 3.21        | 1.93 | 5.79                              | 10.58 | 9.56   | 2.54 | 1.68              | 1.61 | 2.00 | 2.18 |        |
| 22                               | 1.70  | 1.68 | 2.99        | 1.71 | 5.41                              | 10.82 | 9.69   | 2.53 | 1.65              | 1.61 | 2.05 | 2.18 |        |
| 23                               | 1.75  | 1.68 | 3.21        | 1.63 | 4.80                              | 11.02 | 9.71   | 2.31 | 1.62              | 1.62 | 2.01 | 2.13 |        |
| 24                               | 1.73  | 1.69 | 3.32        | 1.60 | 4.28                              | 11.22 | 9.69   | 2.16 | 1.64              | 1.62 | 2.07 | 2.13 |        |
| 25                               | 1.80  | 1.70 | 3.52        | 1.62 | 3.80                              | 11.42 | 9.58   | 2.07 | 1.60              | 1.61 | 2.11 | 2.12 |        |
| 26                               | 1.82  | 1.71 | 3.51        | 1.62 | 3.13                              | 11.42 | 9.42   | 2.18 | 1.63              | 1.61 | 2.11 | 2.10 |        |
| 27                               | 1.88  | 1.80 | 3.38        | 1.62 | 3.29                              | 11.40 | 9.40   | 2.32 | 1.61              | 1.62 | 2.10 | 2.09 |        |
| 28                               | 1.93  | 1.86 | 3.00        | 1.61 | 3.90                              | 11.41 | 9.53   | 2.24 | 1.62              | 1.61 | 2.14 | 2.19 |        |
| 29                               | 1.99  | 1.83 | 2.69        | 1.60 | 4.03                              | 11.41 | 9.41   | 2.06 | 1.66              | 1.66 |      | 2.14 |        |
| 30                               | 1.96  | 1.76 | 2.49        | 1.60 | 3.83                              | 11.48 | 9.16   | 1.92 | 1.66              | 1.67 |      | 2.18 |        |
| 31                               |       | 1.69 |             | 1.61 | 3.54                              |       | 8.95   |      | 1.65              | 1.65 |      | 2.25 |        |
| Mean                             | 1.71  | 1.79 | 2.63        | 1.99 | 3.66                              | 7.90  | 10.07  | 4.35 | 1.68              | 1.63 | 1.88 | 2.16 |        |
| Max                              | 1.99  | 1.95 | 5.07        | 3.88 | 6.92                              | 11.48 | 11.48  | 8.68 | 1.88              | 1.67 | 2.14 | 2.53 | 11.48  |
| Min                              | 1.53  | 1.67 | 1.69        | 1.40 | 1.63                              | 2.78  | 8.95   | 1.92 | 1.59              | 1.60 | 1.62 | 2.09 | 1.40   |
| Annual Max Momentary Gage Height | 11.50 |      | m. (MSL.) , |      | at 12.00 Hours , on Oct. 3 , 2013 |       |        |      |                   |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      | River Bed                         |       | -2.27  |      | m. (MSL.)         |      |      |      |        |
| Left Bank Elevation              | 13.34 |      | m. (MSL.) , |      |                                   |       |        |      |                   |      |      |      |        |
| Right Bank Elevation             | 13.69 |      | m. (MSL.) , |      | Drainage Area                     |       | 118752 |      | Square Kilometers |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 45.00                                                            | 60.40                    | 52.00   | 90.50   | 47.10                | 180.20   | 2091.00  | 1285.60  | 64.60                    | 49.20   | 49.20   | 84.20   |           |        |
| 2              | 43.60                                                            | 54.10                    | 51.30   | 76.50   | 47.10                | 150.00   | 2094.00  | 1207.40  | 60.40                    | 49.20   | 47.80   | 81.40   |           |        |
| 3              | 43.60                                                            | 52.70                    | 51.30   | 63.20   | 51.30                | 138.00   | 2094.00  | 1108.60  | 59.00                    | 49.20   | 47.10   | 83.50   |           |        |
| 4              | 46.40                                                            | 52.70                    | 51.30   | 54.80   | 52.70                | 136.20   | 2043.00  | 1025.50  | 59.70                    | 48.50   | 46.40   | 82.80   |           |        |
| 5              | 44.30                                                            | 53.40                    | 52.00   | 56.90   | 56.90                | 186.80   | 2007.00  | 918.00   | 57.60                    | 46.40   | 46.40   | 80.70   |           |        |
| 6              | 42.20                                                            | 49.90                    | 52.70   | 63.20   | 61.80                | 288.50   | 1986.00  | 838.20   | 57.60                    | 49.20   | 46.40   | 82.80   |           |        |
| 7              | 40.10                                                            | 53.40                    | 54.10   | 49.90   | 59.00                | 385.40   | 1965.00  | 742.60   | 56.90                    | 49.20   | 51.30   | 113.70  |           |        |
| 8              | 40.80                                                            | 61.80                    | 54.80   | 38.70   | 59.70                | 480.50   | 1938.00  | 655.30   | 52.00                    | 47.80   | 54.80   | 102.90  |           |        |
| 9              | 42.90                                                            | 64.60                    | 56.20   | 35.00   | 61.10                | 599.00   | 1902.00  | 581.00   | 47.10                    | 45.70   | 59.00   | 82.10   |           |        |
| 10             | 42.20                                                            | 66.00                    | 56.90   | 32.60   | 61.80                | 607.00   | 1855.20  | 510.90   | 45.70                    | 45.70   | 64.60   | 80.00   |           |        |
| 11             | 42.20                                                            | 65.30                    | 58.30   | 32.00   | 61.80                | 696.60   | 1803.00  | 447.60   | 45.70                    | 49.20   | 66.70   | 82.10   |           |        |
| 12             | 47.80                                                            | 65.30                    | 56.90   | 35.00   | 60.40                | 793.20   | 1747.90  | 393.90   | 47.10                    | 46.40   | 67.40   | 80.00   |           |        |
| 13             | 50.60                                                            | 66.70                    | 59.00   | 61.80   | 83.50                | 905.50   | 1698.60  | 355.40   | 46.40                    | 45.70   | 67.40   | 79.30   |           |        |
| 14             | 52.00                                                            | 65.30                    | 59.70   | 105.60  | 426.00               | 1033.20  | 1617.40  | 318.60   | 47.80                    | 45.00   | 68.10   | 80.70   |           |        |
| 15             | 51.30                                                            | 66.00                    | 80.00   | 225.40  | 672.20               | 1155.40  | 1542.00  | 278.60   | 47.10                    | 45.70   | 68.10   | 80.70   |           |        |
| 16             | 52.70                                                            | 63.90                    | 244.60  | 257.40  | 728.80               | 1304.50  | 1472.80  | 223.00   | 47.80                    | 46.40   | 70.20   | 82.80   |           |        |
| 17             | 61.80                                                            | 69.50                    | 447.60  | 218.20  | 804.70               | 1450.40  | 1433.60  | 161.00   | 47.10                    | 47.80   | 70.20   | 82.80   |           |        |
| 18             | 61.80                                                            | 63.90                    | 349.00  | 161.00  | 835.80               | 1568.10  | 1414.00  | 137.10   | 44.30                    | 47.10   | 68.10   | 83.50   |           |        |
| 19             | 60.40                                                            | 56.20                    | 287.00  | 119.10  | 788.60               | 1649.30  | 1400.00  | 135.30   | 48.50                    | 47.80   | 66.70   | 87.70   |           |        |
| 20             | 56.90                                                            | 53.40                    | 223.00  | 91.90   | 712.70               | 1730.50  | 1444.80  | 117.30   | 52.70                    | 47.80   | 64.60   | 87.00   |           |        |
| 21             | 54.10                                                            | 52.70                    | 179.10  | 68.10   | 585.00               | 1826.20  | 1530.40  | 114.60   | 50.60                    | 45.70   | 73.00   | 85.60   |           |        |
| 22             | 52.00                                                            | 50.60                    | 157.00  | 52.70   | 510.90               | 1896.00  | 1568.10  | 113.70   | 48.50                    | 45.70   | 76.50   | 85.60   |           |        |
| 23             | 55.50                                                            | 50.60                    | 179.10  | 47.10   | 399.00               | 1956.00  | 1573.90  | 94.80    | 46.40                    | 46.40   | 73.70   | 82.10   |           |        |
| 24             | 54.10                                                            | 51.30                    | 191.20  | 45.00   | 314.00               | 2016.00  | 1568.10  | 84.20    | 47.80                    | 46.40   | 77.90   | 82.10   |           |        |
| 25             | 59.00                                                            | 52.00                    | 213.40  | 46.40   | 247.00               | 2076.00  | 1536.20  | 77.90    | 45.00                    | 45.70   | 80.70   | 81.40   |           |        |
| 26             | 60.40                                                            | 52.70                    | 212.20  | 46.40   | 171.00               | 2076.00  | 1489.80  | 85.60    | 47.10                    | 45.70   | 80.70   | 80.00   |           |        |
| 27             | 64.60                                                            | 59.00                    | 197.80  | 46.40   | 187.90               | 2070.00  | 1484.00  | 95.60    | 45.70                    | 46.40   | 80.00   | 79.30   |           |        |
| 28             | 68.10                                                            | 63.20                    | 158.00  | 45.70   | 260.00               | 2073.00  | 1521.70  | 89.80    | 46.40                    | 45.70   | 82.80   | 86.30   |           |        |
| 29             | 72.30                                                            | 61.10                    | 128.10  | 45.00   | 277.20               | 2073.00  | 1486.90  | 77.20    | 49.20                    | 49.20   |         | 82.80   |           |        |
| 30             | 70.20                                                            | 56.20                    | 110.10  | 45.00   | 250.90               | 2094.00  | 1416.80  | 67.40    | 49.20                    | 49.90   |         | 85.60   |           |        |
| 31             |                                                                  | 51.30                    |         | 45.70   | 215.80               |          | 1358.50  |          | 48.50                    | 48.50   |         | 90.50   |           |        |
| Total          | 1578.90                                                          | 1805.20                  | 4123.70 | 2402.20 | 9151.70              | 35594.50 | 52083.70 | 12341.70 | 1559.50                  | 1464.30 | 1815.80 | 2622.00 | 126543.20 | CMSDAY |
| Mean           | 52.60                                                            | 58.20                    | 137.50  | 77.50   | 295.20               | 1186.50  | 1680.10  | 411.40   | 50.30                    | 47.20   | 64.80   | 84.60   | 346.70    | CMS    |
| Max            | 72.30                                                            | 69.50                    | 447.60  | 257.40  | 835.80               | 2094.00  | 2094.00  | 1285.60  | 64.60                    | 49.90   | 82.80   | 113.70  | 2094.00   | CMS    |
| Min            | 40.10                                                            | 49.90                    | 51.30   | 32.00   | 47.10                | 136.20   | 1358.50  | 67.40    | 44.30                    | 45.00   | 46.40   | 79.30   | 32.00     | CMS    |
| Runoff         | 136.42                                                           | 155.97                   | 356.29  | 207.55  | 790.71               | 3075.36  | 4500.03  | 1066.32  | 134.74                   | 126.52  | 156.89  | 226.54  | 10933.33  | MCM    |
| Momentary Peak | 2100.00 CMS. at 11.50 m. (MSL.) at 12.00 Hours , on Oct 3 , 2013 |                          |         |         |                      |          |          |          |                          |         |         |         |           |        |
| Runoff Yield   | 2.92                                                             | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | 17.684   | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013****CHAO PHRAYA RIVER BASIN****Chao Phraya River at Ban Bang Kaeo, Ang Thong (C.7A)**

Lat 14 - 35 - 05 N Long 100 - 27 - 12 E

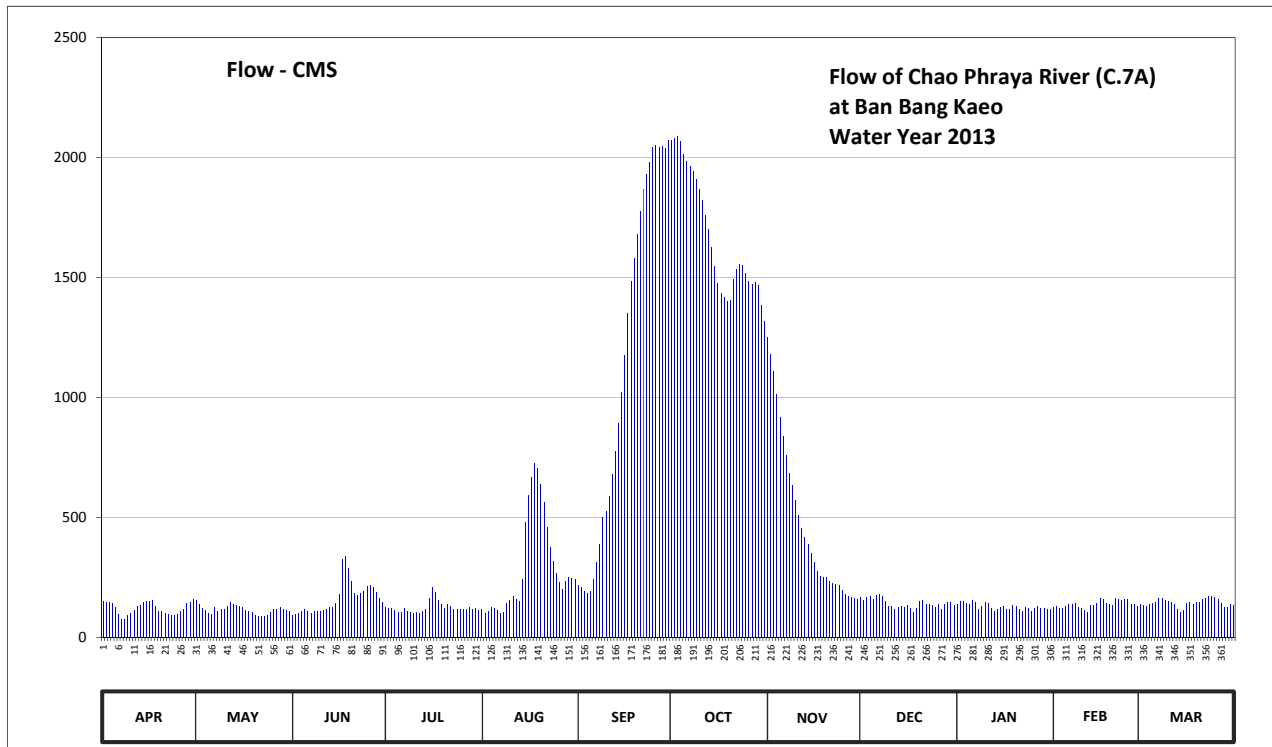
**Location : on left bank at Ban Bang Kaco**

|                                         |                                                                                           |           |               |        |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Bang Keao | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Ang Thong        |
| <b>Drainage Area</b>                    | Flood Plain                                                                               |           |               |        |                  |                  |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000 m. (MSL.)                                                                          |           |               |        |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                  |
| <b>Location BM</b>                      | On left bank near the gage site                                                           |           |               |        | <b>Elevation</b> | +8.633 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |        |                  |                  |
| <b>Period of Available Gage Records</b> | 2006 to date                                                                              |           |               |        |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                  |
| <b>Period of Rating</b>                 | 2006 to date                                                                              |           |               |        |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                  |
| <b>Rated by Current Meter</b>           | 2006 to date                                                                              |           |               |        |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |        |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 38 discharge measurements made in 2013. |           |               |        |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug                              | Sep               | Oct  | Nov       | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|----------------------------------|-------------------|------|-----------|------|------|------|------|--------|
| 1                                | 0.83  | 0.86 | 0.40        | 0.66 | 0.62                             | 1.31              | 8.17 | 5.72      | 0.96 | 0.74 | 0.66 | 0.76 |        |
| 2                                | 0.80  | 0.75 | 0.43        | 0.64 | 0.47                             | 1.25              | 8.20 | 5.50      | 0.87 | 0.84 | 0.69 | 0.72 |        |
| 3                                | 0.82  | 0.63 | 0.46        | 0.64 | 0.55                             | 1.14              | 8.22 | 5.25      | 0.96 | 0.84 | 0.64 | 0.70 |        |
| 4                                | 0.79  | 0.56 | 0.54        | 0.57 | 0.66                             | 1.07              | 8.16 | 4.91      | 0.99 | 0.78 | 0.63 | 0.76 |        |
| 5                                | 0.65  | 0.47 | 0.61        | 0.49 | 0.63                             | 1.15              | 8.00 | 4.57      | 0.90 | 0.75 | 0.69 | 0.77 |        |
| 6                                | 0.44  | 0.43 | 0.52        | 0.51 | 0.57                             | 1.47              | 7.92 | 4.29      | 1.01 | 0.88 | 0.75 | 0.81 |        |
| 7                                | 0.23  | 0.67 | 0.45        | 0.64 | 0.48                             | 1.88              | 7.86 | 3.97      | 1.06 | 0.81 | 0.75 | 0.92 |        |
| 8                                | 0.24  | 0.52 | 0.52        | 0.52 | 0.51                             | 2.29              | 7.79 | 3.66      | 0.99 | 0.62 | 0.79 | 0.94 |        |
| 9                                | 0.38  | 0.62 | 0.55        | 0.51 | 0.78                             | 2.84              | 7.70 | 3.44      | 0.85 | 0.68 | 0.67 | 0.87 |        |
| 10                               | 0.47  | 0.62 | 0.55        | 0.48 | 0.87                             | 2.96              | 7.58 | 3.17      | 0.70 | 0.80 | 0.63 | 0.83 |        |
| 11                               | 0.57  | 0.68 | 0.56        | 0.50 | 0.98                             | 3.24              | 7.44 | 2.89      | 0.68 | 0.79 | 0.57 | 0.82 |        |
| 12                               | 0.69  | 0.80 | 0.62        | 0.48 | 0.91                             | 3.63              | 7.26 | 2.63      | 0.61 | 0.64 | 0.50 | 0.75 |        |
| 13                               | 0.73  | 0.76 | 0.67        | 0.54 | 0.85                             | 4.04              | 7.09 | 2.44      | 0.67 | 0.54 | 0.72 | 0.59 |        |
| 14                               | 0.81  | 0.71 | 0.67        | 0.59 | 1.46                             | 4.48              | 6.86 | 2.29      | 0.68 | 0.62 | 0.72 | 0.50 |        |
| 15                               | 0.84  | 0.69 | 0.78        | 0.92 | 2.75                             | 4.94              | 6.63 | 2.09      | 0.66 | 0.66 | 0.79 | 0.58 |        |
| 16                               | 0.85  | 0.65 | 1.04        | 1.24 | 3.27                             | 5.48              | 6.42 | 1.87      | 0.73 | 0.70 | 0.94 | 0.78 |        |
| 17                               | 0.86  | 0.56 | 1.95        | 1.11 | 3.58                             | 6.03              | 6.29 | 1.66      | 0.63 | 0.62 | 0.91 | 0.82 |        |
| 18                               | 0.69  | 0.55 | 2.01        | 0.87 | 3.83                             | 6.45              | 6.23 | 1.55      | 0.51 | 0.60 | 0.77 | 0.76 |        |
| 19                               | 0.52  | 0.49 | 1.74        | 0.75 | 3.75                             | 6.73              | 6.18 | 1.50      | 0.63 | 0.73 | 0.74 | 0.81 |        |
| 20                               | 0.54  | 0.38 | 1.42        | 0.64 | 3.46                             | 7.02              | 6.20 | 1.50      | 0.83 | 0.70 | 0.73 | 0.80 |        |
| 21                               | 0.47  | 0.35 | 1.09        | 0.74 | 3.13                             | 7.30              | 6.47 | 1.40      | 0.88 | 0.60 | 0.94 | 0.90 |        |
| 22                               | 0.42  | 0.37 | 1.02        | 0.69 | 2.65                             | 7.58              | 6.60 | 1.36      | 0.76 | 0.55 | 0.89 | 0.92 |        |
| 23                               | 0.40  | 0.35 | 1.08        | 0.59 | 2.23                             | 7.76              | 6.65 | 1.33      | 0.74 | 0.65 | 0.87 | 0.98 |        |
| 24                               | 0.39  | 0.40 | 1.13        | 0.62 | 1.91                             | 7.90              | 6.64 | 1.30      | 0.71 | 0.64 | 0.89 | 0.99 |        |
| 25                               | 0.43  | 0.49 | 1.27        | 0.60 | 1.63                             | 8.09              | 6.55 | 1.16      | 0.67 | 0.54 | 0.90 | 0.95 |        |
| 26                               | 0.55  | 0.60 | 1.31        | 0.62 | 1.39                             | 8.11              | 6.44 | 1.06      | 0.76 | 0.63 | 0.75 | 0.89 |        |
| 27                               | 0.60  | 0.61 | 1.26        | 0.61 | 1.20                             | 8.09              | 6.40 | 0.98      | 0.60 | 0.69 | 0.74 | 0.78 |        |
| 28                               | 0.77  | 0.67 | 1.12        | 0.65 | 1.41                             | 8.10              | 6.43 | 0.96      | 0.75 | 0.63 | 0.70 | 0.67 |        |
| 29                               | 0.80  | 0.61 | 0.94        | 0.62 | 1.52                             | 8.08              | 6.39 | 0.92      | 0.82 | 0.64 |      | 0.67 |        |
| 30                               | 0.90  | 0.56 | 0.82        | 0.63 | 1.49                             | 8.17              | 6.13 | 0.90      | 0.80 | 0.60 |      | 0.75 |        |
| 31                               |       | 0.54 |             | 0.58 | 1.46                             |                   | 5.92 |           | 0.72 | 0.59 |      | 0.73 |        |
| Mean                             | 0.62  | 0.58 | 0.92        | 0.65 | 1.65                             | 4.95              | 6.99 | 2.54      | 0.78 | 0.68 | 0.75 | 0.79 |        |
| Max                              | 0.90  | 0.86 | 2.01        | 1.24 | 3.83                             | 8.17              | 8.22 | 5.72      | 1.06 | 0.88 | 0.94 | 0.99 | 8.22   |
| Min                              | 0.23  | 0.35 | 0.40        | 0.48 | 0.47                             | 1.07              | 5.92 | 0.90      | 0.51 | 0.54 | 0.50 | 0.50 | 0.23   |
| Annual Max Momentary Gage Height | 8.23  |      | m. (MSL.) , |      | at 11.00 Hours , on Oct 3 , 2013 |                   |      |           |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      | River Bed                        | -5.34             |      | m. (MSL.) |      |      |      |      |        |
| Left Bank Elevation              | 10.04 |      | m. (MSL.) , |      |                                  |                   |      |           |      |      |      |      |        |
| Right Bank Elevation             | 9.98  |      | m. (MSL.) , |      | Drainage Area                    | Square Kilometers |      |           |      |      |      |      |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov      | Dec     | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|----------|---------|---------|---------|---------|-----------|--------|
| 1              | 150.20                                                          | 154.40                   | 94.00   | 126.40               | 120.80  | 219.60   | 2071.20                  | 1252.40  | 168.40  | 137.60  | 126.40  | 140.40  |           |        |
| 2              | 146.00                                                          | 139.00                   | 97.60   | 123.60               | 102.40  | 210.00   | 2082.00                  | 1182.00  | 155.80  | 151.60  | 130.60  | 134.80  |           |        |
| 3              | 148.80                                                          | 122.20                   | 101.20  | 123.60               | 112.00  | 193.60   | 2089.20                  | 1108.00  | 168.40  | 151.60  | 123.60  | 132.00  |           |        |
| 4              | 144.60                                                          | 113.20                   | 110.80  | 114.40               | 126.40  | 183.80   | 2067.60                  | 1012.80  | 172.60  | 143.20  | 122.20  | 140.40  |           |        |
| 5              | 125.00                                                          | 102.40                   | 119.40  | 104.80               | 122.20  | 195.00   | 2012.00                  | 917.60   | 160.00  | 139.00  | 130.60  | 141.80  |           |        |
| 6              | 98.80                                                           | 97.60                    | 108.40  | 107.20               | 114.40  | 245.20   | 1984.80                  | 841.40   | 175.40  | 157.20  | 139.00  | 147.40  |           |        |
| 7              | 77.00                                                           | 127.80                   | 100.00  | 123.60               | 103.60  | 314.40   | 1964.40                  | 760.80   | 182.40  | 147.40  | 139.00  | 162.80  |           |        |
| 8              | 78.00                                                           | 108.40                   | 108.40  | 108.40               | 107.20  | 388.20   | 1940.60                  | 686.40   | 172.60  | 120.80  | 144.60  | 165.60  |           |        |
| 9              | 92.00                                                           | 120.80                   | 112.00  | 107.20               | 143.20  | 500.80   | 1910.00                  | 633.60   | 153.00  | 129.20  | 127.80  | 155.80  |           |        |
| 10             | 102.40                                                          | 120.80                   | 112.00  | 103.60               | 155.80  | 527.20   | 1869.20                  | 573.40   | 132.00  | 146.00  | 122.20  | 150.20  |           |        |
| 11             | 114.40                                                          | 129.20                   | 113.20  | 106.00               | 171.20  | 588.80   | 1821.60                  | 511.80   | 129.20  | 144.60  | 114.40  | 148.80  |           |        |
| 12             | 130.60                                                          | 146.00                   | 120.80  | 103.60               | 161.40  | 679.20   | 1760.40                  | 456.00   | 119.40  | 123.60  | 106.00  | 139.00  |           |        |
| 13             | 136.20                                                          | 140.40                   | 127.80  | 110.80               | 153.00  | 777.60   | 1702.60                  | 418.00   | 127.80  | 110.80  | 134.80  | 116.80  |           |        |
| 14             | 147.40                                                          | 133.40                   | 127.80  | 116.80               | 243.60  | 892.40   | 1624.40                  | 388.20   | 129.20  | 120.80  | 134.80  | 106.00  |           |        |
| 15             | 151.60                                                          | 130.60                   | 143.20  | 162.80               | 481.00  | 1021.20  | 1546.20                  | 352.20   | 126.40  | 126.40  | 144.60  | 115.60  |           |        |
| 16             | 153.00                                                          | 125.00                   | 179.60  | 208.40               | 595.40  | 1176.00  | 1476.40                  | 312.60   | 136.20  | 132.00  | 165.60  | 143.20  |           |        |
| 17             | 154.40                                                          | 113.20                   | 327.00  | 189.40               | 667.20  | 1351.60  | 1434.80                  | 275.60   | 122.20  | 120.80  | 161.40  | 148.80  |           |        |
| 18             | 130.60                                                          | 112.00                   | 337.80  | 155.80               | 727.20  | 1486.00  | 1415.60                  | 258.00   | 107.20  | 118.00  | 141.80  | 140.40  |           |        |
| 19             | 108.40                                                          | 104.80                   | 289.20  | 139.00               | 708.00  | 1580.20  | 1399.60                  | 250.00   | 122.20  | 136.20  | 137.60  | 147.40  |           |        |
| 20             | 110.80                                                          | 92.00                    | 237.20  | 123.60               | 638.40  | 1678.80  | 1406.00                  | 250.00   | 150.20  | 132.00  | 136.20  | 146.00  |           |        |
| 21             | 102.40                                                          | 89.00                    | 186.60  | 137.60               | 564.60  | 1774.00  | 1492.40                  | 234.00   | 157.20  | 118.00  | 165.60  | 160.00  |           |        |
| 22             | 96.40                                                           | 91.00                    | 176.80  | 130.60               | 460.00  | 1869.20  | 1536.00                  | 227.60   | 140.40  | 112.00  | 158.60  | 162.80  |           |        |
| 23             | 94.00                                                           | 89.00                    | 185.20  | 116.80               | 377.40  | 1930.40  | 1553.00                  | 222.80   | 137.60  | 125.00  | 155.80  | 171.20  |           |        |
| 24             | 93.00                                                           | 94.00                    | 192.20  | 120.80               | 319.80  | 1978.00  | 1549.60                  | 218.00   | 133.40  | 123.60  | 158.60  | 172.60  |           |        |
| 25             | 97.60                                                           | 104.80                   | 213.20  | 118.00               | 270.80  | 2042.60  | 1519.00                  | 196.40   | 127.80  | 110.80  | 160.00  | 167.00  |           |        |
| 26             | 112.00                                                          | 118.00                   | 219.60  | 120.80               | 232.40  | 2049.60  | 1482.80                  | 182.40   | 140.40  | 122.20  | 139.00  | 158.60  |           |        |
| 27             | 118.00                                                          | 119.40                   | 211.60  | 119.40               | 202.00  | 2042.60  | 1470.00                  | 171.20   | 118.00  | 130.60  | 137.60  | 143.20  |           |        |
| 28             | 141.80                                                          | 127.80                   | 190.80  | 125.00               | 235.60  | 2046.00  | 1479.60                  | 168.40   | 139.00  | 122.20  | 132.00  | 127.80  |           |        |
| 29             | 146.00                                                          | 119.40                   | 165.60  | 120.80               | 253.20  | 2039.20  | 1466.80                  | 162.80   | 148.80  | 123.60  |         | 127.80  |           |        |
| 30             | 160.00                                                          | 113.20                   | 148.80  | 122.20               | 248.40  | 2071.20  | 1383.60                  | 160.00   | 146.00  | 118.00  |         | 139.00  |           |        |
| 31             |                                                                 | 110.80                   |         | 115.60               | 243.60  |          | 1316.40                  |          | 134.80  | 116.80  |         | 136.20  |           |        |
| Total          | 3661.40                                                         | 3609.60                  | 4957.80 | 3906.60              | 9162.20 | 34052.40 | 51827.80                 | 14384.40 | 4434.00 | 4011.60 | 3890.40 | 4489.40 | 142387.60 | CMSDAY |
| Mean           | 122.00                                                          | 116.40                   | 165.30  | 126.00               | 295.60  | 1135.10  | 1671.90                  | 479.50   | 143.00  | 129.40  | 138.90  | 144.80  | 390.10    | CMS    |
| Max            | 160.00                                                          | 154.40                   | 337.80  | 208.40               | 727.20  | 2071.20  | 2089.20                  | 1252.40  | 182.40  | 157.20  | 165.60  | 172.60  | 2089.20   | CMS    |
| Min            | 77.00                                                           | 89.00                    | 94.00   | 103.60               | 102.40  | 183.80   | 1316.40                  | 160.00   | 107.20  | 110.80  | 106.00  | 106.00  | 77.00     | CMS    |
| Runoff         | 316.34                                                          | 311.87                   | 428.35  | 337.53               | 791.61  | 2942.13  | 4477.92                  | 1242.81  | 383.10  | 346.60  | 336.13  | 387.88  | 12302.29  | MCM    |
| Momentary Peak | 2092.80 CMS. at 8.23 m. (MSL.) at 11.00 Hours , on Oct 3 , 2013 |                          |         |                      |         |          |                          |          |         |         |         |         |           |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |         | Momentary Peak Yield |         | *****    | Liters/Second/Square KM. |          |         |         |         |         |           |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

### Chao Phraya River at Ban Bang Luang, Chai Nat (C.13)

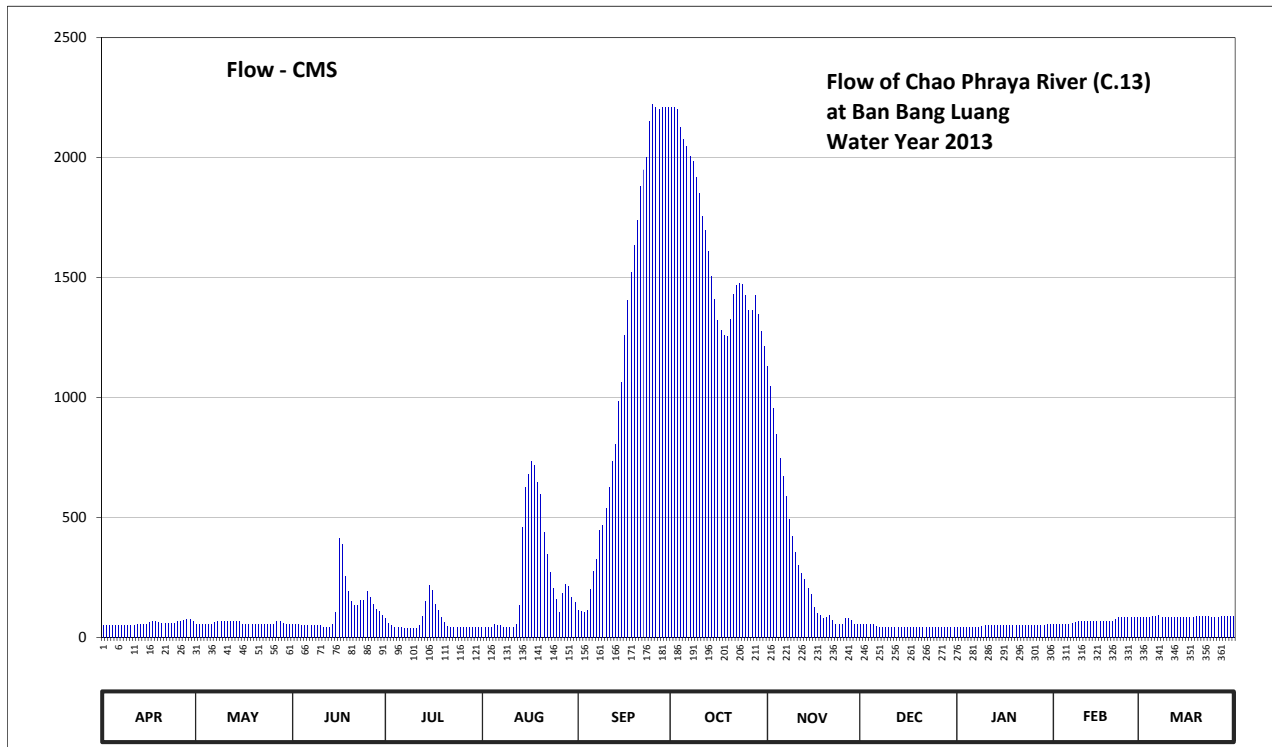
Lat 15 - 10 - 07 N    Long 100 - 11 - 48 E

**Location : on left bank at Wat Pho Ngam about 1.5 kilometers downstream from Chao Phraya Diversion Dam**

|                                         |                                                                             |            |               |          |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|------------|---------------|----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Bang Luang | <b>Amphoe</b> | Sanphaya | <b>Changwat</b>  | Chai Nat          |
| <b>Drainage Area</b>                    | 117,187                                                                     | sq.km.     |               |          |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |            |               |          |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                      | m. (MSL.)  |               |          |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |            |               |          |                  |                   |
| <b>Location BM</b>                      | B.M.2 - on right bank about 400 meters from the B.M.1                       |            |               |          | <b>Elevation</b> | +16.310 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |            |               |          |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |            |               |          |                  |                   |
| <b>Period of Available Gage Records</b> | 1947 to date                                                                |            |               |          |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |            |               |          |                  |                   |
| <b>Period of Rating</b>                 | 1953 - 1962, 1965 - 1968, 1972 - 1975 to date                               |            |               |          |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |            |               |          |                  |                   |
| <b>Rated by Current Meter</b>           | 1953 - 1962, 1965 - 1968, 1972 - 1975 to date                               |            |               |          |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |            |               |          |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |            |               |          |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by Chao Phraya Dam above gage site.            |            |               |          |                  |                   |
|                                         | Stage-discharge relation defined by 42 discharge measurements made in 2013. |            |               |          |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May   | Jun         | Jul  | Aug                               | Sep    | Oct               | Nov   | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|-------|-------------|------|-----------------------------------|--------|-------------------|-------|------|------|------|------|--------|
| 1                                | 5.60 | 5.70  | 5.70        | 6.06 | 5.50                              | 6.56   | 14.86             | 11.95 | 5.70 | 5.50 | 5.70 | 6.10 |        |
| 2                                | 5.60 | 5.70  | 5.70        | 5.76 | 5.50                              | 6.48   | 14.86             | 11.64 | 5.70 | 5.50 | 5.70 | 6.10 |        |
| 3                                | 5.60 | 5.70  | 5.70        | 5.68 | 5.51                              | 6.44   | 14.84             | 11.30 | 5.70 | 5.50 | 5.70 | 6.10 |        |
| 4                                | 5.60 | 5.70  | 5.64        | 5.50 | 5.51                              | 6.56   | 14.67             | 10.89 | 5.70 | 5.50 | 5.70 | 6.10 |        |
| 5                                | 5.60 | 5.70  | 5.60        | 5.50 | 5.69                              | 7.50   | 14.56             | 10.47 | 5.70 | 5.50 | 5.70 | 6.18 |        |
| 6                                | 5.60 | 5.70  | 5.60        | 5.46 | 5.67                              | 8.07   | 14.49             | 10.13 | 5.58 | 5.50 | 5.70 | 6.21 |        |
| 7                                | 5.60 | 5.82  | 5.60        | 5.40 | 5.62                              | 8.40   | 14.39             | 9.75  | 5.50 | 5.50 | 5.80 | 6.23 |        |
| 8                                | 5.60 | 5.90  | 5.60        | 5.40 | 5.50                              | 9.06   | 14.34             | 9.30  | 5.50 | 5.50 | 5.83 | 6.10 |        |
| 9                                | 5.60 | 5.90  | 5.60        | 5.40 | 5.50                              | 9.18   | 14.18             | 8.94  | 5.50 | 5.58 | 5.90 | 6.10 |        |
| 10                               | 5.60 | 5.90  | 5.60        | 5.40 | 5.50                              | 9.52   | 14.02             | 8.58  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 11                               | 5.64 | 5.90  | 5.50        | 5.40 | 5.50                              | 9.93   | 13.79             | 8.26  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 12                               | 5.70 | 5.90  | 5.50        | 5.68 | 5.74                              | 10.41  | 13.63             | 8.01  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 13                               | 5.70 | 5.90  | 5.50        | 6.20 | 6.80                              | 10.72  | 13.40             | 7.84  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 14                               | 5.70 | 5.90  | 5.72        | 6.99 | 9.13                              | 11.41  | 13.13             | 7.55  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 15                               | 5.70 | 5.89  | 6.45        | 7.64 | 9.94                              | 11.70  | 12.86             | 7.32  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 16                               | 5.82 | 5.70  | 8.89        | 7.45 | 10.17                             | 12.39  | 12.58             | 6.72  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 17                               | 5.90 | 5.70  | 8.77        | 6.88 | 10.42                             | 12.84  | 12.45             | 6.36  | 5.50 | 5.60 | 5.90 | 6.10 |        |
| 18                               | 5.90 | 5.70  | 7.93        | 6.53 | 10.34                             | 13.17  | 12.39             | 6.23  | 5.50 | 5.60 | 5.90 | 6.16 |        |
| 19                               | 5.84 | 5.70  | 7.44        | 6.16 | 10.02                             | 13.47  | 12.37             | 6.09  | 5.50 | 5.60 | 5.90 | 6.20 |        |
| 20                               | 5.80 | 5.70  | 7.03        | 5.84 | 9.79                              | 13.74  | 12.60             | 6.10  | 5.50 | 5.60 | 5.92 | 6.20 |        |
| 21                               | 5.80 | 5.70  | 6.79        | 5.57 | 9.03                              | 14.09  | 12.92             | 6.27  | 5.50 | 5.60 | 6.02 | 6.20 |        |
| 22                               | 5.80 | 5.70  | 6.79        | 5.50 | 8.53                              | 14.26  | 13.03             | 5.98  | 5.50 | 5.60 | 6.10 | 6.20 |        |
| 23                               | 5.80 | 5.70  | 7.04        | 5.50 | 8.04                              | 14.38  | 13.05             | 5.70  | 5.50 | 5.60 | 6.10 | 6.20 |        |
| 24                               | 5.80 | 5.70  | 7.08        | 5.50 | 7.52                              | 14.73  | 13.04             | 5.70  | 5.50 | 5.60 | 6.10 | 6.10 |        |
| 25                               | 5.90 | 5.70  | 7.43        | 5.50 | 7.10                              | 14.89  | 12.90             | 5.70  | 5.50 | 5.60 | 6.10 | 6.10 |        |
| 26                               | 5.90 | 5.70  | 7.18        | 5.50 | 6.41                              | 14.86  | 12.71             | 6.09  | 5.50 | 5.60 | 6.10 | 6.10 |        |
| 27                               | 5.96 | 5.90  | 6.86        | 5.50 | 7.35                              | 14.84  | 12.72             | 6.09  | 5.50 | 5.60 | 6.10 | 6.20 |        |
| 28                               | 6.00 | 5.90  | 6.61        | 5.50 | 7.67                              | 14.86  | 12.91             | 5.95  | 5.50 | 5.64 | 6.10 | 6.20 |        |
| 29                               | 6.00 | 5.78  | 6.48        | 5.50 | 7.61                              | 14.86  | 12.67             | 5.70  | 5.50 | 5.64 |      | 6.20 |        |
| 30                               | 5.89 | 5.70  | 6.23        | 5.50 | 7.19                              | 14.86  | 12.44             | 5.70  | 5.50 | 5.70 |      | 6.20 |        |
| 31                               |      | 5.70  |             | 5.50 | 6.95                              |        | 12.23             |       | 5.50 | 5.70 |      | 6.20 |        |
| Mean                             | 5.75 | 5.77  | 6.45        | 5.84 | 7.31                              | 11.47  | 13.39             | 7.74  | 5.53 | 5.58 | 5.91 | 6.14 |        |
| Max                              | 6.00 | 5.90  | 8.89        | 7.64 | 10.42                             | 14.89  | 14.86             | 11.95 | 5.70 | 5.70 | 6.10 | 6.23 | 14.89  |
| Min                              | 5.60 | 5.70  | 5.50        | 5.40 | 5.50                              | 6.44   | 12.23             | 5.70  | 5.50 | 5.50 | 5.70 | 6.10 | 5.40   |
| Annual Max Momentary Gage Height |      | 14.99 | m. (MSL) ,  |      | at 09.00 Hours , on Sep 25 , 2013 |        |                   |       |      |      |      |      |        |
| Zero Gage at Bottom Elevation    |      | 0.00  | m. (MSL) ,  |      | River Bed                         | 0.99   | m. (MSL.)         |       |      |      |      |      |        |
| Left Bank Elevation              |      | 16.78 | m. (MSL.) , |      |                                   |        |                   |       |      |      |      |      |        |
| Right Bank Elevation             |      | 16.43 | m. (MSL.) , |      | Drainage Area                     | 117187 | Square Kilometers |       |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                               | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-------------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|---------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 50.00                                                             | 55.00                    | 55.00   | 80.20   | 45.00                | 115.80   | 2208.40  | 1132.00 | 55.00                    | 45.00   | 55.00   | 83.00   |           |        |
| 2              | 50.00                                                             | 55.00                    | 55.00   | 59.20   | 45.00                | 109.60   | 2208.40  | 1046.80 | 55.00                    | 45.00   | 55.00   | 83.00   |           |        |
| 3              | 50.00                                                             | 55.00                    | 55.00   | 54.00   | 45.50                | 106.80   | 2199.60  | 955.00  | 55.00                    | 45.00   | 55.00   | 83.00   |           |        |
| 4              | 50.00                                                             | 55.00                    | 52.00   | 45.00   | 45.50                | 115.80   | 2124.80  | 847.60  | 55.00                    | 45.00   | 55.00   | 83.00   |           |        |
| 5              | 50.00                                                             | 55.00                    | 50.00   | 45.00   | 54.50                | 202.00   | 2076.40  | 748.10  | 55.00                    | 45.00   | 55.00   | 88.60   |           |        |
| 6              | 50.00                                                             | 55.00                    | 50.00   | 43.00   | 53.50                | 275.80   | 2045.80  | 670.60  | 49.00                    | 45.00   | 55.00   | 90.70   |           |        |
| 7              | 50.00                                                             | 63.40                    | 50.00   | 40.00   | 51.00                | 326.00   | 2003.80  | 587.50  | 45.00                    | 45.00   | 62.00   | 92.10   |           |        |
| 8              | 50.00                                                             | 69.00                    | 50.00   | 40.00   | 45.00                | 446.40   | 1982.80  | 493.00  | 45.00                    | 45.00   | 64.10   | 83.00   |           |        |
| 9              | 50.00                                                             | 69.00                    | 50.00   | 40.00   | 45.00                | 469.20   | 1915.60  | 423.60  | 45.00                    | 49.00   | 69.00   | 83.00   |           |        |
| 10             | 50.00                                                             | 69.00                    | 50.00   | 40.00   | 45.00                | 539.20   | 1848.40  | 356.60  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 11             | 52.00                                                             | 69.00                    | 45.00   | 40.00   | 45.00                | 626.60   | 1756.20  | 304.00  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 12             | 55.00                                                             | 69.00                    | 45.00   | 54.00   | 57.80                | 734.30   | 1695.40  | 267.40  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 13             | 55.00                                                             | 69.00                    | 45.00   | 90.00   | 135.00               | 806.80   | 1608.00  | 243.60  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 14             | 55.00                                                             | 69.00                    | 56.40   | 150.20  | 459.70               | 984.70   | 1505.40  | 208.00  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 15             | 55.00                                                             | 68.30                    | 107.50  | 218.80  | 628.80               | 1063.00  | 1410.40  | 182.00  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 16             | 63.40                                                             | 55.00                    | 414.10  | 196.00  | 679.40               | 1259.00  | 1319.60  | 128.60  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 17             | 69.00                                                             | 55.00                    | 391.30  | 141.40  | 736.60               | 1403.60  | 1278.00  | 101.20  | 45.00                    | 50.00   | 69.00   | 83.00   |           |        |
| 18             | 69.00                                                             | 55.00                    | 256.20  | 113.40  | 718.20               | 1520.60  | 1259.00  | 92.10   | 45.00                    | 50.00   | 69.00   | 87.20   |           |        |
| 19             | 64.80                                                             | 55.00                    | 194.80  | 87.20   | 646.40               | 1634.60  | 1253.00  | 82.30   | 45.00                    | 50.00   | 69.00   | 90.00   |           |        |
| 20             | 62.00                                                             | 55.00                    | 153.70  | 64.80   | 595.90               | 1737.20  | 1326.00  | 83.00   | 45.00                    | 50.00   | 70.40   | 90.00   |           |        |
| 21             | 62.00                                                             | 55.00                    | 134.20  | 48.50   | 440.70               | 1877.80  | 1430.80  | 94.90   | 45.00                    | 50.00   | 77.40   | 90.00   |           |        |
| 22             | 62.00                                                             | 55.00                    | 134.20  | 45.00   | 348.10               | 1949.20  | 1468.80  | 74.60   | 45.00                    | 50.00   | 83.00   | 90.00   |           |        |
| 23             | 62.00                                                             | 55.00                    | 154.60  | 45.00   | 271.60               | 1999.60  | 1476.00  | 55.00   | 45.00                    | 50.00   | 83.00   | 90.00   |           |        |
| 24             | 62.00                                                             | 55.00                    | 158.20  | 45.00   | 204.40               | 2151.20  | 1472.40  | 55.00   | 45.00                    | 50.00   | 83.00   | 83.00   |           |        |
| 25             | 69.00                                                             | 55.00                    | 193.60  | 45.00   | 160.00               | 2221.60  | 1424.00  | 55.00   | 45.00                    | 50.00   | 83.00   | 83.00   |           |        |
| 26             | 69.00                                                             | 55.00                    | 168.00  | 45.00   | 104.70               | 2208.40  | 1361.20  | 82.30   | 45.00                    | 50.00   | 83.00   | 83.00   |           |        |
| 27             | 73.20                                                             | 69.00                    | 139.80  | 45.00   | 185.00               | 2199.60  | 1364.40  | 82.30   | 45.00                    | 50.00   | 83.00   | 90.00   |           |        |
| 28             | 76.00                                                             | 69.00                    | 119.80  | 45.00   | 222.40               | 2208.40  | 1427.40  | 72.50   | 45.00                    | 52.00   | 83.00   | 90.00   |           |        |
| 29             | 76.00                                                             | 60.60                    | 109.60  | 45.00   | 215.20               | 2208.40  | 1348.40  | 55.00   | 45.00                    | 52.00   |         | 90.00   |           |        |
| 30             | 68.30                                                             | 55.00                    | 92.10   | 45.00   | 169.00               | 2208.40  | 1274.80  | 55.00   | 45.00                    | 55.00   |         | 90.00   |           |        |
| 31             |                                                                   | 55.00                    |         | 45.00   | 147.00               |          | 1211.00  |         | 45.00                    | 55.00   |         | 90.00   |           |        |
| Total          | 1779.70                                                           | 1858.30                  | 3630.10 | 2140.70 | 7645.90              | 35709.60 | 50284.20 | 9634.60 | 1449.00                  | 1523.00 | 1943.90 | 2669.60 | 120268.60 | CMSDAY |
| Mean           | 59.30                                                             | 59.90                    | 121.00  | 69.10   | 246.60               | 1190.30  | 1622.10  | 321.20  | 46.70                    | 49.10   | 69.40   | 86.10   | 329.50    | CMS    |
| Max            | 76.00                                                             | 69.00                    | 414.10  | 218.80  | 736.60               | 2221.60  | 2208.40  | 1132.00 | 55.00                    | 55.00   | 83.00   | 92.10   | 2221.60   | CMS    |
| Min            | 50.00                                                             | 55.00                    | 45.00   | 40.00   | 45.00                | 106.80   | 1211.00  | 55.00   | 45.00                    | 45.00   | 55.00   | 83.00   | 40.00     | CMS    |
| Runoff         | 153.77                                                            | 160.56                   | 313.64  | 184.96  | 660.61               | 3085.31  | 4344.55  | 832.43  | 125.19                   | 131.59  | 167.95  | 230.65  | 10391.21  | MCM    |
| Momentary Peak | 2265.60 CMS. at 14.99 m. (MSL.) at 09.00 Hours , on Sep 25 , 2013 |                          |         |         |                      |          |          |         |                          |         |         |         |           |        |
| Runoff Yield   | 2.81                                                              | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | 19.333  | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Huai Khun Kaeo at Ban Samo Thong, Uthai Thani (C.30)**

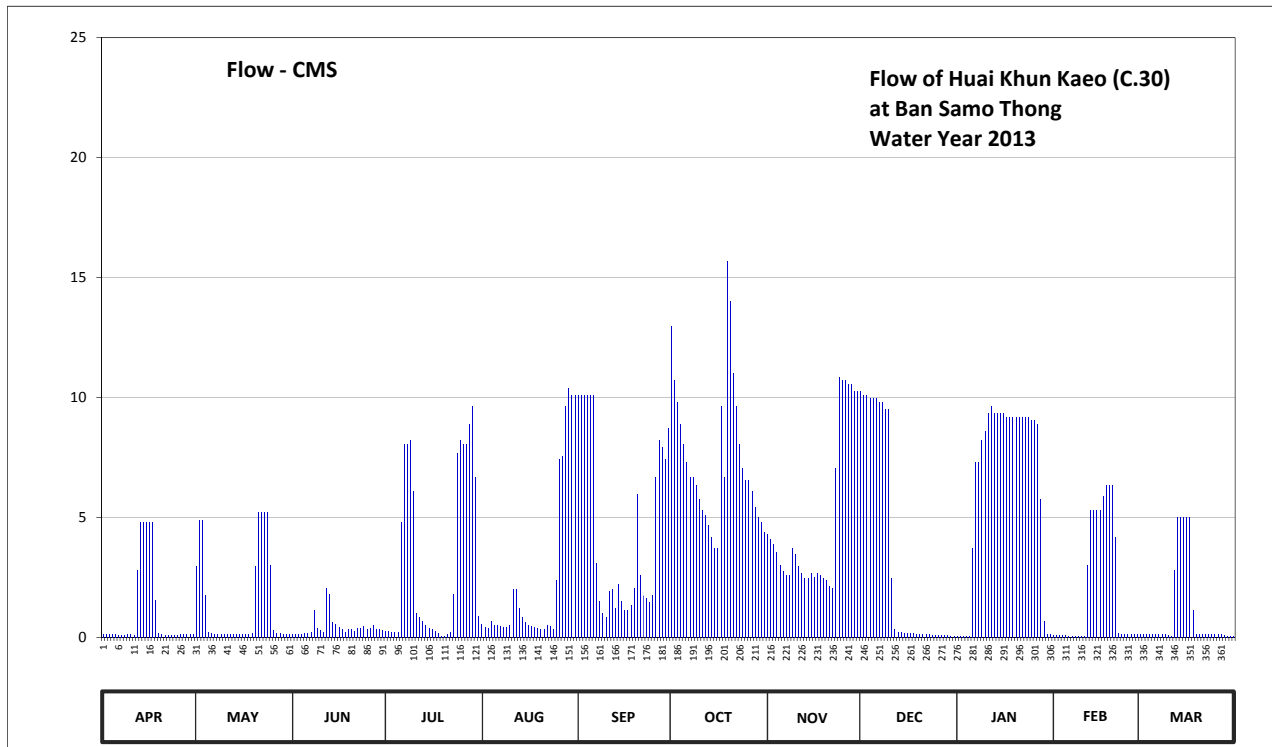
Lat 15 - 20 - 53 N    Long 99 - 32 - 11 E

**Location : on right bank in front of Wat Samo Thong School**

|                                         |                                                                                           |            |               |           |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Samo Thong | <b>Amphoe</b> | Huai Khot | <b>Changwat</b>  | Uthai Thani        |
| <b>Drainage Area</b>                    | 227                                                                                       | sq.km.     |               |           |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |               |           |                  |                    |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)  |               |           |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |           |                  |                    |
| <b>Location BM</b>                      | On right bank about 60 meters from the top staff gage                                     |            |               |           | <b>Elevation</b> | +111.590 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |               |           |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |               |           |                  |                    |
| <b>Period of Available Gage Records</b> | 1982 to date                                                                              |            |               |           |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |            |               |           |                  |                    |
| <b>Period of Rating</b>                 | 1983 to date                                                                              |            |               |           |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |           |                  |                    |
| <b>Rated by Current Meter</b>           | 1983 to date                                                                              |            |               |           |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |            |               |           |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |           |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |            |               |           |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun    | Jul         | Aug    | Sep                               | Oct    | Nov               | Dec       | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|
| 1                                | 101.56 | 102.08 | 101.56 | 101.60      | 101.68 | 102.70                            | 102.88 | 102.23            | 102.71    | 101.53 | 101.54 | 101.55 |        |
| 2                                | 101.56 | 102.29 | 101.56 | 101.60      | 101.65 | 102.70                            | 102.74 | 102.21            | 102.70    | 101.53 | 101.54 | 101.55 |        |
| 3                                | 101.56 | 102.29 | 101.55 | 101.59      | 101.64 | 102.70                            | 102.68 | 102.19            | 102.70    | 101.53 | 101.54 | 101.55 |        |
| 4                                | 101.56 | 101.90 | 101.56 | 101.59      | 101.71 | 102.70                            | 102.62 | 102.15            | 102.69    | 101.53 | 101.54 | 101.55 |        |
| 5                                | 101.55 | 101.59 | 101.58 | 101.59      | 101.67 | 102.70                            | 102.56 | 102.09            | 102.69    | 101.53 | 101.54 | 101.55 |        |
| 6                                | 101.54 | 101.57 | 101.58 | 102.28      | 101.67 | 102.70                            | 102.50 | 102.05            | 102.69    | 102.17 | 101.53 | 101.55 |        |
| 7                                | 101.54 | 101.56 | 101.59 | 102.56      | 101.66 | 102.10                            | 102.45 | 102.03            | 102.68    | 102.50 | 101.53 | 101.55 |        |
| 8                                | 101.54 | 101.56 | 101.79 | 102.56      | 101.65 | 101.86                            | 102.45 | 102.03            | 102.68    | 102.50 | 101.53 | 101.55 |        |
| 9                                | 101.55 | 101.55 | 101.64 | 102.57      | 101.65 | 101.77                            | 102.42 | 102.17            | 102.66    | 102.57 | 101.53 | 101.55 |        |
| 10                               | 101.55 | 101.55 | 101.61 | 102.40      | 101.67 | 101.74                            | 102.37 | 102.14            | 102.66    | 102.60 | 101.53 | 101.54 |        |
| 11                               | 101.54 | 101.55 | 101.59 | 101.77      | 101.94 | 101.93                            | 102.33 | 102.08            | 102.01    | 102.65 | 101.53 | 101.53 |        |
| 12                               | 102.06 | 101.55 | 101.95 | 101.74      | 101.94 | 101.94                            | 102.31 | 102.04            | 101.63    | 102.67 | 102.09 | 102.06 |        |
| 13                               | 102.28 | 101.56 | 101.91 | 101.71      | 101.81 | 101.81                            | 102.27 | 102.01            | 101.59    | 102.65 | 102.33 | 102.30 |        |
| 14                               | 102.28 | 101.56 | 101.70 | 101.67      | 101.74 | 101.97                            | 102.22 | 102.01            | 101.59    | 102.65 | 102.33 | 102.30 |        |
| 15                               | 102.28 | 101.56 | 101.68 | 101.64      | 101.70 | 101.86                            | 102.17 | 102.04            | 101.58    | 102.65 | 102.33 | 102.30 |        |
| 16                               | 102.28 | 101.56 | 101.65 | 101.62      | 101.67 | 101.79                            | 102.17 | 102.02            | 101.58    | 102.65 | 102.33 | 102.30 |        |
| 17                               | 102.28 | 101.56 | 101.62 | 101.60      | 101.66 | 101.79                            | 102.67 | 102.04            | 101.57    | 102.64 | 102.38 | 102.30 |        |
| 18                               | 101.87 | 101.56 | 101.59 | 101.57      | 101.65 | 101.83                            | 102.45 | 102.03            | 101.57    | 102.64 | 102.42 | 101.79 |        |
| 19                               | 101.58 | 101.57 | 101.63 | 101.53      | 101.64 | 101.95                            | 103.03 | 102.01            | 101.56    | 102.64 | 102.42 | 101.55 |        |
| 20                               | 101.55 | 102.08 | 101.62 | 101.52      | 101.63 | 102.39                            | 102.94 | 102.00            | 101.56    | 102.64 | 102.42 | 101.55 |        |
| 21                               | 101.54 | 102.32 | 101.60 | 101.55      | 101.62 | 102.03                            | 102.76 | 101.96            | 101.56    | 102.64 | 102.22 | 101.55 |        |
| 22                               | 101.54 | 102.32 | 101.64 | 101.59      | 101.67 | 101.90                            | 102.67 | 101.95            | 101.55    | 102.64 | 101.58 | 101.55 |        |
| 23                               | 101.54 | 102.32 | 101.64 | 101.91      | 101.66 | 101.88                            | 102.56 | 102.48            | 101.55    | 102.64 | 101.55 | 101.55 |        |
| 24                               | 101.54 | 102.32 | 101.66 | 102.53      | 101.62 | 101.85                            | 102.48 | 102.75            | 101.54    | 102.64 | 101.55 | 101.55 |        |
| 25                               | 101.54 | 102.09 | 101.63 | 102.57      | 102.00 | 101.90                            | 102.44 | 102.74            | 101.54    | 102.63 | 101.55 | 101.55 |        |
| 26                               | 101.55 | 101.61 | 101.64 | 102.56      | 102.51 | 102.45                            | 102.44 | 102.74            | 101.54    | 102.63 | 101.55 | 101.55 |        |
| 27                               | 101.56 | 101.57 | 101.67 | 102.56      | 102.52 | 102.57                            | 102.40 | 102.73            | 101.54    | 102.62 | 101.55 | 101.55 |        |
| 28                               | 101.56 | 101.57 | 101.63 | 102.62      | 102.67 | 102.55                            | 102.34 | 102.73            | 101.54    | 102.37 | 101.55 | 101.54 |        |
| 29                               | 101.55 | 101.56 | 101.62 | 102.67      | 102.72 | 102.51                            | 102.30 | 102.71            | 101.54    | 101.71 |        | 101.53 |        |
| 30                               | 101.55 | 101.56 | 101.61 | 102.45      | 102.70 | 102.61                            | 102.28 | 102.71            | 101.53    | 101.55 |        | 101.53 |        |
| 31                               |        | 101.56 |        | 101.75      | 102.70 |                                   | 102.24 |                   | 101.53    | 101.55 |        | 101.53 |        |
| Mean                             | 101.70 | 101.77 | 101.64 | 101.98      | 101.88 | 102.17                            | 102.49 | 102.24            | 101.94    | 102.33 | 101.82 | 101.69 |        |
| Max                              | 102.28 | 102.32 | 101.95 | 102.67      | 102.72 | 102.70                            | 103.03 | 102.75            | 102.71    | 102.67 | 102.42 | 102.30 | 103.03 |
| Min                              | 101.54 | 101.55 | 101.55 | 101.52      | 101.62 | 101.74                            | 102.17 | 101.95            | 101.53    | 101.53 | 101.53 | 101.53 | 101.52 |
| Annual Max Momentary Gage Height |        | 103.10 |        | m. (MSL.) , |        | at 12.00 Hours , on Oct 19 , 2013 |        |                   |           |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 0.00   |        | m. (MSL.) , |        | River Bed                         | 101.45 |                   | m. (MSL.) |        |        |        |        |
| Left Bank Elevation              |        | 108.30 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |
| Right Bank Elevation             |        | 108.34 |        | m. (MSL.) , |        | Drainage Area                     | 227    | Square Kilometers |           |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                        | Jun   | Jul    | Aug                  | Sep    | Oct    | Nov    | Dec                      | Jan    | Feb   | Mar   | Annual  |        |
|----------------|-------|------------------------------------------------------------|-------|--------|----------------------|--------|--------|--------|--------------------------|--------|-------|-------|---------|--------|
| 1              | 0.15  | 2.96                                                       | 0.15  | 0.25   | 0.57                 | 10.10  | 12.96  | 4.30   | 10.25                    | 0.07   | 0.10  | 0.13  |         |        |
| 2              | 0.15  | 4.90                                                       | 0.15  | 0.25   | 0.45                 | 10.10  | 10.70  | 4.10   | 10.10                    | 0.07   | 0.10  | 0.13  |         |        |
| 3              | 0.15  | 4.90                                                       | 0.13  | 0.22   | 0.41                 | 10.10  | 9.80   | 3.91   | 10.10                    | 0.07   | 0.10  | 0.13  |         |        |
| 4              | 0.15  | 1.75                                                       | 0.15  | 0.22   | 0.70                 | 10.10  | 8.90   | 3.55   | 9.95                     | 0.07   | 0.10  | 0.13  |         |        |
| 5              | 0.13  | 0.22                                                       | 0.20  | 0.22   | 0.53                 | 10.10  | 8.08   | 3.03   | 9.95                     | 0.07   | 0.10  | 0.13  |         |        |
| 6              | 0.10  | 0.18                                                       | 0.20  | 4.80   | 0.53                 | 10.10  | 7.30   | 2.75   | 9.95                     | 3.73   | 0.07  | 0.13  |         |        |
| 7              | 0.10  | 0.15                                                       | 0.22  | 8.08   | 0.49                 | 3.10   | 6.70   | 2.61   | 9.80                     | 7.30   | 0.07  | 0.13  |         |        |
| 8              | 0.10  | 0.15                                                       | 1.13  | 8.08   | 0.45                 | 1.52   | 6.70   | 2.61   | 9.80                     | 7.30   | 0.07  | 0.13  |         |        |
| 9              | 0.13  | 0.13                                                       | 0.41  | 8.21   | 0.45                 | 1.02   | 6.34   | 3.73   | 9.50                     | 8.21   | 0.07  | 0.13  |         |        |
| 10             | 0.13  | 0.13                                                       | 0.29  | 6.10   | 0.53                 | 0.86   | 5.77   | 3.46   | 9.50                     | 8.60   | 0.07  | 0.10  |         |        |
| 11             | 0.10  | 0.13                                                       | 0.22  | 1.02   | 2.01                 | 1.94   | 5.33   | 2.96   | 2.47                     | 9.35   | 0.07  | 0.07  |         |        |
| 12             | 2.82  | 0.13                                                       | 2.07  | 0.86   | 2.01                 | 2.01   | 5.11   | 2.68   | 0.37                     | 9.65   | 3.03  | 2.82  |         |        |
| 13             | 4.80  | 0.15                                                       | 1.82  | 0.70   | 1.24                 | 1.24   | 4.70   | 2.47   | 0.22                     | 9.35   | 5.33  | 5.00  |         |        |
| 14             | 4.80  | 0.15                                                       | 0.65  | 0.53   | 0.86                 | 2.21   | 4.20   | 2.47   | 0.22                     | 9.35   | 5.33  | 5.00  |         |        |
| 15             | 4.80  | 0.15                                                       | 0.57  | 0.41   | 0.65                 | 1.52   | 3.73   | 2.68   | 0.20                     | 9.35   | 5.33  | 5.00  |         |        |
| 16             | 4.80  | 0.15                                                       | 0.45  | 0.33   | 0.53                 | 1.13   | 3.73   | 2.54   | 0.20                     | 9.35   | 5.33  | 5.00  |         |        |
| 17             | 4.80  | 0.15                                                       | 0.33  | 0.25   | 0.49                 | 1.13   | 9.65   | 2.68   | 0.18                     | 9.20   | 5.88  | 5.00  |         |        |
| 18             | 1.58  | 0.15                                                       | 0.22  | 0.18   | 0.45                 | 1.35   | 6.70   | 2.61   | 0.18                     | 9.20   | 6.34  | 1.13  |         |        |
| 19             | 0.20  | 0.18                                                       | 0.37  | 0.07   | 0.41                 | 2.07   | 15.67  | 2.47   | 0.15                     | 9.20   | 6.34  | 0.13  |         |        |
| 20             | 0.13  | 2.96                                                       | 0.33  | 0.05   | 0.37                 | 5.99   | 14.02  | 2.40   | 0.15                     | 9.20   | 6.34  | 0.13  |         |        |
| 21             | 0.10  | 5.22                                                       | 0.25  | 0.13   | 0.33                 | 2.61   | 11.00  | 2.14   | 0.15                     | 9.20   | 4.20  | 0.13  |         |        |
| 22             | 0.10  | 5.22                                                       | 0.41  | 0.22   | 0.53                 | 1.75   | 9.65   | 2.07   | 0.13                     | 9.20   | 0.20  | 0.13  |         |        |
| 23             | 0.10  | 5.22                                                       | 0.41  | 1.82   | 0.49                 | 1.64   | 8.08   | 7.06   | 0.13                     | 9.20   | 0.13  | 0.13  |         |        |
| 24             | 0.10  | 5.22                                                       | 0.49  | 7.69   | 0.33                 | 1.46   | 7.06   | 10.85  | 0.10                     | 9.20   | 0.13  | 0.13  |         |        |
| 25             | 0.10  | 3.03                                                       | 0.37  | 8.21   | 2.40                 | 1.75   | 6.58   | 10.70  | 0.10                     | 9.05   | 0.13  | 0.13  |         |        |
| 26             | 0.13  | 0.29                                                       | 0.41  | 8.08   | 7.43                 | 6.70   | 6.58   | 10.70  | 0.10                     | 9.05   | 0.13  | 0.13  |         |        |
| 27             | 0.15  | 0.18                                                       | 0.53  | 8.08   | 7.56                 | 8.21   | 6.10   | 10.55  | 0.10                     | 8.90   | 0.13  | 0.13  |         |        |
| 28             | 0.15  | 0.18                                                       | 0.37  | 8.90   | 9.65                 | 7.95   | 5.44   | 10.55  | 0.10                     | 5.77   | 0.13  | 0.10  |         |        |
| 29             | 0.13  | 0.15                                                       | 0.33  | 9.65   | 10.40                | 7.43   | 5.00   | 10.25  | 0.10                     | 0.70   |       | 0.07  |         |        |
| 30             | 0.13  | 0.15                                                       | 0.29  | 6.70   | 10.10                | 8.75   | 4.80   | 10.25  | 0.07                     | 0.13   |       | 0.07  |         |        |
| 31             |       | 0.15                                                       |       | 0.91   | 10.10                |        | 4.40   |        | 0.07                     | 0.13   |       | 0.07  |         |        |
| Total          | 31.31 | 44.78                                                      | 13.92 | 101.22 | 73.45                | 135.94 | 230.78 | 145.13 | 104.39                   | 199.22 | 55.35 | 31.77 | 1167.26 | CMSDAY |
| Mean           | 1.04  | 1.44                                                       | 0.46  | 3.27   | 2.37                 | 4.53   | 7.44   | 4.84   | 3.37                     | 6.43   | 1.98  | 1.02  | 3.20    | CMS    |
| Max            | 4.80  | 5.22                                                       | 2.07  | 9.65   | 10.40                | 10.10  | 15.67  | 10.85  | 10.25                    | 9.65   | 6.34  | 5.00  | 15.67   | CMS    |
| Min            | 0.10  | 0.13                                                       | 0.13  | 0.05   | 0.33                 | 0.86   | 3.73   | 2.07   | 0.07                     | 0.07   | 0.07  | 0.07  | 0.05    | CMS    |
| Runoff         | 2.71  | 3.87                                                       | 1.20  | 8.75   | 6.35                 | 11.75  | 19.94  | 12.54  | 9.02                     | 17.21  | 4.78  | 2.75  | 100.85  | MCM    |
| Momentary Peak | 17.00 | CMS. at 103.10 m. (MSL.) at 12.00 Hours , on Oct 19 , 2013 |       |        |                      |        |        |        |                          |        |       |       |         |        |
| Runoff Yield   | 14.09 | Liters/Second/Square KM.                                   |       |        | Momentary Peak Yield |        |        | 74.890 | Liters/Second/Square KM. |        |       |       |         |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Chao Phraya River at Ban Pom, Phra Nakhon Si Ayutthaya (C.35)**

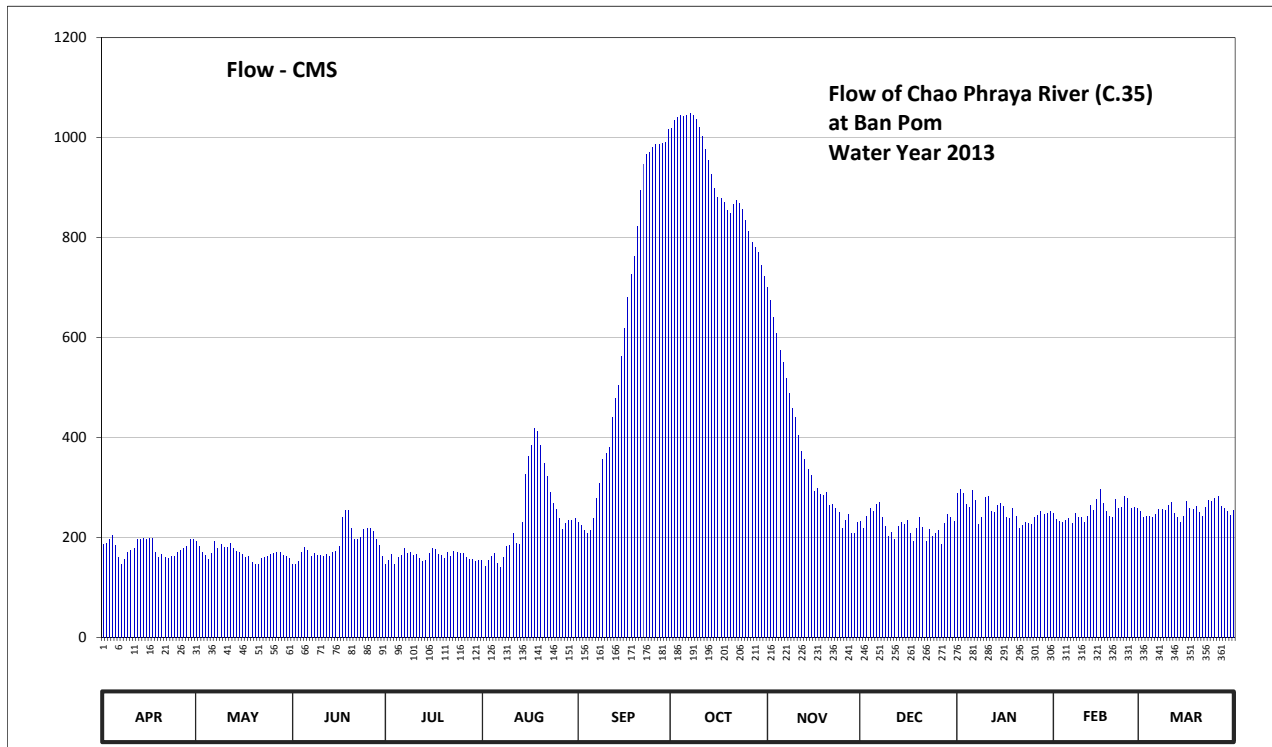
Lat 14 - 22 - 02 N    Long 100 - 31 - 58 E

**Location : on right bank at Ban Pom**

|                                         |                                                                                           |     |               |                          |                  |                          |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----|---------------|--------------------------|------------------|--------------------------|
|                                         | <b>Ban</b>                                                                                | Pom | <b>Amphoe</b> | Phra Nakhon Si Ayutthaya | <b>Changwat</b>  | Phra Nakhon Si Ayutthaya |
| <b>Drainage Area</b>                    | Flood Plain                                                                               |     |               |                          |                  |                          |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |     |               |                          |                  |                          |
| <b>Zero Gage at Bottom</b>              | +0.000 m. (MSL.)                                                                          |     |               |                          |                  |                          |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |     |               |                          |                  |                          |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |     |               |                          | <b>Elevation</b> | +6.300 m. (MSL.)         |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |     |               |                          |                  |                          |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |     |               |                          |                  |                          |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                              |     |               |                          |                  |                          |
| <b>Rating Operation</b>                 |                                                                                           |     |               |                          |                  |                          |
| <b>Period of Rating</b>                 | 1997 to date                                                                              |     |               |                          |                  |                          |
| <b>Rated by Flot</b>                    | -                                                                                         |     |               |                          |                  |                          |
| <b>Rated by Current Meter</b>           | 1998 to date                                                                              |     |               |                          |                  |                          |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |     |               |                          |                  |                          |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |     |               |                          |                  |                          |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 49 discharge measurements made in 2013. |     |               |                          |                  |                          |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun         | Jul  | Aug                              | Sep               | Oct  | Nov       | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|-------------|------|----------------------------------|-------------------|------|-----------|------|------|------|------|--------|
| 1                                | 0.28 | 0.31 | 0.02        | 0.02 | 0.08                             | 0.54              | 4.28 | 2.87      | 0.55 | 0.86 | 0.64 | 0.66 |        |
| 2                                | 0.29 | 0.25 | 0.03        | 0.08 | 0.00                             | 0.50              | 4.34 | 2.76      | 0.47 | 0.91 | 0.57 | 0.59 |        |
| 3                                | 0.34 | 0.18 | 0.06        | 0.15 | 0.07                             | 0.44              | 4.37 | 2.60      | 0.61 | 0.86 | 0.55 | 0.61 |        |
| 4                                | 0.38 | 0.14 | 0.17        | 0.03 | 0.12                             | 0.40              | 4.39 | 2.46      | 0.69 | 0.74 | 0.53 | 0.61 |        |
| 5                                | 0.26 | 0.09 | 0.24        | 0.11 | 0.16                             | 0.44              | 4.38 | 2.30      | 0.66 | 0.71 | 0.56 | 0.60 |        |
| 6                                | 0.11 | 0.16 | 0.20        | 0.14 | 0.04                             | 0.58              | 4.39 | 2.18      | 0.74 | 0.89 | 0.58 | 0.63 |        |
| 7                                | 0.03 | 0.31 | 0.13        | 0.22 | -0.01                            | 0.80              | 4.40 | 2.03      | 0.76 | 0.78 | 0.52 | 0.68 |        |
| 8                                | 0.09 | 0.23 | 0.16        | 0.16 | 0.11                             | 0.97              | 4.39 | 1.89      | 0.60 | 0.51 | 0.64 | 0.68 |        |
| 9                                | 0.18 | 0.28 | 0.14        | 0.17 | 0.25                             | 1.23              | 4.35 | 1.75      | 0.49 | 0.59 | 0.59 | 0.67 |        |
| 10                               | 0.20 | 0.24 | 0.14        | 0.14 | 0.26                             | 1.29              | 4.29 | 1.65      | 0.37 | 0.82 | 0.60 | 0.73 |        |
| 11                               | 0.23 | 0.24 | 0.12        | 0.15 | 0.40                             | 1.36              | 4.21 | 1.48      | 0.42 | 0.83 | 0.54 | 0.76 |        |
| 12                               | 0.34 | 0.29 | 0.15        | 0.10 | 0.29                             | 1.65              | 4.10 | 1.32      | 0.33 | 0.66 | 0.61 | 0.64 |        |
| 13                               | 0.33 | 0.23 | 0.13        | 0.06 | 0.27                             | 1.84              | 4.00 | 1.23      | 0.49 | 0.65 | 0.73 | 0.59 |        |
| 14                               | 0.35 | 0.19 | 0.17        | 0.07 | 0.53                             | 1.96              | 3.88 | 1.13      | 0.53 | 0.73 | 0.67 | 0.53 |        |
| 15                               | 0.33 | 0.17 | 0.19        | 0.16 | 1.07                             | 2.24              | 3.76 | 1.06      | 0.51 | 0.75 | 0.79 | 0.61 |        |
| 16                               | 0.35 | 0.15 | 0.25        | 0.23 | 1.26                             | 2.50              | 3.68 | 0.88      | 0.56 | 0.72 | 0.90 | 0.77 |        |
| 17                               | 0.35 | 0.11 | 0.60        | 0.21 | 1.37                             | 2.78              | 3.67 | 0.92      | 0.41 | 0.59 | 0.75 | 0.69 |        |
| 18                               | 0.18 | 0.13 | 0.67        | 0.15 | 1.55                             | 2.99              | 3.64 | 0.85      | 0.31 | 0.58 | 0.66 | 0.68 |        |
| 19                               | 0.11 | 0.05 | 0.67        | 0.14 | 1.52                             | 3.16              | 3.57 | 0.84      | 0.46 | 0.70 | 0.61 | 0.72 |        |
| 20                               | 0.15 | 0.03 | 0.46        | 0.10 | 1.37                             | 3.43              | 3.54 | 0.87      | 0.59 | 0.61 | 0.60 | 0.65 |        |
| 21                               | 0.11 | 0.03 | 0.33        | 0.17 | 1.19                             | 3.74              | 3.62 | 0.73      | 0.48 | 0.47 | 0.79 | 0.61 |        |
| 22                               | 0.10 | 0.10 | 0.34        | 0.13 | 1.05                             | 3.97              | 3.65 | 0.74      | 0.31 | 0.50 | 0.70 | 0.71 |        |
| 23                               | 0.12 | 0.11 | 0.36        | 0.19 | 0.87                             | 4.05              | 3.63 | 0.70      | 0.45 | 0.54 | 0.71 | 0.78 |        |
| 24                               | 0.13 | 0.13 | 0.45        | 0.17 | 0.75                             | 4.07              | 3.58 | 0.65      | 0.37 | 0.52 | 0.83 | 0.77 |        |
| 25                               | 0.18 | 0.15 | 0.47        | 0.16 | 0.68                             | 4.12              | 3.48 | 0.47      | 0.40 | 0.51 | 0.80 | 0.80 |        |
| 26                               | 0.20 | 0.16 | 0.46        | 0.16 | 0.58                             | 4.14              | 3.38 | 0.56      | 0.44 | 0.60 | 0.69 | 0.83 |        |
| 27                               | 0.23 | 0.18 | 0.43        | 0.11 | 0.45                             | 4.14              | 3.28 | 0.63      | 0.27 | 0.62 | 0.71 | 0.72 |        |
| 28                               | 0.25 | 0.17 | 0.33        | 0.09 | 0.52                             | 4.15              | 3.24 | 0.41      | 0.52 | 0.66 | 0.70 | 0.70 |        |
| 29                               | 0.33 | 0.14 | 0.26        | 0.09 | 0.56                             | 4.16              | 3.19 | 0.40      | 0.63 | 0.63 |      | 0.66 |        |
| 30                               | 0.33 | 0.12 | 0.12        | 0.06 | 0.56                             | 4.27              | 3.07 | 0.53      | 0.59 | 0.64 |      | 0.62 |        |
| 31                               |      | 0.10 |             | 0.07 | 0.58                             |                   | 2.97 |           | 0.55 | 0.66 |      | 0.67 |        |
| Mean                             | 0.23 | 0.17 | 0.28        | 0.13 | 0.60                             | 2.40              | 3.83 | 1.30      | 0.50 | 0.67 | 0.66 | 0.68 |        |
| Max                              | 0.38 | 0.31 | 0.67        | 0.23 | 1.55                             | 4.27              | 4.40 | 2.87      | 0.76 | 0.91 | 0.90 | 0.83 | 4.40   |
| Min                              | 0.03 | 0.03 | 0.02        | 0.02 | -0.01                            | 0.40              | 2.97 | 0.40      | 0.27 | 0.47 | 0.52 | 0.53 | -0.01  |
| Annual Max Momentary Gage Height | 4.41 |      | m. (MSL.) , |      | at 06.00 Hours , on Oct 4 , 2013 |                   |      |           |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (MSL.) , |      | River Bed                        | -8.57             |      | m. (MSL.) |      |      |      |      |        |
| Left Bank Elevation              | 4.69 |      | m. (MSL.) , |      |                                  |                   |      |           |      |      |      |      |        |
| Right Bank Elevation             | 6.30 |      | m. (MSL.) , |      | Drainage Area                    | Square Kilometers |      |           |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 187.80                                                          | 192.70                   | 146.20  | 146.20  | 155.80               | 231.80   | 1019.20  | 699.40   | 233.50                   | 288.80  | 249.20  | 252.80  |           |        |
| 2              | 189.40                                                          | 183.00                   | 147.80  | 155.80  | 143.00               | 225.00   | 1033.60  | 675.20   | 219.90                   | 297.80  | 236.90  | 240.30  |           |        |
| 3              | 197.80                                                          | 171.80                   | 152.60  | 167.00  | 154.20               | 214.80   | 1040.80  | 640.00   | 243.80                   | 288.80  | 233.50  | 243.80  |           |        |
| 4              | 204.60                                                          | 165.40                   | 170.20  | 147.80  | 162.20               | 208.00   | 1045.60  | 609.20   | 258.20                   | 267.20  | 230.10  | 243.80  |           |        |
| 5              | 184.60                                                          | 157.40                   | 181.40  | 160.60  | 168.60               | 214.80   | 1043.20  | 575.00   | 252.80                   | 261.80  | 235.20  | 242.00  |           |        |
| 6              | 160.60                                                          | 168.60                   | 175.00  | 165.40  | 149.40               | 238.60   | 1045.60  | 549.80   | 267.20                   | 294.20  | 238.60  | 247.40  |           |        |
| 7              | 147.80                                                          | 192.70                   | 163.80  | 178.20  | 141.40               | 278.00   | 1048.00  | 518.30   | 270.80                   | 274.40  | 228.40  | 256.40  |           |        |
| 8              | 157.40                                                          | 179.80                   | 168.60  | 168.60  | 160.60               | 308.60   | 1045.60  | 488.90   | 242.00                   | 226.70  | 249.20  | 256.40  |           |        |
| 9              | 171.80                                                          | 187.80                   | 165.40  | 170.20  | 183.00               | 356.70   | 1036.00  | 460.00   | 223.30                   | 240.30  | 240.30  | 254.60  |           |        |
| 10             | 175.00                                                          | 181.40                   | 165.40  | 165.40  | 184.60               | 368.10   | 1021.60  | 440.00   | 202.90                   | 281.60  | 242.00  | 265.40  |           |        |
| 11             | 179.80                                                          | 181.40                   | 162.20  | 167.00  | 208.00               | 382.00   | 1002.40  | 406.00   | 211.40                   | 283.40  | 231.80  | 270.80  |           |        |
| 12             | 197.80                                                          | 189.40                   | 167.00  | 159.00  | 189.40               | 440.00   | 977.00   | 374.00   | 196.10                   | 252.80  | 243.80  | 249.20  |           |        |
| 13             | 196.10                                                          | 179.80                   | 163.80  | 152.60  | 186.20               | 478.40   | 954.00   | 356.70   | 223.30                   | 251.00  | 265.40  | 240.30  |           |        |
| 14             | 199.50                                                          | 173.40                   | 170.20  | 154.20  | 230.10               | 503.60   | 926.40   | 337.70   | 230.10                   | 265.40  | 254.60  | 230.10  |           |        |
| 15             | 196.10                                                          | 170.20                   | 173.40  | 168.60  | 326.60               | 562.40   | 898.80   | 324.80   | 226.70                   | 269.00  | 276.20  | 243.80  |           |        |
| 16             | 199.50                                                          | 167.00                   | 183.00  | 179.80  | 362.40               | 618.00   | 880.40   | 292.40   | 235.20                   | 263.60  | 296.00  | 272.60  |           |        |
| 17             | 199.50                                                          | 160.60                   | 242.00  | 176.60  | 384.00               | 679.60   | 878.10   | 299.60   | 209.70                   | 240.30  | 269.00  | 258.20  |           |        |
| 18             | 171.80                                                          | 163.80                   | 254.60  | 167.00  | 420.00               | 725.80   | 871.20   | 287.00   | 192.70                   | 238.60  | 252.80  | 256.40  |           |        |
| 19             | 160.60                                                          | 151.00                   | 254.60  | 165.40  | 414.00               | 763.20   | 855.10   | 285.20   | 218.20                   | 260.00  | 243.80  | 263.60  |           |        |
| 20             | 167.00                                                          | 147.80                   | 218.20  | 159.00  | 384.00               | 822.90   | 848.20   | 290.60   | 240.30                   | 243.80  | 242.00  | 251.00  |           |        |
| 21             | 160.60                                                          | 147.80                   | 196.10  | 170.20  | 349.10               | 894.20   | 866.60   | 265.40   | 221.60                   | 219.90  | 276.20  | 243.80  |           |        |
| 22             | 159.00                                                          | 159.00                   | 197.80  | 163.80  | 323.00               | 947.10   | 873.50   | 267.20   | 192.70                   | 225.00  | 260.00  | 261.80  |           |        |
| 23             | 162.20                                                          | 160.60                   | 201.20  | 173.40  | 290.60               | 965.50   | 868.90   | 260.00   | 216.50                   | 231.80  | 261.80  | 274.40  |           |        |
| 24             | 163.80                                                          | 163.80                   | 216.50  | 170.20  | 269.00               | 970.10   | 857.40   | 251.00   | 202.90                   | 228.40  | 283.40  | 272.60  |           |        |
| 25             | 171.80                                                          | 167.00                   | 219.90  | 168.60  | 256.40               | 981.60   | 834.40   | 219.90   | 208.00                   | 226.70  | 278.00  | 278.00  |           |        |
| 26             | 175.00                                                          | 168.60                   | 218.20  | 168.60  | 238.60               | 986.20   | 811.60   | 235.20   | 214.80                   | 242.00  | 258.20  | 283.40  |           |        |
| 27             | 179.80                                                          | 171.80                   | 213.10  | 160.60  | 216.50               | 986.20   | 789.60   | 247.40   | 186.20                   | 245.60  | 261.80  | 263.60  |           |        |
| 28             | 183.00                                                          | 170.20                   | 196.10  | 157.40  | 228.40               | 988.50   | 780.80   | 209.70   | 228.40                   | 252.80  | 260.00  | 260.00  |           |        |
| 29             | 196.10                                                          | 165.40                   | 184.60  | 157.40  | 235.20               | 990.80   | 769.80   | 208.00   | 247.40                   | 247.40  |         | 252.80  |           |        |
| 30             | 196.10                                                          | 162.20                   | 162.20  | 152.60  | 235.20               | 1016.80  | 743.40   | 230.10   | 240.30                   | 249.20  |         | 245.60  |           |        |
| 31             |                                                                 | 159.00                   |         | 154.20  | 238.60               |          | 721.40   |          | 233.50                   | 252.80  |         | 254.60  |           |        |
| Total          | 5391.90                                                         | 5260.40                  | 5631.10 | 5071.40 | 7588.10              | 18347.30 | 28388.20 | 11303.70 | 6990.40                  | 7911.10 | 7098.20 | 7929.50 | 116911.30 | CMSDAY |
| Mean           | 179.70                                                          | 169.70                   | 187.70  | 163.60  | 244.80               | 611.60   | 915.70   | 376.80   | 225.50                   | 255.20  | 253.50  | 255.80  | 320.30    | CMS    |
| Max            | 204.60                                                          | 192.70                   | 254.60  | 179.80  | 420.00               | 1016.80  | 1048.00  | 699.40   | 270.80                   | 297.80  | 296.00  | 283.40  | 1048.00   | CMS    |
| Min            | 147.80                                                          | 147.80                   | 146.20  | 146.20  | 141.40               | 208.00   | 721.40   | 208.00   | 186.20                   | 219.90  | 228.40  | 230.10  | 141.40    | CMS    |
| Runoff         | 465.86                                                          | 454.50                   | 486.53  | 438.17  | 655.61               | 1585.21  | 2452.74  | 976.64   | 603.97                   | 683.52  | 613.28  | 685.11  | 10101.14  | MCM    |
| Momentary Peak | 1050.40 CMS. at 4.41 m. (MSL.) at 06.00 Hours , on Oct 4 , 2013 |                          |         |         |                      |          |          |          |                          |         |         |         |           |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | *****    | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Khlong Bang Luang at Ban Bang Luang Dod, Phra Nakhon Si Ayutthaya (C.36)**

Lat 14 - 24 - 50 N    Long 100 - 26 - 37 E

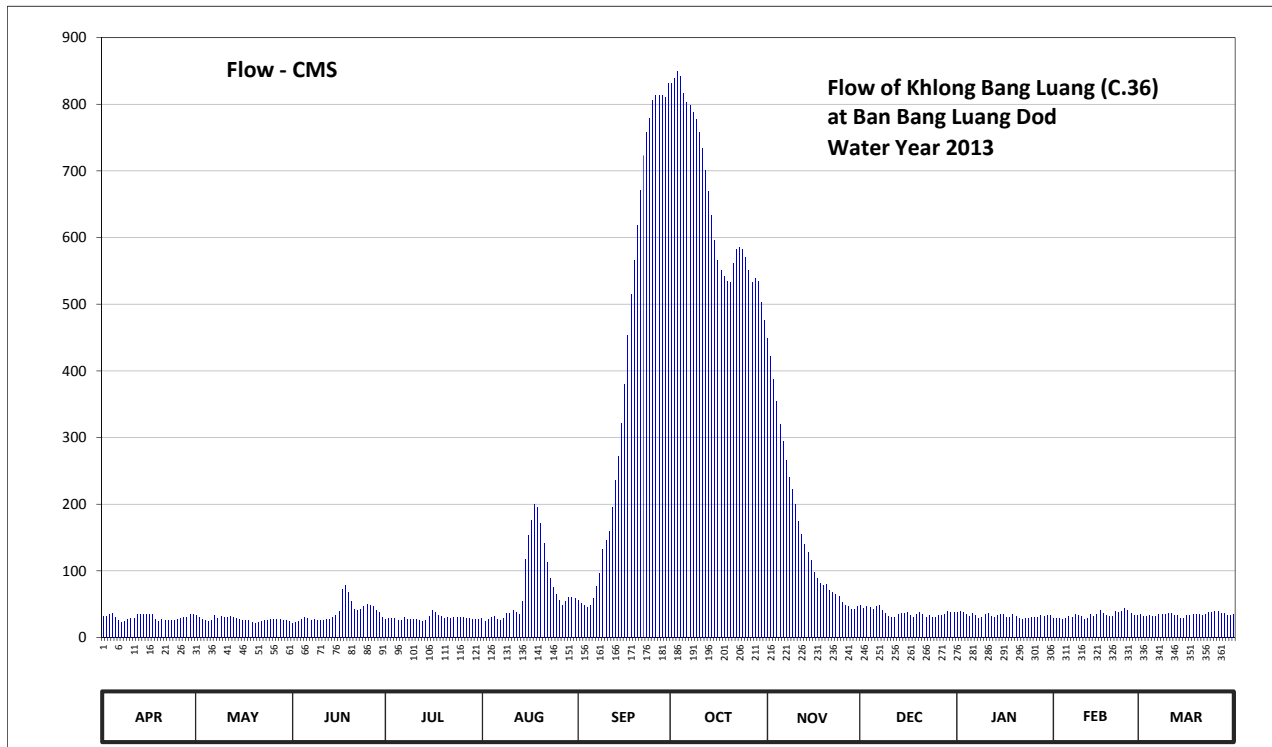
**Location : on right bank at the bridge.**

|                                         |            |                                                                                           |               |          |                  |                          |
|-----------------------------------------|------------|-------------------------------------------------------------------------------------------|---------------|----------|------------------|--------------------------|
|                                         | <b>Ban</b> | Bang Luang Dod                                                                            | <b>Amphoe</b> | Bang Ban | <b>Changwat</b>  | Phra Nakhon Si Ayutthaya |
| <b>Drainage Area</b>                    |            | Flood Plain                                                                               |               |          |                  |                          |
| <b>Type of Gage</b>                     |            | Water - stage recorder                                                                    |               |          |                  |                          |
| <b>Zero Gage at Bottom</b>              |            | +0.000 m. (MSL.)                                                                          |               |          |                  |                          |
| <b>Bench Mark</b>                       |            | B.M.-H.D.                                                                                 |               |          |                  |                          |
| <b>Location BM</b>                      |            | On right bank near the top staff gage                                                     |               |          | <b>Elevation</b> | +7.500 m. (MSL.)         |
| <b>Gage Reading Frequency</b>           |            | Recording                                                                                 |               |          |                  |                          |
| <b>Basis of Mean Daily Gage Height</b>  |            | Arithmetic mean of 24 readings                                                            |               |          |                  |                          |
| <b>Period of Available Gage Records</b> |            | 1982 to date                                                                              |               |          |                  |                          |
| <b>Rating Operation</b>                 |            |                                                                                           |               |          |                  |                          |
| <b>Period of Rating</b>                 |            | 1983 to date                                                                              |               |          |                  |                          |
| <b>Rated by Flot</b>                    |            | -                                                                                         |               |          |                  |                          |
| <b>Rated by Current Meter</b>           |            | 1983 to date                                                                              |               |          |                  |                          |
| <b>Stability of Channel Regimes</b>     |            | Fairly stable.                                                                            |               |          |                  |                          |
| <b>Overbank Flow Conditions</b>         |            | No overbank flow.                                                                         |               |          |                  |                          |
| <b>General Description</b>              |            | Records good. Stage-discharge relation defined by 48 discharge measurements made in 2013. |               |          |                  |                          |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep               | Oct  | Nov       | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------------------|------|-----------|------|------|------|------|--------|
| 1                                | 0.18  | 0.22  | -0.14       | 0.04  | 0.10                             | 0.71              | 5.71 | 4.05      | 0.55 | 0.33 | 0.12 | 0.24 |        |
| 2                                | 0.19  | 0.14  | -0.12       | 0.08  | -0.02                            | 0.62              | 5.74 | 3.90      | 0.46 | 0.38 | 0.09 | 0.18 |        |
| 3                                | 0.24  | 0.05  | -0.06       | 0.12  | 0.07                             | 0.56              | 5.78 | 3.70      | 0.51 | 0.34 | 0.08 | 0.18 |        |
| 4                                | 0.28  | 0.01  | 0.06        | 0.08  | 0.13                             | 0.50              | 5.75 | 3.50      | 0.49 | 0.24 | 0.07 | 0.20 |        |
| 5                                | 0.15  | -0.06 | 0.14        | 0.01  | 0.17                             | 0.55              | 5.65 | 3.28      | 0.44 | 0.19 | 0.12 | 0.19 |        |
| 6                                | 0.00  | 0.03  | 0.10        | 0.01  | 0.06                             | 0.76              | 5.60 | 3.10      | 0.51 | 0.28 | 0.17 | 0.19 |        |
| 7                                | -0.09 | 0.21  | 0.01        | 0.13  | 0.01                             | 1.06              | 5.58 | 2.90      | 0.54 | 0.23 | 0.16 | 0.25 |        |
| 8                                | -0.05 | 0.12  | 0.04        | 0.04  | 0.11                             | 1.32              | 5.54 | 2.70      | 0.39 | 0.11 | 0.24 | 0.27 |        |
| 9                                | 0.06  | 0.19  | 0.01        | 0.07  | 0.28                             | 1.73              | 5.50 | 2.55      | 0.29 | 0.14 | 0.20 | 0.25 |        |
| 10                               | 0.09  | 0.15  | 0.01        | 0.04  | 0.29                             | 1.86              | 5.43 | 2.36      | 0.17 | 0.27 | 0.17 | 0.30 |        |
| 11                               | 0.12  | 0.16  | 0.00        | 0.06  | 0.41                             | 2.00              | 5.33 | 2.13      | 0.16 | 0.29 | 0.06 | 0.31 |        |
| 12                               | 0.24  | 0.19  | 0.06        | 0.01  | 0.34                             | 2.32              | 5.20 | 1.95      | 0.15 | 0.17 | 0.08 | 0.23 |        |
| 13                               | 0.24  | 0.14  | 0.07        | -0.06 | 0.27                             | 2.66              | 5.07 | 1.81      | 0.26 | 0.15 | 0.24 | 0.20 |        |
| 14                               | 0.26  | 0.08  | 0.14        | 0.03  | 0.67                             | 2.94              | 4.92 | 1.69      | 0.29 | 0.22 | 0.17 | 0.09 |        |
| 15                               | 0.24  | 0.06  | 0.20        | 0.19  | 1.58                             | 3.29              | 4.76 | 1.56      | 0.29 | 0.24 | 0.24 | 0.10 |        |
| 16                               | 0.26  | 0.03  | 0.37        | 0.39  | 1.94                             | 3.66              | 4.62 | 1.34      | 0.33 | 0.26 | 0.39 | 0.21 |        |
| 17                               | 0.26  | -0.01 | 1.00        | 0.34  | 2.15                             | 4.07              | 4.55 | 1.23      | 0.21 | 0.16 | 0.29 | 0.21 |        |
| 18                               | 0.06  | 0.01  | 1.09        | 0.20  | 2.36                             | 4.38              | 4.51 | 1.13      | 0.14 | 0.15 | 0.22 | 0.24 |        |
| 19                               | -0.02 | -0.08 | 0.92        | 0.19  | 2.32                             | 4.62              | 4.48 | 1.08      | 0.26 | 0.24 | 0.17 | 0.25 |        |
| 20                               | 0.04  | -0.13 | 0.66        | 0.11  | 2.11                             | 4.86              | 4.47 | 1.10      | 0.34 | 0.17 | 0.17 | 0.24 |        |
| 21                               | 0.00  | -0.11 | 0.45        | 0.14  | 1.82                             | 5.08              | 4.60 | 0.96      | 0.26 | 0.09 | 0.38 | 0.21 |        |
| 22                               | -0.01 | -0.03 | 0.41        | 0.08  | 1.52                             | 5.29              | 4.70 | 0.93      | 0.15 | 0.05 | 0.32 | 0.27 |        |
| 23                               | -0.01 | -0.01 | 0.42        | 0.15  | 1.22                             | 5.43              | 4.71 | 0.88      | 0.21 | 0.11 | 0.35 | 0.34 |        |
| 24                               | 0.00  | 0.01  | 0.53        | 0.16  | 1.03                             | 5.51              | 4.70 | 0.81      | 0.15 | 0.10 | 0.46 | 0.33 |        |
| 25                               | 0.06  | 0.04  | 0.59        | 0.16  | 0.87                             | 5.61              | 4.64 | 0.64      | 0.16 | 0.13 | 0.41 | 0.36 |        |
| 26                               | 0.10  | 0.05  | 0.55        | 0.16  | 0.71                             | 5.64              | 4.55 | 0.54      | 0.20 | 0.13 | 0.28 | 0.38 |        |
| 27                               | 0.13  | 0.07  | 0.52        | 0.11  | 0.54                             | 5.64              | 4.47 | 0.51      | 0.20 | 0.16 | 0.22 | 0.29 |        |
| 28                               | 0.16  | 0.07  | 0.39        | 0.09  | 0.69                             | 5.64              | 4.50 | 0.43      | 0.25 | 0.21 | 0.21 | 0.28 |        |
| 29                               | 0.25  | 0.01  | 0.32        | 0.07  | 0.80                             | 5.63              | 4.48 | 0.43      | 0.37 | 0.18 |      | 0.23 |        |
| 30                               | 0.25  | -0.01 | 0.14        | 0.05  | 0.79                             | 5.71              | 4.32 | 0.51      | 0.34 | 0.20 |      | 0.20 |        |
| 31                               |       | -0.04 |             | 0.05  | 0.77                             |                   | 4.19 |           | 0.32 | 0.22 |      | 0.25 |        |
| Mean                             | 0.12  | 0.05  | 0.30        | 0.11  | 0.84                             | 3.32              | 4.97 | 1.79      | 0.30 | 0.20 | 0.22 | 0.24 |        |
| Max                              | 0.28  | 0.22  | 1.09        | 0.39  | 2.36                             | 5.71              | 5.78 | 4.05      | 0.55 | 0.38 | 0.46 | 0.38 | 5.78   |
| Min                              | -0.09 | -0.13 | -0.14       | -0.06 | -0.02                            | 0.50              | 4.19 | 0.43      | 0.14 | 0.05 | 0.06 | 0.09 | -0.14  |
| Annual Max Momentary Gage Height | 5.79  |       | m. (MSL.) , |       | at 19.00 Hours , on Oct 3 , 2013 |                   |      |           |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , |       | River Bed                        | -5.31             |      | m. (MSL.) |      |      |      |      |        |
| Left Bank Elevation              | 7.05  |       | m. (MSL.) , |       |                                  |                   |      |           |      |      |      |      |        |
| Right Bank Elevation             | 7.69  |       | m. (MSL.) , |       | Drainage Area                    | Square Kilometers |      |           |      |      |      |      |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                     | May                      | Jun     | Jul    | Aug                  | Sep      | Oct      | Nov     | Dec                      | Jan     | Feb    | Mar     | Annual   |        |
|----------------|---------------------------------------------------------|--------------------------|---------|--------|----------------------|----------|----------|---------|--------------------------|---------|--------|---------|----------|--------|
| 1              | 32.20                                                   | 33.80                    | 21.80   | 27.20  | 29.00                | 56.50    | 831.60   | 449.50  | 48.50                    | 38.20   | 29.80  | 34.60   |          |        |
| 2              | 32.60                                                   | 30.60                    | 22.40   | 28.40  | 25.40                | 52.00    | 839.40   | 422.00  | 44.00                    | 40.20   | 28.70  | 32.20   |          |        |
| 3              | 34.60                                                   | 27.50                    | 24.20   | 29.80  | 28.10                | 49.00    | 849.80   | 387.00  | 46.50                    | 38.60   | 28.40  | 32.20   |          |        |
| 4              | 36.20                                                   | 26.30                    | 27.80   | 28.40  | 30.20                | 46.00    | 842.00   | 354.00  | 45.50                    | 34.60   | 28.10  | 33.00   |          |        |
| 5              | 31.00                                                   | 24.20                    | 30.60   | 26.30  | 31.80                | 48.50    | 816.00   | 320.20  | 43.00                    | 32.60   | 29.80  | 32.60   |          |        |
| 6              | 26.00                                                   | 26.90                    | 29.00   | 26.30  | 27.80                | 59.00    | 803.00   | 295.00  | 46.50                    | 36.20   | 31.80  | 32.60   |          |        |
| 7              | 23.30                                                   | 33.40                    | 26.30   | 30.20  | 26.30                | 77.20    | 797.80   | 267.00  | 48.00                    | 34.20   | 31.40  | 35.00   |          |        |
| 8              | 24.50                                                   | 29.80                    | 27.20   | 27.20  | 29.40                | 96.60    | 787.40   | 241.00  | 40.60                    | 29.40   | 34.60  | 35.80   |          |        |
| 9              | 27.80                                                   | 32.60                    | 26.30   | 28.10  | 36.20                | 133.00   | 777.00   | 222.00  | 36.60                    | 30.60   | 33.00  | 35.00   |          |        |
| 10             | 28.70                                                   | 31.00                    | 26.30   | 27.20  | 36.60                | 146.00   | 758.80   | 199.60  | 31.80                    | 35.80   | 31.80  | 37.00   |          |        |
| 11             | 29.80                                                   | 31.40                    | 26.00   | 27.80  | 41.50                | 160.00   | 733.50   | 174.30  | 31.40                    | 36.60   | 27.80  | 37.40   |          |        |
| 12             | 34.60                                                   | 32.60                    | 27.80   | 26.30  | 38.60                | 195.20   | 701.00   | 155.00  | 31.00                    | 31.80   | 28.40  | 34.20   |          |        |
| 13             | 34.60                                                   | 30.60                    | 28.10   | 24.20  | 35.80                | 235.80   | 668.80   | 141.00  | 35.40                    | 31.00   | 34.60  | 33.00   |          |        |
| 14             | 35.40                                                   | 28.40                    | 30.60   | 26.90  | 54.50                | 272.60   | 632.80   | 129.00  | 36.60                    | 33.80   | 31.80  | 28.70   |          |        |
| 15             | 34.60                                                   | 27.80                    | 33.00   | 32.60  | 118.20               | 321.60   | 596.20   | 116.40  | 36.60                    | 34.60   | 34.60  | 29.00   |          |        |
| 16             | 35.40                                                   | 26.90                    | 39.80   | 40.60  | 154.00               | 380.20   | 565.40   | 98.20   | 38.20                    | 35.40   | 40.60  | 33.40   |          |        |
| 17             | 35.40                                                   | 25.70                    | 73.00   | 38.60  | 176.50               | 453.30   | 550.00   | 89.40   | 33.40                    | 31.40   | 36.60  | 33.40   |          |        |
| 18             | 27.80                                                   | 26.30                    | 79.30   | 33.00  | 199.60               | 514.00   | 541.20   | 82.10   | 30.60                    | 31.00   | 33.80  | 34.60   |          |        |
| 19             | 25.40                                                   | 23.60                    | 68.20   | 32.60  | 195.20               | 565.40   | 534.80   | 78.60   | 35.40                    | 34.60   | 31.80  | 35.00   |          |        |
| 20             | 27.20                                                   | 22.10                    | 54.00   | 29.40  | 172.10               | 618.80   | 532.70   | 80.00   | 38.60                    | 31.80   | 31.80  | 34.60   |          |        |
| 21             | 26.00                                                   | 22.70                    | 43.50   | 30.60  | 142.00               | 671.20   | 561.00   | 70.60   | 35.40                    | 28.70   | 40.20  | 33.40   |          |        |
| 22             | 25.70                                                   | 25.10                    | 41.50   | 28.40  | 112.80               | 723.50   | 583.00   | 68.80   | 31.00                    | 27.50   | 37.80  | 35.80   |          |        |
| 23             | 25.70                                                   | 25.70                    | 42.00   | 31.00  | 88.60                | 758.80   | 585.20   | 65.80   | 33.40                    | 29.40   | 39.00  | 38.60   |          |        |
| 24             | 26.00                                                   | 26.30                    | 47.50   | 31.40  | 75.10                | 779.60   | 583.00   | 61.60   | 31.00                    | 29.00   | 44.00  | 38.20   |          |        |
| 25             | 27.80                                                   | 27.20                    | 50.50   | 31.40  | 65.20                | 805.60   | 569.80   | 53.00   | 31.40                    | 30.20   | 41.50  | 39.40   |          |        |
| 26             | 29.00                                                   | 27.50                    | 48.50   | 31.40  | 56.50                | 813.40   | 550.00   | 48.00   | 33.00                    | 30.20   | 36.20  | 40.20   |          |        |
| 27             | 30.20                                                   | 28.10                    | 47.00   | 29.40  | 48.00                | 813.40   | 532.70   | 46.50   | 33.00                    | 31.40   | 33.80  | 36.60   |          |        |
| 28             | 31.40                                                   | 28.10                    | 40.60   | 28.70  | 55.50                | 813.40   | 539.00   | 42.50   | 35.00                    | 33.40   | 33.40  | 36.20   |          |        |
| 29             | 35.00                                                   | 26.30                    | 37.80   | 28.10  | 61.00                | 810.80   | 534.80   | 42.50   | 39.80                    | 32.20   |        | 34.20   |          |        |
| 30             | 35.00                                                   | 25.70                    | 30.60   | 27.50  | 60.50                | 831.60   | 502.00   | 46.50   | 38.60                    | 33.00   |        | 33.00   |          |        |
| 31             |                                                         | 24.80                    |         | 27.50  | 59.50                |          | 476.10   |         | 37.80                    | 33.80   |        | 35.00   |          |        |
| Total          | 908.90                                                  | 859.00                   | 1151.20 | 916.50 | 2311.50              | 12302.00 | 20175.80 | 4847.10 | 1157.60                  | 1021.20 | 945.10 | 1073.90 | 47669.80 | CMSDAY |
| Mean           | 30.30                                                   | 27.71                    | 38.37   | 29.56  | 74.56                | 410.07   | 650.83   | 161.57  | 37.34                    | 32.94   | 33.75  | 34.64   | 130.60   | CMS    |
| Max            | 36.20                                                   | 33.80                    | 79.30   | 40.60  | 199.60               | 831.60   | 849.80   | 449.50  | 48.50                    | 40.20   | 44.00  | 40.20   | 849.80   | CMS    |
| Min            | 23.30                                                   | 22.10                    | 21.80   | 24.20  | 25.40                | 46.00    | 476.10   | 42.50   | 30.60                    | 27.50   | 27.80  | 28.70   | 21.80    | CMS    |
| Runoff         | 78.53                                                   | 74.22                    | 99.46   | 79.19  | 199.71               | 1062.89  | 1743.19  | 418.79  | 100.02                   | 88.23   | 81.66  | 92.79   | 4118.67  | MCM    |
| Momentary Peak | CMS. at 5.79 m. (MSL.) at 19.00 Hours , on Oct 3 , 2013 |                          |         |        |                      |          |          |         |                          |         |        |         |          |        |
| Runoff Yield   | *****                                                   | Liters/Second/Square KM. |         |        | Momentary Peak Yield |          |          | *****   | Liters/Second/Square KM. |         |        |         |          |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Khlong Bang Ban at Ban Bang Ban, Phra Nakhon Si Ayutthaya (C.37)**

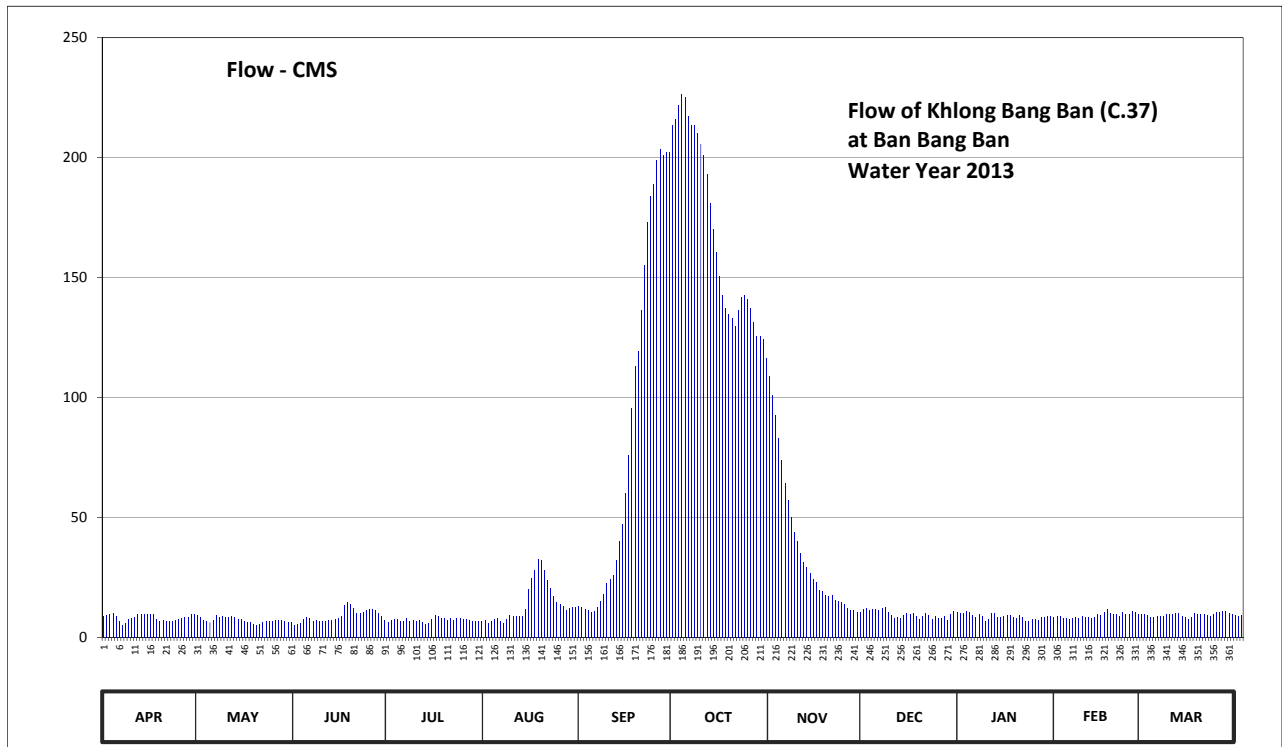
Lat 14 - 21 - 28 N    Long 100 - 29 - 03 E

**Location : on left bank at the bridge.**

|                                         |            |                                                                                           |               |          |                  |                          |
|-----------------------------------------|------------|-------------------------------------------------------------------------------------------|---------------|----------|------------------|--------------------------|
|                                         | <b>Ban</b> | Bang Ban                                                                                  | <b>Amphoe</b> | Bang Ban | <b>Changwat</b>  | Phra Nakhon Si Ayutthaya |
| <b>Drainage Area</b>                    |            | Flood Plain                                                                               |               |          |                  |                          |
| <b>Type of Gage</b>                     |            | Water - stage recorder                                                                    |               |          |                  |                          |
| <b>Zero Gage at Bottom</b>              |            | +0.000 m. (MSL.)                                                                          |               |          |                  |                          |
| <b>Bench Mark</b>                       |            | B.M.-H.D.                                                                                 |               |          |                  |                          |
| <b>Location BM</b>                      |            | On left bank near the top staff gage                                                      |               |          | <b>Elevation</b> | +7.703 m. (MSL.)         |
| <b>Gage Reading Frequency</b>           |            | Recording                                                                                 |               |          |                  |                          |
| <b>Basis of Mean Daily Gage Height</b>  |            | Arithmetic mean of 24 readings                                                            |               |          |                  |                          |
| <b>Period of Available Gage Records</b> |            | 1982 to date                                                                              |               |          |                  |                          |
| <b>Rating Operation</b>                 |            |                                                                                           |               |          |                  |                          |
| <b>Period of Rating</b>                 |            | 1983 to date                                                                              |               |          |                  |                          |
| <b>Rated by Flot</b>                    |            | -                                                                                         |               |          |                  |                          |
| <b>Rated by Current Meter</b>           |            | 1983 to date                                                                              |               |          |                  |                          |
| <b>Stability of Channel Regimes</b>     |            | Fairly stable.                                                                            |               |          |                  |                          |
| <b>Overbank Flow Conditions</b>         |            | No overbank flow.                                                                         |               |          |                  |                          |
| <b>General Description</b>              |            | Records good. Stage-discharge relation defined by 42 discharge measurements made in 2013. |               |          |                  |                          |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                          | Jul   | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|-------|----------------------------------------------|-------|------|------|------|------|------|------|------|------|--------|
| 1                                | 0.31  | 0.32  | -0.10                                        | 0.03  | 0.14 | 0.65 | 4.73 | 3.40 | 0.63 | 0.44 | 0.29 | 0.33 |        |
| 2                                | 0.32  | 0.24  | -0.05                                        | 0.11  | 0.01 | 0.58 | 4.78 | 3.27 | 0.55 | 0.49 | 0.22 | 0.26 |        |
| 3                                | 0.37  | 0.14  | 0.02                                         | 0.18  | 0.10 | 0.53 | 4.82 | 3.11 | 0.60 | 0.45 | 0.20 | 0.27 |        |
| 4                                | 0.41  | 0.10  | 0.17                                         | 0.15  | 0.16 | 0.47 | 4.81 | 2.95 | 0.59 | 0.33 | 0.18 | 0.29 |        |
| 5                                | 0.28  | 0.03  | 0.25                                         | 0.09  | 0.21 | 0.52 | 4.74 | 2.77 | 0.54 | 0.27 | 0.21 | 0.28 |        |
| 6                                | 0.09  | 0.11  | 0.21                                         | 0.08  | 0.07 | 0.68 | 4.71 | 2.62 | 0.62 | 0.39 | 0.24 | 0.30 |        |
| 7                                | -0.06 | 0.34  | 0.09                                         | 0.20  | 0.01 | 0.90 | 4.71 | 2.45 | 0.65 | 0.31 | 0.19 | 0.36 |        |
| 8                                | 0.01  | 0.23  | 0.13                                         | 0.10  | 0.15 | 1.10 | 4.68 | 2.28 | 0.48 | 0.09 | 0.31 | 0.37 |        |
| 9                                | 0.18  | 0.30  | 0.10                                         | 0.12  | 0.35 | 1.40 | 4.64 | 2.17 | 0.35 | 0.15 | 0.27 | 0.36 |        |
| 10                               | 0.21  | 0.25  | 0.10                                         | 0.09  | 0.29 | 1.51 | 4.60 | 2.00 | 0.21 | 0.40 | 0.25 | 0.40 |        |
| 11                               | 0.25  | 0.26  | 0.08                                         | 0.11  | 0.30 | 1.60 | 4.52 | 1.85 | 0.25 | 0.43 | 0.19 | 0.43 |        |
| 12                               | 0.38  | 0.30  | 0.13                                         | 0.04  | 0.30 | 1.89 | 4.40 | 1.76 | 0.20 | 0.26 | 0.25 | 0.31 |        |
| 13                               | 0.37  | 0.23  | 0.12                                         | -0.03 | 0.29 | 2.17 | 4.28 | 1.64 | 0.35 | 0.23 | 0.39 | 0.24 |        |
| 14                               | 0.39  | 0.18  | 0.18                                         | 0.01  | 0.60 | 2.38 | 4.17 | 1.52 | 0.40 | 0.31 | 0.33 | 0.15 |        |
| 15                               | 0.37  | 0.15  | 0.22                                         | 0.18  | 1.25 | 2.68 | 4.06 | 1.43 | 0.36 | 0.33 | 0.45 | 0.24 |        |
| 16                               | 0.39  | 0.09  | 0.31                                         | 0.32  | 1.54 | 2.99 | 3.97 | 1.23 | 0.41 | 0.34 | 0.58 | 0.43 |        |
| 17                               | 0.39  | 0.06  | 0.77                                         | 0.28  | 1.70 | 3.32 | 3.90 | 1.18 | 0.28 | 0.24 | 0.43 | 0.37 |        |
| 18                               | 0.16  | 0.06  | 0.86                                         | 0.20  | 1.91 | 3.57 | 3.87 | 1.09 | 0.15 | 0.21 | 0.38 | 0.36 |        |
| 19                               | 0.07  | -0.05 | 0.81                                         | 0.20  | 1.89 | 3.66 | 3.85 | 1.05 | 0.30 | 0.34 | 0.37 | 0.39 |        |
| 20                               | 0.13  | -0.08 | 0.61                                         | 0.12  | 1.71 | 3.89 | 3.81 | 1.07 | 0.44 | 0.26 | 0.29 | 0.34 |        |
| 21                               | 0.07  | -0.02 | 0.44                                         | 0.20  | 1.50 | 4.11 | 3.89 | 0.93 | 0.35 | 0.07 | 0.46 | 0.29 |        |
| 22                               | 0.08  | 0.06  | 0.43                                         | 0.14  | 1.27 | 4.31 | 3.96 | 0.90 | 0.16 | 0.10 | 0.38 | 0.39 |        |
| 23                               | 0.10  | 0.07  | 0.45                                         | 0.20  | 1.05 | 4.43 | 3.97 | 0.86 | 0.29 | 0.17 | 0.39 | 0.46 |        |
| 24                               | 0.11  | 0.08  | 0.55                                         | 0.20  | 0.89 | 4.48 | 3.95 | 0.79 | 0.22 | 0.15 | 0.51 | 0.45 |        |
| 25                               | 0.16  | 0.10  | 0.59                                         | 0.18  | 0.79 | 4.58 | 3.90 | 0.61 | 0.22 | 0.13 | 0.48 | 0.49 |        |
| 26                               | 0.20  | 0.12  | 0.58                                         | 0.18  | 0.69 | 4.62 | 3.83 | 0.56 | 0.30 | 0.23 | 0.37 | 0.51 |        |
| 27                               | 0.24  | 0.14  | 0.54                                         | 0.12  | 0.53 | 4.60 | 3.75 | 0.55 | 0.12 | 0.25 | 0.36 | 0.40 |        |
| 28                               | 0.27  | 0.13  | 0.40                                         | 0.10  | 0.63 | 4.61 | 3.75 | 0.47 | 0.36 | 0.30 | 0.37 | 0.36 |        |
| 29                               | 0.36  | 0.07  | 0.29                                         | 0.10  | 0.67 | 4.61 | 3.73 | 0.48 | 0.50 | 0.29 |      | 0.33 |        |
| 30                               | 0.36  | 0.06  | 0.14                                         | 0.08  | 0.67 | 4.71 | 3.62 | 0.60 | 0.45 | 0.26 |      | 0.29 |        |
| 31                               |       | 0.03  |                                              | 0.10  | 0.69 |      | 3.51 |      | 0.40 | 0.29 |      | 0.34 |        |
| Mean                             | 0.23  | 0.13  | 0.31                                         | 0.13  | 0.72 | 2.72 | 4.19 | 1.59 | 0.38 | 0.27 | 0.33 | 0.35 |        |
| Max                              | 0.41  | 0.34  | 0.86                                         | 0.32  | 1.91 | 4.71 | 4.82 | 3.40 | 0.65 | 0.49 | 0.58 | 0.51 | 4.82   |
| Min                              | -0.06 | -0.08 | -0.10                                        | -0.03 | 0.01 | 0.47 | 3.51 | 0.47 | 0.12 | 0.07 | 0.18 | 0.15 | -0.10  |
| Annual Max Momentary Gage Height | 4.84  |       | m. (MSL.) , at 24.00 Hours , on Oct 3 , 2013 |       |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed -3.14 m. (MSL.)        |       |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 7.53  |       | m. (MSL.) ,                                  |       |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 6.61  |       | m. (MSL.) , Drainage Area Square Kilometers  |       |      |      |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|--------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 9.10                                                           | 9.20                     | 5.00   | 6.30   | 7.40                 | 12.50   | 215.95  | 101.00 | 12.30                    | 10.40  | 8.90   | 9.30   |          |        |
| 2              | 9.20                                                           | 8.40                     | 5.50   | 7.10   | 6.10                 | 11.80   | 221.70  | 92.70  | 11.50                    | 10.90  | 8.20   | 8.60   |          |        |
| 3              | 9.70                                                           | 7.40                     | 6.20   | 7.80   | 7.00                 | 11.30   | 226.40  | 83.10  | 12.00                    | 10.50  | 8.00   | 8.70   |          |        |
| 4              | 10.10                                                          | 7.00                     | 7.70   | 7.50   | 7.60                 | 10.70   | 225.20  | 73.75  | 11.90                    | 9.30   | 7.80   | 8.90   |          |        |
| 5              | 8.80                                                           | 6.30                     | 8.50   | 6.90   | 8.10                 | 11.20   | 217.10  | 64.50  | 11.40                    | 8.70   | 8.10   | 8.80   |          |        |
| 6              | 6.90                                                           | 7.10                     | 8.10   | 6.80   | 6.70                 | 12.80   | 213.65  | 57.40  | 12.20                    | 9.90   | 8.40   | 9.00   |          |        |
| 7              | 5.40                                                           | 9.40                     | 6.90   | 8.00   | 6.10                 | 15.00   | 213.65  | 50.00  | 12.50                    | 9.10   | 7.90   | 9.60   |          |        |
| 8              | 6.10                                                           | 8.30                     | 7.30   | 7.00   | 7.50                 | 18.00   | 210.20  | 43.80  | 10.80                    | 6.90   | 9.10   | 9.70   |          |        |
| 9              | 7.80                                                           | 9.00                     | 7.00   | 7.20   | 9.50                 | 22.50   | 205.60  | 40.10  | 9.50                     | 7.50   | 8.70   | 9.60   |          |        |
| 10             | 8.10                                                           | 8.50                     | 7.00   | 6.90   | 8.90                 | 24.20   | 201.00  | 35.00  | 8.10                     | 10.00  | 8.50   | 10.00  |          |        |
| 11             | 8.50                                                           | 8.60                     | 6.80   | 7.10   | 9.00                 | 26.00   | 193.00  | 31.25  | 8.50                     | 10.30  | 7.90   | 10.30  |          |        |
| 12             | 9.80                                                           | 9.00                     | 7.30   | 6.40   | 9.00                 | 32.25   | 181.00  | 29.20  | 8.00                     | 8.60   | 8.50   | 9.10   |          |        |
| 13             | 9.70                                                           | 8.30                     | 7.20   | 5.70   | 8.90                 | 40.10   | 170.20  | 26.80  | 9.50                     | 8.30   | 9.90   | 8.40   |          |        |
| 14             | 9.90                                                           | 7.80                     | 7.80   | 6.10   | 12.00                | 47.30   | 160.30  | 24.40  | 10.00                    | 9.10   | 9.30   | 7.50   |          |        |
| 15             | 9.70                                                           | 7.50                     | 8.20   | 7.80   | 20.25                | 60.10   | 150.40  | 22.95  | 9.60                     | 9.30   | 10.50  | 8.40   |          |        |
| 16             | 9.90                                                           | 6.90                     | 9.10   | 9.20   | 24.80                | 75.95   | 142.60  | 19.95  | 10.10                    | 9.40   | 11.80  | 10.30  |          |        |
| 17             | 9.90                                                           | 6.60                     | 13.70  | 8.80   | 28.00                | 95.80   | 137.00  | 19.20  | 8.80                     | 8.40   | 10.30  | 9.70   |          |        |
| 18             | 7.60                                                           | 6.60                     | 14.60  | 8.00   | 32.75                | 112.90  | 134.60  | 17.85  | 7.50                     | 8.10   | 9.80   | 9.60   |          |        |
| 19             | 6.70                                                           | 5.50                     | 14.10  | 8.00   | 32.25                | 119.20  | 133.00  | 17.25  | 9.00                     | 9.40   | 9.70   | 9.90   |          |        |
| 20             | 7.30                                                           | 5.20                     | 12.10  | 7.20   | 28.20                | 136.20  | 129.80  | 17.55  | 10.40                    | 8.60   | 8.90   | 9.40   |          |        |
| 21             | 6.70                                                           | 5.80                     | 10.40  | 8.00   | 24.00                | 154.90  | 136.20  | 15.45  | 9.50                     | 6.70   | 10.60  | 8.90   |          |        |
| 22             | 6.80                                                           | 6.60                     | 10.30  | 7.40   | 20.55                | 172.90  | 141.80  | 15.00  | 7.60                     | 7.00   | 9.80   | 9.90   |          |        |
| 23             | 7.00                                                           | 6.70                     | 10.50  | 8.00   | 17.25                | 184.00  | 142.60  | 14.60  | 8.90                     | 7.70   | 9.90   | 10.60  |          |        |
| 24             | 7.10                                                           | 6.80                     | 11.50  | 8.00   | 14.90                | 189.00  | 141.00  | 13.90  | 8.20                     | 7.50   | 11.10  | 10.50  |          |        |
| 25             | 7.60                                                           | 7.00                     | 11.90  | 7.80   | 13.90                | 199.00  | 137.00  | 12.10  | 8.20                     | 7.30   | 10.80  | 10.90  |          |        |
| 26             | 8.00                                                           | 7.20                     | 11.80  | 7.80   | 12.90                | 203.30  | 131.40  | 11.60  | 9.00                     | 8.30   | 9.70   | 11.10  |          |        |
| 27             | 8.40                                                           | 7.40                     | 11.40  | 7.20   | 11.30                | 201.00  | 125.50  | 11.50  | 7.20                     | 8.50   | 9.60   | 10.00  |          |        |
| 28             | 8.70                                                           | 7.30                     | 10.00  | 7.00   | 12.30                | 202.15  | 125.50  | 10.70  | 9.60                     | 9.00   | 9.70   | 9.60   |          |        |
| 29             | 9.60                                                           | 6.70                     | 8.90   | 7.00   | 12.70                | 202.15  | 124.10  | 10.80  | 11.00                    | 8.90   |        | 9.30   |          |        |
| 30             | 9.60                                                           | 6.60                     | 7.40   | 6.80   | 12.70                | 213.65  | 116.40  | 12.00  | 10.50                    | 8.60   |        | 8.90   |          |        |
| 31             |                                                                | 6.30                     |        | 7.00   | 12.90                |         | 108.70  |        | 10.00                    | 8.90   |        | 9.40   |          |        |
| Total          | 249.70                                                         | 227.00                   | 274.20 | 227.80 | 445.45               | 2817.85 | 5112.55 | 995.40 | 303.30                   | 271.10 | 261.40 | 293.90 | 11479.65 | CMSDAY |
| Mean           | 8.32                                                           | 7.32                     | 9.14   | 7.35   | 14.37                | 93.93   | 164.92  | 33.18  | 9.78                     | 8.75   | 9.34   | 9.48   | 31.45    | CMS    |
| Max            | 10.10                                                          | 9.40                     | 14.60  | 9.20   | 32.75                | 213.65  | 226.40  | 101.00 | 12.50                    | 10.90  | 11.80  | 11.10  | 226.40   | CMS    |
| Min            | 5.40                                                           | 5.20                     | 5.00   | 5.70   | 6.10                 | 10.70   | 108.70  | 10.70  | 7.20                     | 6.70   | 7.80   | 7.50   | 5.00     | CMS    |
| Runoff         | 21.57                                                          | 19.61                    | 23.69  | 19.68  | 38.49                | 243.46  | 441.72  | 86.00  | 26.21                    | 23.42  | 22.59  | 25.39  | 991.84   | MCM    |
| Momentary Peak | 228.80 CMS. at 4.84 m. (MSL.) at 24.00 Hours , on Oct 3 , 2013 |                          |        |        |                      |         |         |        |                          |        |        |        |          |        |
| Runoff Yield   | *****                                                          | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | *****  | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Chao Phraya River at Ban In Buri, Sing Buri (C.44)**

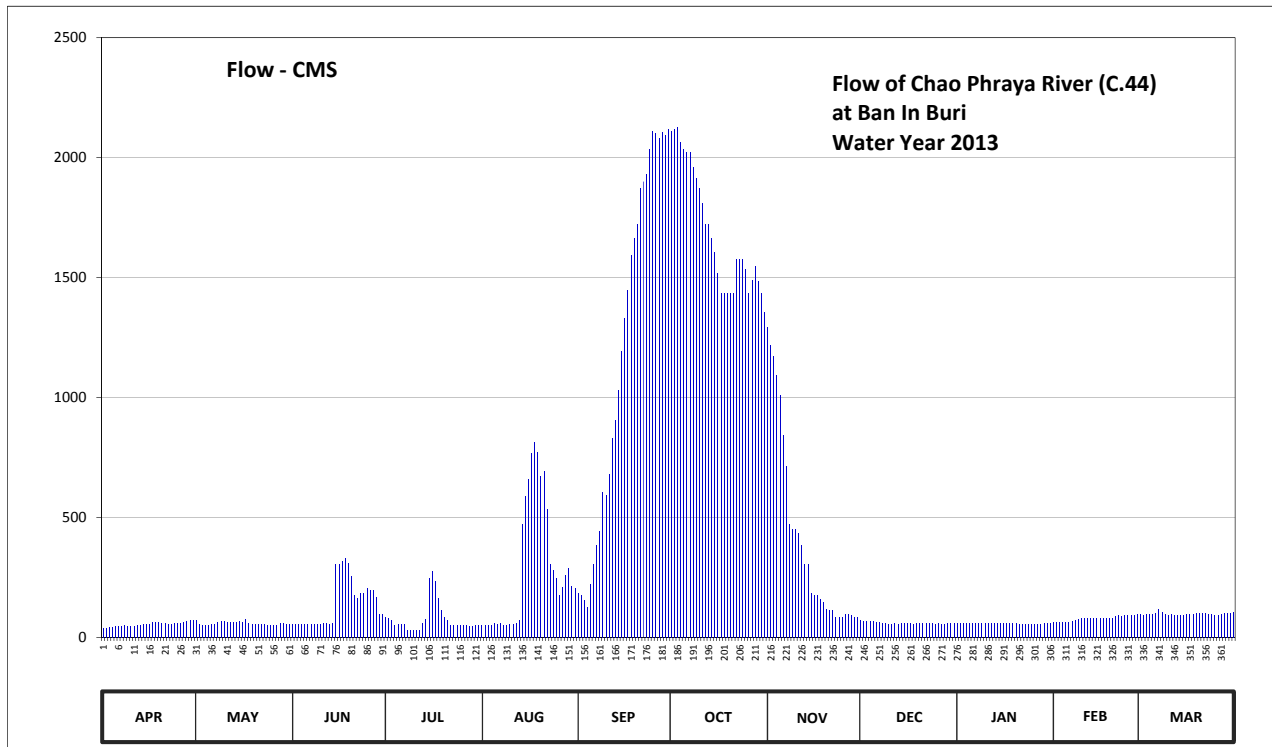
Lat 15 - 00 - 18 N    Long 100 - 19 - 48 E

**Location : on right bank at the bridge**

|                                         |                                                                                           |           |               |         |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | In Buri   | <b>Amphoe</b> | In Buri | <b>Changwat</b>  | Sing Buri         |
| <b>Drainage Area</b>                    | 118,510                                                                                   | sq.km.    |               |         |                  |                   |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |           |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank near the gage site                                                          |           |               |         | <b>Elevation</b> | +13.856 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                              |           |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |         |                  |                   |
| <b>Period of Rating</b>                 | 2005 to date                                                                              |           |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                              |           |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                             |           |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 12 discharge measurements made in 2013. |           |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                                | Jul  | Aug  | Sep   | Oct   | Nov   | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|----------------------------------------------------|------|------|-------|-------|-------|------|------|------|------|--------|
| 1                                | 3.20  | 3.80 | 3.55                                               | 4.00 | 3.40 | 5.10  | 13.30 | 10.50 | 3.80 | 3.61 | 3.65 | 4.12 |        |
| 2                                | 3.23  | 3.50 | 3.55                                               | 3.90 | 3.40 | 5.00  | 13.33 | 10.21 | 3.76 | 3.61 | 3.68 | 4.11 |        |
| 3                                | 3.28  | 3.48 | 3.52                                               | 3.80 | 3.45 | 4.80  | 13.35 | 10.05 | 3.75 | 3.60 | 3.68 | 4.12 |        |
| 4                                | 3.28  | 3.48 | 3.52                                               | 3.45 | 3.45 | 4.50  | 13.15 | 9.75  | 3.76 | 3.60 | 3.67 | 4.12 |        |
| 5                                | 3.35  | 3.40 | 3.50                                               | 3.55 | 3.60 | 5.40  | 13.05 | 9.42  | 3.74 | 3.58 | 3.67 | 4.14 |        |
| 6                                | 3.35  | 3.50 | 3.53                                               | 3.50 | 3.55 | 6.00  | 13.00 | 8.75  | 3.68 | 3.60 | 3.68 | 4.19 |        |
| 7                                | 3.39  | 3.50 | 3.53                                               | 3.50 | 3.58 | 6.50  | 13.00 | 8.19  | 3.64 | 3.59 | 3.75 | 4.39 |        |
| 8                                | 3.42  | 3.70 | 3.55                                               | 3.00 | 3.45 | 6.85  | 12.80 | 7.00  | 3.60 | 3.58 | 3.79 | 4.25 |        |
| 9                                | 3.35  | 3.75 | 3.55                                               | 3.00 | 3.45 | 7.70  | 12.65 | 6.90  | 3.57 | 3.59 | 3.85 | 4.12 |        |
| 10                               | 3.35  | 3.75 | 3.50                                               | 3.00 | 3.50 | 7.63  | 12.50 | 6.90  | 3.56 | 3.60 | 3.89 | 4.10 |        |
| 11                               | 3.35  | 3.65 | 3.57                                               | 3.00 | 3.55 | 8.05  | 12.30 | 6.80  | 3.56 | 3.62 | 3.91 | 4.12 |        |
| 12                               | 3.45  | 3.70 | 3.60                                               | 3.00 | 3.60 | 8.70  | 12.00 | 6.50  | 3.57 | 3.61 | 3.91 | 4.11 |        |
| 13                               | 3.45  | 3.70 | 3.50                                               | 3.60 | 3.78 | 9.02  | 12.00 | 6.00  | 3.56 | 3.60 | 3.91 | 4.10 |        |
| 14                               | 3.49  | 3.70 | 3.60                                               | 3.85 | 7.00 | 9.51  | 11.80 | 6.00  | 3.57 | 3.60 | 3.92 | 4.11 |        |
| 15                               | 3.49  | 3.75 | 6.00                                               | 5.60 | 7.62 | 10.12 | 11.60 | 5.10  | 3.57 | 3.60 | 3.91 | 4.11 |        |
| 16                               | 3.50  | 3.65 | 6.00                                               | 5.80 | 7.95 | 10.63 | 11.30 | 5.00  | 3.57 | 3.62 | 3.93 | 4.12 |        |
| 17                               | 3.67  | 3.83 | 6.09                                               | 5.50 | 8.43 | 11.05 | 11.00 | 5.00  | 3.57 | 3.59 | 3.93 | 4.12 |        |
| 18                               | 3.69  | 3.60 | 6.18                                               | 4.90 | 8.63 | 11.55 | 11.00 | 4.86  | 3.55 | 3.57 | 3.92 | 4.15 |        |
| 19                               | 3.70  | 3.55 | 6.04                                               | 4.35 | 8.45 | 11.80 | 11.00 | 4.70  | 3.57 | 3.57 | 3.91 | 4.21 |        |
| 20                               | 3.60  | 3.50 | 5.67                                               | 4.00 | 8.00 | 12.00 | 11.00 | 4.40  | 3.61 | 3.57 | 3.91 | 4.20 |        |
| 21                               | 3.60  | 3.50 | 5.00                                               | 3.80 | 8.10 | 12.50 | 11.00 | 4.35  | 3.59 | 3.55 | 4.02 | 4.19 |        |
| 22                               | 3.50  | 3.50 | 4.90                                               | 3.45 | 7.35 | 12.60 | 11.50 | 4.35  | 3.58 | 3.55 | 4.08 | 4.19 |        |
| 23                               | 3.50  | 3.55 | 5.08                                               | 3.45 | 6.00 | 12.70 | 11.50 | 4.00  | 3.57 | 3.56 | 4.05 | 4.16 |        |
| 24                               | 3.60  | 3.48 | 5.08                                               | 3.40 | 5.85 | 13.05 | 11.50 | 4.00  | 3.57 | 3.56 | 4.09 | 4.12 |        |
| 25                               | 3.60  | 3.48 | 5.28                                               | 3.40 | 5.60 | 13.30 | 11.35 | 4.00  | 3.56 | 3.55 | 4.11 | 4.11 |        |
| 26                               | 3.63  | 3.45 | 5.20                                               | 3.40 | 5.00 | 13.27 | 11.00 | 4.15  | 3.57 | 3.55 | 4.11 | 4.11 |        |
| 27                               | 3.67  | 3.45 | 5.18                                               | 3.45 | 5.30 | 13.20 | 11.20 | 4.15  | 3.56 | 3.56 | 4.10 | 4.15 |        |
| 28                               | 3.75  | 3.60 | 4.95                                               | 3.38 | 5.70 | 13.28 | 11.40 | 4.10  | 3.56 | 3.56 | 4.12 | 4.20 |        |
| 29                               | 3.80  | 3.62 | 4.15                                               | 3.35 | 5.90 | 13.25 | 11.18 | 4.00  | 3.58 | 3.58 |      | 4.17 |        |
| 30                               | 3.80  | 3.55 | 4.15                                               | 3.40 | 5.35 | 13.32 | 11.00 | 4.00  | 3.58 | 3.59 |      | 4.19 |        |
| 31                               |       | 3.55 |                                                    | 3.40 | 5.28 |       | 10.73 |       | 3.58 | 3.58 |      | 4.23 |        |
| Mean                             | 3.50  | 3.59 | 4.48                                               | 3.75 | 5.40 | 9.75  | 11.89 | 6.10  | 3.61 | 3.58 | 3.90 | 4.16 |        |
| Max                              | 3.80  | 3.83 | 6.18                                               | 5.80 | 8.63 | 13.32 | 13.35 | 10.50 | 3.80 | 3.62 | 4.12 | 4.39 | 13.35  |
| Min                              | 3.20  | 3.40 | 3.50                                               | 3.00 | 3.40 | 4.50  | 10.73 | 4.00  | 3.55 | 3.55 | 3.65 | 4.10 | 3.00   |
| Annual Max Momentary Gage Height | 13.35 |      | m. (MSL.) , at 06.00 Hours , on Oct 3 , 2013       |      |      |       |       |       |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , River Bed 2.45 m. (MSL.)               |      |      |       |       |       |      |      |      |      |        |
| Left Bank Elevation              | 15.99 |      | m. (MSL.) ,                                        |      |      |       |       |       |      |      |      |      |        |
| Right Bank Elevation             | 13.65 |      | m. (MSL.) , Drainage Area 118510 Square Kilometers |      |      |       |       |       |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 40.00                                                           | 73.00                    | 57.50   | 87.00   | 50.00                | 186.00   | 2110.00  | 1294.00  | 73.00                    | 60.60   | 63.00   | 95.60   |           |        |
| 2              | 41.50                                                           | 55.00                    | 57.50   | 80.00   | 50.00                | 175.00   | 2119.00  | 1215.70  | 70.20                    | 60.60   | 64.80   | 94.80   |           |        |
| 3              | 44.00                                                           | 54.00                    | 56.00   | 73.00   | 52.50                | 155.00   | 2125.00  | 1172.50  | 69.50                    | 60.00   | 64.80   | 95.60   |           |        |
| 4              | 44.00                                                           | 54.00                    | 56.00   | 52.50   | 52.50                | 128.00   | 2065.00  | 1092.00  | 70.20                    | 60.00   | 64.20   | 95.60   |           |        |
| 5              | 47.50                                                           | 50.00                    | 55.00   | 57.50   | 60.00                | 222.00   | 2035.00  | 1008.00  | 68.80                    | 59.00   | 64.20   | 97.20   |           |        |
| 6              | 47.50                                                           | 55.00                    | 56.50   | 55.00   | 57.50                | 305.00   | 2020.00  | 842.00   | 64.80                    | 60.00   | 64.80   | 101.20  |           |        |
| 7              | 49.50                                                           | 55.00                    | 56.50   | 55.00   | 59.00                | 384.00   | 2020.00  | 712.80   | 62.40                    | 59.50   | 69.50   | 118.10  |           |        |
| 8              | 51.00                                                           | 66.00                    | 57.50   | 30.00   | 52.50                | 445.00   | 1960.00  | 472.00   | 60.00                    | 59.00   | 72.30   | 106.00  |           |        |
| 9              | 47.50                                                           | 69.50                    | 57.50   | 30.00   | 52.50                | 608.00   | 1915.00  | 454.00   | 58.50                    | 59.50   | 76.50   | 95.60   |           |        |
| 10             | 47.50                                                           | 69.50                    | 55.00   | 30.00   | 55.00                | 593.30   | 1870.00  | 454.00   | 58.00                    | 60.00   | 79.30   | 94.00   |           |        |
| 11             | 47.50                                                           | 63.00                    | 58.50   | 30.00   | 57.50                | 682.00   | 1810.00  | 436.00   | 58.00                    | 61.20   | 80.70   | 95.60   |           |        |
| 12             | 52.50                                                           | 66.00                    | 60.00   | 30.00   | 60.00                | 830.00   | 1721.00  | 384.00   | 58.50                    | 60.60   | 80.70   | 94.80   |           |        |
| 13             | 52.50                                                           | 66.00                    | 55.00   | 60.00   | 71.60                | 908.00   | 1721.00  | 305.00   | 58.00                    | 60.00   | 80.70   | 94.00   |           |        |
| 14             | 54.50                                                           | 66.00                    | 60.00   | 76.50   | 472.00               | 1030.50  | 1663.00  | 305.00   | 58.50                    | 60.00   | 81.40   | 94.80   |           |        |
| 15             | 54.50                                                           | 69.50                    | 305.00  | 248.00  | 591.20               | 1191.40  | 1605.00  | 186.00   | 58.50                    | 60.00   | 80.70   | 94.80   |           |        |
| 16             | 55.00                                                           | 63.00                    | 305.00  | 275.00  | 660.50               | 1329.10  | 1518.00  | 175.00   | 58.50                    | 61.20   | 82.10   | 95.60   |           |        |
| 17             | 64.20                                                           | 75.10                    | 318.50  | 235.00  | 766.90               | 1446.00  | 1432.00  | 175.00   | 58.50                    | 59.50   | 82.10   | 95.60   |           |        |
| 18             | 65.40                                                           | 60.00                    | 332.80  | 165.00  | 813.20               | 1590.50  | 1432.00  | 161.00   | 57.50                    | 58.50   | 81.40   | 98.00   |           |        |
| 19             | 66.00                                                           | 57.50                    | 311.00  | 114.50  | 771.50               | 1663.00  | 1432.00  | 146.00   | 58.50                    | 58.50   | 80.70   | 102.80  |           |        |
| 20             | 60.00                                                           | 55.00                    | 257.10  | 87.00   | 671.00               | 1721.00  | 1432.00  | 119.00   | 60.60                    | 58.50   | 80.70   | 102.00  |           |        |
| 21             | 60.00                                                           | 55.00                    | 175.00  | 73.00   | 693.00               | 1870.00  | 1432.00  | 114.50   | 59.50                    | 57.50   | 88.40   | 101.20  |           |        |
| 22             | 55.00                                                           | 55.00                    | 165.00  | 52.50   | 537.50               | 1900.00  | 1576.00  | 114.50   | 59.00                    | 57.50   | 92.60   | 101.20  |           |        |
| 23             | 55.00                                                           | 57.50                    | 183.80  | 52.50   | 305.00               | 1930.00  | 1576.00  | 87.00    | 58.50                    | 58.00   | 90.50   | 98.80   |           |        |
| 24             | 60.00                                                           | 54.00                    | 183.80  | 50.00   | 282.50               | 2035.00  | 1576.00  | 87.00    | 58.50                    | 58.00   | 93.30   | 95.60   |           |        |
| 25             | 60.00                                                           | 54.00                    | 207.60  | 50.00   | 248.00               | 2110.00  | 1532.50  | 87.00    | 58.00                    | 57.50   | 94.80   | 94.80   |           |        |
| 26             | 61.80                                                           | 52.50                    | 198.00  | 50.00   | 175.00               | 2101.00  | 1432.00  | 98.00    | 58.50                    | 57.50   | 94.80   | 94.80   |           |        |
| 27             | 64.20                                                           | 52.50                    | 195.60  | 52.50   | 210.00               | 2080.00  | 1489.00  | 98.00    | 58.00                    | 58.00   | 94.00   | 98.00   |           |        |
| 28             | 69.50                                                           | 60.00                    | 170.00  | 49.00   | 261.00               | 2104.00  | 1547.00  | 94.00    | 58.00                    | 58.00   | 95.60   | 102.00  |           |        |
| 29             | 73.00                                                           | 61.20                    | 98.00   | 47.50   | 290.00               | 2095.00  | 1483.20  | 87.00    | 59.00                    | 59.00   |         | 99.60   |           |        |
| 30             | 73.00                                                           | 57.50                    | 98.00   | 50.00   | 216.00               | 2116.00  | 1432.00  | 87.00    | 59.00                    | 59.50   |         | 101.20  |           |        |
| 31             |                                                                 | 57.50                    |         | 50.00   | 207.60               |          | 1356.40  |          | 59.00                    | 59.00   |         | 104.40  |           |        |
| Total          | 1663.60                                                         | 1858.80                  | 4302.70 | 2448.00 | 8902.50              | 35933.80 | 52437.10 | 12063.00 | 1885.50                  | 1835.70 | 2238.60 | 3053.30 | 128622.60 | CMSDAY |
| Mean           | 55.50                                                           | 60.00                    | 143.40  | 79.00   | 287.20               | 1197.80  | 1691.50  | 402.10   | 60.80                    | 59.20   | 80.00   | 98.50   | 352.40    | CMS    |
| Max            | 73.00                                                           | 75.10                    | 332.80  | 275.00  | 813.20               | 2116.00  | 2125.00  | 1294.00  | 73.00                    | 61.20   | 95.60   | 118.10  | 2125.00   | CMS    |
| Min            | 40.00                                                           | 50.00                    | 55.00   | 30.00   | 50.00                | 128.00   | 1356.40  | 87.00    | 57.50                    | 57.50   | 63.00   | 94.00   | 30.00     | CMS    |
| Runoff         | 143.74                                                          | 160.60                   | 371.75  | 211.51  | 769.18               | 3104.68  | 4530.57  | 1042.24  | 162.91                   | 158.6   | 193.42  | 263.81  | 11112.99  | MCM    |
| Momentary Peak | 2125.00 CMS. at 13.35 m. (MSL.) at 06.00 Hours , on Oct 3, 2013 |                          |         |         |                      |          |          |          |                          |         |         |         |           |        |
| Runoff Yield   | 2.97                                                            | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | 17.931   | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013****CHAO PHRAYA RIVER BASIN****Chao Phraya River at Ban Bang Nam Chieo, Sing Buri (C.45)**

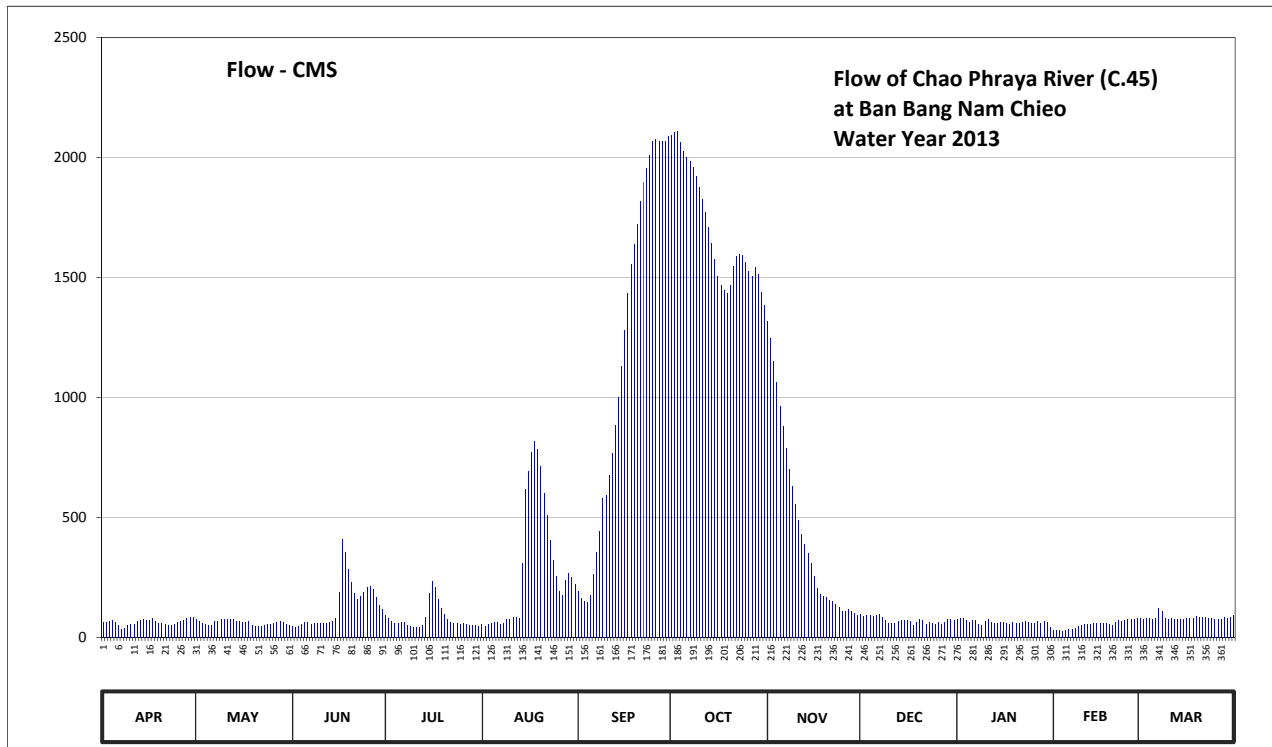
Lat 14 - 48 - 31 N Long 100 - 27 - 09 E

**Location : on left bank at Ban Bang Nam Chieo**

|                                         |                                                                                           |                |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Bang Nam Chieo | <b>Amphoe</b> | Prom Buri | <b>Changwat</b>  | Sing Buri         |
| <b>Drainage Area</b>                    | Flood Plain                                                                               |                |               |           |                  |                   |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |                |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)      |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |           |                  |                   |
| <b>Location BM</b>                      | On left bank near the gage site                                                           |                |               |           | <b>Elevation</b> | +10.460 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 2012 to date                                                                              |                |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                |               |           |                  |                   |
| <b>Period of Rating</b>                 | 2012 to date                                                                              |                |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 2012 to date                                                                              |                |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                             |                |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |           |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |                |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug                              | Sep               | Oct  | Nov       | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|----------------------------------|-------------------|------|-----------|------|------|------|------|--------|
| 1                                | 0.65  | 0.78 | 0.46        | 0.92 | 0.56                             | 1.75              | 9.61 | 6.91      | 0.96 | 0.76 | 0.31 | 0.82 |        |
| 2                                | 0.65  | 0.67 | 0.45        | 0.79 | 0.46                             | 1.53              | 9.65 | 6.64      | 0.89 | 0.82 | 0.30 | 0.78 |        |
| 3                                | 0.68  | 0.59 | 0.49        | 0.70 | 0.56                             | 1.43              | 9.66 | 6.28      | 0.91 | 0.80 | 0.29 | 0.81 |        |
| 4                                | 0.73  | 0.56 | 0.56        | 0.62 | 0.61                             | 1.38              | 9.51 | 5.94      | 0.92 | 0.73 | 0.28 | 0.80 |        |
| 5                                | 0.64  | 0.52 | 0.64        | 0.61 | 0.66                             | 1.62              | 9.38 | 5.54      | 0.87 | 0.65 | 0.30 | 0.77 |        |
| 6                                | 0.50  | 0.50 | 0.63        | 0.64 | 0.64                             | 2.24              | 9.30 | 5.21      | 0.92 | 0.74 | 0.33 | 0.80 |        |
| 7                                | 0.37  | 0.70 | 0.57        | 0.63 | 0.58                             | 2.78              | 9.25 | 4.83      | 0.97 | 0.71 | 0.35 | 1.19 |        |
| 8                                | 0.38  | 0.69 | 0.60        | 0.50 | 0.62                             | 3.25              | 9.16 | 4.45      | 0.85 | 0.56 | 0.40 | 1.07 |        |
| 9                                | 0.53  | 0.76 | 0.60        | 0.48 | 0.76                             | 3.91              | 9.04 | 4.14      | 0.72 | 0.54 | 0.46 | 0.79 |        |
| 10                               | 0.57  | 0.76 | 0.61        | 0.44 | 0.78                             | 3.97              | 8.89 | 3.81      | 0.62 | 0.68 | 0.54 | 0.76 |        |
| 11                               | 0.58  | 0.75 | 0.60        | 0.44 | 0.85                             | 4.34              | 8.72 | 3.47      | 0.60 | 0.75 | 0.57 | 0.79 |        |
| 12                               | 0.69  | 0.77 | 0.62        | 0.42 | 0.83                             | 4.75              | 8.53 | 3.18      | 0.60 | 0.64 | 0.58 | 0.76 |        |
| 13                               | 0.72  | 0.76 | 0.64        | 0.51 | 0.82                             | 5.22              | 8.32 | 2.96      | 0.67 | 0.59 | 0.58 | 0.75 |        |
| 14                               | 0.75  | 0.70 | 0.69        | 0.85 | 2.52                             | 5.69              | 8.08 | 2.76      | 0.73 | 0.62 | 0.59 | 0.77 |        |
| 15                               | 0.73  | 0.69 | 0.82        | 1.68 | 4.08                             | 6.20              | 7.84 | 2.53      | 0.71 | 0.65 | 0.59 | 0.77 |        |
| 16                               | 0.74  | 0.66 | 1.71        | 2.05 | 4.41                             | 6.76              | 7.59 | 2.20      | 0.74 | 0.66 | 0.62 | 0.80 |        |
| 17                               | 0.79  | 0.65 | 3.06        | 1.88 | 4.76                             | 7.33              | 7.45 | 1.84      | 0.67 | 0.62 | 0.62 | 0.80 |        |
| 18                               | 0.69  | 0.67 | 2.79        | 1.49 | 4.96                             | 7.77              | 7.38 | 1.65      | 0.54 | 0.56 | 0.59 | 0.81 |        |
| 19                               | 0.59  | 0.53 | 2.39        | 1.19 | 4.82                             | 8.07              | 7.34 | 1.60      | 0.63 | 0.66 | 0.57 | 0.87 |        |
| 20                               | 0.62  | 0.48 | 2.01        | 0.95 | 4.50                             | 8.36              | 7.45 | 1.55      | 0.78 | 0.60 | 0.54 | 0.86 |        |
| 21                               | 0.57  | 0.46 | 1.67        | 0.78 | 4.00                             | 8.69              | 7.74 | 1.45      | 0.73 | 0.60 | 0.66 | 0.84 |        |
| 22                               | 0.53  | 0.49 | 1.50        | 0.63 | 3.58                             | 8.96              | 7.89 | 1.42      | 0.58 | 0.65 | 0.71 | 0.84 |        |
| 23                               | 0.54  | 0.52 | 1.60        | 0.60 | 3.04                             | 9.15              | 7.91 | 1.32      | 0.64 | 0.69 | 0.67 | 0.79 |        |
| 24                               | 0.57  | 0.55 | 1.72        | 0.60 | 2.60                             | 9.33              | 7.90 | 1.22      | 0.61 | 0.63 | 0.73 | 0.79 |        |
| 25                               | 0.63  | 0.58 | 1.87        | 0.58 | 2.20                             | 9.53              | 7.80 | 1.09      | 0.57 | 0.59 | 0.77 | 0.78 |        |
| 26                               | 0.70  | 0.59 | 1.90        | 0.59 | 1.76                             | 9.55              | 7.66 | 1.06      | 0.64 | 0.59 | 0.77 | 0.76 |        |
| 27                               | 0.74  | 0.64 | 1.81        | 0.55 | 1.61                             | 9.53              | 7.59 | 1.16      | 0.55 | 0.70 | 0.76 | 0.75 |        |
| 28                               | 0.79  | 0.68 | 1.55        | 0.53 | 2.08                             | 9.53              | 7.72 | 1.07      | 0.65 | 0.60 | 0.80 | 0.85 |        |
| 29                               | 0.86  | 0.64 | 1.30        | 0.51 | 2.27                             | 9.52              | 7.62 | 0.98      | 0.78 | 0.70 |      | 0.80 |        |
| 30                               | 0.86  | 0.58 | 1.13        | 0.50 | 2.18                             | 9.60              | 7.35 | 0.94      | 0.78 | 0.63 |      | 0.84 |        |
| 31                               |       | 0.52 |             | 0.49 | 1.96                             |                   | 7.15 |           | 0.73 | 0.42 |      | 0.91 |        |
| Mean                             | 0.65  | 0.63 | 1.23        | 0.78 | 2.13                             | 6.06              | 8.27 | 2.97      | 0.73 | 0.65 | 0.55 | 0.82 |        |
| Max                              | 0.86  | 0.78 | 3.06        | 2.05 | 4.96                             | 9.60              | 9.66 | 6.91      | 0.97 | 0.82 | 0.80 | 1.19 | 9.66   |
| Min                              | 0.37  | 0.46 | 0.45        | 0.42 | 0.46                             | 1.38              | 7.15 | 0.94      | 0.54 | 0.42 | 0.28 | 0.75 | 0.28   |
| Annual Max Momentary Gage Height | 9.69  |      | m. (MSL.) , |      | at 11.00 Hours , on Oct 3 , 2013 |                   |      |           |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      | River Bed                        | -2.77             |      | m. (MSL.) |      |      |      |      |        |
| Left Bank Elevation              | 10.87 |      | m. (MSL.) , |      |                                  |                   |      |           |      |      |      |      |        |
| Right Bank Elevation             | 11.01 |      | m. (MSL.) , |      | Drainage Area                    | Square Kilometers |      |           |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 65.00                                                           | 78.00                    | 46.00   | 93.20   | 56.00                | 193.50   | 2093.00  | 1318.70  | 97.60                    | 76.00   | 31.00   | 82.20   |           |        |
| 2              | 65.00                                                           | 67.00                    | 45.00   | 79.00   | 46.00                | 164.90   | 2105.00  | 1245.80  | 89.90                    | 82.20   | 30.00   | 78.00   |           |        |
| 3              | 68.00                                                           | 59.00                    | 49.00   | 70.00   | 56.00                | 152.60   | 2108.00  | 1150.80  | 92.10                    | 80.00   | 29.00   | 81.10   |           |        |
| 4              | 73.00                                                           | 56.00                    | 56.00   | 62.00   | 61.00                | 146.60   | 2063.00  | 1064.00  | 93.20                    | 73.00   | 28.00   | 80.00   |           |        |
| 5              | 64.00                                                           | 52.00                    | 64.00   | 61.00   | 66.00                | 176.60   | 2024.00  | 964.00   | 87.70                    | 65.00   | 30.00   | 77.00   |           |        |
| 6              | 50.00                                                           | 50.00                    | 63.00   | 64.00   | 64.00                | 263.00   | 2000.00  | 881.50   | 93.20                    | 74.00   | 33.00   | 80.00   |           |        |
| 7              | 37.00                                                           | 70.00                    | 57.00   | 63.00   | 58.00                | 355.20   | 1985.00  | 788.90   | 98.70                    | 71.00   | 35.00   | 123.80  |           |        |
| 8              | 38.00                                                           | 69.00                    | 60.00   | 50.00   | 62.00                | 444.50   | 1958.00  | 701.50   | 85.50                    | 56.00   | 40.00   | 109.70  |           |        |
| 9              | 53.00                                                           | 76.00                    | 60.00   | 48.00   | 76.00                | 580.20   | 1922.00  | 630.80   | 72.00                    | 54.00   | 46.00   | 79.00   |           |        |
| 10             | 57.00                                                           | 76.00                    | 61.00   | 44.00   | 78.00                | 593.40   | 1877.00  | 558.20   | 62.00                    | 68.00   | 54.00   | 76.00   |           |        |
| 11             | 58.00                                                           | 75.00                    | 60.00   | 44.00   | 85.50                | 676.20   | 1826.00  | 488.00   | 60.00                    | 75.00   | 57.00   | 79.00   |           |        |
| 12             | 69.00                                                           | 77.00                    | 62.00   | 42.00   | 83.30                | 770.50   | 1771.00  | 431.20   | 60.00                    | 64.00   | 58.00   | 76.00   |           |        |
| 13             | 72.00                                                           | 76.00                    | 64.00   | 51.00   | 82.20                | 884.00   | 1710.60  | 389.40   | 67.00                    | 59.00   | 58.00   | 75.00   |           |        |
| 14             | 75.00                                                           | 70.00                    | 69.00   | 85.50   | 308.40               | 1001.50  | 1642.40  | 351.40   | 73.00                    | 62.00   | 59.00   | 77.00   |           |        |
| 15             | 73.00                                                           | 69.00                    | 82.20   | 184.40  | 617.60               | 1130.00  | 1575.20  | 310.10   | 71.00                    | 65.00   | 59.00   | 77.00   |           |        |
| 16             | 74.00                                                           | 66.00                    | 188.30  | 235.00  | 692.30               | 1278.20  | 1505.20  | 257.00   | 74.00                    | 66.00   | 62.00   | 80.00   |           |        |
| 17             | 79.00                                                           | 65.00                    | 408.40  | 211.20  | 772.80               | 1432.40  | 1466.00  | 205.60   | 67.00                    | 62.00   | 62.00   | 80.00   |           |        |
| 18             | 69.00                                                           | 67.00                    | 357.10  | 159.80  | 819.40               | 1555.60  | 1446.40  | 180.50   | 54.00                    | 56.00   | 59.00   | 81.10   |           |        |
| 19             | 59.00                                                           | 53.00                    | 286.40  | 123.80  | 786.60               | 1639.60  | 1435.20  | 174.00   | 63.00                    | 66.00   | 57.00   | 87.70   |           |        |
| 20             | 62.00                                                           | 48.00                    | 229.40  | 96.50   | 713.00               | 1722.10  | 1466.00  | 167.50   | 78.00                    | 60.00   | 54.00   | 86.60   |           |        |
| 21             | 57.00                                                           | 46.00                    | 183.10  | 78.00   | 600.00               | 1817.10  | 1547.20  | 155.00   | 73.00                    | 60.00   | 66.00   | 84.40   |           |        |
| 22             | 53.00                                                           | 49.00                    | 161.00  | 63.00   | 510.00               | 1898.00  | 1589.20  | 151.40   | 58.00                    | 65.00   | 71.00   | 84.40   |           |        |
| 23             | 54.00                                                           | 52.00                    | 174.00  | 60.00   | 404.60               | 1955.00  | 1594.80  | 139.40   | 64.00                    | 69.00   | 67.00   | 79.00   |           |        |
| 24             | 57.00                                                           | 55.00                    | 189.60  | 60.00   | 322.00               | 2009.00  | 1592.00  | 127.40   | 61.00                    | 63.00   | 73.00   | 79.00   |           |        |
| 25             | 63.00                                                           | 58.00                    | 209.80  | 58.00   | 257.00               | 2069.00  | 1564.00  | 111.90   | 57.00                    | 59.00   | 77.00   | 78.00   |           |        |
| 26             | 70.00                                                           | 59.00                    | 214.00  | 59.00   | 194.80               | 2075.00  | 1524.80  | 108.60   | 64.00                    | 59.00   | 77.00   | 76.00   |           |        |
| 27             | 74.00                                                           | 64.00                    | 201.40  | 55.00   | 175.30               | 2069.00  | 1505.20  | 120.20   | 55.00                    | 70.00   | 76.00   | 75.00   |           |        |
| 28             | 79.00                                                           | 68.00                    | 167.50  | 53.00   | 239.20               | 2069.00  | 1541.60  | 109.70   | 65.00                    | 60.00   | 80.00   | 85.50   |           |        |
| 29             | 86.60                                                           | 64.00                    | 137.00  | 51.00   | 267.50               | 2066.00  | 1513.60  | 99.80    | 78.00                    | 70.00   |         | 80.00   |           |        |
| 30             | 86.60                                                           | 58.00                    | 116.60  | 50.00   | 254.00               | 2090.00  | 1438.00  | 95.40    | 78.00                    | 63.00   |         | 84.40   |           |        |
| 31             |                                                                 | 52.00                    |         | 49.00   | 222.40               |          | 1383.50  |          | 73.00                    | 42.00   |         | 92.10   |           |        |
| Total          | 1940.20                                                         | 1944.00                  | 4121.80 | 2503.40 | 9030.90              | 35277.70 | 52772.90 | 13477.70 | 2264.90                  | 2014.20 | 1528.00 | 2564.00 | 129439.70 | CMSDAY |
| Mean           | 64.70                                                           | 62.70                    | 137.40  | 80.80   | 291.30               | 1175.90  | 1702.40  | 449.30   | 73.10                    | 65.00   | 54.60   | 82.70   | 354.60    | CMS    |
| Max            | 86.60                                                           | 78.00                    | 408.40  | 235.00  | 819.40               | 2090.00  | 2108.00  | 1318.70  | 98.70                    | 82.20   | 80.00   | 123.80  | 2108.00   | CMS    |
| Min            | 37.00                                                           | 46.00                    | 45.00   | 42.00   | 46.00                | 146.60   | 1383.50  | 95.40    | 54.00                    | 42.00   | 28.00   | 75.00   | 28.00     | CMS    |
| Runoff         | 167.63                                                          | 167.96                   | 356.12  | 216.29  | 780.27               | 3047.99  | 4559.58  | 1164.47  | 195.69                   | 174.03  | 132.02  | 221.53  | 11183.59  | MCM    |
| Momentary Peak | 2117.00 CMS. at 9.69 m. (MSL.) at 11.00 Hours , on Oct 3 , 2013 |                          |         |         |                      |          |          |          |                          |         |         |         |           |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | *****    | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Chao Phraya River at Ban Chaiyo, Ang Thong (C.46)**

Lat 14 - 42 - 59 N    Long 100 - 26 - 22 E

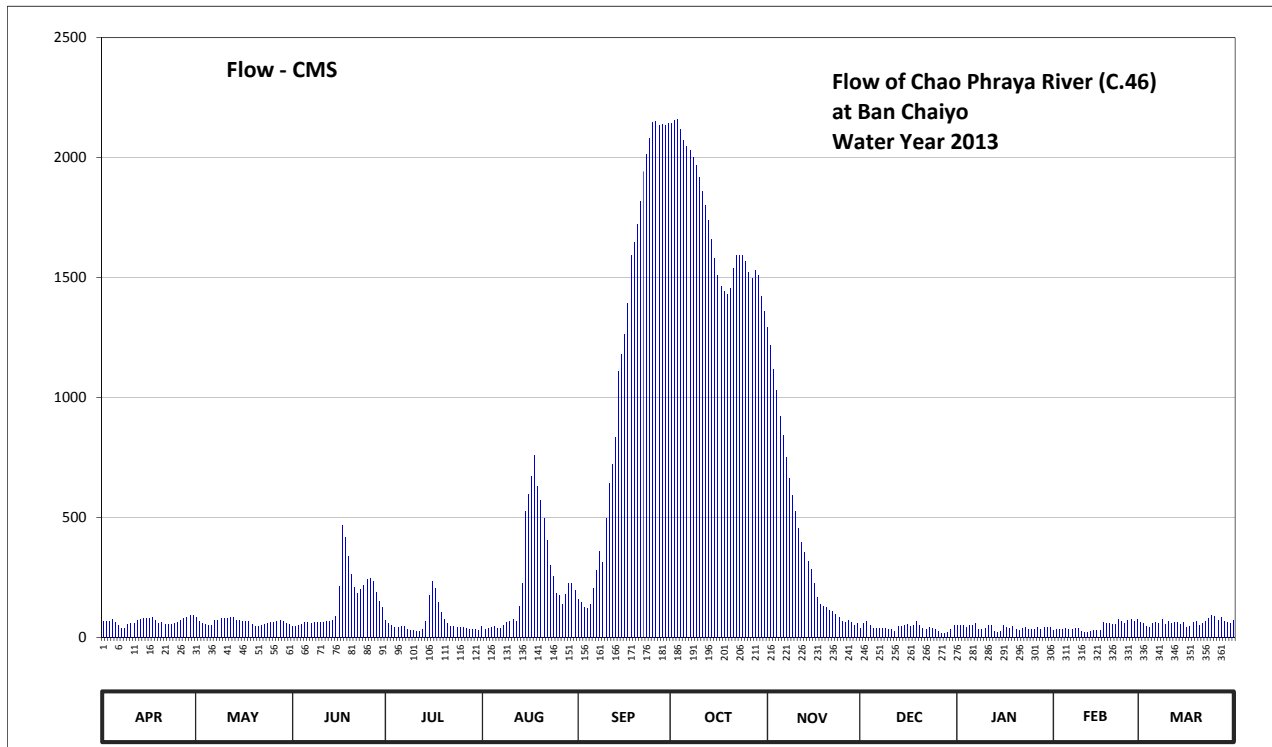
**Location : on right bank at Ban Chaiyo**

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Chaiyo    | <b>Amphoe</b> | Chaiyo | <b>Changwat</b>  | Ang Thong         |
| <b>Drainage Area</b>                    | Flood Plain                                                                               |           |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank near the gage site                                                          |           |               |        | <b>Elevation</b> | +10.660 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2012 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2012 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2012 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                             |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug                              | Sep               | Oct  | Nov       | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|----------------------------------|-------------------|------|-----------|------|------|------|------|--------|
| 1                                | 0.79  | 0.91 | 0.56        | 0.82 | 0.56                             | 1.47              | 8.88 | 6.28      | 0.51 | 0.61 | 0.41 | 0.73 |        |
| 2                                | 0.79  | 0.79 | 0.56        | 0.69 | 0.47                             | 1.39              | 8.91 | 6.03      | 0.69 | 0.62 | 0.46 | 0.72 |        |
| 3                                | 0.80  | 0.71 | 0.60        | 0.61 | 0.51                             | 1.24              | 8.93 | 5.68      | 0.80 | 0.61 | 0.45 | 0.58 |        |
| 4                                | 0.85  | 0.67 | 0.68        | 0.54 | 0.52                             | 1.21              | 8.80 | 5.37      | 0.61 | 0.55 | 0.45 | 0.55 |        |
| 5                                | 0.75  | 0.63 | 0.76        | 0.53 | 0.56                             | 1.32              | 8.67 | 4.99      | 0.50 | 0.61 | 0.51 | 0.72 |        |
| 6                                | 0.61  | 0.63 | 0.76        | 0.56 | 0.48                             | 1.77              | 8.60 | 4.68      | 0.51 | 0.63 | 0.47 | 0.73 |        |
| 7                                | 0.48  | 0.81 | 0.72        | 0.57 | 0.48                             | 2.21              | 8.55 | 4.33      | 0.50 | 0.69 | 0.45 | 0.72 |        |
| 8                                | 0.50  | 0.82 | 0.75        | 0.45 | 0.60                             | 2.61              | 8.46 | 3.98      | 0.50 | 0.46 | 0.48 | 0.87 |        |
| 9                                | 0.65  | 0.90 | 0.75        | 0.42 | 0.75                             | 2.39              | 8.36 | 3.70      | 0.49 | 0.46 | 0.48 | 0.68 |        |
| 10                               | 0.70  | 0.90 | 0.76        | 0.39 | 0.77                             | 3.28              | 8.22 | 3.40      | 0.46 | 0.51 | 0.36 | 0.80 |        |
| 11                               | 0.72  | 0.90 | 0.75        | 0.38 | 0.86                             | 3.90              | 8.05 | 3.08      | 0.44 | 0.60 | 0.31 | 0.70 |        |
| 12                               | 0.83  | 0.92 | 0.77        | 0.36 | 0.78                             | 4.22              | 7.87 | 2.80      | 0.36 | 0.60 | 0.31 | 0.73 |        |
| 13                               | 0.87  | 0.91 | 0.78        | 0.44 | 1.27                             | 4.65              | 7.68 | 2.60      | 0.58 | 0.36 | 0.36 | 0.75 |        |
| 14                               | 0.90  | 0.84 | 0.84        | 0.77 | 1.90                             | 5.66              | 7.44 | 2.41      | 0.57 | 0.32 | 0.39 | 0.67 |        |
| 15                               | 0.88  | 0.82 | 0.96        | 1.58 | 3.40                             | 5.90              | 7.20 | 2.22      | 0.64 | 0.35 | 0.39 | 0.73 |        |
| 16                               | 0.89  | 0.79 | 1.83        | 1.94 | 3.71                             | 6.18              | 6.97 | 1.89      | 0.65 | 0.62 | 0.41 | 0.55 |        |
| 17                               | 0.92  | 0.77 | 3.14        | 1.77 | 4.01                             | 6.61              | 6.83 | 1.52      | 0.57 | 0.55 | 0.76 | 0.57 |        |
| 18                               | 0.81  | 0.79 | 2.89        | 1.39 | 4.37                             | 7.24              | 6.76 | 1.34      | 0.63 | 0.50 | 0.72 | 0.73 |        |
| 19                               | 0.70  | 0.65 | 2.51        | 1.09 | 3.85                             | 7.41              | 6.72 | 1.28      | 0.78 | 0.58 | 0.71 | 0.77 |        |
| 20                               | 0.73  | 0.59 | 2.12        | 0.86 | 3.60                             | 7.64              | 6.80 | 1.23      | 0.62 | 0.44 | 0.65 | 0.63 |        |
| 21                               | 0.68  | 0.58 | 1.79        | 0.71 | 3.28                             | 7.92              | 7.07 | 1.14      | 0.49 | 0.40 | 0.65 | 0.70 |        |
| 22                               | 0.65  | 0.61 | 1.63        | 0.57 | 2.84                             | 8.29              | 7.23 | 1.11      | 0.46 | 0.49 | 0.86 | 0.77 |        |
| 23                               | 0.66  | 0.65 | 1.73        | 0.56 | 2.31                             | 8.50              | 7.24 | 1.01      | 0.54 | 0.53 | 0.79 | 0.88 |        |
| 24                               | 0.69  | 0.69 | 1.85        | 0.54 | 2.06                             | 8.70              | 7.24 | 0.91      | 0.50 | 0.46 | 0.69 | 1.00 |        |
| 25                               | 0.76  | 0.73 | 1.99        | 0.52 | 1.63                             | 8.89              | 7.15 | 0.78      | 0.47 | 0.43 | 0.81 | 0.97 |        |
| 26                               | 0.83  | 0.74 | 2.02        | 0.52 | 1.58                             | 8.90              | 7.01 | 0.74      | 0.37 | 0.43 | 0.85 | 0.83 |        |
| 27                               | 0.88  | 0.79 | 1.93        | 0.49 | 1.32                             | 8.86              | 6.94 | 0.82      | 0.30 | 0.54 | 0.78 | 0.93 |        |
| 28                               | 0.93  | 0.81 | 1.67        | 0.47 | 1.60                             | 8.87              | 7.04 | 0.73      | 0.30 | 0.44 | 0.85 | 0.80 |        |
| 29                               | 1.00  | 0.77 | 1.42        | 0.44 | 1.89                             | 8.85              | 6.97 | 0.63      | 0.33 | 0.54 |      | 0.73 |        |
| 30                               | 0.99  | 0.72 | 1.25        | 0.43 | 1.89                             | 8.88              | 6.70 | 0.69      | 0.45 | 0.52 |      | 0.72 |        |
| 31                               |       | 0.67 |             | 0.40 | 1.72                             |                   | 6.50 |           | 0.64 | 0.53 |      | 0.82 |        |
| Mean                             | 0.77  | 0.76 | 1.36        | 0.70 | 1.79                             | 5.50              | 7.61 | 2.58      | 0.52 | 0.52 | 0.56 | 0.74 |        |
| Max                              | 1.00  | 0.92 | 3.14        | 1.94 | 4.37                             | 8.90              | 8.93 | 6.28      | 0.80 | 0.69 | 0.86 | 1.00 | 8.93   |
| Min                              | 0.48  | 0.58 | 0.56        | 0.36 | 0.47                             | 1.21              | 6.50 | 0.63      | 0.30 | 0.32 | 0.31 | 0.55 | 0.30   |
| Annual Max Momentary Gage Height | 8.95  |      | m. (MSL.) , |      | at 13.00 Hours , on Oct 3 , 2013 |                   |      |           |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      | River Bed                        | -2.99             |      | m. (MSL.) |      |      |      |      |        |
| Left Bank Elevation              | 10.66 |      | m. (MSL.) , |      |                                  |                   |      |           |      |      |      |      |        |
| Right Bank Elevation             | 10.36 |      | m. (MSL.) , |      | Drainage Area                    | Square Kilometers |      |           |      |      |      |      |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 69.00                                                           | 83.30                    | 46.00   | 72.40   | 46.00                | 159.50   | 2143.20  | 1294.00  | 41.00                    | 51.00   | 31.00   | 63.00   |           |        |
| 2              | 69.00                                                           | 69.00                    | 46.00   | 59.00   | 37.00                | 147.60   | 2153.40  | 1219.00  | 59.00                    | 52.00   | 36.00   | 62.00   |           |        |
| 3              | 70.00                                                           | 61.00                    | 50.00   | 51.00   | 41.00                | 126.60   | 2160.20  | 1116.20  | 70.00                    | 51.00   | 35.00   | 48.00   |           |        |
| 4              | 76.00                                                           | 57.00                    | 58.00   | 44.00   | 42.00                | 122.40   | 2116.00  | 1027.60  | 51.00                    | 45.00   | 35.00   | 45.00   |           |        |
| 5              | 65.00                                                           | 53.00                    | 66.00   | 43.00   | 46.00                | 137.80   | 2071.80  | 923.40   | 40.00                    | 51.00   | 41.00   | 62.00   |           |        |
| 6              | 51.00                                                           | 53.00                    | 66.00   | 46.00   | 38.00                | 206.20   | 2048.00  | 842.80   | 41.00                    | 53.00   | 37.00   | 63.00   |           |        |
| 7              | 38.00                                                           | 71.20                    | 62.00   | 47.00   | 38.00                | 281.90   | 2031.00  | 751.80   | 40.00                    | 59.00   | 35.00   | 62.00   |           |        |
| 8              | 40.00                                                           | 72.40                    | 65.00   | 35.00   | 50.00                | 360.00   | 2000.40  | 663.00   | 40.00                    | 36.00   | 38.00   | 78.40   |           |        |
| 9              | 55.00                                                           | 82.00                    | 65.00   | 32.00   | 65.00                | 316.10   | 1966.40  | 595.00   | 39.00                    | 36.00   | 38.00   | 58.00   |           |        |
| 10             | 60.00                                                           | 82.00                    | 66.00   | 29.00   | 67.00                | 499.60   | 1918.80  | 526.00   | 36.00                    | 41.00   | 26.00   | 70.00   |           |        |
| 11             | 62.00                                                           | 82.00                    | 65.00   | 28.00   | 77.20                | 643.00   | 1861.00  | 456.80   | 34.00                    | 50.00   | 21.00   | 60.00   |           |        |
| 12             | 73.60                                                           | 84.60                    | 67.00   | 26.00   | 68.00                | 723.20   | 1799.80  | 398.00   | 26.00                    | 50.00   | 21.00   | 63.00   |           |        |
| 13             | 78.40                                                           | 83.30                    | 68.00   | 34.00   | 130.80               | 835.00   | 1736.40  | 358.00   | 48.00                    | 26.00   | 26.00   | 65.00   |           |        |
| 14             | 82.00                                                           | 74.80                    | 74.80   | 67.00   | 228.00               | 1110.40  | 1657.80  | 320.00   | 47.00                    | 22.00   | 29.00   | 57.00   |           |        |
| 15             | 79.60                                                           | 72.40                    | 89.80   | 176.00  | 526.00               | 1180.00  | 1581.00  | 283.80   | 54.00                    | 25.00   | 29.00   | 63.00   |           |        |
| 16             | 80.80                                                           | 69.00                    | 216.10  | 234.80  | 597.40               | 1264.00  | 1507.40  | 226.30   | 55.00                    | 52.00   | 31.00   | 45.00   |           |        |
| 17             | 84.60                                                           | 67.00                    | 469.40  | 206.20  | 670.50               | 1394.10  | 1462.60  | 167.00   | 47.00                    | 45.00   | 66.00   | 47.00   |           |        |
| 18             | 71.20                                                           | 69.00                    | 416.90  | 147.60  | 762.20               | 1593.80  | 1440.60  | 140.60   | 53.00                    | 40.00   | 62.00   | 63.00   |           |        |
| 19             | 60.00                                                           | 55.00                    | 340.00  | 106.70  | 631.00               | 1648.20  | 1428.20  | 132.20   | 68.00                    | 48.00   | 61.00   | 67.00   |           |        |
| 20             | 63.00                                                           | 49.00                    | 265.60  | 77.20   | 572.00               | 1723.20  | 1453.00  | 125.20   | 52.00                    | 34.00   | 55.00   | 53.00   |           |        |
| 21             | 58.00                                                           | 48.00                    | 209.40  | 61.00   | 499.60               | 1816.80  | 1539.40  | 113.20   | 39.00                    | 30.00   | 55.00   | 60.00   |           |        |
| 22             | 55.00                                                           | 51.00                    | 183.80  | 47.00   | 406.40               | 1942.60  | 1590.60  | 109.30   | 36.00                    | 39.00   | 77.20   | 67.00   |           |        |
| 23             | 56.00                                                           | 55.00                    | 199.80  | 46.00   | 300.90               | 2014.00  | 1593.80  | 96.30    | 44.00                    | 43.00   | 69.00   | 79.60   |           |        |
| 24             | 59.00                                                           | 59.00                    | 219.50  | 44.00   | 255.20               | 2082.00  | 1593.80  | 83.30    | 40.00                    | 36.00   | 59.00   | 95.00   |           |        |
| 25             | 66.00                                                           | 63.00                    | 243.30  | 42.00   | 183.80               | 2146.60  | 1565.00  | 68.00    | 37.00                    | 33.00   | 71.20   | 91.10   |           |        |
| 26             | 73.60                                                           | 64.00                    | 248.40  | 42.00   | 176.00               | 2150.00  | 1520.20  | 64.00    | 27.00                    | 33.00   | 76.00   | 73.60   |           |        |
| 27             | 79.60                                                           | 69.00                    | 233.10  | 39.00   | 137.80               | 2136.40  | 1497.80  | 72.40    | 20.00                    | 44.00   | 68.00   | 85.90   |           |        |
| 28             | 85.90                                                           | 71.20                    | 190.20  | 37.00   | 179.00               | 2139.80  | 1529.80  | 63.00    | 20.00                    | 34.00   | 76.00   | 70.00   |           |        |
| 29             | 95.00                                                           | 67.00                    | 152.00  | 34.00   | 226.30               | 2133.00  | 1507.40  | 53.00    | 23.00                    | 44.00   |         | 63.00   |           |        |
| 30             | 93.70                                                           | 62.00                    | 128.00  | 33.00   | 226.30               | 2143.20  | 1422.00  | 59.00    | 35.00                    | 42.00   |         | 62.00   |           |        |
| 31             |                                                                 | 57.00                    |         | 30.00   | 198.20               |          | 1360.00  |          | 54.00                    | 43.00   |         | 72.40   |           |        |
| Total          | 2050.00                                                         | 2056.20                  | 4670.10 | 2016.90 | 7522.60              | 35177.00 | 53256.80 | 12348.20 | 1316.00                  | 1288.00 | 1304.40 | 2014.00 | 125020.20 | CMSDAY |
| Mean           | 68.30                                                           | 66.30                    | 155.70  | 65.10   | 242.70               | 1172.60  | 1718.00  | 411.60   | 42.50                    | 41.50   | 46.60   | 65.00   | 342.50    | CMS    |
| Max            | 95.00                                                           | 84.60                    | 469.40  | 234.80  | 762.20               | 2150.00  | 2160.20  | 1294.00  | 70.00                    | 59.00   | 77.20   | 95.00   | 2160.20   | CMS    |
| Min            | 38.00                                                           | 48.00                    | 46.00   | 26.00   | 37.00                | 122.40   | 1360.00  | 53.00    | 20.00                    | 22.00   | 21.00   | 45.00   | 20.00     | CMS    |
| Runoff         | 177.12                                                          | 177.66                   | 403.50  | 174.26  | 649.95               | 3039.29  | 4601.39  | 1066.88  | 113.70                   | 111.28  | 112.70  | 174.01  | 10801.75  | MCM    |
| Momentary Peak | 2167.00 CMS. at 8.95 m. (MSL.) at 13.00 Hours , on Oct 3 , 2013 |                          |         |         |                      |          |          |          |                          |         |         |         |           |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | *****    | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013****CHAO PHRAYA RIVER BASIN****Chao Phraya River at Ban Pa Mok, Ang Thong (C.47)**

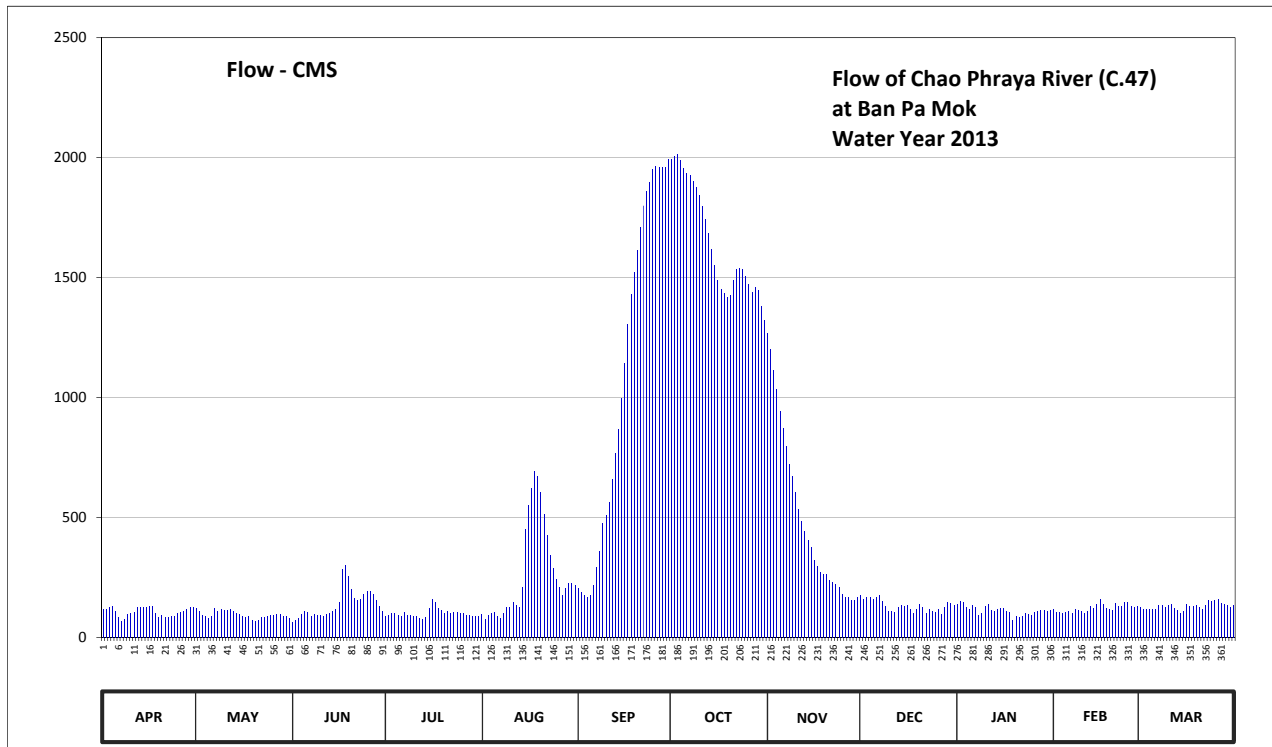
Lat 14 - 30 - 54 N Long 100 - 27 - 59 E

**Location : on right bank at Ban Pa Mok**

|                                         |                                                                                           |               |               |               |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|---------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | <b>Pa Mok</b> | <b>Amphoe</b> | <b>Pa Mok</b> | <b>Changwat</b>  | <b>Ang Thong</b>  |
| <b>Drainage Area</b>                    | Flood Plain                                                                               |               |               |               |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |               |               |               |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000 m. (MSL.)                                                                          |               |               |               |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |               |               |                  |                   |
| <b>Location BM</b>                      | On right bank near the gage site                                                          |               |               |               | <b>Elevation</b> | +10.850 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |               |               |               |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |               |               |               |                  |                   |
| <b>Period of Available Gage Records</b> | 2012 to date                                                                              |               |               |               |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |               |               |               |                  |                   |
| <b>Period of Rating</b>                 | 2012 to date                                                                              |               |               |               |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |               |                  |                   |
| <b>Rated by Current Meter</b>           | 2012 to date                                                                              |               |               |               |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                             |               |               |               |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |               |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 27 discharge measurements made in 2013. |               |               |               |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug                              | Sep  | Oct               | Nov  | Dec       | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|----------------------------------|------|-------------------|------|-----------|------|------|------|--------|
| 1                                | 0.96  | 1.00 | 0.58        | 0.77 | 0.82                             | 1.50 | 7.24              | 5.24 | 1.33      | 1.12 | 0.96 | 1.02 |        |
| 2                                | 0.97  | 0.91 | 0.63        | 0.81 | 0.69                             | 1.40 | 7.27              | 5.05 | 1.25      | 1.18 | 0.90 | 0.96 |        |
| 3                                | 1.02  | 0.81 | 0.70        | 0.87 | 0.79                             | 1.34 | 7.29              | 4.79 | 1.30      | 1.15 | 0.88 | 0.97 |        |
| 4                                | 1.06  | 0.77 | 0.83        | 0.84 | 0.85                             | 1.28 | 7.23              | 4.56 | 1.28      | 1.04 | 0.85 | 0.99 |        |
| 5                                | 0.93  | 0.70 | 0.92        | 0.79 | 0.90                             | 1.34 | 7.14              | 4.28 | 1.23      | 0.96 | 0.89 | 0.97 |        |
| 6                                | 0.75  | 0.77 | 0.88        | 0.78 | 0.78                             | 1.58 | 7.08              | 4.06 | 1.30      | 1.08 | 0.91 | 0.99 |        |
| 7                                | 0.60  | 1.00 | 0.77        | 0.89 | 0.72                             | 1.92 | 7.06              | 3.81 | 1.34      | 1.02 | 0.86 | 1.07 |        |
| 8                                | 0.66  | 0.91 | 0.82        | 0.79 | 0.85                             | 2.22 | 7.00              | 3.56 | 1.18      | 0.80 | 0.96 | 1.08 |        |
| 9                                | 0.83  | 0.98 | 0.79        | 0.80 | 1.03                             | 2.69 | 6.93              | 3.39 | 1.05      | 0.84 | 0.94 | 1.03 |        |
| 10                               | 0.87  | 0.94 | 0.79        | 0.77 | 1.04                             | 2.82 | 6.84              | 3.17 | 0.91      | 1.06 | 0.92 | 1.07 |        |
| 11                               | 0.90  | 0.94 | 0.78        | 0.78 | 1.16                             | 3.01 | 6.72              | 2.91 | 0.93      | 1.11 | 0.86 | 1.10 |        |
| 12                               | 1.02  | 0.99 | 0.83        | 0.72 | 1.09                             | 3.35 | 6.58              | 2.72 | 0.89      | 0.95 | 0.91 | 1.00 |        |
| 13                               | 1.03  | 0.92 | 0.84        | 0.66 | 1.04                             | 3.72 | 6.42              | 2.56 | 1.02      | 0.92 | 1.05 | 0.94 |        |
| 14                               | 1.04  | 0.86 | 0.91        | 0.73 | 1.53                             | 4.05 | 6.24              | 2.42 | 1.08      | 0.98 | 1.00 | 0.85 |        |
| 15                               | 1.03  | 0.83 | 0.96        | 1.00 | 2.59                             | 4.45 | 6.05              | 2.29 | 1.05      | 1.01 | 1.10 | 0.93 |        |
| 16                               | 1.05  | 0.78 | 1.16        | 1.23 | 2.97                             | 4.88 | 5.88              | 2.06 | 1.09      | 1.01 | 1.24 | 1.11 |        |
| 17                               | 1.05  | 0.75 | 1.88        | 1.17 | 3.23                             | 5.35 | 5.78              | 1.94 | 0.98      | 0.93 | 1.11 | 1.05 |        |
| 18                               | 0.84  | 0.76 | 1.97        | 1.00 | 3.46                             | 5.72 | 5.73              | 1.84 | 0.84      | 0.88 | 1.01 | 1.05 |        |
| 19                               | 0.74  | 0.65 | 1.76        | 0.95 | 3.40                             | 5.97 | 5.68              | 1.79 | 0.98      | 0.65 | 0.96 | 1.09 |        |
| 20                               | 0.80  | 0.61 | 1.49        | 0.86 | 3.16                             | 6.23 | 5.70              | 1.80 | 1.12      | 0.78 | 0.94 | 1.04 |        |
| 21                               | 0.74  | 0.64 | 1.26        | 0.91 | 2.84                             | 6.49 | 5.88              | 1.67 | 1.04      | 0.75 | 1.13 | 0.99 |        |
| 22                               | 0.73  | 0.73 | 1.22        | 0.84 | 2.50                             | 6.73 | 6.01              | 1.64 | 0.85      | 0.77 | 1.06 | 1.08 |        |
| 23                               | 0.76  | 0.74 | 1.24        | 0.89 | 2.16                             | 6.89 | 6.02              | 1.59 | 0.97      | 0.84 | 1.06 | 1.21 |        |
| 24                               | 0.78  | 0.77 | 1.35        | 0.88 | 1.90                             | 6.99 | 6.00              | 1.52 | 0.91      | 0.82 | 1.17 | 1.19 |        |
| 25                               | 0.84  | 0.79 | 1.42        | 0.87 | 1.70                             | 7.13 | 5.93              | 1.36 | 0.90      | 0.79 | 1.16 | 1.22 |        |
| 26                               | 0.89  | 0.80 | 1.42        | 0.87 | 1.52                             | 7.16 | 5.83              | 1.30 | 0.98      | 0.89 | 1.05 | 1.25 |        |
| 27                               | 0.93  | 0.83 | 1.37        | 0.81 | 1.33                             | 7.15 | 5.74              | 1.30 | 0.82      | 0.92 | 1.04 | 1.14 |        |
| 28                               | 0.96  | 0.83 | 1.21        | 0.79 | 1.50                             | 7.15 | 5.80              | 1.22 | 1.03      | 0.95 | 1.05 | 1.12 |        |
| 29                               | 1.04  | 0.76 | 1.06        | 0.78 | 1.62                             | 7.15 | 5.76              | 1.22 | 1.17      | 0.95 |      | 1.08 |        |
| 30                               | 1.04  | 0.76 | 0.91        | 0.77 | 1.61                             | 7.24 | 5.57              | 1.30 | 1.13      | 0.93 |      | 1.04 |        |
| 31                               |       | 0.71 |             | 0.77 | 1.57                             |      | 5.40              |      | 1.08      | 0.95 |      | 1.09 |        |
| Mean                             | 0.90  | 0.81 | 1.09        | 0.85 | 1.69                             | 4.50 | 6.32              | 2.61 | 1.07      | 0.94 | 1.00 | 1.06 |        |
| Max                              | 1.06  | 1.00 | 1.97        | 1.23 | 3.46                             | 7.24 | 7.29              | 5.24 | 1.34      | 1.18 | 1.24 | 1.25 | 7.29   |
| Min                              | 0.60  | 0.61 | 0.58        | 0.66 | 0.69                             | 1.28 | 5.40              | 1.22 | 0.82      | 0.65 | 0.85 | 0.85 | 0.58   |
| Annual Max Momentary Gage Height | 7.31  |      | m. (MSL.) , |      | at 13.00 Hours , on Oct 3 , 2013 |      |                   |      |           |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      | River Bed                        |      | -10.75            |      | m. (MSL.) |      |      |      |        |
| Left Bank Elevation              | 10.03 |      | m. (MSL.) , |      |                                  |      |                   |      |           |      |      |      |        |
| Right Bank Elevation             | 10.85 |      | m. (MSL.) , |      | Drainage Area                    |      | Square Kilometers |      |           |      |      |      |        |



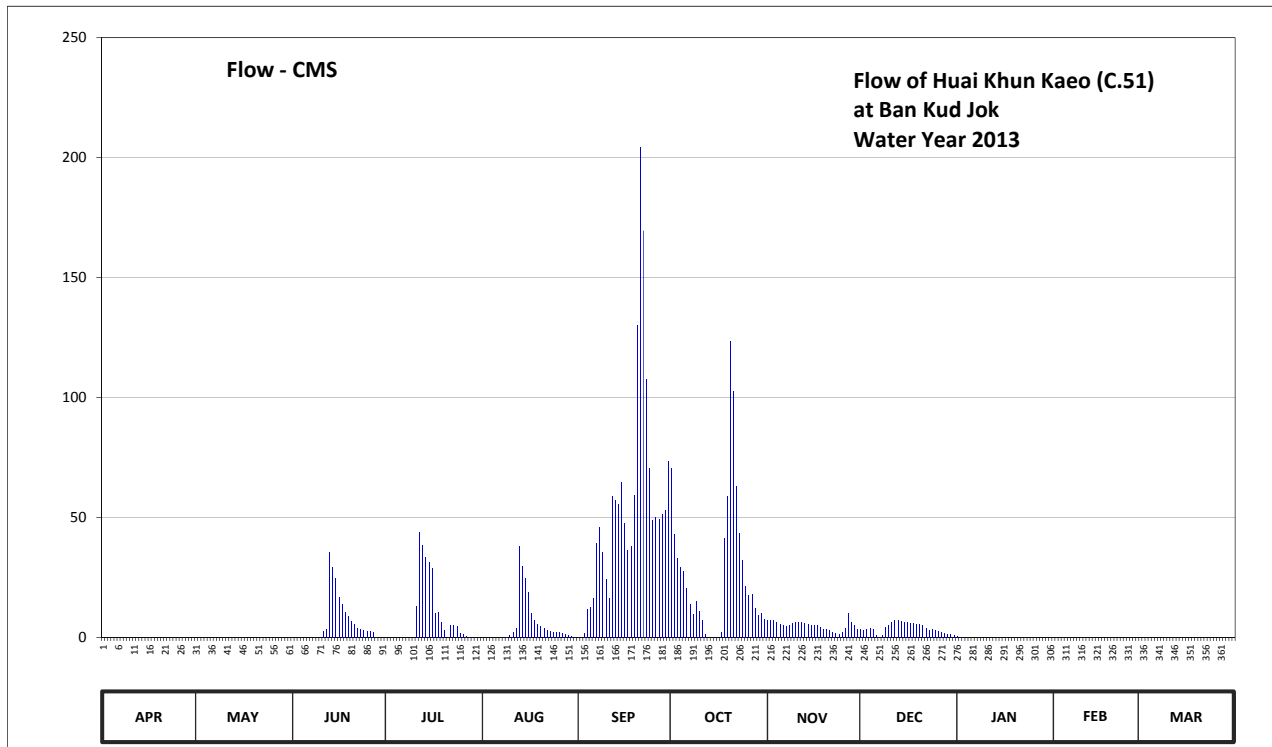
**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|----------|----------|----------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 116.40                                                          | 122.00                   | 65.60   | 89.80   | 96.80                | 206.00   | 1993.20  | 1265.60  | 175.40                   | 141.20  | 116.40  | 125.20  |           |        |
| 2              | 117.80                                                          | 109.40                   | 71.60   | 95.40   | 78.80                | 188.00   | 2004.60  | 1201.00  | 162.00                   | 150.80  | 108.00  | 116.40  |           |        |
| 3              | 125.20                                                          | 95.40                    | 80.00   | 103.80  | 92.60                | 177.20   | 2012.20  | 1112.60  | 170.00                   | 146.00  | 105.20  | 117.80  |           |        |
| 4              | 131.60                                                          | 89.80                    | 98.20   | 99.60   | 101.00               | 166.80   | 1989.40  | 1034.40  | 166.80                   | 128.40  | 101.00  | 120.60  |           |        |
| 5              | 112.20                                                          | 80.00                    | 110.80  | 92.60   | 108.00               | 177.20   | 1955.20  | 943.60   | 158.80                   | 116.40  | 106.60  | 117.80  |           |        |
| 6              | 87.00                                                           | 89.80                    | 105.20  | 91.20   | 91.20                | 220.40   | 1932.40  | 873.20   | 170.00                   | 134.80  | 109.40  | 120.60  |           |        |
| 7              | 68.00                                                           | 122.00                   | 89.80   | 106.60  | 82.80                | 292.40   | 1924.80  | 797.00   | 177.20                   | 125.20  | 102.40  | 133.20  |           |        |
| 8              | 75.20                                                           | 109.40                   | 96.80   | 92.60   | 101.00               | 358.80   | 1902.00  | 722.00   | 150.80                   | 94.00   | 116.40  | 134.80  |           |        |
| 9              | 98.20                                                           | 119.20                   | 92.60   | 94.00   | 126.80               | 477.40   | 1875.40  | 671.00   | 130.00                   | 99.60   | 113.60  | 126.80  |           |        |
| 10             | 103.80                                                          | 113.60                   | 92.60   | 89.80   | 128.40               | 511.20   | 1841.20  | 607.60   | 109.40                   | 131.60  | 110.80  | 133.20  |           |        |
| 11             | 108.00                                                          | 113.60                   | 91.20   | 91.20   | 147.60               | 562.80   | 1795.60  | 534.80   | 112.20                   | 139.60  | 102.40  | 138.00  |           |        |
| 12             | 125.20                                                          | 120.60                   | 98.20   | 82.80   | 136.40               | 659.00   | 1742.40  | 485.20   | 106.60                   | 115.00  | 109.40  | 122.00  |           |        |
| 13             | 126.80                                                          | 110.80                   | 99.60   | 75.20   | 128.40               | 770.00   | 1683.20  | 443.60   | 125.20                   | 110.80  | 130.00  | 113.60  |           |        |
| 14             | 128.40                                                          | 102.40                   | 109.40  | 84.20   | 211.40               | 870.00   | 1618.40  | 407.20   | 134.80                   | 119.20  | 122.00  | 101.00  |           |        |
| 15             | 126.80                                                          | 98.20                    | 116.40  | 122.00  | 451.40               | 998.00   | 1550.00  | 375.60   | 130.00                   | 123.60  | 138.00  | 112.20  |           |        |
| 16             | 130.00                                                          | 91.20                    | 147.60  | 158.80  | 551.60               | 1143.20  | 1488.80  | 323.20   | 136.40                   | 123.60  | 160.40  | 139.60  |           |        |
| 17             | 130.00                                                          | 87.00                    | 283.60  | 149.20  | 624.40               | 1303.00  | 1452.80  | 296.80   | 119.20                   | 112.20  | 139.60  | 130.00  |           |        |
| 18             | 99.60                                                           | 88.40                    | 303.40  | 122.00  | 692.00               | 1431.20  | 1434.80  | 274.80   | 99.60                    | 105.20  | 123.60  | 130.00  |           |        |
| 19             | 85.60                                                           | 74.00                    | 257.20  | 115.00  | 674.00               | 1521.20  | 1416.80  | 263.80   | 119.20                   | 74.00   | 116.40  | 136.40  |           |        |
| 20             | 94.00                                                           | 69.20                    | 204.20  | 102.40  | 604.80               | 1614.80  | 1424.00  | 266.00   | 141.20                   | 91.20   | 113.60  | 128.40  |           |        |
| 21             | 85.60                                                           | 72.80                    | 163.60  | 109.40  | 516.40               | 1708.40  | 1488.80  | 238.00   | 128.40                   | 87.00   | 142.80  | 120.60  |           |        |
| 22             | 84.20                                                           | 84.20                    | 157.20  | 99.60   | 428.00               | 1799.40  | 1535.60  | 232.00   | 101.00                   | 89.80   | 131.60  | 134.80  |           |        |
| 23             | 88.40                                                           | 85.60                    | 160.40  | 106.60  | 345.20               | 1860.20  | 1539.20  | 222.20   | 117.80                   | 99.60   | 131.60  | 155.60  |           |        |
| 24             | 91.20                                                           | 89.80                    | 179.00  | 105.20  | 288.00               | 1898.20  | 1532.00  | 209.60   | 109.40                   | 96.80   | 149.20  | 152.40  |           |        |
| 25             | 99.60                                                           | 92.60                    | 191.60  | 103.80  | 244.00               | 1951.40  | 1506.80  | 180.80   | 108.00                   | 92.60   | 147.60  | 157.20  |           |        |
| 26             | 106.60                                                          | 94.00                    | 191.60  | 103.80  | 209.60               | 1962.80  | 1470.80  | 170.00   | 119.20                   | 106.60  | 130.00  | 162.00  |           |        |
| 27             | 112.20                                                          | 98.20                    | 182.60  | 95.40   | 175.40               | 1959.00  | 1438.40  | 170.00   | 96.80                    | 110.80  | 128.40  | 144.40  |           |        |
| 28             | 116.40                                                          | 98.20                    | 155.60  | 92.60   | 206.00               | 1959.00  | 1460.00  | 157.20   | 126.80                   | 115.00  | 130.00  | 141.20  |           |        |
| 29             | 128.40                                                          | 88.40                    | 131.60  | 91.20   | 228.00               | 1959.00  | 1445.60  | 157.20   | 149.20                   | 115.00  |         | 134.80  |           |        |
| 30             | 128.40                                                          | 88.40                    | 109.40  | 89.80   | 226.00               | 1993.20  | 1377.80  | 170.00   | 142.80                   | 112.20  |         | 128.40  |           |        |
| 31             |                                                                 | 81.40                    |         | 89.80   | 218.60               |          | 1320.00  |          | 134.80                   | 115.00  |         | 136.40  |           |        |
| Total          | 3230.80                                                         | 2979.60                  | 4236.60 | 3145.40 | 8314.60              | 32699.20 | 51152.20 | 14806.00 | 4129.00                  | 3522.80 | 3436.40 | 4065.40 | 135718.00 | CMSDAY |
| Mean           | 107.70                                                          | 96.10                    | 141.20  | 101.50  | 268.20               | 1090.00  | 1650.10  | 493.50   | 133.20                   | 113.60  | 122.70  | 131.10  | 371.80    | CMS    |
| Max            | 131.60                                                          | 122.00                   | 303.40  | 158.80  | 692.00               | 1993.20  | 2012.20  | 1265.60  | 177.20                   | 150.80  | 160.40  | 162.00  | 2012.20   | CMS    |
| Min            | 68.00                                                           | 69.20                    | 65.60   | 75.20   | 78.80                | 166.80   | 1320.00  | 157.20   | 96.80                    | 74.00   | 101.00  | 101.00  | 65.60     | CMS    |
| Runoff         | 279.14                                                          | 257.44                   | 366.04  | 271.76  | 718.38               | 2825.21  | 4419.55  | 1279.24  | 356.75                   | 304.37  | 296.90  | 351.25  | 11726.04  | MCM    |
| Momentary Peak | 2019.80 CMS. at 7.31 m. (MSL.) at 13.00 Hours , on Oct 3 , 2013 |                          |         |         |                      |          |          |          |                          |         |         |         |           |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |         |         | Momentary Peak Yield |          |          | *****    | Liters/Second/Square KM. |         |         |         |           |        |

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|                                         |                                                                                           |           |               |             |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Kud Jok   | <b>Amphoe</b> | Nong Mamong | <b>Changwat</b>  | Chai Nat          |
| <b>Drainage Area</b>                    | 1,059                                                                                     | sq.km.    |               |             |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |             |                  |                   |
| <b>Location BM</b>                      | On left bank at the bridge                                                                |           |               |             | <b>Elevation</b> | +37.426 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                              |           |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |             |                  |                   |
| <b>Period of Rating</b>                 | 2008 to date                                                                              |           |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                              |           |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 24 discharge measurements made in 2013. |           |               |             |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 29.65 | 29.34 | 29.34 | 30.07 | 30.42 | 29.34 | 32.83 | 31.25 | 30.94 | 30.59   | 29.34 | 29.34 |        |
| 2    | 29.61 | 29.34 | 29.34 | 30.06 | 30.41 | 29.34 | 32.39 | 31.25 | 30.90 | 30.54   | 29.34 | 29.34 |        |
| 3    | 29.57 | 29.34 | 29.34 | 30.05 | 30.40 | 30.75 | 32.19 | 31.24 | 30.94 | 30.49   | 29.34 | 29.34 |        |
| 4    | 29.52 | 29.34 | 29.34 | 30.05 | 30.39 | 31.53 | 32.10 | 31.19 | 30.99 | 30.43   | 29.34 | 29.34 |        |
| 5    | 29.46 | 29.34 | 29.34 | 29.34 | 30.38 | 31.56 | 32.05 | 31.14 | 30.93 | 30.26   | 29.34 | 29.34 |        |
| 6    | 29.43 | 29.34 | 29.34 | 29.34 | 30.37 | 31.74 | 31.88 | 31.08 | 30.65 | 30.00   | 29.34 | 29.34 |        |
| 7    | 29.39 | 29.34 | 29.34 | 29.34 | 30.36 | 32.32 | 31.63 | 31.04 | 30.43 | 29.64   | 29.34 | 29.34 |        |
| 8    | 29.36 | 29.34 | 29.34 | 29.34 | 30.42 | 32.44 | 31.42 | 31.11 | 30.63 | 29.43   | 29.34 | 29.34 |        |
| 9    | 29.34 | 29.34 | 29.34 | 29.34 | 30.51 | 32.24 | 31.68 | 31.15 | 31.03 | 29.34   | 29.34 | 29.34 |        |
| 10   | 29.34 | 29.34 | 29.34 | 29.34 | 30.64 | 31.97 | 31.48 | 31.18 | 31.08 | 29.34   | 29.34 | 29.34 |        |
| 11   | 29.34 | 29.34 | 30.82 | 31.58 | 30.80 | 31.73 | 31.26 | 31.20 | 31.20 | 29.34   | 29.34 | 29.34 |        |
| 12   | 29.34 | 29.34 | 30.94 | 32.41 | 30.96 | 32.65 | 30.70 | 31.19 | 31.24 | 29.34   | 29.34 | 29.34 |        |
| 13   | 29.34 | 29.34 | 32.24 | 32.30 | 32.29 | 32.63 | 30.50 | 31.16 | 31.24 | 29.34   | 29.34 | 29.34 |        |
| 14   | 29.34 | 29.34 | 32.10 | 32.20 | 32.11 | 32.60 | 30.50 | 31.14 | 31.21 | 29.34   | 29.34 | 29.34 |        |
| 15   | 29.34 | 29.34 | 31.98 | 32.15 | 31.98 | 32.74 | 29.34 | 31.11 | 31.20 | 29.34   | 29.34 | 29.34 |        |
| 16   | 29.34 | 29.34 | 31.76 | 32.09 | 31.83 | 32.47 | 29.34 | 31.10 | 31.19 | 29.34   | 29.34 | 29.34 |        |
| 17   | 29.34 | 29.34 | 31.63 | 31.44 | 31.44 | 32.26 | 30.80 | 31.08 | 31.17 | 29.34   | 29.34 | 29.34 |        |
| 18   | 29.34 | 29.34 | 31.47 | 31.45 | 31.25 | 32.29 | 32.36 | 31.00 | 31.15 | 29.34   | 29.34 | 29.34 |        |
| 19   | 29.34 | 29.34 | 31.35 | 31.20 | 31.13 | 32.66 | 32.65 | 30.94 | 31.14 | 29.34   | 29.34 | 29.34 |        |
| 20   | 29.34 | 29.34 | 31.22 | 30.90 | 31.06 | 33.55 | 33.48 | 30.93 | 31.14 | 29.34   | 29.34 | 29.34 |        |
| 21   | 29.34 | 29.34 | 31.14 | 30.40 | 30.98 | 34.28 | 33.24 | 30.88 | 31.11 | 29.34   | 29.34 | 29.34 |        |
| 22   | 29.34 | 29.34 | 30.99 | 31.09 | 30.88 | 33.95 | 32.72 | 30.79 | 30.97 | 29.34   | 29.34 | 29.34 |        |
| 23   | 29.34 | 29.34 | 30.91 | 31.08 | 30.84 | 33.30 | 32.40 | 30.74 | 30.90 | 29.34   | 29.34 | 29.34 |        |
| 24   | 29.34 | 29.34 | 30.88 | 31.05 | 30.81 | 32.83 | 32.17 | 30.70 | 30.94 | 29.34   | 29.34 | 29.34 |        |
| 25   | 29.34 | 29.34 | 30.85 | 30.72 | 30.81 | 32.49 | 31.90 | 30.77 | 30.87 | 29.34   | 29.34 | 29.34 |        |
| 26   | 29.34 | 29.34 | 30.82 | 30.67 | 30.78 | 32.51 | 31.79 | 30.98 | 30.82 | 29.34   | 29.34 | 29.34 |        |
| 27   | 29.34 | 29.34 | 30.79 | 30.60 | 30.74 | 32.50 | 31.80 | 31.43 | 30.77 | 29.34   | 29.34 | 29.34 |        |
| 28   | 29.34 | 29.34 | 29.55 | 30.53 | 30.69 | 32.53 | 31.54 | 31.18 | 30.74 | 29.34   | 29.34 | 29.34 |        |
| 29   | 29.34 | 29.34 | 29.55 | 30.45 | 30.64 | 32.56 | 31.39 | 31.11 | 30.70 | 29.34   |       | 29.34 |        |
| 30   | 29.34 | 29.34 | 29.54 | 30.44 | 30.59 | 32.87 | 31.43 | 30.95 | 30.67 | 29.34</ |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec    | Jan  | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------|--------------------------|--------|------|------|------|----------------|
| 1              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 70.60  | 7.25                     | 3.60   | 0.72 | 0.00 | 0.00 |                |
| 2              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 43.00  | 7.25                     | 3.20   | 0.32 | 0.00 | 0.00 |                |
| 3              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 2.00    | 33.10  | 7.10                     | 3.60   | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 11.93   | 29.50  | 6.37                     | 4.10   | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 12.56   | 27.50  | 5.72                     | 3.50   | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 16.50   | 20.80  | 5.00                     | 1.20   | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 39.50   | 14.03  | 4.60                     | 0.00   | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 45.90   | 9.94   | 5.33                     | 1.04   | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.08   | 35.50   | 15.08  | 5.85                     | 4.50   | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 1.12   | 24.30   | 10.96  | 6.24                     | 5.00   | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 2.56   | 12.98                | 2.40   | 16.25   | 7.40   | 6.50                     | 6.50   | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                             | 0.00                     | 3.60   | 44.10                | 3.80   | 58.75   | 1.60   | 6.37                     | 7.10   | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                             | 0.00                     | 35.50  | 38.50                | 38.00  | 57.45   | 0.00   | 5.98                     | 7.10   | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                             | 0.00                     | 29.50  | 33.50                | 29.90  | 55.50   | 0.00   | 5.72                     | 6.65   | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 24.70  | 31.50                | 24.70  | 64.60   | 0.00   | 5.33                     | 6.50   | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                             | 0.00                     | 17.00  | 29.10                | 19.05  | 47.70   | 0.00   | 5.20                     | 6.37   | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 14.03  | 10.28                | 10.28  | 36.50   | 2.40   | 5.00                     | 6.11   | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                             | 0.00                     | 10.79  | 10.45                | 7.25   | 38.00   | 41.50  | 4.20                     | 5.85   | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                             | 0.00                     | 8.80   | 6.50                 | 5.59   | 59.40   | 58.75  | 3.60                     | 5.72   | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                             | 0.00                     | 6.80   | 3.20                 | 4.80   | 130.25  | 123.60 | 3.50                     | 5.72   | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                             | 0.00                     | 5.72   | 0.00                 | 4.00   | 204.12  | 102.40 | 3.04                     | 5.33   | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                             | 0.00                     | 4.10   | 5.10                 | 3.04   | 169.50  | 63.30  | 2.32                     | 3.90   | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                             | 0.00                     | 3.30   | 5.00                 | 2.72   | 107.50  | 43.50  | 1.92                     | 3.20   | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                             | 0.00                     | 3.04   | 4.70                 | 2.48   | 70.60   | 32.30  | 1.60                     | 3.60   | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                             | 0.00                     | 2.80   | 1.76                 | 2.48   | 48.90   | 21.50  | 2.16                     | 2.96   | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                             | 0.00                     | 2.56   | 1.36                 | 2.24   | 50.10   | 17.75  | 4.00                     | 2.56   | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                             | 0.00                     | 2.32   | 0.80                 | 1.92   | 49.50   | 18.00  | 10.11                    | 2.16   | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                             | 0.00                     | 0.00   | 0.24                 | 1.52   | 51.30   | 12.14  | 6.24                     | 1.92   | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 1.12   | 53.10   | 9.44   | 5.33                     | 1.60   | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.72   | 73.40   | 10.11  | 3.70                     | 1.36   | 0.00 |      | 0.00 |                |
| 31             |                                                                  | 0.00                     |        | 0.00                 | 0.24   |         | 7.85   |                          | 0.96   | 0.00 |      | 0.00 |                |
| Total          | 0.00                                                             | 0.00                     | 177.12 | 239.07               | 169.45 | 1630.61 | 848.05 | 152.53                   | 122.91 | 1.04 | 0.00 | 0.00 | 3340.78 CMSDAY |
| Mean           | 0.00                                                             | 0.00                     | 5.90   | 7.71                 | 5.47   | 54.35   | 27.36  | 5.08                     | 3.96   | 0.03 | 0.00 | 0.00 | 9.15 CMS       |
| Max            | 0.00                                                             | 0.00                     | 35.50  | 44.10                | 38.00  | 204.12  | 123.60 | 10.11                    | 7.10   | 0.72 | 0.00 | 0.00 | 204.12 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 0.00   | 1.60                     | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                             | 0.00                     | 15.30  | 20.66                | 14.64  | 140.89  | 73.27  | 13.18                    | 10.62  | 0.09 | 0.00 | 0.00 | 288.64 MCM     |
| Momentary Peak | 206.30 CMS. at 34.30 m. (MSL.) at 17.00 Hours , on Sep 21 , 2013 |                          |        |                      |        |         |        |                          |        |      |      |      |                |
| Runoff Yield   | 8.64                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 194.806 |        | Liters/Second/Square KM. |        |      |      |      |                |

**WATER YEAR : 2013**  
**CHAO PHRAYA RIVER BASIN**

**Chao Phraya River at Ban Tha Nam Ooy, Nakhon Sawan (C.56)**

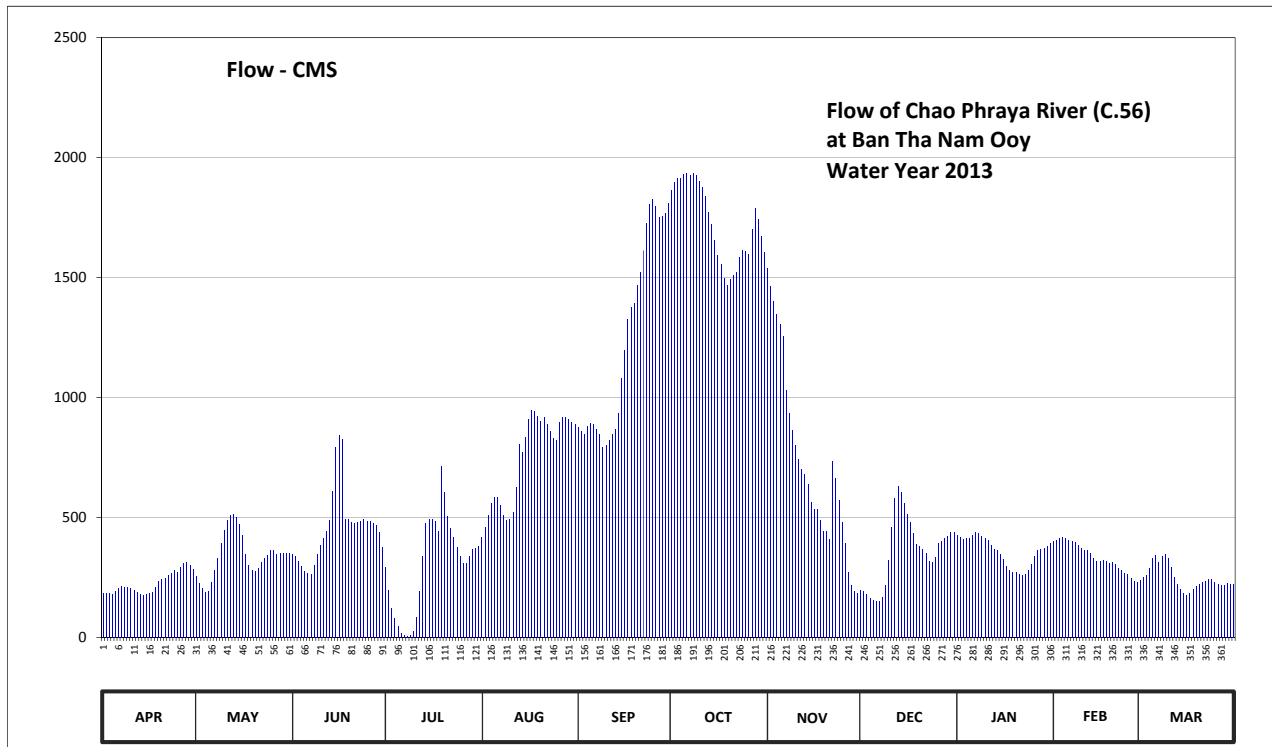
Lat 15 - 25 - 13 N    Long 100 - 08 - 08 E

**Location : on left bank at Ban Tha Nam Ooy**

|                                         |            |                                                                                           |               |               |                  |                     |
|-----------------------------------------|------------|-------------------------------------------------------------------------------------------|---------------|---------------|------------------|---------------------|
|                                         | <b>Ban</b> | Tha Nam Ooy                                                                               | <b>Amphoe</b> | Phayuha Khiti | <b>Changwat</b>  | Nakhon Sawan        |
| <b>Drainage Area</b>                    |            | Flood Plain                                                                               |               |               |                  |                     |
| <b>Type of Gage</b>                     |            | Water - stage recorder.                                                                   |               |               |                  |                     |
| <b>Zero Gage at Bottom</b>              |            | +15.000 m. (M.S.L.)                                                                       |               |               |                  |                     |
| <b>Bench Mark</b>                       |            | B.M.-H.D.                                                                                 |               |               |                  |                     |
| <b>Location BM</b>                      |            | On left bank at the bridge                                                                |               |               | <b>Elevation</b> | +21.898 m. (M.S.L.) |
| <b>Gage Reading Frequency</b>           |            | Recording                                                                                 |               |               |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  |            | Arithmetic means of 24 readings                                                           |               |               |                  |                     |
| <b>Period of Available Gage Records</b> |            | 2008 to date                                                                              |               |               |                  |                     |
| <b>Rating Operation</b>                 |            |                                                                                           |               |               |                  |                     |
| <b>Period of Rating</b>                 |            | 2008 to date                                                                              |               |               |                  |                     |
| <b>Rated by Flot</b>                    |            | -                                                                                         |               |               |                  |                     |
| <b>Rated by Current Meter</b>           |            | 2008 to date                                                                              |               |               |                  |                     |
| <b>Stability of Channel Regimes</b>     |            | Fairly stable because of backwater effect.                                                |               |               |                  |                     |
| <b>Overbank Flow Conditions</b>         |            | No overbank flow                                                                          |               |               |                  |                     |
| <b>General Description</b>              |            | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |               |               |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                          | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|----------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 14.19 | 14.54 | 14.95                                        | 16.10 | 15.24 | 16.68 | 18.79 | 18.16 | 14.27 | 15.27 | 15.16 | 14.47 |        |
| 2                                | 14.19 | 14.41 | 14.91                                        | 15.78 | 15.40 | 16.64 | 18.85 | 18.01 | 14.25 | 15.24 | 15.18 | 14.53 |        |
| 3                                | 14.19 | 14.31 | 14.83                                        | 15.47 | 15.58 | 16.61 | 18.88 | 17.88 | 14.18 | 15.20 | 15.22 | 14.57 |        |
| 4                                | 14.17 | 14.22 | 14.73                                        | 15.24 | 15.74 | 16.69 | 18.88 | 17.77 | 14.10 | 15.21 | 15.23 | 14.70 |        |
| 5                                | 14.25 | 14.25 | 14.64                                        | 15.01 | 15.83 | 16.73 | 18.91 | 17.68 | 14.06 | 15.22 | 15.21 | 14.87 |        |
| 6                                | 14.31 | 14.43 | 14.60                                        | 14.78 | 15.82 | 16.72 | 18.92 | 17.57 | 14.02 | 15.27 | 15.19 | 14.93 |        |
| 7                                | 14.35 | 14.66 | 14.59                                        | 14.69 | 15.72 | 16.66 | 18.90 | 17.47 | 14.03 | 15.31 | 15.17 | 14.81 |        |
| 8                                | 14.33 | 14.87 | 14.76                                        | 14.68 | 15.57 | 16.60 | 18.92 | 17.35 | 14.12 | 15.29 | 15.15 | 14.92 |        |
| 9                                | 14.32 | 15.13 | 14.95                                        | 14.72 | 15.50 | 16.46 | 18.90 | 17.25 | 14.37 | 15.25 | 15.10 | 14.95 |        |
| 10                               | 14.31 | 15.34 | 15.11                                        | 14.85 | 15.51 | 16.48 | 18.86 | 17.16 | 14.85 | 15.22 | 15.06 | 14.88 |        |
| 11                               | 14.27 | 15.50 | 15.22                                        | 15.25 | 15.62 | 16.53 | 18.81 | 17.07 | 15.40 | 15.19 | 15.02 | 14.72 |        |
| 12                               | 14.22 | 15.57 | 15.33                                        | 15.77 | 15.96 | 16.60 | 18.74 | 17.00 | 15.81 | 15.11 | 15.02 | 14.52 |        |
| 13                               | 14.17 | 15.59 | 15.50                                        | 16.24 | 16.49 | 16.66 | 18.62 | 16.97 | 15.97 | 15.04 | 14.96 | 14.38 |        |
| 14                               | 14.16 | 15.55 | 15.91                                        | 16.59 | 16.40 | 16.83 | 18.52 | 16.90 | 15.89 | 15.01 | 14.87 | 14.28 |        |
| 15                               | 14.17 | 15.44 | 16.46                                        | 16.63 | 16.57 | 17.18 | 18.39 | 16.77 | 15.74 | 14.95 | 14.83 | 14.20 |        |
| 16                               | 14.21 | 15.26 | 16.59                                        | 16.63 | 16.77 | 17.44 | 18.27 | 16.71 | 15.59 | 14.86 | 14.82 | 14.16 |        |
| 17                               | 14.23 | 14.95 | 16.55                                        | 16.61 | 16.86 | 17.72 | 18.19 | 16.71 | 15.47 | 14.73 | 14.85 | 14.21 |        |
| 18                               | 14.32 | 14.75 | 16.63                                        | 16.51 | 16.85 | 17.83 | 18.08 | 16.62 | 15.30 | 14.65 | 14.83 | 14.28 |        |
| 19                               | 14.44 | 14.66 | 16.63                                        | 16.23 | 16.80 | 17.86 | 18.02 | 16.51 | 15.12 | 14.63 | 14.79 | 14.34 |        |
| 20                               | 14.49 | 14.64 | 16.60                                        | 15.89 | 16.75 | 18.02 | 18.07 | 16.51 | 15.09 | 14.62 | 14.80 | 14.38 |        |
| 21                               | 14.50 | 14.69 | 16.59                                        | 15.56 | 16.79 | 18.13 | 18.10 | 16.43 | 15.04 | 14.59 | 14.77 | 14.43 |        |
| 22                               | 14.56 | 14.80 | 16.60                                        | 15.38 | 16.72 | 18.31 | 18.13 | 16.29 | 14.96 | 14.56 | 14.70 | 14.46 |        |
| 23                               | 14.61 | 14.88 | 16.61                                        | 15.23 | 16.64 | 18.53 | 18.25 | 16.08 | 14.83 | 14.59 | 14.65 | 14.49 |        |
| 24                               | 14.65 | 14.93 | 16.63                                        | 15.07 | 16.56 | 18.68 | 18.31 | 15.79 | 14.81 | 14.65 | 14.61 | 14.48 |        |
| 25                               | 14.63 | 15.01 | 16.61                                        | 14.92 | 16.54 | 18.72 | 18.30 | 15.47 | 14.90 | 14.77 | 14.59 | 14.43 |        |
| 26                               | 14.71 | 15.01 | 16.61                                        | 14.79 | 16.74 | 18.66 | 18.28 | 15.13 | 15.13 | 14.91 | 14.51 | 14.38 |        |
| 27                               | 14.79 | 14.95 | 16.59                                        | 14.78 | 16.79 | 18.58 | 18.48 | 14.63 | 15.16 | 15.02 | 14.45 | 14.36 |        |
| 28                               | 14.80 | 14.96 | 16.57                                        | 14.92 | 16.79 | 18.59 | 18.65 | 14.37 | 15.21 | 15.03 | 14.42 | 14.37 |        |
| 29                               | 14.76 | 14.96 | 16.50                                        | 15.03 | 16.77 | 18.61 | 18.56 | 14.24 | 15.25 | 15.06 |       | 14.41 |        |
| 30                               | 14.67 | 14.97 | 16.34                                        | 15.06 | 16.74 | 18.69 | 18.43 | 14.19 | 15.31 | 15.09 |       | 14.39 |        |
| 31                               |       | 14.97 |                                              | 15.08 | 16.71 |       | 18.29 |       | 15.32 | 15.14 |       | 14.38 |        |
| Mean                             | 14.40 | 14.91 | 15.84                                        | 15.47 | 16.28 | 17.48 | 18.53 | 16.56 | 14.95 | 14.99 | 14.90 | 14.51 |        |
| Max                              | 14.80 | 15.59 | 16.63                                        | 16.63 | 16.86 | 18.72 | 18.92 | 18.16 | 15.97 | 15.31 | 15.23 | 14.95 | 18.92  |
| Min                              | 14.16 | 14.22 | 14.59                                        | 14.68 | 15.24 | 16.46 | 18.02 | 14.19 | 14.02 | 14.56 | 14.42 | 14.16 | 14.02  |
| Annual Max Momentary Gage Height | 18.93 |       | m. (MSL.) , at 17.00 Hours , on Oct 5 , 2013 |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 10.23 m. (MSL.)        |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 21.98 |       | m. (MSL.) ,                                  |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 21.62 |       | m. (MSL.) , Drainage Area Square Kilometers  |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun      | Jul     | Aug                  | Sep      | Oct      | Nov      | Dec                      | Jan      | Feb     | Mar     | Annual    |        |
|----------------|------------------------------------------------------------------|--------------------------|----------|---------|----------------------|----------|----------|----------|--------------------------|----------|---------|---------|-----------|--------|
| 1              | 183.00                                                           | 254.80                   | 348.00   | 292.00  | 420.40               | 876.40   | 1864.60  | 1538.00  | 199.00                   | 428.20   | 400.00  | 239.70  |           |        |
| 2              | 183.00                                                           | 227.10                   | 338.40   | 196.80  | 462.00               | 861.20   | 1897.00  | 1463.00  | 195.00                   | 420.40   | 405.00  | 252.60  |           |        |
| 3              | 183.00                                                           | 207.00                   | 319.90   | 124.00  | 512.40               | 849.80   | 1913.20  | 1400.40  | 181.00                   | 410.00   | 415.20  | 261.40  |           |        |
| 4              | 179.00                                                           | 189.00                   | 296.90   | 81.80   | 560.00               | 880.20   | 1913.20  | 1347.60  | 165.00                   | 412.60   | 417.80  | 290.00  |           |        |
| 5              | 195.00                                                           | 195.00                   | 276.80   | 46.50   | 587.00               | 895.40   | 1929.60  | 1304.80  | 157.40                   | 415.20   | 412.60  | 329.10  |           |        |
| 6              | 207.00                                                           | 231.30                   | 268.00   | 18.00   | 584.00               | 891.60   | 1935.20  | 1254.20  | 149.80                   | 428.20   | 407.50  | 343.20  |           |        |
| 7              | 215.00                                                           | 281.20                   | 265.80   | 9.00    | 554.00               | 868.80   | 1924.00  | 1029.50  | 151.70                   | 438.60   | 402.50  | 315.30  |           |        |
| 8              | 211.00                                                           | 329.10                   | 303.80   | 8.00    | 509.60               | 846.00   | 1935.20  | 935.00   | 169.00                   | 433.40   | 397.50  | 340.80  |           |        |
| 9              | 209.00                                                           | 392.50                   | 348.00   | 12.00   | 490.00               | 795.60   | 1924.00  | 865.00   | 219.00                   | 423.00   | 385.00  | 348.00  |           |        |
| 10             | 207.00                                                           | 446.40                   | 387.50   | 25.00   | 492.80               | 802.80   | 1902.40  | 802.00   | 324.50                   | 415.20   | 375.00  | 331.40  |           |        |
| 11             | 199.00                                                           | 490.00                   | 415.20   | 83.50   | 524.00               | 820.80   | 1875.40  | 742.00   | 462.00                   | 407.50   | 365.00  | 294.60  |           |        |
| 12             | 189.00                                                           | 509.60                   | 443.80   | 194.20  | 627.20               | 846.00   | 1837.60  | 700.00   | 581.00                   | 387.50   | 365.00  | 250.40  |           |        |
| 13             | 179.00                                                           | 515.20                   | 490.00   | 339.60  | 806.40               | 868.80   | 1772.80  | 682.00   | 630.40                   | 370.00   | 350.40  | 221.00  |           |        |
| 14             | 177.00                                                           | 504.00                   | 611.20   | 476.00  | 774.00               | 934.00   | 1720.40  | 640.00   | 605.00                   | 362.50   | 329.10  | 201.00  |           |        |
| 15             | 179.00                                                           | 473.20                   | 795.60   | 495.00  | 835.20               | 1077.60  | 1653.00  | 565.00   | 560.00                   | 348.00   | 319.90  | 185.00  |           |        |
| 16             | 187.00                                                           | 425.60                   | 842.40   | 495.00  | 910.60               | 1194.40  | 1593.00  | 535.00   | 515.20                   | 326.80   | 317.60  | 177.00  |           |        |
| 17             | 191.00                                                           | 348.00                   | 828.00   | 485.00  | 946.00               | 1323.60  | 1553.00  | 535.00   | 481.60                   | 296.90   | 324.50  | 187.00  |           |        |
| 18             | 209.00                                                           | 301.50                   | 495.00   | 444.00  | 942.00               | 1376.40  | 1498.00  | 490.00   | 436.00                   | 279.00   | 319.90  | 201.00  |           |        |
| 19             | 233.40                                                           | 281.20                   | 495.00   | 716.20  | 922.00               | 1390.80  | 1468.00  | 444.00   | 390.00                   | 274.60   | 310.70  | 213.00  |           |        |
| 20             | 243.90                                                           | 276.80                   | 480.00   | 605.00  | 903.00               | 1468.00  | 1493.00  | 444.00   | 382.50                   | 272.40   | 313.00  | 221.00  |           |        |
| 21             | 246.00                                                           | 287.80                   | 476.00   | 506.80  | 918.20               | 1523.00  | 1508.00  | 412.00   | 370.00                   | 265.80   | 306.10  | 231.30  |           |        |
| 22             | 259.20                                                           | 313.00                   | 480.00   | 456.80  | 891.60               | 1613.00  | 1523.00  | 736.60   | 350.40                   | 259.20   | 290.00  | 237.60  |           |        |
| 23             | 270.20                                                           | 331.40                   | 485.00   | 417.80  | 861.20               | 1725.60  | 1583.00  | 666.40   | 319.90                   | 265.80   | 279.00  | 243.90  |           |        |
| 24             | 279.00                                                           | 343.20                   | 495.00   | 377.50  | 831.60               | 1805.20  | 1613.00  | 575.00   | 315.30                   | 279.00   | 270.20  | 241.80  |           |        |
| 25             | 274.60                                                           | 362.50                   | 485.00   | 340.80  | 824.40               | 1826.80  | 1608.00  | 481.60   | 336.00                   | 306.10   | 265.80  | 231.30  |           |        |
| 26             | 292.30                                                           | 362.50                   | 485.00   | 310.70  | 899.20               | 1794.40  | 1598.00  | 392.50   | 392.50                   | 338.40   | 248.20  | 221.00  |           |        |
| 27             | 310.70                                                           | 348.00                   | 476.00   | 308.40  | 918.20               | 1751.60  | 1699.60  | 274.60   | 400.00                   | 365.00   | 235.50  | 217.00  |           |        |
| 28             | 313.00                                                           | 350.40                   | 468.00   | 340.80  | 918.20               | 1756.80  | 1789.00  | 219.00   | 412.60                   | 367.50   | 229.20  | 219.00  |           |        |
| 29             | 303.80                                                           | 350.40                   | 440.00   | 367.50  | 910.60               | 1767.40  | 1741.20  | 193.00   | 423.00                   | 375.00   |         | 227.10  |           |        |
| 30             | 283.40                                                           | 352.80                   | 376.00   | 375.00  | 899.20               | 1810.60  | 1673.60  | 183.00   | 438.60                   | 382.50   |         | 223.00  |           |        |
| 31             |                                                                  | 352.80                   |          | 380.00  | 887.80               |          | 1603.00  |          | 441.20                   | 395.00   |         | 221.00  |           |        |
| Total          | 6791.50                                                          | 10633.30                 | 13715.30 | 9328.70 | 23122.80             | 37242.60 | 53542.00 | 21850.20 | 11154.60                 | 11149.30 | 9457.20 | 7716.50 | 215704.00 | CMSDAY |
| Mean           | 226.40                                                           | 343.00                   | 457.20   | 300.90  | 745.90               | 1241.40  | 1727.20  | 728.30   | 359.80                   | 359.70   | 337.80  | 248.90  | 591.00    | CMS    |
| Max            | 313.00                                                           | 515.20                   | 842.40   | 716.20  | 946.00               | 1826.80  | 1935.20  | 1538.00  | 630.40                   | 438.60   | 417.80  | 348.00  | 1935.20   | CMS    |
| Min            | 177.00                                                           | 189.00                   | 265.80   | 8.00    | 420.40               | 795.60   | 1468.00  | 183.00   | 149.80                   | 259.20   | 229.20  | 177.00  | 8.00      | CMS    |
| Runoff         | 586.79                                                           | 918.72                   | 1185.00  | 806.00  | 1997.81              | 3217.76  | 4626.03  | 1887.86  | 963.76                   | 963.30   | 817.10  | 666.71  | 18636.83  | MCM    |
| Momentary Peak | 1940.80 CMS. at 18.93 m. (MSL.) at 17.00 Hours , on Oct 5 , 2013 |                          |          |         |                      |          |          |          |                          |          |         |         |           |        |
| Runoff Yield   | *****                                                            | Liters/Second/Square KM. |          |         | Momentary Peak Yield |          |          | *****    | Liters/Second/Square KM. |          |         |         |           |        |

**WATER YEAR : 2013**

## CHAO PHRAYA RIVER BASIN

### Khlong Kratong at Ban Nong Bua, Chai Nat (C.58)

Lat 15 - 18 - 30 N    Long 100 - 02 - 57 E

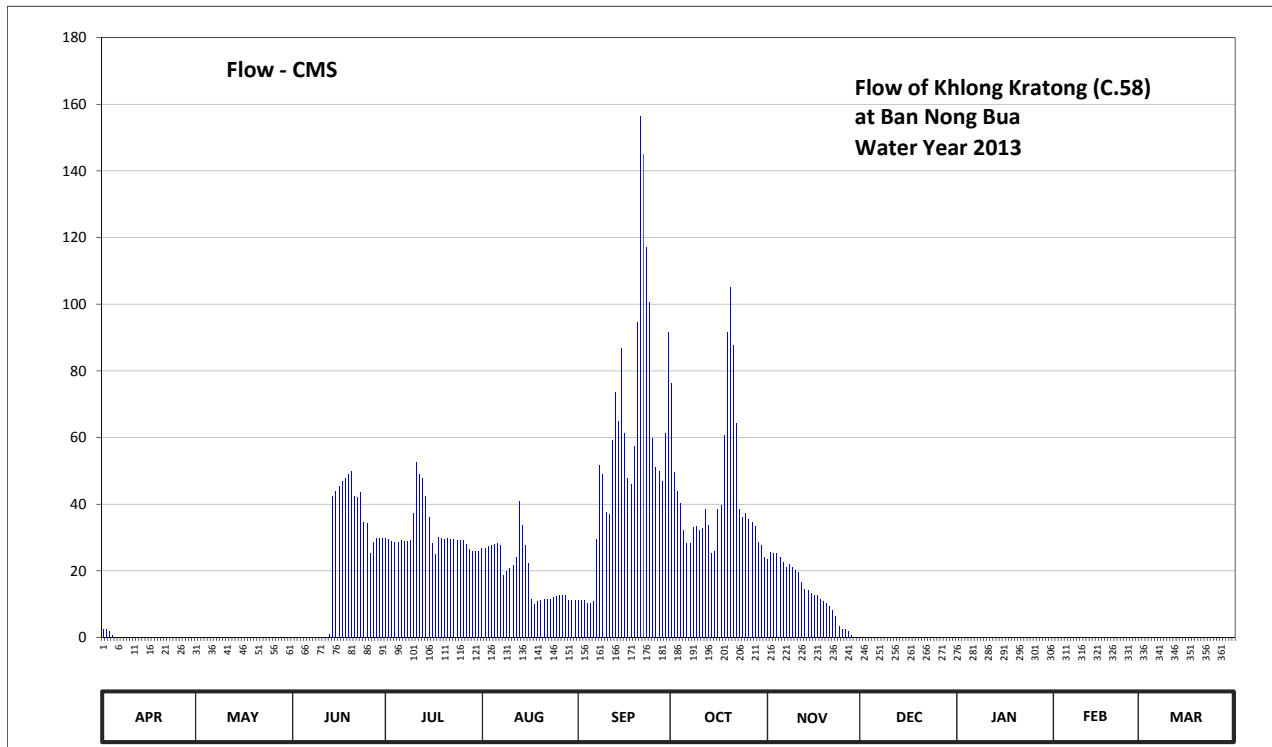
**Location : on right bank at Ban Nong Bua.**

|                                         |            |                                                                                           |               |          |                  |                   |
|-----------------------------------------|------------|-------------------------------------------------------------------------------------------|---------------|----------|------------------|-------------------|
|                                         | <b>Ban</b> | Nong Bua                                                                                  | <b>Amphoe</b> | Wat Sing | <b>Changwat</b>  | Chai Nat          |
| <b>Drainage Area</b>                    |            | Flood Plain                                                                               |               |          |                  |                   |
| <b>Type of Gage</b>                     |            | Water - stage recorder                                                                    |               |          |                  |                   |
| <b>Zero Gage at Bottom</b>              |            | +0.000 m. (MSL.)                                                                          |               |          |                  |                   |
| <b>Bench Mark</b>                       |            | B.M.-H.D.                                                                                 |               |          |                  |                   |
| <b>Location BM</b>                      |            | On right bank at the bridge                                                               |               |          | <b>Elevation</b> | +19.970 m. (MSL.) |
| <b>Gage Reading Frequency</b>           |            | Recording                                                                                 |               |          |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  |            | Arithmetic mean of 24 readings                                                            |               |          |                  |                   |
| <b>Period of Available Gage Records</b> |            | 2008 to date                                                                              |               |          |                  |                   |
| <b>Rating Operation</b>                 |            |                                                                                           |               |          |                  |                   |
| <b>Period of Rating</b>                 |            | 2008 to date                                                                              |               |          |                  |                   |
| <b>Rated by Flot</b>                    |            | -                                                                                         |               |          |                  |                   |
| <b>Rated by Current Meter</b>           |            | 2008 to date                                                                              |               |          |                  |                   |
| <b>Stability of Channel Regimes</b>     |            | Fairly stable.                                                                            |               |          |                  |                   |
| <b>Overbank Flow Conditions</b>         |            | No overbank flow                                                                          |               |          |                  |                   |
| <b>General Description</b>              |            | Records good. Stage-discharge relation defined by 28 discharge measurements made in 2013. |               |          |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                           | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-----------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 16.56 | 14.90 | 14.90                                         | 17.94 | 17.83 | 17.14 | 18.82 | 17.70 | 16.03 | 15.24 | 15.27 | 15.15 |        |
| 2                                | 16.52 | 14.90 | 14.90                                         | 17.93 | 17.83 | 17.13 | 18.44 | 17.79 | 15.99 | 15.23 | 15.24 | 15.15 |        |
| 3                                | 16.42 | 14.90 | 14.90                                         | 17.91 | 17.85 | 17.13 | 18.33 | 17.78 | 15.97 | 15.21 | 15.27 | 15.15 |        |
| 4                                | 16.29 | 14.90 | 14.90                                         | 17.90 | 17.87 | 17.09 | 18.25 | 17.78 | 15.95 | 15.20 | 15.40 | 15.15 |        |
| 5                                | 16.16 | 14.90 | 14.90                                         | 17.90 | 17.88 | 17.08 | 18.02 | 17.73 | 15.93 | 15.21 | 15.45 | 15.15 |        |
| 6                                | 16.07 | 14.90 | 14.90                                         | 17.92 | 17.89 | 17.12 | 17.89 | 17.67 | 15.92 | 15.20 | 15.48 | 15.15 |        |
| 7                                | 16.01 | 14.90 | 14.90                                         | 17.91 | 17.87 | 17.93 | 17.89 | 17.61 | 15.90 | 15.19 | 15.56 | 15.15 |        |
| 8                                | 15.94 | 14.90 | 14.90                                         | 17.91 | 17.51 | 18.48 | 18.05 | 17.64 | 15.87 | 15.18 | 15.59 | 15.15 |        |
| 9                                | 15.92 | 14.90 | 14.90                                         | 17.92 | 17.55 | 18.43 | 18.06 | 17.61 | 15.86 | 15.17 | 15.60 | 15.14 |        |
| 10                               | 15.87 | 14.90 | 14.90                                         | 18.17 | 17.59 | 18.18 | 18.02 | 17.57 | 15.85 | 15.16 | 15.57 | 15.14 |        |
| 11                               | 15.78 | 14.90 | 15.37                                         | 18.50 | 17.63 | 18.16 | 18.04 | 17.54 | 15.84 | 15.15 | 15.27 | 15.14 |        |
| 12                               | 15.77 | 14.90 | 15.84                                         | 18.43 | 17.72 | 18.61 | 18.20 | 17.41 | 15.83 | 15.14 | 15.22 | 15.14 |        |
| 13                               | 15.76 | 14.90 | 16.31                                         | 18.41 | 18.26 | 18.79 | 18.07 | 17.31 | 15.81 | 15.14 | 15.22 | 15.14 |        |
| 14                               | 15.73 | 14.90 | 18.30                                         | 18.30 | 18.07 | 18.69 | 17.78 | 17.29 | 15.78 | 15.15 | 15.21 | 15.14 |        |
| 15                               | 15.69 | 14.90 | 18.33                                         | 18.14 | 17.86 | 18.93 | 17.80 | 17.25 | 15.75 | 15.14 | 15.16 | 15.14 |        |
| 16                               | 15.65 | 14.90 | 18.36                                         | 17.89 | 17.65 | 18.64 | 18.20 | 17.21 | 15.74 | 15.13 | 15.15 | 15.14 |        |
| 17                               | 15.61 | 14.90 | 18.39                                         | 17.76 | 17.15 | 18.41 | 18.23 | 17.21 | 15.73 | 15.13 | 15.17 | 15.14 |        |
| 18                               | 15.56 | 14.90 | 18.41                                         | 17.95 | 17.07 | 18.37 | 18.63 | 17.16 | 15.72 | 15.12 | 15.16 | 15.14 |        |
| 19                               | 15.52 | 14.90 | 18.43                                         | 17.94 | 17.11 | 18.58 | 18.98 | 17.12 | 15.70 | 15.12 | 15.16 | 15.14 |        |
| 20                               | 15.47 | 14.90 | 18.45                                         | 17.93 | 17.13 | 19.01 | 19.10 | 17.09 | 15.68 | 15.11 | 15.16 | 15.14 |        |
| 21                               | 15.41 | 14.90 | 18.30                                         | 17.94 | 17.15 | 19.47 | 18.94 | 17.04 | 15.65 | 15.11 | 15.17 | 15.14 |        |
| 22                               | 15.36 | 14.90 | 18.29                                         | 17.93 | 17.15 | 19.40 | 18.68 | 16.96 | 15.62 | 15.10 | 15.16 | 15.14 |        |
| 23                               | 15.30 | 14.90 | 18.32                                         | 17.93 | 17.16 | 19.20 | 18.20 | 16.83 | 15.57 | 15.10 | 15.16 | 15.14 |        |
| 24                               | 15.24 | 14.90 | 18.10                                         | 17.92 | 17.18 | 19.06 | 18.14 | 16.70 | 15.52 | 15.10 | 15.15 | 15.14 |        |
| 25                               | 15.17 | 14.90 | 18.09                                         | 17.92 | 17.20 | 18.62 | 18.17 | 16.57 | 15.46 | 15.10 | 15.15 | 15.14 |        |
| 26                               | 15.11 | 14.90 | 17.77                                         | 17.92 | 17.22 | 18.47 | 18.12 | 16.55 | 15.43 | 15.19 | 15.15 | 15.14 |        |
| 27                               | 15.04 | 14.90 | 17.90                                         | 17.88 | 17.21 | 18.45 | 18.10 | 16.41 | 15.40 | 15.17 | 15.17 | 15.12 |        |
| 28                               | 14.98 | 14.90 | 17.94                                         | 17.82 | 17.22 | 18.39 | 18.06 | 16.28 | 15.36 | 15.15 | 15.17 | 15.12 |        |
| 29                               | 14.90 | 14.90 | 17.94                                         | 17.80 | 17.14 | 18.64 | 17.90 | 16.20 | 15.33 | 15.05 |       | 15.12 |        |
| 30                               | 14.90 | 14.90 | 17.94                                         | 17.80 | 17.14 | 18.98 | 17.86 | 16.14 | 15.30 | 15.00 |       | 15.12 |        |
| 31                               |       | 14.90 |                                               | 17.80 | 17.13 |       | 17.73 |       | 15.28 | 15.02 |       | 15.12 |        |
| Mean                             | 15.66 | 14.90 | 16.86                                         | 17.98 | 17.49 | 18.35 | 18.22 | 17.17 | 15.70 | 15.14 | 15.27 | 15.14 |        |
| Max                              | 16.56 | 14.90 | 18.45                                         | 18.50 | 18.26 | 19.47 | 19.10 | 17.79 | 16.03 | 15.24 | 15.60 | 15.15 | 19.47  |
| Min                              | 14.90 | 14.90 | 14.90                                         | 17.76 | 17.07 | 17.08 | 17.73 | 16.14 | 15.28 | 15.00 | 15.15 | 15.12 | 14.90  |
| Annual Max Momentary Gage Height |       | 19.71 | m. (MSL.) , at 18.00 Hours , on Sep 21 , 2013 |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 14.81 m. (MSL.)         |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 20.09 | m. (MSL.) ,                                   |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 20.05 | m. (MSL.) , Drainage Area Square Kilometers   |       |       |       |       |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan  | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|--------|--------------------------|------|------|------|----------------|
| 1              | 2.60                                                             | 0.00                     | 0.00   | 29.82  | 26.81                | 11.32   | 76.28   | 23.50  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 2              | 2.40                                                             | 0.00                     | 0.00   | 29.54  | 26.81                | 11.14   | 49.52   | 25.75  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 3              | 1.90                                                             | 0.00                     | 0.00   | 28.98  | 27.35                | 11.14   | 43.97   | 25.50  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.81                                                             | 0.00                     | 0.00   | 28.70  | 27.89                | 10.42   | 40.45   | 25.50  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 0.00   | 28.70  | 28.16                | 10.24   | 32.14   | 24.25  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 0.00   | 29.26  | 28.43                | 10.96   | 28.43   | 22.75  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 0.00   | 28.98  | 27.89                | 29.54   | 28.43   | 21.25  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 0.00   | 28.98  | 18.84                | 51.64   | 33.10   | 22.00  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 0.00   | 29.26  | 19.80                | 48.99   | 33.42   | 21.25  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 0.00   | 37.29  | 20.76                | 37.66   | 32.14   | 20.28  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 0.00   | 52.70  | 21.75                | 36.92   | 32.78   | 19.56  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                             | 0.00                     | 0.00   | 48.99  | 24.00                | 59.22   | 38.40   | 16.62  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                             | 0.00                     | 0.99   | 47.93  | 40.86                | 73.53   | 33.74   | 14.60  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                             | 0.00                     | 42.50  | 42.50  | 33.74                | 64.98   | 25.50   | 14.20  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 43.97  | 36.18  | 27.62                | 86.71   | 26.00   | 13.40  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                             | 0.00                     | 45.44  | 28.43  | 22.25                | 61.38   | 38.40   | 12.60  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 46.91  | 25.00  | 11.50                | 47.93   | 39.63   | 12.60  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                             | 0.00                     | 47.93  | 30.10  | 10.06                | 45.93   | 60.66   | 11.68  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                             | 0.00                     | 48.99  | 29.82  | 10.78                | 57.34   | 91.56   | 10.96  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                             | 0.00                     | 50.05  | 29.54  | 11.14                | 94.65   | 105.00  | 10.42  | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                             | 0.00                     | 42.50  | 29.82  | 11.50                | 156.55  | 87.68   | 9.52   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                             | 0.00                     | 42.09  | 29.54  | 11.50                | 145.00  | 64.26   | 8.24   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                             | 0.00                     | 43.48  | 29.54  | 11.68                | 117.00  | 38.40   | 6.42   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                             | 0.00                     | 34.70  | 29.26  | 12.04                | 100.40  | 36.18   | 3.30   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                             | 0.00                     | 34.38  | 29.26  | 12.40                | 59.94   | 37.29   | 2.65   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                             | 0.00                     | 25.25  | 29.26  | 12.80                | 51.11   | 35.44   | 2.55   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                             | 0.00                     | 28.70  | 28.16  | 12.60                | 50.05   | 34.70   | 1.85   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                             | 0.00                     | 29.82  | 26.54  | 12.80                | 46.91   | 33.42   | 0.72   | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                             | 0.00                     | 29.82  | 26.00  | 11.32                | 61.38   | 28.70   | 0.00   | 0.00                     | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                             | 0.00                     | 29.82  | 26.00  | 11.32                | 91.56   | 27.62   | 0.00   | 0.00                     | 0.00 |      | 0.00 |                |
| 31             |                                                                  | 0.00                     |        | 26.00  | 11.14                |         | 24.25   |        | 0.00                     | 0.00 |      | 0.00 |                |
| Total          | 7.71                                                             | 0.00                     | 667.34 | 980.08 | 597.54               | 1741.54 | 1337.49 | 403.92 | 0.00                     | 0.00 | 0.00 | 0.00 | 5735.62 CMSDAY |
| Mean           | 0.26                                                             | 0.00                     | 22.24  | 31.62  | 19.28                | 58.05   | 43.14   | 13.46  | 0.00                     | 0.00 | 0.00 | 0.00 | 15.71 CMS      |
| Max            | 2.60                                                             | 0.00                     | 50.05  | 52.70  | 40.86                | 156.55  | 105.00  | 25.75  | 0.00                     | 0.00 | 0.00 | 0.00 | 156.55 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00   | 25.00  | 10.06                | 10.24   | 24.25   | 0.00   | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.67                                                             | 0.00                     | 57.66  | 84.68  | 51.63                | 150.47  | 115.56  | 34.90  | 0.00                     | 0.00 | 0.00 | 0.00 | 495.56 MCM     |
| Momentary Peak | 197.20 CMS. at 19.71 m. (MSL.) at 18.00 Hours , on Sep 21 , 2013 |                          |        |        |                      |         |         |        |                          |      |      |      |                |
| Runoff Yield   | *****                                                            | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | *****  | Liters/Second/Square KM. |      |      |      |                |

**WATER YEAR : 2013**

## LOP BURI RIVER BASIN

**Lop Buri River at Ban Pho Kaoton , Sing Buri (L.2B)**

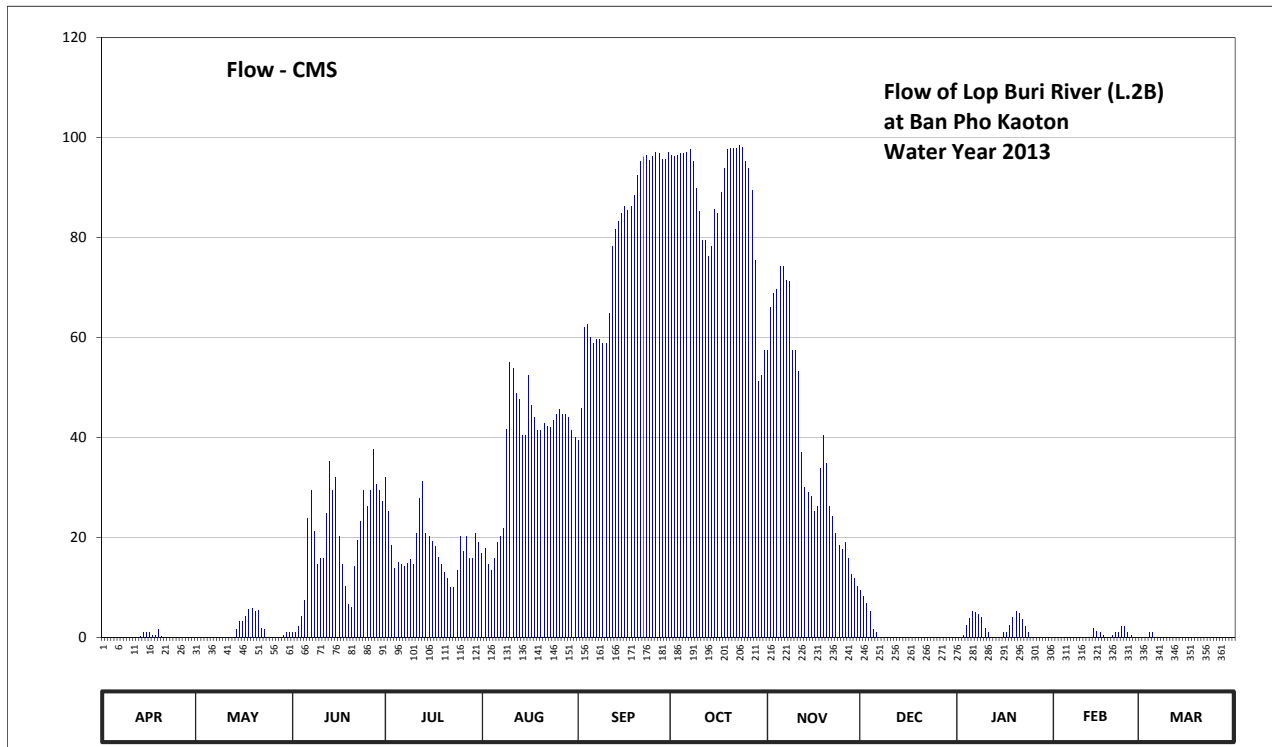
Lat 14 - 45 - 37 N      Long 100 - 36 - 15 E

**Location : on right bank at Ban Pho Kaoton.**

|                                         |                                                                                           |                  |               |        |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|--------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Pho Kaoton       | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Sing Buri        |
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.           |               |        |                  |                  |
| <b>Type of Gage</b>                     | Water                                                                                     | - stage recorder |               |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)        |               |        |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                  |               |        |                  |                  |
| <b>Location BM</b>                      | On right bank near the automatic gage building                                            |                  |               |        | <b>Elevation</b> | +5.210 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                  |               |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                  |               |        |                  |                  |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |                  |               |        |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |        |                  |                  |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |                  |               |        |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |        |                  |                  |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |                  |               |        |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                  |               |        |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |        |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 19 discharge measurements made in 2013. |                  |               |        |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May         | Jun   | Jul                               | Aug               | Sep  | Oct  | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------------|-------|-----------------------------------|-------------------|------|------|-------|-------|-------|-------|-------|--------|
| 1                                | -1.69 | -1.69       | -0.80 | 1.07                              | 0.30              | 1.40 | 3.63 | 2.15  | -0.15 | -0.90 | -0.90 | -0.90 |        |
| 2                                | -1.69 | -1.69       | -0.80 | 0.75                              | 0.36              | 1.68 | 3.62 | 2.48  | -0.23 | -0.90 | -0.90 | -0.90 |        |
| 3                                | -1.69 | -1.69       | -0.70 | 0.40                              | 0.18              | 2.33 | 3.63 | 2.59  | -0.33 | -0.85 | -0.90 | -0.90 |        |
| 4                                | -1.69 | -1.69       | -0.53 | 0.13                              | 0.10              | 2.35 | 3.64 | 2.62  | -0.45 | -0.68 | -0.90 | -0.80 |        |
| 5                                | -1.69 | -1.69       | -0.29 | 0.20                              | 0.25              | 2.25 | 3.64 | 2.80  | -0.75 | -0.56 | -0.90 | -0.80 |        |
| 6                                | -1.69 | -1.69       | 0.68  | 0.18                              | 0.43              | 2.20 | 3.65 | 2.80  | -0.80 | -0.45 | -0.90 | -0.90 |        |
| 7                                | -1.69 | -1.69       | 0.95  | 0.15                              | 0.49              | 2.23 | 3.67 | 2.69  | -0.90 | -0.47 | -0.90 | -0.90 |        |
| 8                                | -1.69 | -1.69       | 0.55  | 0.19                              | 0.58              | 2.23 | 3.58 | 2.68  | -1.69 | -0.50 | -0.90 | -0.90 |        |
| 9                                | -1.69 | -1.69       | 0.18  | 0.23                              | 1.50              | 2.20 | 3.38 | 2.15  | -1.69 | -0.54 | -0.90 | -0.90 |        |
| 10                               | -1.69 | -1.69       | 0.25  | 0.18                              | 2.05              | 2.20 | 3.21 | 2.15  | -1.69 | -0.73 | -0.90 | -0.90 |        |
| 11                               | -1.69 | -1.69       | 0.25  | 0.53                              | 2.00              | 2.44 | 3.00 | 1.98  | -1.69 | -0.80 | -0.90 | -0.90 |        |
| 12                               | -1.69 | -1.69       | 0.73  | 0.88                              | 1.80              | 2.95 | 3.00 | 1.30  | -1.69 | -0.90 | -0.90 | -0.90 |        |
| 13                               | -0.88 | -1.69       | 1.21  | 1.03                              | 1.75              | 3.08 | 2.88 | 0.98  | -1.69 | -0.90 | -0.90 | -0.90 |        |
| 14                               | -0.80 | -0.75       | 0.95  | 0.53                              | 1.45              | 3.14 | 2.95 | 0.93  | -1.69 | -0.90 | -0.73 | -0.90 |        |
| 15                               | -0.80 | -0.60       | 1.07  | 0.50                              | 1.45              | 3.20 | 3.23 | 0.90  | -1.69 | -0.90 | -0.78 | -0.90 |        |
| 16                               | -0.80 | -0.60       | 0.50  | 0.44                              | 1.95              | 3.25 | 3.20 | 0.75  | -1.69 | -0.80 | -0.80 | -0.90 |        |
| 17                               | -0.85 | -0.53       | 0.18  | 0.38                              | 1.70              | 3.22 | 3.35 | 0.80  | -1.69 | -0.80 | -0.85 | -0.90 |        |
| 18                               | -0.85 | -0.43       | -0.10 | 0.26                              | 1.60              | 3.25 | 3.53 | 1.15  | -1.69 | -0.68 | -0.90 | -0.90 |        |
| 19                               | -0.75 | -0.41       | -0.35 | 0.18                              | 1.49              | 3.33 | 3.67 | 1.45  | -1.69 | -0.55 | -0.90 | -0.90 |        |
| 20                               | -0.88 | -0.46       | -0.40 | 0.08                              | 1.49              | 3.48 | 3.68 | 1.20  | -1.69 | -0.45 | -0.85 | -0.90 |        |
| 21                               | -0.90 | -0.44       | 0.15  | 0.01                              | 1.55              | 3.58 | 3.68 | 0.80  | -1.69 | -0.48 | -0.80 | -0.90 |        |
| 22                               | -0.90 | -0.73       | 0.45  | -0.11                             | 1.53              | 3.62 | 3.68 | 0.70  | -1.69 | -0.58 | -0.80 | -0.90 |        |
| 23                               | -1.69 | -0.75       | 0.65  | -0.11                             | 1.52              | 3.63 | 3.70 | 0.53  | -1.69 | -0.70 | -0.70 | -0.90 |        |
| 24                               | -1.69 | -1.69       | 0.95  | 0.10                              | 1.58              | 3.59 | 3.69 | 0.39  | -1.69 | -0.80 | -0.70 | -0.90 |        |
| 25                               | -1.69 | -1.69       | 0.80  | 0.49                              | 1.63              | 3.62 | 3.58 | 0.35  | -1.69 | -0.90 | -0.80 | -0.90 |        |
| 26                               | -1.69 | -1.69       | 0.95  | 0.33                              | 1.67              | 3.65 | 3.53 | 0.43  | -1.69 | -0.90 | -0.85 | -0.90 |        |
| 27                               | -1.69 | -1.69       | 1.32  | 0.50                              | 1.63              | 3.64 | 3.37 | 0.25  | -1.69 | -0.90 | -0.90 | -0.90 |        |
| 28                               | -1.69 | -1.69       | 1.00  | 0.25                              | 1.63              | 3.60 | 2.85 | 0.06  | -1.69 | -0.90 | -0.90 | -0.90 |        |
| 29                               | -1.69 | -0.85       | 0.95  | 0.25                              | 1.60              | 3.60 | 1.90 | 0.01  | -1.69 | -0.90 |       | -0.90 |        |
| 30                               | -1.69 | -0.80       | 0.85  | 0.53                              | 1.49              | 3.65 | 1.95 | -0.10 | -1.69 | -0.90 |       | -0.90 |        |
| 31                               |       | -0.80       |       | 0.43                              | 1.43              |      | 2.15 |       | -1.69 | -0.90 |       | -0.90 |        |
| Mean                             | -1.41 | -1.24       | 0.39  | 0.35                              | 1.30              | 2.95 | 3.30 | 1.33  | -1.42 | -0.75 | -0.86 | -0.89 |        |
| Max                              | -0.75 | -0.41       | 1.32  | 1.07                              | 2.05              | 3.65 | 3.70 | 2.80  | -0.15 | -0.45 | -0.70 | -0.80 | 3.70   |
| Min                              | -1.69 | -1.69       | -0.80 | -0.11                             | 0.10              | 1.40 | 1.90 | -0.10 | -1.69 | -0.90 | -0.90 | -0.90 | -1.69  |
| Annual Max Momentary Gage Height | 3.70  | m. (MSL.) , |       | at 18.00 Hours , on Oct 19 , 2013 |                   |      |      |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  | m. (MSL.) , |       | River Bed                         | -1.70 m. (MSL.)   |      |      |       |       |       |       |       |        |
| Left Bank Elevation              | 6.86  | m. (MSL.) , |       |                                   |                   |      |      |       |       |       |       |       |        |
| Right Bank Elevation             | 6.84  | m. (MSL.) , |       | Drainage Area                     | Square Kilometers |      |      |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan   | Feb   | Mar  | Annual         |
|----------------|----------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|-------|-------|------|----------------|
| 1              | 0.00                                                           | 0.00                     | 1.10   | 32.14  | 16.80                | 39.40   | 96.51   | 57.51   | 9.55                     | 0.00  | 0.00  | 0.00 |                |
| 2              | 0.00                                                           | 0.00                     | 1.10   | 25.30  | 17.88                | 45.92   | 96.24   | 65.95   | 8.38                     | 0.00  | 0.00  | 0.00 |                |
| 3              | 0.00                                                           | 0.00                     | 2.20   | 18.60  | 14.76                | 62.07   | 96.51   | 68.79   | 6.98                     | 0.55  | 0.00  | 0.00 |                |
| 4              | 0.00                                                           | 0.00                     | 4.31   | 13.91  | 13.40                | 62.59   | 96.78   | 69.57   | 5.35                     | 2.44  | 0.00  | 1.10 |                |
| 5              | 0.00                                                           | 0.00                     | 7.54   | 15.10  | 15.95                | 60.04   | 96.78   | 74.22   | 1.65                     | 3.92  | 0.00  | 1.10 |                |
| 6              | 0.00                                                           | 0.00                     | 23.90  | 14.76  | 19.14                | 58.78   | 97.05   | 74.22   | 1.10                     | 5.35  | 0.00  | 0.00 |                |
| 7              | 0.00                                                           | 0.00                     | 29.50  | 14.25  | 20.22                | 59.53   | 97.59   | 71.37   | 0.00                     | 5.09  | 0.00  | 0.00 |                |
| 8              | 0.00                                                           | 0.00                     | 21.35  | 14.93  | 21.92                | 59.53   | 95.16   | 71.12   | 0.00                     | 4.70  | 0.00  | 0.00 |                |
| 9              | 0.00                                                           | 0.00                     | 14.76  | 15.61  | 41.70                | 58.78   | 89.76   | 57.51   | 0.00                     | 4.18  | 0.00  | 0.00 |                |
| 10             | 0.00                                                           | 0.00                     | 15.95  | 14.76  | 54.99                | 58.78   | 85.17   | 57.51   | 0.00                     | 1.87  | 0.00  | 0.00 |                |
| 11             | 0.00                                                           | 0.00                     | 15.95  | 20.97  | 53.73                | 64.92   | 79.50   | 53.22   | 0.00                     | 1.10  | 0.00  | 0.00 |                |
| 12             | 0.00                                                           | 0.00                     | 24.90  | 27.98  | 48.80                | 78.15   | 79.50   | 37.20   | 0.00                     | 0.00  | 0.00  | 0.00 |                |
| 13             | 0.22                                                           | 0.00                     | 35.22  | 31.26  | 47.60                | 81.66   | 76.28   | 30.16   | 0.00                     | 0.00  | 0.00  | 0.00 |                |
| 14             | 1.10                                                           | 1.65                     | 29.50  | 20.97  | 40.55                | 83.28   | 78.15   | 29.06   | 0.00                     | 0.00  | 1.87  | 0.00 |                |
| 15             | 1.10                                                           | 3.40                     | 32.14  | 20.40  | 40.55                | 84.90   | 85.71   | 28.40   | 0.00                     | 0.00  | 1.32  | 0.00 |                |
| 16             | 1.10                                                           | 3.40                     | 20.40  | 19.32  | 52.46                | 86.25   | 84.90   | 25.30   | 0.00                     | 1.10  | 1.10  | 0.00 |                |
| 17             | 0.55                                                           | 4.31                     | 14.76  | 18.24  | 46.40                | 85.44   | 88.95   | 26.30   | 0.00                     | 1.10  | 0.55  | 0.00 |                |
| 18             | 0.55                                                           | 5.61                     | 10.30  | 16.12  | 44.00                | 86.25   | 93.81   | 33.90   | 0.00                     | 2.44  | 0.00  | 0.00 |                |
| 19             | 1.65                                                           | 5.87                     | 6.70   | 14.76  | 41.47                | 88.41   | 97.59   | 40.55   | 0.00                     | 4.05  | 0.00  | 0.00 |                |
| 20             | 0.22                                                           | 5.22                     | 6.00   | 13.08  | 41.47                | 92.46   | 97.86   | 35.00   | 0.00                     | 5.35  | 0.55  | 0.00 |                |
| 21             | 0.00                                                           | 5.48                     | 14.25  | 11.96  | 42.85                | 95.16   | 97.86   | 26.30   | 0.00                     | 4.96  | 1.10  | 0.00 |                |
| 22             | 0.00                                                           | 1.87                     | 19.50  | 10.15  | 42.39                | 96.24   | 97.86   | 24.30   | 0.00                     | 3.66  | 1.10  | 0.00 |                |
| 23             | 0.00                                                           | 1.65                     | 23.30  | 10.15  | 42.16                | 96.51   | 98.40   | 20.97   | 0.00                     | 2.20  | 2.20  | 0.00 |                |
| 24             | 0.00                                                           | 0.00                     | 29.50  | 13.40  | 43.54                | 95.43   | 98.13   | 18.42   | 0.00                     | 1.10  | 2.20  | 0.00 |                |
| 25             | 0.00                                                           | 0.00                     | 26.30  | 20.22  | 44.72                | 96.24   | 95.16   | 17.70   | 0.00                     | 0.00  | 1.10  | 0.00 |                |
| 26             | 0.00                                                           | 0.00                     | 29.50  | 17.34  | 45.68                | 97.05   | 93.81   | 19.14   | 0.00                     | 0.00  | 0.55  | 0.00 |                |
| 27             | 0.00                                                           | 0.00                     | 37.64  | 20.40  | 44.72                | 96.78   | 89.49   | 15.95   | 0.00                     | 0.00  | 0.00  | 0.00 |                |
| 28             | 0.00                                                           | 0.00                     | 30.60  | 15.95  | 44.72                | 95.70   | 75.51   | 12.76   | 0.00                     | 0.00  | 0.00  | 0.00 |                |
| 29             | 0.00                                                           | 0.55                     | 29.50  | 15.95  | 44.00                | 95.70   | 51.20   | 11.96   | 0.00                     | 0.00  |       | 0.00 |                |
| 30             | 0.00                                                           | 1.10                     | 27.35  | 20.97  | 41.47                | 97.05   | 52.46   | 10.30   | 0.00                     | 0.00  |       | 0.00 |                |
| 31             |                                                                | 1.10                     |        | 19.14  | 40.09                |         | 57.51   |         | 0.00                     | 0.00  |       | 0.00 |                |
| Total          | 6.49                                                           | 41.21                    | 585.02 | 558.09 | 1170.13              | 2359.00 | 2717.19 | 1184.66 | 33.01                    | 55.16 | 13.64 | 2.20 | 8725.80 CMSDAY |
| Mean           | 0.22                                                           | 1.33                     | 19.50  | 18.00  | 37.75                | 78.63   | 87.65   | 39.49   | 1.06                     | 1.78  | 0.49  | 0.07 | 23.91 CMS      |
| Max            | 1.65                                                           | 5.87                     | 37.64  | 32.14  | 54.99                | 97.05   | 98.40   | 74.22   | 9.55                     | 5.35  | 2.20  | 1.10 | 98.40 CMS      |
| Min            | 0.00                                                           | 0.00                     | 1.10   | 10.15  | 13.40                | 39.40   | 51.20   | 10.30   | 0.00                     | 0.00  | 0.00  | 0.00 | 0.00 CMS       |
| Runoff         | 0.56                                                           | 3.56                     | 50.55  | 48.22  | 101.10               | 203.82  | 234.77  | 102.36  | 2.85                     | 4.77  | 1.18  | 0.19 | 753.91 MCM     |
| Momentary Peak | 98.40 CMS. at 3.70 m. (MSL.) at 18.00 Hours , on Oct 19 , 2013 |                          |        |        |                      |         |         |         |                          |       |       |      |                |
| Runoff Yield   | *****                                                          | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | *****   | Liters/Second/Square KM. |       |       |      |                |

**WATER YEAR : 2013**  
**SAKAE KRANG RIVER BASIN**

**Sakae Krang River at Ban Hat Tanong, Uthai Thani (Ct.2A)**

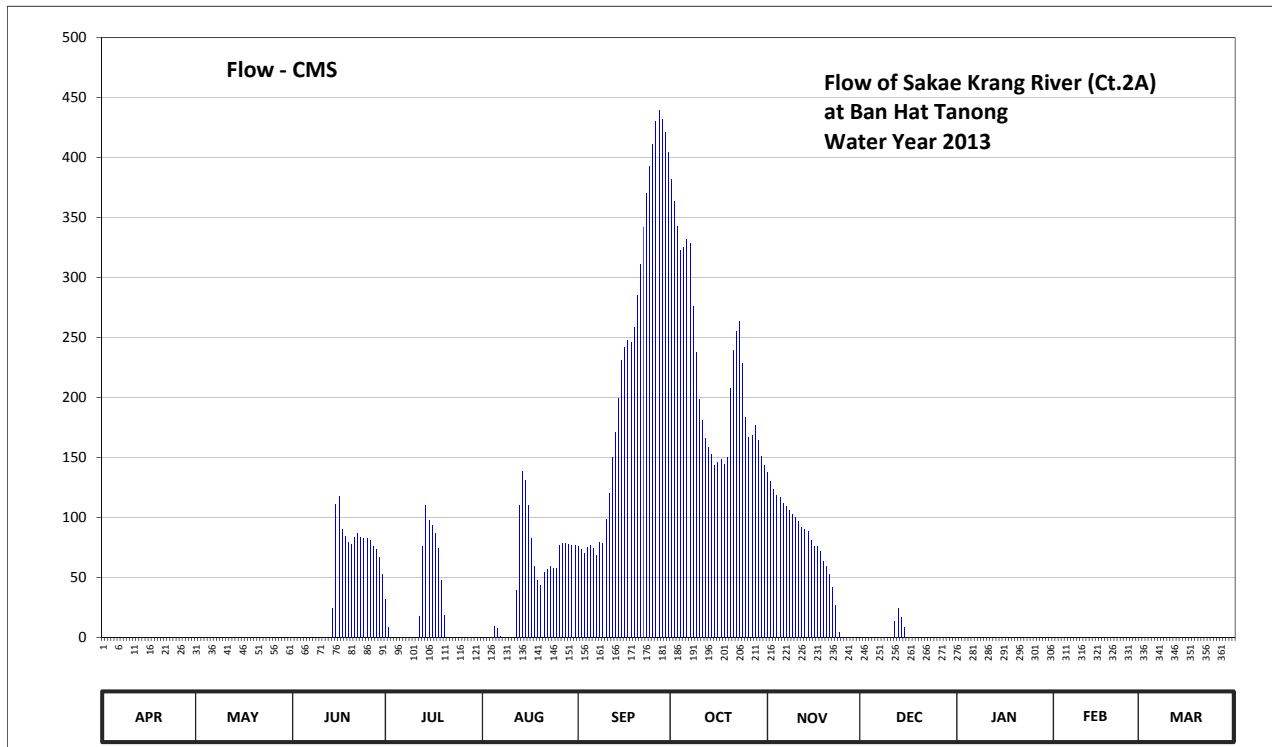
Lat 15 - 24 - 39 N    Long 100 - 03 - 29 E

**Location : on left bank at Ban Hat Tanong.**

|                                         |                                                                                           |            |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Hat Tanong | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Uthai Thani       |
| <b>Drainage Area</b>                    | 3,641                                                                                     | sq.km.     |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)  |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge                                                |            |               |        | <b>Elevation</b> | +20.130 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                              |            |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2008 to date                                                                              |            |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                              |            |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |            |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 53 discharge measurements made in 2013. |            |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 14.17 | 14.46 | 14.86                                            | 16.05 | 15.13 | 16.58 | 19.27 | 17.24 | 14.25 | 15.27 | 15.15 | 14.48 |        |
| 2                                | 14.14 | 14.32 | 14.83                                            | 15.72 | 15.29 | 16.55 | 19.14 | 17.16 | 14.19 | 15.22 | 15.17 | 14.52 |        |
| 3                                | 14.12 | 14.22 | 14.75                                            | 15.41 | 15.46 | 16.52 | 18.98 | 17.10 | 14.10 | 15.20 | 15.21 | 14.57 |        |
| 4                                | 14.09 | 14.13 | 14.63                                            | 15.17 | 15.61 | 16.57 | 18.83 | 17.05 | 14.10 | 15.20 | 15.23 | 14.71 |        |
| 5                                | 14.09 | 14.14 | 14.55                                            | 14.92 | 15.74 | 16.59 | 18.85 | 17.03 | 14.05 | 15.22 | 15.22 | 14.88 |        |
| 6                                | 14.08 | 14.33 | 14.51                                            | 14.68 | 15.71 | 16.56 | 18.90 | 16.98 | 14.05 | 15.26 | 15.20 | 14.94 |        |
| 7                                | 14.11 | 14.56 | 14.51                                            | 14.61 | 15.62 | 16.50 | 18.87 | 16.95 | 14.02 | 15.30 | 15.16 | 14.82 |        |
| 8                                | 14.10 | 14.79 | 14.66                                            | 14.60 | 15.49 | 16.62 | 18.47 | 16.91 | 14.01 | 15.27 | 15.15 | 14.94 |        |
| 9                                | 14.08 | 15.08 | 14.86                                            | 14.68 | 15.42 | 16.61 | 18.15 | 16.88 | 14.33 | 15.24 | 15.09 | 14.97 |        |
| 10                               | 14.07 | 15.32 | 15.06                                            | 14.84 | 15.42 | 16.83 | 17.82 | 16.85 | 14.82 | 15.21 | 15.04 | 14.88 |        |
| 11                               | 14.06 | 15.47 | 15.17                                            | 15.26 | 15.52 | 17.06 | 17.67 | 16.81 | 15.38 | 15.17 | 15.01 | 14.72 |        |
| 12                               | 14.04 | 15.55 | 15.28                                            | 15.86 | 16.14 | 17.36 | 17.52 | 16.76 | 15.80 | 15.10 | 14.97 | 14.52 |        |
| 13                               | 14.04 | 15.56 | 15.47                                            | 16.58 | 16.96 | 17.57 | 17.45 | 16.74 | 15.95 | 15.02 | 14.87 | 14.36 |        |
| 14                               | 14.03 | 15.53 | 15.95                                            | 16.96 | 17.25 | 17.83 | 17.39 | 16.72 | 15.84 | 14.99 | 14.83 | 14.27 |        |
| 15                               | 14.04 | 15.41 | 16.97                                            | 16.82 | 17.17 | 18.09 | 17.30 | 16.64 | 15.72 | 14.95 | 14.83 | 14.20 |        |
| 16                               | 14.05 | 15.24 | 17.04                                            | 16.78 | 16.96 | 18.18 | 17.32 | 16.58 | 15.56 | 14.85 | 14.86 | 14.15 |        |
| 17                               | 14.05 | 14.88 | 16.74                                            | 16.70 | 16.65 | 18.23 | 17.35 | 16.58 | 15.43 | 14.72 | 14.84 | 14.19 |        |
| 18                               | 14.07 | 14.67 | 16.67                                            | 16.56 | 16.39 | 18.22 | 17.31 | 16.53 | 15.28 | 14.64 | 14.80 | 14.27 |        |
| 19                               | 14.32 | 14.59 | 16.62                                            | 16.25 | 16.25 | 18.32 | 17.36 | 16.44 | 15.10 | 14.63 | 14.80 | 14.35 |        |
| 20                               | 14.37 | 14.57 | 16.60                                            | 15.87 | 16.20 | 18.54 | 17.90 | 16.39 | 15.06 | 14.61 | 14.77 | 14.38 |        |
| 21                               | 14.42 | 14.61 | 16.66                                            | 15.54 | 16.33 | 18.74 | 18.16 | 16.31 | 15.03 | 14.57 | 14.70 | 14.42 |        |
| 22                               | 14.48 | 14.72 | 16.70                                            | 15.32 | 16.36 | 18.98 | 18.29 | 16.18 | 14.97 | 14.55 | 14.63 | 14.46 |        |
| 23                               | 14.53 | 14.80 | 16.66                                            | 15.20 | 16.39 | 19.19 | 18.36 | 15.99 | 14.82 | 14.57 | 14.62 | 14.49 |        |
| 24                               | 14.58 | 14.87 | 16.65                                            | 15.05 | 16.37 | 19.35 | 18.07 | 15.67 | 14.80 | 14.66 | 14.59 | 14.48 |        |
| 25                               | 14.55 | 14.96 | 16.65                                            | 14.90 | 16.37 | 19.48 | 17.69 | 15.35 | 14.88 | 14.78 | 14.59 | 14.43 |        |
| 26                               | 14.63 | 14.95 | 16.64                                            | 14.78 | 16.59 | 19.61 | 17.53 | 15.03 | 15.03 | 14.91 | 14.51 | 14.36 |        |
| 27                               | 14.70 | 14.88 | 16.58                                            | 14.77 | 16.61 | 19.67 | 17.55 | 14.75 | 15.14 | 15.00 | 14.46 | 14.36 |        |
| 28                               | 14.71 | 14.89 | 16.55                                            | 14.91 | 16.61 | 19.62 | 17.63 | 14.51 | 15.20 | 15.01 | 14.43 | 14.36 |        |
| 29                               | 14.68 | 14.89 | 16.48                                            | 15.01 | 16.60 | 19.55 | 17.51 | 14.37 | 15.23 | 15.05 |       | 14.42 |        |
| 30                               | 14.59 | 14.91 | 16.31                                            | 15.05 | 16.59 | 19.43 | 17.37 | 14.31 | 15.28 | 15.08 |       | 14.40 |        |
| 31                               |       | 14.91 |                                                  | 15.07 | 16.59 |       | 17.30 |       | 15.30 | 15.11 |       | 14.37 |        |
| Mean                             | 14.27 | 14.85 | 15.85                                            | 15.48 | 16.19 | 17.97 | 17.98 | 16.29 | 14.93 | 14.98 | 14.88 | 14.51 |        |
| Max                              | 14.71 | 15.56 | 17.04                                            | 16.96 | 17.25 | 19.67 | 19.27 | 17.24 | 15.95 | 15.30 | 15.23 | 14.97 | 19.67  |
| Min                              | 14.03 | 14.13 | 14.51                                            | 14.60 | 15.13 | 16.50 | 17.30 | 14.31 | 14.01 | 14.55 | 14.43 | 14.15 | 14.01  |
| Annual Max Momentary Gage Height | 19.68 |       | m. (MSL.) , at 20.00 Hours , on Sep 27 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 8.23 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 21.36 |       | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 21.40 |       | m. (MSL.) , Drainage Area 3641 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                       | Jun     | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual   |
|----------------|--------|-----------------------------------------------------------|---------|--------|----------------------|---------|---------|---------|--------------------------|------|------|------|----------|
| 1              | 0.00   | 0.00                                                      | 0.00    | 32.00  | 0.00                 | 76.20   | 381.80  | 138.00  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 2              | 0.00   | 0.00                                                      | 0.00    | 8.40   | 0.00                 | 73.50   | 363.60  | 130.00  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 3              | 0.00   | 0.00                                                      | 0.00    | 0.00   | 0.00                 | 70.80   | 342.40  | 124.00  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 4              | 0.00   | 0.00                                                      | 0.00    | 0.00   | 0.70                 | 75.30   | 322.90  | 119.00  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 5              | 0.00   | 0.00                                                      | 0.00    | 0.00   | 9.80                 | 77.10   | 325.50  | 117.00  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 6              | 0.00   | 0.00                                                      | 0.00    | 0.00   | 7.70                 | 74.40   | 332.00  | 112.20  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 7              | 0.00   | 0.00                                                      | 0.00    | 0.00   | 1.40                 | 69.00   | 328.10  | 109.50  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 8              | 0.00   | 0.00                                                      | 0.00    | 0.00   | 0.00                 | 79.80   | 276.40  | 105.90  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 9              | 0.00   | 0.00                                                      | 0.00    | 0.00   | 0.00                 | 78.90   | 238.00  | 103.20  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 10             | 0.00   | 0.00                                                      | 0.00    | 0.00   | 0.00                 | 98.70   | 198.40  | 100.50  | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 11             | 0.00   | 0.00                                                      | 0.00    | 0.00   | 0.00                 | 120.00  | 181.70  | 96.90   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 12             | 0.00   | 0.00                                                      | 0.00    | 18.20  | 39.20                | 150.00  | 166.00  | 92.40   | 14.00                    | 0.00 | 0.00 | 0.00 |          |
| 13             | 0.00   | 0.00                                                      | 0.00    | 76.20  | 110.40               | 171.00  | 159.00  | 90.60   | 24.50                    | 0.00 | 0.00 | 0.00 |          |
| 14             | 0.00   | 0.00                                                      | 24.50   | 110.40 | 139.00               | 199.60  | 153.00  | 88.80   | 16.80                    | 0.00 | 0.00 | 0.00 |          |
| 15             | 0.00   | 0.00                                                      | 111.30  | 97.80  | 131.00               | 230.80  | 144.00  | 81.60   | 8.40                     | 0.00 | 0.00 | 0.00 |          |
| 16             | 0.00   | 0.00                                                      | 118.00  | 94.20  | 110.40               | 241.60  | 146.00  | 76.20   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 17             | 0.00   | 0.00                                                      | 90.60   | 87.00  | 82.50                | 247.60  | 149.00  | 76.20   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 18             | 0.00   | 0.00                                                      | 84.30   | 74.40  | 59.20                | 246.40  | 145.00  | 71.70   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 19             | 0.00   | 0.00                                                      | 79.80   | 48.00  | 48.00                | 258.40  | 150.00  | 63.60   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 20             | 0.00   | 0.00                                                      | 78.00   | 18.90  | 44.00                | 285.20  | 208.00  | 59.20   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 21             | 0.00   | 0.00                                                      | 83.40   | 0.00   | 54.40                | 311.20  | 239.20  | 52.80   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 22             | 0.00   | 0.00                                                      | 87.00   | 0.00   | 56.80                | 342.40  | 254.80  | 42.40   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 23             | 0.00   | 0.00                                                      | 83.40   | 0.00   | 59.20                | 370.60  | 263.20  | 27.30   | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 24             | 0.00   | 0.00                                                      | 82.50   | 0.00   | 57.60                | 393.00  | 228.40  | 4.90    | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 25             | 0.00   | 0.00                                                      | 82.50   | 0.00   | 57.60                | 411.20  | 183.90  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 26             | 0.00   | 0.00                                                      | 81.60   | 0.00   | 77.10                | 430.50  | 167.00  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 27             | 0.00   | 0.00                                                      | 76.20   | 0.00   | 78.90                | 439.50  | 169.00  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 28             | 0.00   | 0.00                                                      | 73.50   | 0.00   | 78.90                | 432.00  | 177.30  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 |          |
| 29             | 0.00   | 0.00                                                      | 67.20   | 0.00   | 78.00                | 421.50  | 165.00  | 0.00    | 0.00                     | 0.00 |      | 0.00 |          |
| 30             | 0.00   | 0.00                                                      | 52.80   | 0.00   | 77.10                | 404.20  | 151.00  | 0.00    | 0.00                     | 0.00 |      | 0.00 |          |
| 31             |        | 0.00                                                      |         | 0.00   | 77.10                |         | 144.00  |         | 0.00                     | 0.00 |      | 0.00 |          |
| Total          | 0.00   | 0.00                                                      | 1356.60 | 665.50 | 1536.00              | 6880.40 | 6853.60 | 2083.90 | 63.70                    | 0.00 | 0.00 | 0.00 | 19439.70 |
| Mean           | 0.00   | 0.00                                                      | 45.22   | 21.47  | 49.55                | 229.35  | 221.08  | 69.46   | 2.05                     | 0.00 | 0.00 | 0.00 | 53.26    |
| Max            | 0.00   | 0.00                                                      | 118.00  | 110.40 | 139.00               | 439.50  | 381.80  | 138.00  | 24.50                    | 0.00 | 0.00 | 0.00 | 439.50   |
| Min            | 0.00   | 0.00                                                      | 0.00    | 0.00   | 0.00                 | 69.00   | 144.00  | 0.00    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00     |
| Runoff         | 0.00   | 0.00                                                      | 117.21  | 57.50  | 132.71               | 594.47  | 592.15  | 180.05  | 5.50                     | 0.00 | 0.00 | 0.00 | 1679.59  |
| Momentary Peak | 441.00 | CMS. at 19.68 m. (MSL.) at 20.00 Hours , on Sep 27 , 2013 |         |        |                      |         |         |         |                          |      |      |      |          |
| Runoff Yield   | 14.63  | Liters/Second/Square KM.                                  |         |        | Momentary Peak Yield |         |         | 121.121 | Liters/Second/Square KM. |      |      |      |          |

**WATER YEAR : 2013**

**SAKAE KRANG RIVER BASIN**

### Nam Mae Wong at Ban San Chao Kai To, Nakhon Sawan (Ct.4)

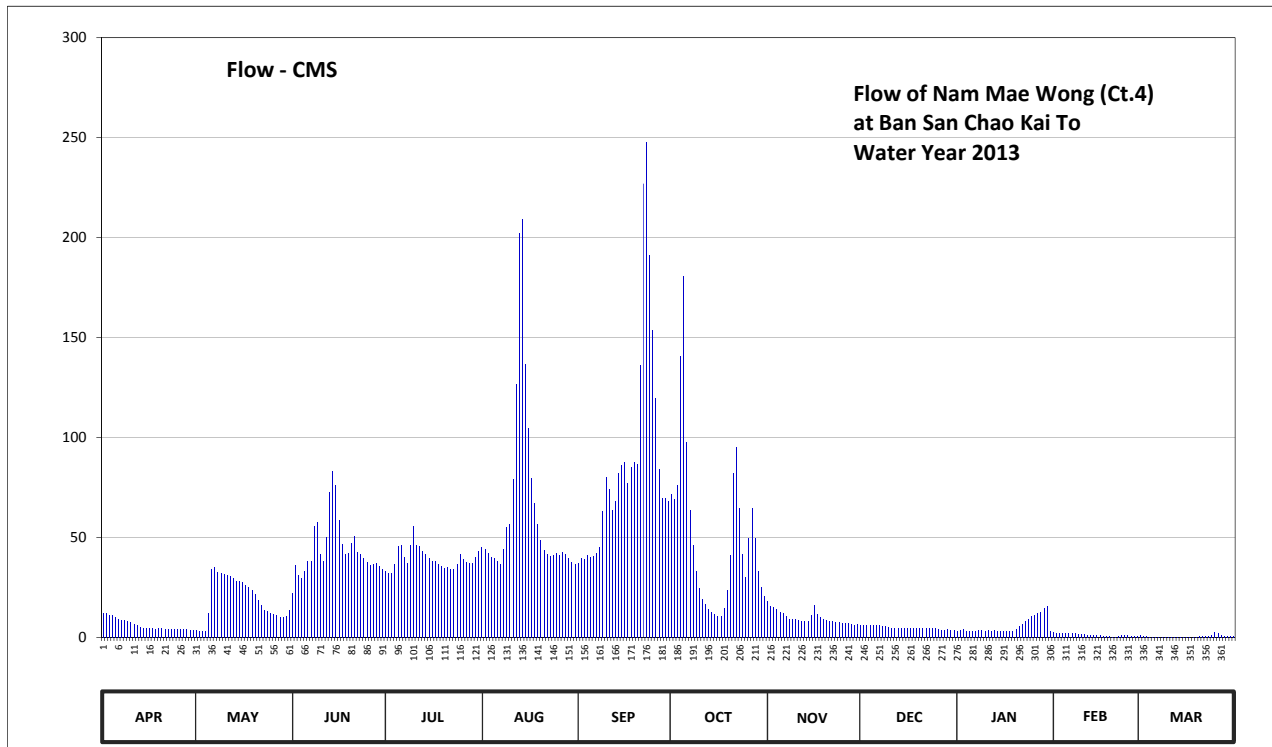
Lat 15 - 46 - 58 N    Long 99 - 40 - 57 E

**Location : on left bank at Ban San Chao Kai To.**

|                                         |                                                                                           |                 |               |         |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | San Chao Kai To | <b>Amphoe</b> | Lat Yao | <b>Changwat</b>  | Nakhon Sawan      |
| <b>Drainage Area</b>                    | 1,386                                                                                     | sq.km.          |               |         |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                 |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +65.880                                                                                   | m. (MSL.)       |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.- Highways Dept.                                                                      |                 |               |         |                  |                   |
| <b>Location BM</b>                      | On left bank at the bridge                                                                |                 |               |         | <b>Elevation</b> | +72.250 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                 |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                 |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                              |                 |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                 |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1987 to date                                                                              |                 |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1987 to date                                                                              |                 |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                             |                 |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                 |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 40 discharge measurements made in 2013. |                 |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 67.26 | 66.66 | 67.74       | 68.13 | 68.45                             | 68.25 | 69.00             | 67.56 | 66.74 | 66.37 | 66.27 | 66.07 |        |
| 2                                | 67.24 | 66.64 | 68.22       | 68.10 | 68.43                             | 68.31 | 68.95             | 67.44 | 66.73 | 66.40 | 66.26 | 66.04 |        |
| 3                                | 67.20 | 66.62 | 68.08       | 68.10 | 68.38                             | 68.30 | 69.08             | 67.42 | 66.71 | 66.45 | 66.25 | 66.02 |        |
| 4                                | 67.18 | 66.62 | 68.03       | 68.24 | 68.33                             | 68.35 | 70.00             | 67.33 | 66.72 | 66.37 | 66.25 | 65.96 |        |
| 5                                | 67.14 | 67.24 | 68.13       | 68.46 | 68.31                             | 68.33 | 70.45             | 67.26 | 66.71 | 66.36 | 66.26 | 65.93 |        |
| 6                                | 67.06 | 68.16 | 68.28       | 68.48 | 68.27                             | 68.34 | 69.43             | 67.20 | 66.71 | 66.36 | 66.24 | 65.93 |        |
| 7                                | 67.03 | 68.20 | 68.28       | 68.32 | 68.23                             | 68.38 | 68.85             | 67.12 | 66.71 | 66.37 | 66.21 | 65.93 |        |
| 8                                | 67.02 | 68.12 | 68.69       | 68.25 | 68.43                             | 68.45 | 68.48             | 66.99 | 66.68 | 66.41 | 66.21 | 65.93 |        |
| 9                                | 67.00 | 68.10 | 68.73       | 68.48 | 68.67                             | 68.84 | 68.13             | 66.97 | 66.64 | 66.39 | 66.17 | 65.93 |        |
| 10                               | 66.95 | 68.09 | 68.37       | 68.69 | 68.71                             | 69.15 | 67.85             | 66.98 | 66.60 | 66.38 | 66.15 | 65.93 |        |
| 11                               | 66.88 | 68.08 | 68.27       | 68.48 | 69.13                             | 69.04 | 67.62             | 66.96 | 66.57 | 66.42 | 66.13 | 65.93 |        |
| 12                               | 66.84 | 68.07 | 68.57       | 68.47 | 69.82                             | 68.85 | 67.48             | 66.92 | 66.57 | 66.37 | 66.11 | 65.93 |        |
| 13                               | 66.80 | 68.03 | 69.02       | 68.41 | 70.68                             | 68.93 | 67.36             | 66.90 | 66.56 | 66.39 | 66.11 | 65.93 |        |
| 14                               | 66.76 | 67.99 | 69.20       | 68.36 | 70.75                             | 69.18 | 67.25             | 66.88 | 66.55 | 66.36 | 66.11 | 65.93 |        |
| 15                               | 66.74 | 67.98 | 69.08       | 68.31 | 69.95                             | 69.25 | 67.18             | 67.14 | 66.53 | 66.36 | 66.10 | 65.93 |        |
| 16                               | 66.74 | 67.96 | 68.75       | 68.27 | 69.53                             | 69.27 | 67.12             | 67.46 | 66.53 | 66.35 | 66.09 | 65.95 |        |
| 17                               | 66.74 | 67.92 | 68.49       | 68.27 | 69.14                             | 69.10 | 67.12             | 67.19 | 66.57 | 66.34 | 66.05 | 65.97 |        |
| 18                               | 66.73 | 67.87 | 68.36       | 68.24 | 68.92                             | 69.23 | 67.38             | 67.08 | 66.57 | 66.34 | 66.01 | 65.94 |        |
| 19                               | 66.74 | 67.82 | 68.38       | 68.21 | 68.71                             | 69.27 | 67.81             | 67.00 | 66.56 | 66.34 | 66.00 | 65.95 |        |
| 20                               | 66.74 | 67.73 | 68.50       | 68.18 | 68.53                             | 69.26 | 68.35             | 66.94 | 66.54 | 66.47 | 65.97 | 65.99 |        |
| 21                               | 66.73 | 67.59 | 68.58       | 68.19 | 68.42                             | 69.94 | 69.18             | 66.91 | 66.55 | 66.64 | 65.96 | 66.01 |        |
| 22                               | 66.72 | 67.46 | 68.40       | 68.17 | 68.37                             | 70.93 | 69.39             | 66.88 | 66.53 | 66.78 | 66.02 | 66.00 |        |
| 23                               | 66.71 | 67.35 | 68.36       | 68.17 | 68.34                             | 71.13 | 68.87             | 66.86 | 66.57 | 66.89 | 66.06 | 66.00 |        |
| 24                               | 66.71 | 67.32 | 68.31       | 68.24 | 68.35                             | 70.56 | 68.37             | 66.84 | 66.55 | 67.00 | 66.06 | 66.12 |        |
| 25                               | 66.71 | 67.26 | 68.26       | 68.36 | 68.38                             | 70.15 | 68.05             | 66.83 | 66.52 | 67.10 | 66.06 | 66.31 |        |
| 26                               | 66.71 | 67.23 | 68.22       | 68.30 | 68.35                             | 69.73 | 68.56             | 66.83 | 66.50 | 67.16 | 66.05 | 66.20 |        |
| 27                               | 66.71 | 67.18 | 68.24       | 68.26 | 68.40                             | 69.22 | 68.87             | 66.80 | 66.42 | 67.22 | 66.05 | 66.10 |        |
| 28                               | 66.70 | 67.13 | 68.25       | 68.25 | 68.36                             | 68.96 | 68.55             | 66.78 | 66.42 | 67.26 | 66.05 | 66.03 |        |
| 29                               | 66.69 | 67.11 | 68.21       | 68.25 | 68.31                             | 68.96 | 68.14             | 66.75 | 66.47 | 67.38 |       | 65.99 |        |
| 30                               | 66.68 | 67.16 | 68.17       | 68.32 | 68.26                             | 68.93 | 67.88             | 66.76 | 66.39 | 67.43 |       | 65.99 |        |
| 31                               |       | 67.34 |             | 68.41 | 68.24                             |       | 67.69             |       | 66.39 | 66.36 |       | 65.99 |        |
| Mean                             | 66.86 | 67.55 | 68.41       | 68.30 | 68.75                             | 69.15 | 68.34             | 67.03 | 66.57 | 66.61 | 66.12 | 66.00 |        |
| Max                              | 67.26 | 68.20 | 69.20       | 68.69 | 70.75                             | 71.13 | 70.45             | 67.56 | 66.74 | 67.43 | 66.27 | 66.31 | 71.13  |
| Min                              | 66.68 | 66.62 | 67.74       | 68.10 | 68.23                             | 68.25 | 67.12             | 66.75 | 66.39 | 66.34 | 65.96 | 65.93 | 65.93  |
| Annual Max Momentary Gage Height |       | 71.28 | m. (MSL.) , |       | at 04.00 Hours , on Sep 23 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 65.88 | m. (MSL.) , |       | River Bed                         | 66.12 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 72.18 | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 71.96 | m. (MSL.) , |       | Drainage Area                     | 1386  | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|---------|--------------------------|--------|--------|-------|-------|-----------------|
| 1              | 12.36                                                            | 3.60                     | 21.96   | 33.02                | 45.10   | 37.30   | 71.80   | 18.20                    | 6.40   | 3.36   | 2.56  | 1.09  |                 |
| 2              | 12.04                                                            | 3.40                     | 36.16   | 32.00                | 44.26   | 39.58   | 69.10   | 15.80                    | 6.30   | 3.60   | 2.48  | 0.88  |                 |
| 3              | 11.40                                                            | 3.20                     | 31.32   | 32.00                | 42.24   | 39.20   | 76.28   | 15.40                    | 6.10   | 4.00   | 2.40  | 0.74  |                 |
| 4              | 11.08                                                            | 3.20                     | 29.62   | 36.92                | 40.34   | 41.10   | 140.80  | 13.95                    | 6.20   | 3.36   | 2.40  | 0.36  |                 |
| 5              | 10.44                                                            | 12.04                    | 33.02   | 45.52                | 39.58   | 40.34   | 180.60  | 12.90                    | 6.10   | 3.28   | 2.48  | 0.18  |                 |
| 6              | 9.16                                                             | 34.04                    | 38.44   | 46.36                | 38.06   | 40.72   | 97.98   | 12.00                    | 6.10   | 3.28   | 2.32  | 0.18  |                 |
| 7              | 8.68                                                             | 35.40                    | 38.44   | 39.96                | 36.54   | 42.24   | 63.80   | 10.88                    | 6.10   | 3.36   | 2.08  | 0.18  |                 |
| 8              | 8.52                                                             | 32.68                    | 55.94   | 37.30                | 44.26   | 45.10   | 46.36   | 9.28                     | 5.84   | 3.68   | 2.08  | 0.18  |                 |
| 9              | 8.20                                                             | 32.00                    | 57.84   | 46.36                | 55.02   | 63.28   | 33.02   | 9.04                     | 5.52   | 3.52   | 1.79  | 0.18  |                 |
| 10             | 7.50                                                             | 31.66                    | 41.86   | 55.94                | 56.88   | 80.30   | 24.60   | 9.16                     | 5.20   | 3.44   | 1.65  | 0.18  |                 |
| 11             | 6.52                                                             | 31.32                    | 38.06   | 46.36                | 79.14   | 74.04   | 19.40   | 8.92                     | 4.96   | 3.76   | 1.51  | 0.18  |                 |
| 12             | 5.96                                                             | 30.98                    | 50.42   | 45.94                | 126.40  | 63.80   | 16.60   | 8.44                     | 4.96   | 3.36   | 1.37  | 0.18  |                 |
| 13             | 5.40                                                             | 29.62                    | 72.92   | 43.42                | 202.12  | 68.02   | 14.40   | 8.20                     | 4.88   | 3.52   | 1.37  | 0.18  |                 |
| 14             | 4.84                                                             | 28.32                    | 83.20   | 41.48                | 209.00  | 82.04   | 12.75   | 7.96                     | 4.80   | 3.28   | 1.37  | 0.18  |                 |
| 15             | 4.56                                                             | 28.04                    | 76.28   | 39.58                | 136.80  | 86.30   | 11.72   | 11.16                    | 4.64   | 3.28   | 1.30  | 0.18  |                 |
| 16             | 4.56                                                             | 27.48                    | 58.80   | 38.06                | 104.70  | 87.54   | 10.88   | 16.20                    | 4.64   | 3.20   | 1.23  | 0.30  |                 |
| 17             | 4.56                                                             | 26.36                    | 46.78   | 38.06                | 79.72   | 77.40   | 10.88   | 11.86                    | 4.96   | 3.12   | 0.95  | 0.42  |                 |
| 18             | 4.42                                                             | 25.08                    | 41.48   | 36.92                | 67.48   | 85.06   | 14.70   | 10.36                    | 4.96   | 3.12   | 0.67  | 0.24  |                 |
| 19             | 4.56                                                             | 23.88                    | 42.24   | 35.78                | 56.88   | 87.54   | 23.64   | 9.40                     | 4.88   | 3.12   | 0.60  | 0.30  |                 |
| 20             | 4.56                                                             | 21.72                    | 47.20   | 34.72                | 48.58   | 86.92   | 41.10   | 8.68                     | 4.72   | 4.16   | 0.42  | 0.54  |                 |
| 21             | 4.42                                                             | 18.60                    | 50.88   | 35.06                | 43.84   | 136.00  | 82.04   | 8.32                     | 4.80   | 5.52   | 0.36  | 0.67  |                 |
| 22             | 4.28                                                             | 16.00                    | 43.00   | 34.38                | 41.86   | 227.00  | 95.34   | 7.96                     | 4.64   | 6.80   | 0.74  | 0.60  |                 |
| 23             | 4.14                                                             | 13.90                    | 41.48   | 34.38                | 40.72   | 247.52  | 64.84   | 7.72                     | 4.96   | 8.08   | 1.02  | 0.60  |                 |
| 24             | 4.14                                                             | 13.36                    | 39.58   | 36.92                | 41.10   | 190.84  | 41.86   | 7.48                     | 4.80   | 9.40   | 1.02  | 1.44  |                 |
| 25             | 4.14                                                             | 12.36                    | 37.68   | 41.48                | 42.24   | 153.60  | 30.30   | 7.36                     | 4.56   | 10.60  | 1.02  | 2.88  |                 |
| 26             | 4.14                                                             | 11.88                    | 36.16   | 39.20                | 41.10   | 119.34  | 49.96   | 7.36                     | 4.40   | 11.44  | 0.95  | 2.00  |                 |
| 27             | 4.14                                                             | 11.08                    | 36.92   | 37.68                | 43.00   | 84.44   | 64.84   | 7.00                     | 3.76   | 12.30  | 0.95  | 1.30  |                 |
| 28             | 4.00                                                             | 10.28                    | 37.30   | 37.30                | 41.48   | 69.64   | 49.50   | 6.80                     | 3.76   | 12.90  | 0.95  | 0.81  |                 |
| 29             | 3.90                                                             | 9.96                     | 35.78   | 37.30                | 39.58   | 69.64   | 33.36   | 6.50                     | 4.16   | 14.70  |       | 0.54  |                 |
| 30             | 3.80                                                             | 10.76                    | 34.38   | 39.96                | 37.68   | 68.02   | 25.32   | 6.60                     | 3.52   | 15.60  |       | 0.54  |                 |
| 31             |                                                                  | 13.72                    |         | 43.42                | 36.92   |         | 20.80   |                          | 3.52   | 3.28   |       | 0.54  |                 |
| Total          | 190.42                                                           | 605.92                   | 1335.14 | 1222.78              | 2002.62 | 2633.86 | 1538.57 | 300.89                   | 155.14 | 179.42 | 40.04 | 18.77 | 10223.57 CMSDAY |
| Mean           | 6.35                                                             | 19.55                    | 44.50   | 39.44                | 64.60   | 87.80   | 49.63   | 10.03                    | 5.00   | 5.79   | 1.43  | 0.61  | 28.01 CMS       |
| Max            | 12.36                                                            | 35.40                    | 83.20   | 55.94                | 209.00  | 247.52  | 180.60  | 18.20                    | 6.40   | 15.60  | 2.56  | 2.88  | 247.52 CMS      |
| Min            | 3.80                                                             | 3.20                     | 21.96   | 32.00                | 36.54   | 37.30   | 10.88   | 6.50                     | 3.52   | 3.12   | 0.36  | 0.18  | 0.18 CMS        |
| Runoff         | 16.45                                                            | 52.35                    | 115.36  | 105.65               | 173.03  | 227.57  | 132.93  | 26.00                    | 13.40  | 15.50  | 3.46  | 1.62  | 883.32 MCM      |
| Momentary Peak | 263.12 CMS. at 71.28 m. (MSL.) at 04.00 Hours , on Sep 23 , 2013 |                          |         |                      |         |         |         |                          |        |        |       |       |                 |
| Runoff Yield   | 20.21                                                            | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 189.841 |         | Liters/Second/Square KM. |        |        |       |       |                 |

**WATER YEAR : 2013**  
**SAKAE KRANG RIVER BASIN**

**Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet (Ct.5A)**

Lat 15 - 55 - 33 N    Long 99 - 30 - 22 E

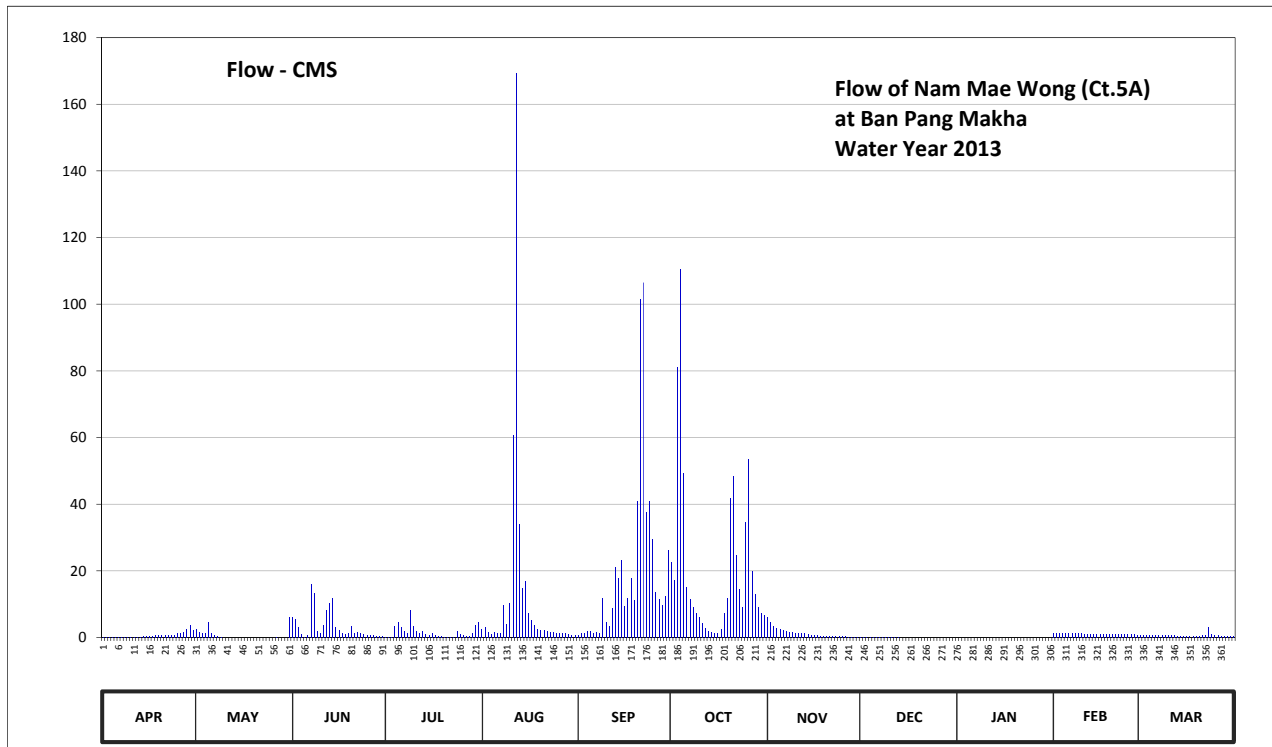
**Location : on left bank behind Wat Pang Makha.**

|                                         |                                                                                                                                                                               |            |               |                     |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------|---------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                                                                                                    | Pang Makha | <b>Amphoe</b> | Khanu Woralaksaburi | <b>Changwat</b>  | Kamphaeng Phet     |
| <b>Drainage Area</b>                    | 977                                                                                                                                                                           | sq.km.     |               |                     |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                                                                                        |            |               |                     |                  |                    |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                                                                                                        | m. (MSL.)  |               |                     |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                                     |            |               |                     |                  |                    |
| <b>Location BM</b>                      | In front of the station office                                                                                                                                                |            |               |                     | <b>Elevation</b> | +108.090 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                                     |            |               |                     |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                                |            |               |                     |                  |                    |
| <b>Period of Available Gage Records</b> | 1969 to date                                                                                                                                                                  |            |               |                     |                  |                    |
| <b>Rating Operation</b>                 |                                                                                                                                                                               |            |               |                     |                  |                    |
| <b>Period of Rating</b>                 | 1969 to date                                                                                                                                                                  |            |               |                     |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                             |            |               |                     |                  |                    |
| <b>Rated by Current Meter</b>           | 1969 to date                                                                                                                                                                  |            |               |                     |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                                                                                                                                 |            |               |                     |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                                                                                             |            |               |                     |                  |                    |
| <b>General Description</b>              | Records good. Flow effected by the local weir above gage site estimated by recession equation.<br>Stage-discharge relation defined by 31 discharge measurements made in 2013. |            |               |                     |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 103.10 | 103.55 | 103.76                                          | 103.10 | 103.54 | 103.25 | 104.25 | 103.76 | 103.09 | 102.88 | 103.38 | 103.26 |        |
| 2                                | 103.09 | 103.41 | 103.73                                          | 103.07 | 103.60 | 103.38 | 104.14 | 103.68 | 103.09 | 102.87 | 103.38 | 103.25 |        |
| 3                                | 103.09 | 103.34 | 103.60                                          | 103.09 | 103.41 | 103.38 | 105.10 | 103.62 | 103.08 | 102.87 | 103.38 | 103.24 |        |
| 4                                | 103.08 | 103.33 | 103.28                                          | 103.61 | 103.32 | 103.45 | 105.42 | 103.56 | 103.08 | 102.86 | 103.38 | 103.24 |        |
| 5                                | 103.07 | 103.68 | 103.10                                          | 103.69 | 103.39 | 103.47 | 104.69 | 103.52 | 103.07 | 102.86 | 103.38 | 103.23 |        |
| 6                                | 103.07 | 103.37 | 103.21                                          | 103.58 | 103.36 | 103.36 | 104.09 | 103.48 | 103.07 | 102.86 | 103.38 | 103.23 |        |
| 7                                | 103.06 | 103.24 | 104.11                                          | 103.46 | 103.37 | 103.42 | 103.99 | 103.44 | 103.06 | 102.85 | 103.37 | 103.22 |        |
| 8                                | 103.06 | 103.15 | 104.04                                          | 103.37 | 103.93 | 103.36 | 103.91 | 103.42 | 103.05 | 102.85 | 103.36 | 103.21 |        |
| 9                                | 103.06 | 103.07 | 103.44                                          | 103.87 | 103.66 | 104.00 | 103.82 | 103.39 | 103.05 | 102.85 | 103.36 | 103.21 |        |
| 10                               | 103.08 | 102.99 | 103.34                                          | 103.62 | 103.95 | 103.69 | 103.76 | 103.38 | 103.04 | 102.84 | 103.36 | 103.20 |        |
| 11                               | 103.09 | 102.94 | 103.64                                          | 103.44 | 104.85 | 103.62 | 103.67 | 103.37 | 103.03 | 102.84 | 103.31 | 103.20 |        |
| 12                               | 103.09 | 102.93 | 103.86                                          | 103.36 | 105.96 | 103.89 | 103.56 | 103.35 | 103.02 | 102.84 | 103.31 | 103.20 |        |
| 13                               | 103.12 | 102.91 | 103.95                                          | 103.47 | 104.46 | 104.22 | 103.45 | 103.34 | 103.01 | 102.83 | 103.31 | 103.19 |        |
| 14                               | 103.14 | 102.92 | 104.00                                          | 103.32 | 104.08 | 104.15 | 103.39 | 103.32 | 103.00 | 102.83 | 103.30 | 103.19 |        |
| 15                               | 103.15 | 103.00 | 103.60                                          | 103.23 | 104.13 | 104.26 | 103.38 | 103.23 | 102.99 | 102.82 | 103.30 | 103.19 |        |
| 16                               | 103.15 | 102.99 | 103.48                                          | 103.37 | 103.83 | 103.92 | 103.37 | 103.21 | 102.98 | 102.82 | 103.30 | 103.19 |        |
| 17                               | 103.17 | 102.97 | 103.36                                          | 103.25 | 103.72 | 104.00 | 103.55 | 103.20 | 102.97 | 102.82 | 103.30 | 103.18 |        |
| 18                               | 103.20 | 102.94 | 103.29                                          | 103.16 | 103.63 | 104.15 | 103.83 | 103.19 | 102.96 | 102.81 | 103.30 | 103.18 |        |
| 19                               | 103.23 | 102.92 | 103.38                                          | 103.13 | 103.55 | 103.98 | 104.00 | 103.18 | 102.95 | 102.81 | 103.29 | 103.18 |        |
| 20                               | 103.23 | 102.91 | 103.62                                          | 103.09 | 103.50 | 104.57 | 104.58 | 103.18 | 102.94 | 102.80 | 103.29 | 103.18 |        |
| 21                               | 103.24 | 102.90 | 103.38                                          | 103.04 | 103.48 | 105.33 | 104.68 | 103.16 | 102.93 | 102.80 | 103.29 | 103.22 |        |
| 22                               | 103.24 | 102.89 | 103.42                                          | 103.02 | 103.44 | 105.38 | 104.29 | 103.15 | 102.92 | 102.80 | 103.28 | 103.22 |        |
| 23                               | 103.25 | 102.88 | 103.36                                          | 103.04 | 103.42 | 104.52 | 104.07 | 103.15 | 102.91 | 102.79 | 103.28 | 103.58 |        |
| 24                               | 103.26 | 102.87 | 103.29                                          | 103.44 | 103.39 | 104.57 | 103.90 | 103.15 | 102.90 | 102.79 | 103.28 | 103.32 |        |
| 25                               | 103.36 | 102.86 | 103.24                                          | 103.27 | 103.37 | 104.38 | 104.47 | 103.14 | 102.90 | 102.79 | 103.28 | 103.22 |        |
| 26                               | 103.33 | 102.92 | 103.24                                          | 103.20 | 103.34 | 104.05 | 104.75 | 103.13 | 102.90 | 102.79 | 103.27 | 103.20 |        |
| 27                               | 103.41 | 103.04 | 103.21                                          | 103.17 | 103.36 | 103.99 | 104.20 | 103.12 | 102.89 | 102.79 | 103.27 | 103.19 |        |
| 28                               | 103.53 | 102.98 | 103.18                                          | 103.16 | 103.38 | 103.93 | 104.03 | 103.12 | 102.89 | 102.78 | 103.26 | 103.19 |        |
| 29                               | 103.63 | 102.90 | 103.16                                          | 103.36 | 103.29 | 104.02 | 103.91 | 103.11 | 102.89 | 102.78 |        | 103.19 |        |
| 30                               | 103.48 | 102.92 | 103.14                                          | 103.63 | 103.23 | 104.32 | 103.82 | 103.10 | 102.88 | 102.78 |        | 103.18 |        |
| 31                               |        | 103.76 |                                                 | 103.68 | 103.20 |        | 103.79 |        | 102.88 | 102.78 |        | 103.18 |        |
| Mean                             | 103.20 | 103.08 | 103.48                                          | 103.33 | 103.68 | 104.00 | 104.06 | 103.30 | 102.98 | 102.82 | 103.32 | 103.22 |        |
| Max                              | 103.63 | 103.76 | 104.11                                          | 103.87 | 105.96 | 105.38 | 105.42 | 103.76 | 103.09 | 102.88 | 103.38 | 103.58 | 105.96 |
| Min                              | 103.06 | 102.86 | 103.10                                          | 103.02 | 103.20 | 103.25 | 103.37 | 103.10 | 102.88 | 102.78 | 103.26 | 103.18 | 102.78 |
| Annual Max Momentary Gage Height | 106.38 |        | m. (MSL.) , at 15.00 Hours , on Aug 12 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 0.00   |        | m. (MSL.) , River Bed 102.31 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 108.34 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 106.86 |        | m. (MSL.) , Drainage Area 977 Square Kilometers |        |        |        |        |        |        |        |        |        |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec  | Jan  | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|-------|------|------|-------|-------|----------------|
| 1              | 0.20                                                              | 2.70                     | 6.00   | 0.20                 | 2.60   | 0.80    | 22.60                    | 6.00  | 0.18 | 0.00 | 1.48  | 0.84  |                |
| 2              | 0.18                                                              | 1.66                     | 5.40   | 0.14                 | 3.20   | 1.48    | 17.30                    | 4.48  | 0.18 | 0.00 | 1.48  | 0.80  |                |
| 3              | 0.18                                                              | 1.24                     | 3.20   | 0.18                 | 1.66   | 1.48    | 81.00                    | 3.52  | 0.16 | 0.00 | 1.48  | 0.76  |                |
| 4              | 0.16                                                              | 1.18                     | 0.92   | 3.36                 | 1.12   | 1.90    | 110.50                   | 2.80  | 0.16 | 0.00 | 1.48  | 0.76  |                |
| 5              | 0.14                                                              | 4.48                     | 0.20   | 4.64                 | 1.54   | 2.02    | 49.30                    | 2.40  | 0.14 | 0.00 | 1.48  | 0.72  |                |
| 6              | 0.14                                                              | 1.42                     | 0.64   | 3.00                 | 1.36   | 1.36    | 15.13                    | 2.08  | 0.14 | 0.00 | 1.48  | 0.72  |                |
| 7              | 0.12                                                              | 0.76                     | 15.95  | 1.96                 | 1.42   | 1.72    | 11.52                    | 1.84  | 0.12 | 0.00 | 1.42  | 0.68  |                |
| 8              | 0.12                                                              | 0.40                     | 13.28  | 1.42                 | 9.84   | 1.36    | 9.28                     | 1.72  | 0.10 | 0.00 | 1.36  | 0.64  |                |
| 9              | 0.12                                                              | 0.14                     | 1.84   | 8.34                 | 4.16   | 11.80   | 7.24                     | 1.54  | 0.10 | 0.00 | 1.36  | 0.64  |                |
| 10             | 0.16                                                              | 0.00                     | 1.24   | 3.52                 | 10.40  | 4.64    | 6.00                     | 1.48  | 0.08 | 0.00 | 1.36  | 0.60  |                |
| 11             | 0.18                                                              | 0.00                     | 3.84   | 1.84                 | 60.75  | 3.52    | 4.32                     | 1.42  | 0.06 | 0.00 | 1.06  | 0.60  |                |
| 12             | 0.18                                                              | 0.00                     | 8.12   | 1.36                 | 169.40 | 8.78    | 2.80                     | 1.30  | 0.04 | 0.00 | 1.06  | 0.60  |                |
| 13             | 0.28                                                              | 0.00                     | 10.40  | 2.02                 | 34.14  | 21.04   | 1.90                     | 1.24  | 0.02 | 0.00 | 1.06  | 0.56  |                |
| 14             | 0.36                                                              | 0.00                     | 11.80  | 1.12                 | 14.76  | 17.75   | 1.54                     | 1.12  | 0.00 | 0.00 | 1.00  | 0.56  |                |
| 15             | 0.40                                                              | 0.00                     | 3.20   | 0.72                 | 16.85  | 23.12   | 1.48                     | 0.72  | 0.00 | 0.00 | 1.00  | 0.56  |                |
| 16             | 0.40                                                              | 0.00                     | 2.08   | 1.42                 | 7.46   | 9.56    | 1.42                     | 0.64  | 0.00 | 0.00 | 1.00  | 0.56  |                |
| 17             | 0.48                                                              | 0.00                     | 1.36   | 0.80                 | 5.20   | 11.80   | 2.70                     | 0.60  | 0.00 | 0.00 | 1.00  | 0.52  |                |
| 18             | 0.60                                                              | 0.00                     | 0.96   | 0.44                 | 3.68   | 17.75   | 7.46                     | 0.56  | 0.00 | 0.00 | 1.00  | 0.52  |                |
| 19             | 0.72                                                              | 0.00                     | 1.48   | 0.32                 | 2.70   | 11.24   | 11.80                    | 0.52  | 0.00 | 0.00 | 0.96  | 0.52  |                |
| 20             | 0.72                                                              | 0.00                     | 3.52   | 0.18                 | 2.20   | 41.05   | 41.70                    | 0.52  | 0.00 | 0.00 | 0.96  | 0.52  |                |
| 21             | 0.76                                                              | 0.00                     | 1.48   | 0.08                 | 2.08   | 101.50  | 48.60                    | 0.44  | 0.00 | 0.00 | 0.96  | 0.68  |                |
| 22             | 0.76                                                              | 0.00                     | 1.72   | 0.04                 | 1.84   | 106.50  | 24.68                    | 0.40  | 0.00 | 0.00 | 0.92  | 0.68  |                |
| 23             | 0.80                                                              | 0.00                     | 1.36   | 0.08                 | 1.72   | 37.80   | 14.39                    | 0.40  | 0.00 | 0.00 | 0.92  | 3.00  |                |
| 24             | 0.84                                                              | 0.00                     | 0.96   | 1.84                 | 1.54   | 41.05   | 9.00                     | 0.40  | 0.00 | 0.00 | 0.92  | 1.12  |                |
| 25             | 1.36                                                              | 0.00                     | 0.76   | 0.88                 | 1.42   | 29.52   | 34.73                    | 0.36  | 0.00 | 0.00 | 0.92  | 0.68  |                |
| 26             | 1.18                                                              | 0.00                     | 0.76   | 0.60                 | 1.24   | 13.65   | 53.50                    | 0.32  | 0.00 | 0.00 | 0.88  | 0.60  |                |
| 27             | 1.66                                                              | 0.08                     | 0.64   | 0.48                 | 1.36   | 11.52   | 20.00                    | 0.28  | 0.00 | 0.00 | 0.88  | 0.56  |                |
| 28             | 2.50                                                              | 0.00                     | 0.52   | 0.44                 | 1.48   | 9.84    | 12.91                    | 0.28  | 0.00 | 0.00 | 0.84  | 0.56  |                |
| 29             | 3.68                                                              | 0.00                     | 0.44   | 1.36                 | 0.96   | 12.54   | 9.28                     | 0.24  | 0.00 | 0.00 |       | 0.56  |                |
| 30             | 2.08                                                              | 0.00                     | 0.36   | 3.68                 | 0.72   | 26.28   | 7.24                     | 0.20  | 0.00 | 0.00 |       | 0.52  |                |
| 31             |                                                                   | 6.00                     |        | 4.48                 | 0.60   |         | 6.60                     |       | 0.00 | 0.00 |       | 0.52  |                |
| Total          | 21.46                                                             | 20.06                    | 104.43 | 50.94                | 369.40 | 584.37  | 647.92                   | 39.82 | 1.48 | 0.00 | 31.72 | 22.16 | 1893.76 CMSDAY |
| Mean           | 0.72                                                              | 0.65                     | 3.48   | 1.64                 | 11.92  | 19.48   | 20.90                    | 1.33  | 0.05 | 0.00 | 1.13  | 0.71  | 5.19 CMS       |
| Max            | 3.68                                                              | 6.00                     | 15.95  | 8.34                 | 169.40 | 106.50  | 110.50                   | 6.00  | 0.18 | 0.00 | 1.48  | 3.00  | 169.40 CMS     |
| Min            | 0.12                                                              | 0.00                     | 0.20   | 0.04                 | 0.60   | 0.80    | 1.42                     | 0.20  | 0.00 | 0.00 | 0.84  | 0.52  | 0.00 CMS       |
| Runoff         | 1.85                                                              | 1.73                     | 9.02   | 4.40                 | 31.92  | 50.49   | 55.98                    | 3.44  | 0.13 | 0.00 | 2.74  | 1.92  | 163.62 MCM     |
| Momentary Peak | 220.50 CMS. at 106.38 m. (MSL.) at 15.00 Hours , on Aug 12 , 2013 |                          |        |                      |        |         |                          |       |      |      |       |       |                |
| Runoff Yield   | 5.31                                                              | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 225.691 | Liters/Second/Square KM. |       |      |      |       |       |                |

**WATER YEAR : 2013**  
**SAKAE KRANG RIVER BASIN**

**Khlong Pho at Ban Mai Khlong Charoen, Nakhon Sawan (Ct.7)**

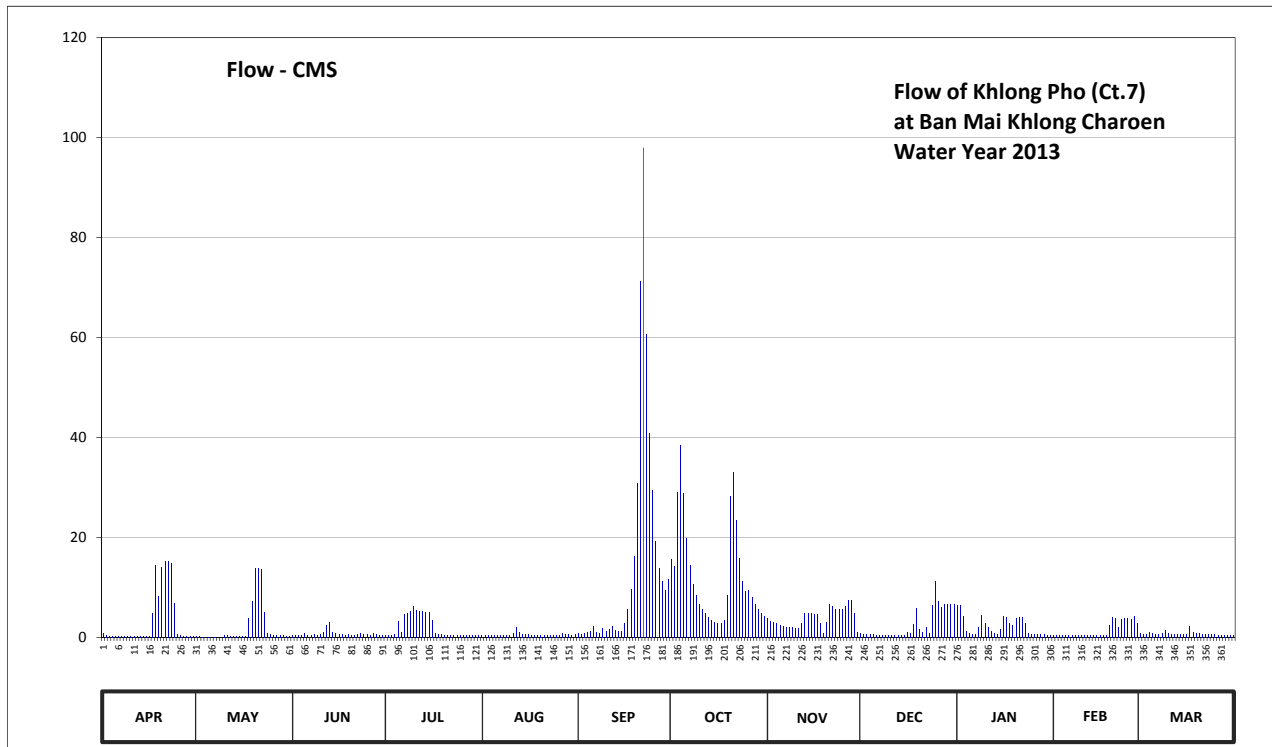
Lat 15 - 38 - 24 N    Long 99 - 32 - 24 E

**Location : on right bank at Ban Mai Khlong Charoen.**

|                                         |                                                                                           |                    |               |          |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------------|---------------|----------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Mai Khlong Charoen | <b>Amphoe</b> | Mae Poen | <b>Changwat</b>  | Nakhon Sawan       |
| <b>Drainage Area</b>                    | 453                                                                                       | sq.km.             |               |          |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                    |               |          |                  |                    |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)          |               |          |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                    |               |          |                  |                    |
| <b>Location BM</b>                      | Near the sling pole.                                                                      |                    |               |          | <b>Elevation</b> | +107.830 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                    |               |          |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                    |               |          |                  |                    |
| <b>Period of Available Gage Records</b> | 1975 - 1978, 2008 to date                                                                 |                    |               |          |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                    |               |          |                  |                    |
| <b>Period of Rating</b>                 | 1975 - 1978, 2008 to date                                                                 |                    |               |          |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                    |               |          |                  |                    |
| <b>Rated by Current Meter</b>           | 1975 - 1978, 2008 to date                                                                 |                    |               |          |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                    |               |          |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                    |               |          |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |                    |               |          |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun    | Jul         | Aug    | Sep                               | Oct    | Nov               | Dec       | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|
| 1                                | 101.21 | 100.99 | 101.08 | 101.08      | 101.09 | 101.25                            | 102.65 | 101.80            | 101.22    | 102.10 | 101.10 | 101.23 |        |
| 2                                | 101.08 | 100.98 | 101.08 | 101.07      | 101.08 | 101.18                            | 102.59 | 101.74            | 101.18    | 102.10 | 101.10 | 101.18 |        |
| 3                                | 101.05 | 100.97 | 101.08 | 101.06      | 101.08 | 101.22                            | 103.16 | 101.69            | 101.15    | 101.86 | 101.09 | 101.14 |        |
| 4                                | 101.03 | 100.97 | 101.10 | 101.13      | 101.10 | 101.29                            | 103.45 | 101.65            | 101.14    | 101.34 | 101.09 | 101.28 |        |
| 5                                | 101.02 | 100.97 | 101.20 | 101.73      | 101.09 | 101.37                            | 103.15 | 101.61            | 101.13    | 101.20 | 101.09 | 101.25 |        |
| 6                                | 101.01 | 100.96 | 101.12 | 101.28      | 101.08 | 101.55                            | 102.83 | 101.57            | 101.12    | 101.16 | 101.09 | 101.18 |        |
| 7                                | 101.01 | 100.96 | 101.10 | 101.90      | 101.08 | 101.30                            | 102.60 | 101.53            | 101.11    | 101.13 | 101.09 | 101.16 |        |
| 8                                | 101.01 | 100.96 | 101.14 | 101.94      | 101.08 | 101.22                            | 102.40 | 101.52            | 101.11    | 101.52 | 101.09 | 101.25 |        |
| 9                                | 101.00 | 100.95 | 101.09 | 101.97      | 101.08 | 101.48                            | 102.25 | 101.51            | 101.11    | 101.88 | 101.09 | 101.40 |        |
| 10                               | 101.00 | 101.10 | 101.16 | 102.08      | 101.07 | 101.35                            | 102.12 | 101.49            | 101.10    | 101.66 | 101.09 | 101.22 |        |
| 11                               | 100.99 | 101.10 | 101.30 | 101.99      | 101.26 | 101.46                            | 102.01 | 101.48            | 101.10    | 101.53 | 101.08 | 101.18 |        |
| 12                               | 100.99 | 101.03 | 101.59 | 101.98      | 101.51 | 101.57                            | 101.93 | 101.68            | 101.10    | 101.36 | 101.08 | 101.16 |        |
| 13                               | 100.98 | 100.99 | 101.71 | 101.97      | 101.29 | 101.40                            | 101.84 | 101.94            | 101.09    | 101.20 | 101.08 | 101.15 |        |
| 14                               | 100.98 | 100.98 | 101.32 | 101.95      | 101.19 | 101.37                            | 101.75 | 101.92            | 101.10    | 101.19 | 101.08 | 101.15 |        |
| 15                               | 100.98 | 100.99 | 101.23 | 101.96      | 101.18 | 101.36                            | 101.69 | 101.92            | 101.12    | 101.42 | 101.08 | 101.17 |        |
| 16                               | 101.02 | 100.98 | 101.17 | 101.76      | 101.13 | 101.67                            | 101.65 | 101.91            | 101.30    | 101.87 | 101.08 | 101.18 |        |
| 17                               | 101.93 | 100.98 | 101.13 | 101.26      | 101.10 | 102.03                            | 101.68 | 101.91            | 101.21    | 101.84 | 101.09 | 101.56 |        |
| 18                               | 102.60 | 101.80 | 101.12 | 101.15      | 101.09 | 102.34                            | 101.75 | 101.67            | 101.63    | 101.68 | 101.09 | 101.32 |        |
| 19                               | 102.24 | 102.17 | 101.13 | 101.13      | 101.09 | 102.68                            | 102.26 | 101.25            | 102.04    | 101.61 | 101.58 | 101.22 |        |
| 20                               | 102.58 | 102.57 | 101.11 | 101.11      | 101.08 | 103.22                            | 103.13 | 101.70            | 101.45    | 101.80 | 101.84 | 101.20 |        |
| 21                               | 102.64 | 102.57 | 101.10 | 101.09      | 101.08 | 104.14                            | 103.29 | 102.12            | 101.27    | 101.85 | 101.82 | 101.19 |        |
| 22                               | 102.64 | 102.56 | 101.13 | 101.09      | 101.08 | 104.48                            | 102.97 | 102.08            | 101.50    | 101.84 | 101.51 | 101.18 |        |
| 23                               | 102.62 | 101.96 | 101.26 | 101.08      | 101.12 | 103.96                            | 102.66 | 102.02            | 101.26    | 101.66 | 101.79 | 101.18 |        |
| 24                               | 102.14 | 101.22 | 101.19 | 101.08      | 101.09 | 103.52                            | 102.43 | 102.02            | 102.09    | 101.24 | 101.82 | 101.18 |        |
| 25                               | 101.15 | 101.13 | 101.13 | 101.08      | 101.08 | 103.17                            | 102.31 | 102.02            | 102.43    | 101.19 | 101.82 | 101.15 |        |
| 26                               | 101.08 | 101.10 | 101.11 | 101.08      | 101.11 | 102.81                            | 102.32 | 102.08            | 102.16    | 101.16 | 101.78 | 101.11 |        |
| 27                               | 101.04 | 101.08 | 101.20 | 101.07      | 101.20 | 102.57                            | 102.23 | 102.18            | 102.06    | 101.15 | 101.86 | 101.11 |        |
| 28                               | 101.03 | 101.07 | 101.13 | 101.07      | 101.19 | 102.43                            | 102.12 | 102.19            | 102.11    | 101.14 | 101.68 | 101.10 |        |
| 29                               | 101.01 | 101.07 | 101.10 | 101.09      | 101.14 | 102.32                            | 102.02 | 101.92            | 102.12    | 101.13 |        | 101.10 |        |
| 30                               | 101.00 | 101.05 | 101.09 | 101.12      | 101.10 | 102.45                            | 101.94 | 101.31            | 102.12    | 101.12 |        | 101.10 |        |
| 31                               |        | 101.04 |        | 101.12      | 101.14 |                                   | 101.87 |                   | 102.12    | 101.11 |        | 101.10 |        |
| Mean                             | 101.40 | 101.27 | 101.18 | 101.40      | 101.13 | 102.14                            | 102.36 | 101.78            | 101.48    | 101.49 | 101.32 | 101.20 |        |
| Max                              | 102.64 | 102.57 | 101.71 | 102.08      | 101.51 | 104.48                            | 103.45 | 102.19            | 102.43    | 102.10 | 101.86 | 101.56 | 104.48 |
| Min                              | 100.98 | 100.95 | 101.08 | 101.06      | 101.07 | 101.18                            | 101.65 | 101.25            | 101.09    | 101.11 | 101.08 | 101.10 | 100.95 |
| Annual Max Momentary Gage Height |        | 104.72 |        | m. (MSL.) , |        | at 24.00 Hours , on Sep 21 , 2013 |        |                   |           |        |        |        |        |
| Zero Gage at Bottom Elevation    |        | 0.00   |        | m. (MSL.) , |        | River Bed                         | 101.27 |                   | m. (MSL.) |        |        |        |        |
| Left Bank Elevation              |        | 108.15 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |
| Right Bank Elevation             |        | 107.83 |        | m. (MSL.) , |        | Drainage Area                     | 453    | Square Kilometers |           |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.83                                                              | 0.22                     | 0.45  | 0.45                 | 0.47  | 0.95    | 15.60                    | 3.80   | 0.86  | 6.50  | 0.50  | 0.89  |                |
| 2              | 0.45                                                              | 0.20                     | 0.45  | 0.43                 | 0.45  | 0.74    | 14.30                    | 3.38   | 0.74  | 6.50  | 0.50  | 0.74  |                |
| 3              | 0.38                                                              | 0.18                     | 0.45  | 0.40                 | 0.45  | 0.86    | 29.10                    | 3.04   | 0.65  | 4.28  | 0.47  | 0.62  |                |
| 4              | 0.32                                                              | 0.18                     | 0.50  | 0.59                 | 0.50  | 1.07    | 38.45                    | 2.80   | 0.62  | 1.26  | 0.47  | 1.04  |                |
| 5              | 0.30                                                              | 0.18                     | 0.80  | 3.31                 | 0.47  | 1.38    | 28.80                    | 2.56   | 0.59  | 0.80  | 0.47  | 0.95  |                |
| 6              | 0.28                                                              | 0.15                     | 0.56  | 1.04                 | 0.45  | 2.25    | 19.88                    | 2.35   | 0.56  | 0.68  | 0.47  | 0.74  |                |
| 7              | 0.28                                                              | 0.15                     | 0.50  | 4.60                 | 0.45  | 1.10    | 14.50                    | 2.15   | 0.53  | 0.59  | 0.47  | 0.68  |                |
| 8              | 0.28                                                              | 0.15                     | 0.62  | 4.96                 | 0.45  | 0.86    | 10.70                    | 2.10   | 0.53  | 2.10  | 0.47  | 0.95  |                |
| 9              | 0.25                                                              | 0.12                     | 0.47  | 5.23                 | 0.45  | 1.90    | 8.40                     | 2.05   | 0.53  | 4.44  | 0.47  | 1.50  |                |
| 10             | 0.25                                                              | 0.50                     | 0.68  | 6.30                 | 0.43  | 1.30    | 6.74                     | 1.95   | 0.50  | 2.86  | 0.47  | 0.86  |                |
| 11             | 0.22                                                              | 0.50                     | 1.10  | 5.41                 | 0.98  | 1.80    | 5.60                     | 1.90   | 0.50  | 2.15  | 0.45  | 0.74  |                |
| 12             | 0.22                                                              | 0.32                     | 2.45  | 5.32                 | 2.05  | 2.35    | 4.87                     | 2.98   | 0.50  | 1.34  | 0.45  | 0.68  |                |
| 13             | 0.20                                                              | 0.22                     | 3.17  | 5.23                 | 1.07  | 1.50    | 4.12                     | 4.96   | 0.47  | 0.80  | 0.45  | 0.65  |                |
| 14             | 0.20                                                              | 0.20                     | 1.18  | 5.05                 | 0.77  | 1.38    | 3.45                     | 4.78   | 0.50  | 0.77  | 0.45  | 0.65  |                |
| 15             | 0.20                                                              | 0.22                     | 0.89  | 5.14                 | 0.74  | 1.34    | 3.04                     | 4.78   | 0.56  | 1.60  | 0.45  | 0.71  |                |
| 16             | 0.30                                                              | 0.20                     | 0.71  | 3.52                 | 0.59  | 2.92    | 2.80                     | 4.69   | 1.10  | 4.36  | 0.45  | 0.74  |                |
| 17             | 4.87                                                              | 0.20                     | 0.59  | 0.98                 | 0.50  | 5.80    | 2.98                     | 4.69   | 0.83  | 4.12  | 0.47  | 2.30  |                |
| 18             | 14.50                                                             | 3.80                     | 0.56  | 0.65                 | 0.47  | 9.74    | 3.45                     | 2.92   | 2.68  | 2.98  | 0.47  | 1.18  |                |
| 19             | 8.26                                                              | 7.34                     | 0.59  | 0.59                 | 0.47  | 16.26   | 8.54                     | 0.95   | 5.90  | 2.56  | 2.40  | 0.86  |                |
| 20             | 14.10                                                             | 13.90                    | 0.53  | 0.53                 | 0.45  | 30.94   | 28.20                    | 3.10   | 1.75  | 3.80  | 4.12  | 0.80  |                |
| 21             | 15.38                                                             | 13.90                    | 0.50  | 0.47                 | 0.45  | 71.22   | 33.18                    | 6.74   | 1.01  | 4.20  | 3.96  | 0.77  |                |
| 22             | 15.38                                                             | 13.70                    | 0.59  | 0.47                 | 0.45  | 98.00   | 23.52                    | 6.30   | 2.00  | 4.12  | 2.05  | 0.74  |                |
| 23             | 14.94                                                             | 5.14                     | 0.98  | 0.45                 | 0.56  | 60.62   | 15.82                    | 5.70   | 0.98  | 2.86  | 3.73  | 0.74  |                |
| 24             | 6.98                                                              | 0.86                     | 0.77  | 0.45                 | 0.47  | 40.96   | 11.24                    | 5.70   | 6.40  | 0.92  | 3.96  | 0.74  |                |
| 25             | 0.65                                                              | 0.59                     | 0.59  | 0.45                 | 0.45  | 29.40   | 9.26                     | 5.70   | 11.24 | 0.77  | 3.96  | 0.65  |                |
| 26             | 0.45                                                              | 0.50                     | 0.53  | 0.45                 | 0.53  | 19.36   | 9.42                     | 6.30   | 7.22  | 0.68  | 3.66  | 0.53  |                |
| 27             | 0.35                                                              | 0.45                     | 0.80  | 0.43                 | 0.80  | 13.90   | 8.12                     | 7.46   | 6.10  | 0.65  | 4.28  | 0.53  |                |
| 28             | 0.32                                                              | 0.43                     | 0.59  | 0.43                 | 0.77  | 11.24   | 6.74                     | 7.58   | 6.62  | 0.62  | 2.98  | 0.50  |                |
| 29             | 0.28                                                              | 0.43                     | 0.50  | 0.47                 | 0.62  | 9.42    | 5.70                     | 4.78   | 6.74  | 0.59  |       | 0.50  |                |
| 30             | 0.25                                                              | 0.38                     | 0.47  | 0.56                 | 0.50  | 11.60   | 4.96                     | 1.14   | 6.74  | 0.56  |       | 0.50  |                |
| 31             |                                                                   | 0.35                     |       | 0.56                 | 0.62  |         | 4.36                     |        | 6.74  | 0.53  |       | 0.50  |                |
| Total          | 101.67                                                            | 65.66                    | 23.57 | 64.92                | 18.88 | 452.16  | 385.84                   | 119.33 | 82.69 | 70.99 | 43.50 | 24.98 | 1454.19 CMSDAY |
| Mean           | 3.39                                                              | 2.12                     | 0.79  | 2.09                 | 0.61  | 15.07   | 12.45                    | 3.98   | 2.67  | 2.29  | 1.55  | 0.81  | 3.98 CMS       |
| Max            | 15.38                                                             | 13.90                    | 3.17  | 6.30                 | 2.05  | 98.00   | 38.45                    | 7.58   | 11.24 | 6.50  | 4.28  | 2.30  | 98.00 CMS      |
| Min            | 0.20                                                              | 0.12                     | 0.45  | 0.40                 | 0.43  | 0.74    | 2.80                     | 0.95   | 0.47  | 0.53  | 0.45  | 0.50  | 0.12 CMS       |
| Runoff         | 8.78                                                              | 5.67                     | 2.04  | 5.61                 | 1.63  | 39.07   | 33.34                    | 10.31  | 7.14  | 6.13  | 3.76  | 2.16  | 125.64 MCM     |
| Momentary Peak | 121.54 CMS. at 104.72 m. (MSL.) at 24.00 Hours , on Sep 21 , 2013 |                          |       |                      |       |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 8.79                                                              | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 268.300 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013**  
**SAKAE KRANG RIVER BASIN**

**Nam Mae Wong at Ban Khok Mo, Uthai Thani (Ct.8)**

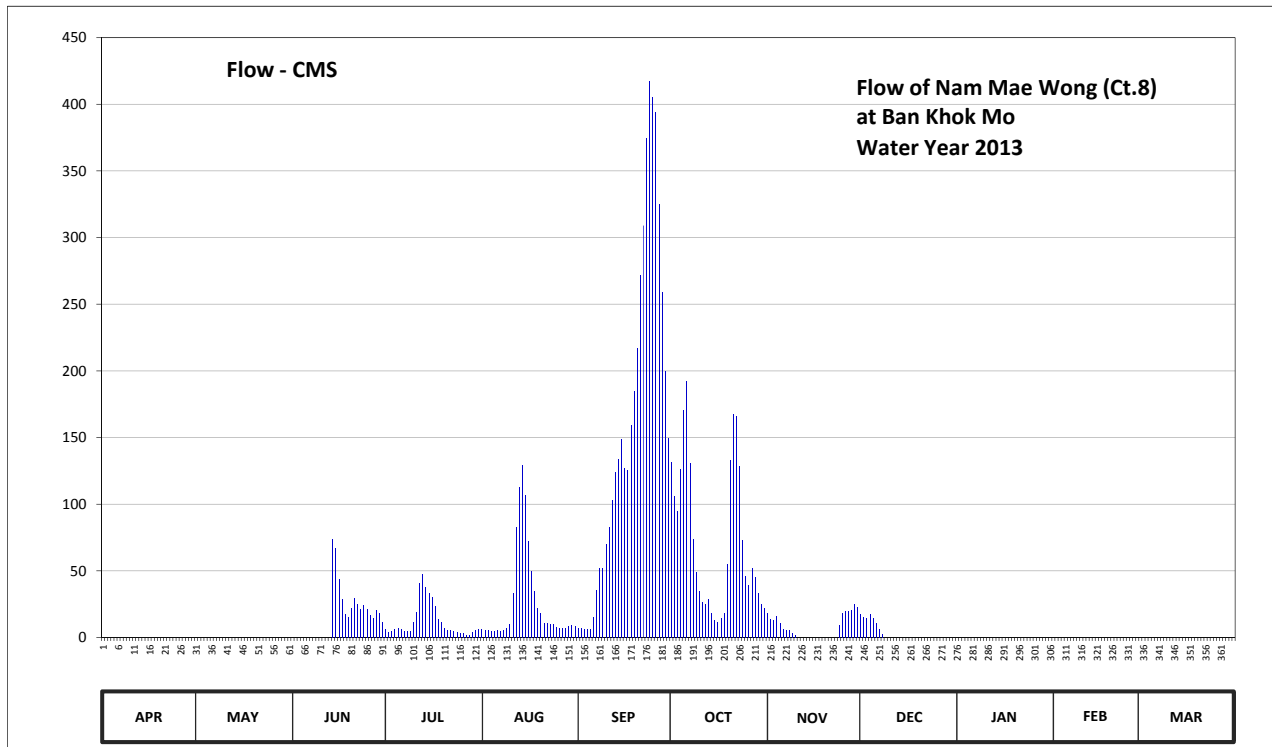
Lat 15 - 29 - 50 N    Long 99 - 56 - 28 E

**Location :** on left bank at Ban Khok Mo.

|                                         |                                                                                           |           |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khok Mo   | <b>Amphoe</b> | Thap Than | <b>Changwat</b>  | Uthai Thani       |
| <b>Drainage Area</b>                    | 3,207                                                                                     | sq.km.    |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                   |
| <b>Location BM</b>                      | Near the sling pole                                                                       |           |               |           | <b>Elevation</b> | +34.285 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 1975 - 1978, 2008 to date                                                                 |           |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                   |
| <b>Period of Rating</b>                 | 1975 - 1978, 2008 to date                                                                 |           |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 1975 - 1978, 2008 to date                                                                 |           |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +34.290 m.(MSL.), records are channel flow only.        |           |               |           |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 50 discharge measurements made in 2013. |           |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 27.02 | 26.69 | 26.87       | 30.18 | 30.18                             | 30.21 | 32.39             | 30.47 | 30.45 | 27.93 | 27.71 | 26.78 |        |
| 2                                | 27.01 | 26.69 | 26.98       | 30.12 | 30.16                             | 30.20 | 32.05             | 30.37 | 30.40 | 27.93 | 27.73 | 26.76 |        |
| 3                                | 27.00 | 26.68 | 27.11       | 30.13 | 30.15                             | 30.19 | 31.87             | 30.35 | 30.38 | 27.92 | 27.75 | 26.73 |        |
| 4                                | 26.99 | 26.67 | 27.29       | 30.18 | 30.14                             | 30.18 | 32.32             | 30.42 | 30.46 | 27.92 | 27.76 | 26.70 |        |
| 5                                | 26.98 | 26.67 | 27.45       | 30.20 | 30.13                             | 30.19 | 32.87             | 30.30 | 30.38 | 28.22 | 27.77 | 26.67 |        |
| 6                                | 26.97 | 26.66 | 27.57       | 30.17 | 30.15                             | 30.41 | 33.11             | 30.19 | 30.30 | 28.52 | 27.78 | 26.67 |        |
| 7                                | 26.96 | 26.65 | 27.66       | 30.14 | 30.13                             | 30.84 | 32.38             | 30.16 | 30.19 | 28.18 | 27.74 | 26.67 |        |
| 8                                | 26.95 | 26.64 | 27.83       | 30.13 | 30.15                             | 31.16 | 31.55             | 30.16 | 30.08 | 28.13 | 27.70 | 26.68 |        |
| 9                                | 26.94 | 26.64 | 27.94       | 30.14 | 30.20                             | 31.17 | 31.11             | 30.09 | 29.94 | 28.16 | 27.67 | 26.69 |        |
| 10                               | 26.93 | 26.63 | 28.12       | 30.32 | 30.28                             | 31.49 | 30.82             | 30.06 | 29.79 | 28.15 | 27.61 | 26.71 |        |
| 11                               | 26.92 | 26.62 | 28.28       | 30.49 | 30.79                             | 31.69 | 30.65             | 29.99 | 29.65 | 28.10 | 27.55 | 26.73 |        |
| 12                               | 26.91 | 26.61 | 28.56       | 30.94 | 31.69                             | 32.00 | 30.62             | 29.90 | 29.52 | 28.03 | 27.49 | 26.71 |        |
| 13                               | 26.90 | 26.61 | 29.68       | 31.08 | 32.14                             | 32.29 | 30.70             | 29.84 | 29.39 | 27.99 | 27.42 | 26.70 |        |
| 14                               | 26.89 | 26.63 | 31.55       | 30.88 | 32.36                             | 32.42 | 30.48             | 29.78 | 29.25 | 27.99 | 27.37 | 26.69 |        |
| 15                               | 26.88 | 26.65 | 31.44       | 30.80 | 32.06                             | 32.61 | 30.36             | 29.68 | 29.10 | 27.96 | 27.31 | 26.69 |        |
| 16                               | 26.87 | 26.68 | 31.01       | 30.73 | 31.52                             | 32.33 | 30.31             | 29.58 | 28.93 | 27.95 | 27.25 | 26.69 |        |
| 17                               | 26.86 | 26.71 | 30.70       | 30.59 | 31.13                             | 32.31 | 30.38             | 29.47 | 28.73 | 27.92 | 27.18 | 26.69 |        |
| 18                               | 26.85 | 26.75 | 30.45       | 30.37 | 30.83                             | 32.74 | 30.47             | 29.33 | 28.50 | 27.90 | 27.13 | 26.68 |        |
| 19                               | 26.84 | 26.79 | 30.40       | 30.32 | 30.56                             | 33.03 | 31.22             | 29.16 | 28.28 | 27.88 | 27.09 | 26.68 |        |
| 20                               | 26.83 | 26.82 | 30.56       | 30.21 | 30.47                             | 33.37 | 32.41             | 28.96 | 28.23 | 27.87 | 27.06 | 26.68 |        |
| 21                               | 26.82 | 26.87 | 30.72       | 30.16 | 30.30                             | 33.88 | 32.84             | 28.75 | 28.11 | 27.85 | 27.03 | 26.68 |        |
| 22                               | 26.81 | 26.86 | 30.62       | 30.15 | 30.29                             | 34.20 | 32.82             | 28.84 | 28.02 | 27.82 | 27.00 | 26.67 |        |
| 23                               | 26.80 | 26.85 | 30.55       | 30.14 | 30.28                             | 34.74 | 32.35             | 29.89 | 28.00 | 27.80 | 26.96 | 26.67 |        |
| 24                               | 26.78 | 26.84 | 30.60       | 30.11 | 30.27                             | 35.07 | 31.53             | 30.25 | 27.99 | 27.79 | 26.91 | 26.67 |        |
| 25                               | 26.77 | 26.82 | 30.55       | 30.10 | 30.22                             | 34.98 | 31.05             | 30.48 | 27.99 | 27.78 | 26.87 | 26.67 |        |
| 26                               | 26.75 | 26.81 | 30.44       | 30.09 | 30.20                             | 34.89 | 30.92             | 30.50 | 27.97 | 27.77 | 26.84 | 26.68 |        |
| 27                               | 26.74 | 26.80 | 30.38       | 30.06 | 30.20                             | 34.33 | 31.16             | 30.50 | 27.96 | 27.76 | 26.81 | 26.68 |        |
| 28                               | 26.73 | 26.79 | 30.53       | 30.05 | 30.20                             | 33.76 | 31.03             | 30.53 | 27.96 | 27.74 | 26.79 | 26.69 |        |
| 29                               | 26.71 | 26.78 | 30.47       | 30.11 | 30.24                             | 33.19 | 30.80             | 30.63 | 27.97 | 27.73 |       | 26.69 |        |
| 30                               | 26.70 | 26.77 | 30.32       | 30.16 | 30.26                             | 32.62 | 30.62             | 30.58 | 27.96 | 27.72 |       | 26.70 |        |
| 31                               |       | 26.76 |             | 30.18 | 30.23                             |       | 30.56             |       | 27.94 | 27.71 |       | 26.71 |        |
| Mean                             | 26.87 | 26.72 | 29.42       | 30.30 | 30.58                             | 32.42 | 31.41             | 29.97 | 29.03 | 27.94 | 27.33 | 26.69 |        |
| Max                              | 27.02 | 26.87 | 31.55       | 31.08 | 32.36                             | 35.07 | 33.11             | 30.63 | 30.46 | 28.52 | 27.78 | 26.78 | 35.07  |
| Min                              | 26.70 | 26.61 | 26.87       | 30.05 | 30.13                             | 30.18 | 30.31             | 28.75 | 27.94 | 27.71 | 26.79 | 26.67 | 26.61  |
| Annual Max Momentary Gage Height |       | 35.07 | m. (MSL.) , |       | at 06.00 Hours , on Sep 24 , 2012 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , |       | River Bed                         | 26.25 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 34.28 | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 34.28 | m. (MSL.) , |       | Drainage Area                     | 3207  | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct     | Nov                      | Dec   | Jan  | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|---------|--------------------------|-------|------|------|------|----------------|
| 1              | 0.00                                                             | 0.00                     | 0.00   | 6.30                 | 6.30   | 7.40    | 131.75  | 18.15                    | 17.25 | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00                                                             | 0.00                     | 0.00   | 4.20                 | 5.60   | 7.00    | 106.50  | 13.80                    | 15.00 | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00                                                             | 0.00                     | 0.00   | 4.55                 | 5.25   | 6.65    | 94.55   | 13.00                    | 14.20 | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00                                                             | 0.00                     | 0.00   | 6.30                 | 4.90   | 6.30    | 126.50  | 15.90                    | 17.70 | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 0.00   | 7.00                 | 4.55   | 6.65    | 170.45  | 11.00                    | 14.20 | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 0.00   | 5.95                 | 5.25   | 15.45   | 191.95  | 6.65                     | 11.00 | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 0.00   | 4.90                 | 4.55   | 35.50   | 131.00  | 5.60                     | 6.65  | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 0.00   | 4.55                 | 5.25   | 51.80   | 74.00   | 5.60                     | 2.80  | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 0.00   | 4.90                 | 7.00   | 52.35   | 49.05   | 3.15                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 0.00   | 11.80                | 10.20  | 70.40   | 34.50   | 2.10                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 0.00   | 19.05                | 33.00  | 82.85   | 26.25   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                             | 0.00                     | 0.00   | 40.50                | 82.85  | 103.00  | 24.90   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                             | 0.00                     | 0.00   | 47.50                | 113.00 | 124.25  | 28.50   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                             | 0.00                     | 74.00  | 37.50                | 129.50 | 134.00  | 18.60   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 67.40  | 33.50                | 107.20 | 148.80  | 13.40   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                             | 0.00                     | 44.00  | 30.00                | 72.20  | 127.25  | 11.40   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 28.50  | 23.55                | 50.15  | 125.75  | 14.20   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                             | 0.00                     | 17.25  | 13.80                | 35.00  | 159.40  | 18.15   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                             | 0.00                     | 15.00  | 11.80                | 22.20  | 184.70  | 55.10   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                             | 0.00                     | 22.20  | 7.40                 | 18.15  | 217.00  | 133.25  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                             | 0.00                     | 29.50  | 5.60                 | 11.00  | 271.80  | 167.90  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                             | 0.00                     | 24.90  | 5.25                 | 10.60  | 309.00  | 166.20  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                             | 0.00                     | 21.75  | 4.90                 | 10.20  | 374.50  | 128.75  | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                             | 0.00                     | 24.00  | 3.85                 | 9.80   | 417.10  | 72.80   | 9.00                     | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                             | 0.00                     | 21.75  | 3.50                 | 7.80   | 405.40  | 46.00   | 18.60                    | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                             | 0.00                     | 16.80  | 3.15                 | 7.00   | 393.70  | 39.50   | 19.50                    | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                             | 0.00                     | 14.20  | 2.10                 | 7.00   | 324.60  | 51.80   | 19.50                    | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                             | 0.00                     | 20.85  | 1.75                 | 7.00   | 258.60  | 45.00   | 20.85                    | 0.00  | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                             | 0.00                     | 18.15  | 3.85                 | 8.60   | 199.55  | 33.50   | 25.35                    | 0.00  | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                             | 0.00                     | 11.80  | 5.60                 | 9.40   | 149.60  | 24.90   | 23.10                    | 0.00  | 0.00 |      | 0.00 |                |
| 31             |                                                                  | 0.00                     |        | 6.30                 | 8.20   |         | 22.20   |                          | 0.00  | 0.00 |      | 0.00 |                |
|                |                                                                  |                          |        |                      |        |         |         |                          |       |      |      |      |                |
| Total          | 0.00                                                             | 0.00                     | 472.05 | 370.90               | 818.70 | 4770.35 | 2252.55 | 230.85                   | 98.80 | 0.00 | 0.00 | 0.00 | 9014.20 CMSDAY |
| Mean           | 0.00                                                             | 0.00                     | 15.73  | 11.96                | 26.41  | 159.01  | 72.66   | 7.70                     | 3.19  | 0.00 | 0.00 | 0.00 | 24.70 CMS      |
| Max            | 0.00                                                             | 0.00                     | 74.00  | 47.50                | 129.50 | 417.10  | 191.95  | 25.35                    | 17.70 | 0.00 | 0.00 | 0.00 | 417.10 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00   | 1.75                 | 4.55   | 6.30    | 11.40   | 0.00                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                             | 0.00                     | 40.79  | 32.05                | 70.74  | 412.16  | 194.62  | 19.95                    | 8.54  | 0.00 | 0.00 | 0.00 | 778.83 MCM     |
| Momentary Peak | 417.10 CMS. at 35.07 m. (MSL.) at 06.00 Hours , on Sep 24 , 2013 |                          |        |                      |        |         |         |                          |       |      |      |      |                |
| Runoff Yield   | 7.70                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 130.059 |         | Liters/Second/Square KM. |       |      |      |      |                |

**WATER YEAR : 2013**  
**SAKAE KRANG RIVER BASIN**

**Huai Thap Salao at Ban Bung Ai Chiam, Uthai Thani (Ct.9)**

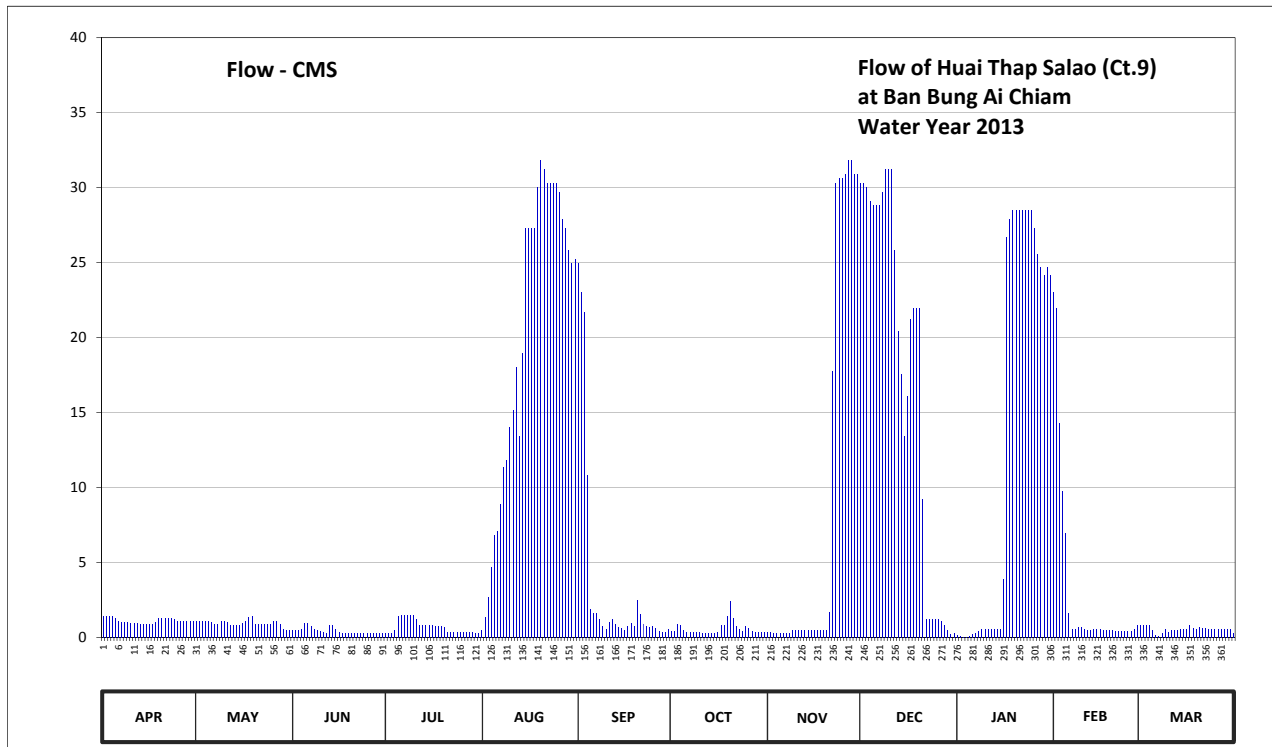
Lat 15 - 31 - 35 N    Long 99 - 28 - 10 E

**Location :** on left bank about 9 kilometers upstream from Ct.6.

|                                         |                                                                             |               |               |         |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|---------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Bung Ai Chiam | <b>Amphoe</b> | Lan Sak | <b>Changwat</b>  | Uthai Thani        |
| <b>Drainage Area</b>                    | 528                                                                         | sq.km.        |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |               |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                      | m. (MSL.)     |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |               |               |         |                  |                    |
| <b>Location BM</b>                      | On left bank about 100 meters from the gage observer's house                |               |               |         | <b>Elevation</b> | +127.701 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |               |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |               |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1977 to date                                                                |               |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |               |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1977 to date                                                                |               |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |               |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1977 to date                                                                |               |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable                                                               |               |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |               |               |         |                  |                    |
| <b>General Description</b>              | Records good. Flow regulated by Rabum Dam above gage site.                  |               |               |         |                  |                    |
|                                         | Stage-discharge relation defined by 19 discharge measurements made in 2013. |               |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun                                             | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                                | 123.28 | 123.20 | 123.04                                          | 122.95 | 123.04 | 124.77 | 123.02 | 122.97 | 124.95 | 122.89 | 124.70 | 123.13 |        |
| 2                                | 123.28 | 123.20 | 123.04                                          | 122.94 | 123.27 | 124.70 | 123.02 | 122.97 | 124.95 | 122.85 | 124.66 | 123.13 |        |
| 3                                | 123.28 | 123.20 | 123.04                                          | 122.94 | 123.51 | 124.65 | 123.15 | 122.96 | 124.94 | 122.82 | 124.34 | 123.13 |        |
| 4                                | 123.28 | 123.20 | 123.05                                          | 123.04 | 123.75 | 124.17 | 123.13 | 122.95 | 124.91 | 122.82 | 124.11 | 123.13 |        |
| 5                                | 123.25 | 123.20 | 123.16                                          | 123.29 | 123.93 | 123.38 | 123.04 | 122.95 | 124.90 | 122.85 | 123.94 | 123.04 |        |
| 6                                | 123.19 | 123.18 | 123.16                                          | 123.30 | 123.95 | 123.33 | 122.98 | 122.94 | 124.90 | 122.90 | 123.33 | 122.89 |        |
| 7                                | 123.18 | 123.15 | 123.11                                          | 123.30 | 124.06 | 123.33 | 122.98 | 122.94 | 124.90 | 122.94 | 123.05 | 122.84 |        |
| 8                                | 123.18 | 123.15 | 123.05                                          | 123.30 | 124.20 | 123.23 | 122.98 | 122.96 | 124.93 | 123.02 | 123.06 | 122.93 |        |
| 9                                | 123.18 | 123.20 | 123.03                                          | 123.30 | 124.22 | 123.11 | 122.97 | 123.03 | 124.98 | 123.05 | 123.10 | 123.06 |        |
| 10                               | 123.17 | 123.20 | 123.02                                          | 123.30 | 124.33 | 123.06 | 122.97 | 123.03 | 124.98 | 123.05 | 123.10 | 122.97 |        |
| 11                               | 123.17 | 123.18 | 122.99                                          | 123.23 | 124.38 | 123.18 | 122.96 | 123.03 | 124.98 | 123.05 | 123.06 | 123.03 |        |
| 12                               | 123.17 | 123.13 | 122.96                                          | 123.14 | 124.50 | 123.23 | 122.96 | 123.03 | 124.80 | 123.05 | 123.03 | 123.03 |        |
| 13                               | 123.15 | 123.13 | 123.14                                          | 123.14 | 124.30 | 123.15 | 122.95 | 123.03 | 124.60 | 123.05 | 123.03 | 123.03 |        |
| 14                               | 123.15 | 123.13 | 123.14                                          | 123.14 | 124.54 | 123.10 | 122.95 | 123.03 | 124.48 | 123.05 | 123.05 | 123.05 |        |
| 15                               | 123.15 | 123.13 | 123.06                                          | 123.14 | 124.85 | 123.08 | 122.95 | 123.04 | 124.30 | 123.05 | 123.05 | 123.05 |        |
| 16                               | 123.15 | 123.16 | 122.98                                          | 123.14 | 124.85 | 123.04 | 122.99 | 123.03 | 124.42 | 123.66 | 123.05 | 123.05 |        |
| 17                               | 123.15 | 123.20 | 122.95                                          | 123.12 | 124.85 | 123.11 | 123.14 | 123.03 | 124.63 | 124.83 | 123.03 | 123.14 |        |
| 18                               | 123.18 | 123.26 | 122.93                                          | 123.12 | 124.85 | 123.16 | 123.13 | 123.03 | 124.66 | 124.87 | 123.03 | 123.08 |        |
| 19                               | 123.25 | 123.28 | 122.94                                          | 123.12 | 124.94 | 123.12 | 123.28 | 123.03 | 124.66 | 124.89 | 123.03 | 123.06 |        |
| 20                               | 123.25 | 123.15 | 122.96                                          | 123.09 | 125.00 | 123.48 | 123.47 | 123.03 | 124.66 | 124.89 | 123.03 | 123.09 |        |
| 21                               | 123.25 | 123.15 | 122.93                                          | 122.99 | 124.98 | 123.31 | 123.25 | 123.34 | 124.08 | 124.89 | 123.02 | 123.08 |        |
| 22                               | 123.25 | 123.15 | 122.93                                          | 122.98 | 124.95 | 123.15 | 123.11 | 124.49 | 123.24 | 124.89 | 123.02 | 123.07 |        |
| 23                               | 123.25 | 123.15 | 122.93                                          | 122.98 | 124.95 | 123.12 | 123.06 | 124.95 | 123.23 | 124.89 | 123.02 | 123.05 |        |
| 24                               | 123.23 | 123.15 | 122.93                                          | 122.98 | 124.95 | 123.10 | 123.02 | 124.96 | 123.23 | 124.89 | 123.02 | 123.05 |        |
| 25                               | 123.20 | 123.15 | 122.93                                          | 122.98 | 124.95 | 123.12 | 123.12 | 124.96 | 123.23 | 124.89 | 123.01 | 123.05 |        |
| 26                               | 123.20 | 123.20 | 122.93                                          | 122.97 | 124.93 | 123.07 | 123.07 | 124.97 | 123.23 | 124.85 | 123.01 | 123.05 |        |
| 27                               | 123.20 | 123.20 | 122.94                                          | 122.97 | 124.87 | 123.02 | 123.01 | 125.00 | 123.20 | 124.79 | 123.05 | 123.05 |        |
| 28                               | 123.20 | 123.15 | 122.95                                          | 122.97 | 124.85 | 122.98 | 122.98 | 125.00 | 123.13 | 124.76 | 123.13 | 123.05 |        |
| 29                               | 123.20 | 123.06 | 122.95                                          | 122.97 | 124.80 | 122.99 | 122.98 | 124.97 | 123.04 | 124.74 |        | 123.05 |        |
| 30                               | 123.20 | 123.04 | 122.95                                          | 122.96 | 124.77 | 123.05 | 122.98 | 124.97 | 122.92 | 124.76 |        | 123.05 |        |
| 31                               |        | 123.04 |                                                 | 122.96 | 124.78 |        | 122.98 |        | 122.94 | 124.74 |        | 122.96 |        |
| Mean                             | 123.21 | 123.16 | 123.00                                          | 123.09 | 124.49 | 123.34 | 123.05 | 123.59 | 124.23 | 123.89 | 123.29 | 123.04 |        |
| Max                              | 123.28 | 123.28 | 123.16                                          | 123.30 | 125.00 | 124.77 | 123.47 | 125.00 | 124.98 | 124.89 | 124.70 | 123.14 | 125.00 |
| Min                              | 123.15 | 123.04 | 122.93                                          | 122.94 | 123.04 | 122.98 | 122.95 | 122.94 | 122.92 | 122.82 | 123.01 | 122.84 | 122.82 |
| Annual Max Momentary Gage Height | 125.00 |        | m. (MSL.) , at 15.00 Hours , on Aug 19 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 0.00   |        | m. (MSL.) , River Bed 121.21 m. (MSL.)          |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              | 129.97 |        | m. (MSL.) ,                                     |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             | 130.02 |        | m. (MSL.) , Drainage Area 528 Square Kilometers |        |        |        |        |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|--------------------------|--------|--------|--------|-------|-------|----------------|
| 1              | 1.42                                                             | 1.10                     | 0.52  | 0.30                 | 0.52   | 24.96  | 0.46                     | 0.34   | 30.30  | 0.18   | 23.00 | 0.82  |                |
| 2              | 1.42                                                             | 1.10                     | 0.52  | 0.28                 | 1.38   | 23.00  | 0.46                     | 0.34   | 30.30  | 0.10   | 21.96 | 0.82  |                |
| 3              | 1.42                                                             | 1.10                     | 0.52  | 0.28                 | 2.68   | 21.70  | 0.90                     | 0.32   | 30.00  | 0.04   | 14.28 | 0.82  |                |
| 4              | 1.42                                                             | 1.10                     | 0.55  | 0.52                 | 4.70   | 10.86  | 0.82                     | 0.30   | 29.10  | 0.04   | 9.78  | 0.82  |                |
| 5              | 1.30                                                             | 1.10                     | 0.94  | 1.46                 | 6.82   | 1.90   | 0.52                     | 0.30   | 28.80  | 0.10   | 6.96  | 0.52  |                |
| 6              | 1.06                                                             | 1.02                     | 0.94  | 1.50                 | 7.10   | 1.65   | 0.36                     | 0.28   | 28.80  | 0.20   | 1.65  | 0.18  |                |
| 7              | 1.02                                                             | 0.90                     | 0.74  | 1.50                 | 8.88   | 1.65   | 0.36                     | 0.28   | 28.80  | 0.28   | 0.55  | 0.08  |                |
| 8              | 1.02                                                             | 0.90                     | 0.55  | 1.50                 | 11.40  | 1.22   | 0.36                     | 0.32   | 29.70  | 0.46   | 0.58  | 0.26  |                |
| 9              | 1.02                                                             | 1.10                     | 0.49  | 1.50                 | 11.80  | 0.74   | 0.34                     | 0.49   | 31.20  | 0.55   | 0.70  | 0.58  |                |
| 10             | 0.98                                                             | 1.10                     | 0.46  | 1.50                 | 14.06  | 0.58   | 0.34                     | 0.49   | 31.20  | 0.55   | 0.70  | 0.34  |                |
| 11             | 0.98                                                             | 1.02                     | 0.38  | 1.22                 | 15.16  | 1.02   | 0.32                     | 0.49   | 31.20  | 0.55   | 0.58  | 0.49  |                |
| 12             | 0.98                                                             | 0.82                     | 0.32  | 0.86                 | 18.00  | 1.22   | 0.32                     | 0.49   | 25.80  | 0.55   | 0.49  | 0.49  |                |
| 13             | 0.90                                                             | 0.82                     | 0.86  | 0.86                 | 13.40  | 0.90   | 0.30                     | 0.49   | 20.40  | 0.55   | 0.49  | 0.49  |                |
| 14             | 0.90                                                             | 0.82                     | 0.86  | 0.86                 | 18.96  | 0.70   | 0.30                     | 0.49   | 17.52  | 0.55   | 0.55  | 0.55  |                |
| 15             | 0.90                                                             | 0.82                     | 0.58  | 0.86                 | 27.30  | 0.64   | 0.30                     | 0.52   | 13.40  | 0.55   | 0.55  | 0.55  |                |
| 16             | 0.90                                                             | 0.94                     | 0.36  | 0.86                 | 27.30  | 0.52   | 0.38                     | 0.49   | 16.08  | 3.88   | 0.55  | 0.55  |                |
| 17             | 0.90                                                             | 1.10                     | 0.30  | 0.78                 | 27.30  | 0.74   | 0.86                     | 0.49   | 21.18  | 26.70  | 0.49  | 0.86  |                |
| 18             | 1.02                                                             | 1.34                     | 0.26  | 0.78                 | 27.30  | 0.94   | 0.82                     | 0.49   | 21.96  | 27.90  | 0.49  | 0.64  |                |
| 19             | 1.30                                                             | 1.42                     | 0.28  | 0.78                 | 30.00  | 0.78   | 1.42                     | 0.49   | 21.96  | 28.50  | 0.49  | 0.58  |                |
| 20             | 1.30                                                             | 0.90                     | 0.32  | 0.67                 | 31.80  | 2.48   | 2.42                     | 0.49   | 21.96  | 28.50  | 0.49  | 0.67  |                |
| 21             | 1.30                                                             | 0.90                     | 0.26  | 0.38                 | 31.20  | 1.55   | 1.30                     | 1.70   | 9.24   | 28.50  | 0.46  | 0.64  |                |
| 22             | 1.30                                                             | 0.90                     | 0.26  | 0.36                 | 30.30  | 0.90   | 0.74                     | 17.76  | 1.26   | 28.50  | 0.46  | 0.61  |                |
| 23             | 1.30                                                             | 0.90                     | 0.26  | 0.36                 | 30.30  | 0.78   | 0.58                     | 30.30  | 1.22   | 28.50  | 0.46  | 0.55  |                |
| 24             | 1.22                                                             | 0.90                     | 0.26  | 0.36                 | 30.30  | 0.70   | 0.46                     | 30.60  | 1.22   | 28.50  | 0.46  | 0.55  |                |
| 25             | 1.10                                                             | 0.90                     | 0.26  | 0.36                 | 30.30  | 0.78   | 0.78                     | 30.60  | 1.22   | 28.50  | 0.43  | 0.55  |                |
| 26             | 1.10                                                             | 1.10                     | 0.26  | 0.34                 | 29.70  | 0.61   | 0.61                     | 30.90  | 1.22   | 27.30  | 0.43  | 0.55  |                |
| 27             | 1.10                                                             | 1.10                     | 0.28  | 0.34                 | 27.90  | 0.46   | 0.43                     | 31.80  | 1.10   | 25.52  | 0.55  | 0.55  |                |
| 28             | 1.10                                                             | 0.90                     | 0.30  | 0.34                 | 27.30  | 0.36   | 0.36                     | 31.80  | 0.82   | 24.68  | 0.82  | 0.55  |                |
| 29             | 1.10                                                             | 0.58                     | 0.30  | 0.34                 | 25.80  | 0.38   | 0.36                     | 30.90  | 0.52   | 24.12  |       | 0.55  |                |
| 30             | 1.10                                                             | 0.52                     | 0.30  | 0.32                 | 24.96  | 0.55   | 0.36                     | 30.90  | 0.24   | 24.68  |       | 0.55  |                |
| 31             |                                                                  | 0.52                     |       | 0.32                 | 25.24  |        | 0.36                     |        | 0.28   | 24.12  |       | 0.32  |                |
| Total          | 33.88                                                            | 29.74                    | 13.49 | 22.69                | 619.16 | 105.27 | 18.70                    | 275.65 | 528.00 | 413.65 | 89.40 | 17.08 | 2166.71 CMSDAY |
| Mean           | 1.13                                                             | 0.96                     | 0.45  | 0.73                 | 19.97  | 3.51   | 0.60                     | 9.19   | 17.03  | 13.34  | 3.19  | 0.55  | 5.94 CMS       |
| Max            | 1.42                                                             | 1.42                     | 0.94  | 1.50                 | 31.80  | 24.96  | 2.42                     | 31.80  | 31.20  | 28.50  | 23.00 | 0.86  | 31.80 CMS      |
| Min            | 0.90                                                             | 0.52                     | 0.26  | 0.28                 | 0.52   | 0.36   | 0.30                     | 0.28   | 0.24   | 0.04   | 0.43  | 0.08  | 0.04 CMS       |
| Runoff         | 2.93                                                             | 2.57                     | 1.17  | 1.96                 | 53.50  | 9.10   | 1.62                     | 23.82  | 45.62  | 35.74  | 7.72  | 1.48  | 187.20 MCM     |
| Momentary Peak | 31.80 CMS. at 125.00 m. (MSL.) at 15.00 Hours , on Aug 19 , 2013 |                          |       |                      |        |        |                          |        |        |        |       |       |                |
| Runoff Yield   | 11.24                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 60.196 | Liters/Second/Square KM. |        |        |        |       |       |                |

**WATER YEAR : 2013**

## SAKAE KRANG RIVER BASIN

**Huai Tak Dad at Ban Don Yai, Uthai Thani (Ct.19)**

Lat 15 - 27 - 07 N    Long 100 - 02 - 00 E

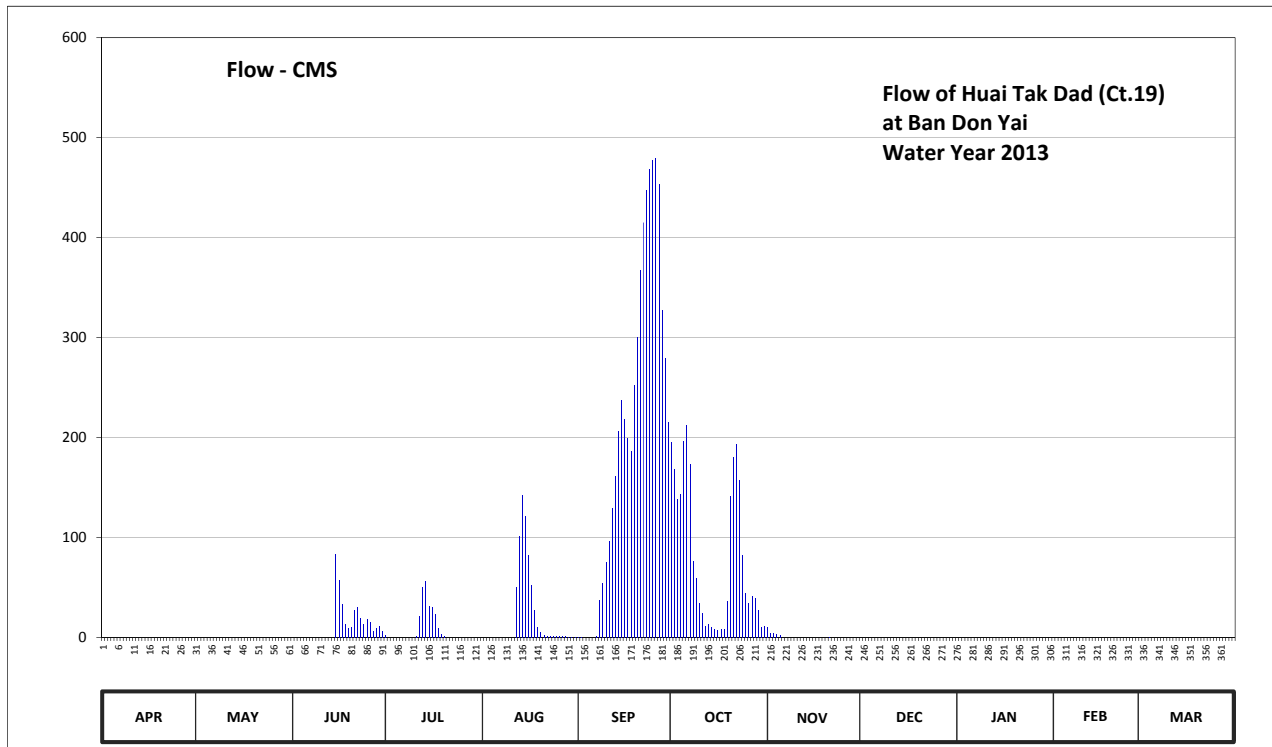
**Location :** on right bank at Ban Don Yai

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Don Yai   | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Uthai Thani       |
| <b>Drainage Area</b>                    | 3,454                                                                                     | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank about 5.00 meters from the top staff gage.                                  |           |               |        | <b>Elevation</b> | +24.379 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1998 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1998 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1998 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 35 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 16.79 | 16.79 | 16.79                                            | 18.52 | 18.22 | 18.42 | 22.21 | 18.90 | 17.92 | 17.78 | 17.78 | 17.78 |        |
| 2                                | 16.79 | 16.79 | 16.79                                            | 18.39 | 18.20 | 18.41 | 21.97 | 18.65 | 17.89 | 17.78 | 17.78 | 17.78 |        |
| 3                                | 16.79 | 16.79 | 16.79                                            | 18.32 | 18.18 | 18.40 | 21.66 | 18.61 | 17.89 | 17.78 | 17.78 | 17.78 |        |
| 4                                | 16.79 | 16.79 | 16.79                                            | 18.28 | 18.17 | 18.39 | 21.72 | 18.58 | 17.90 | 17.78 | 17.78 | 17.78 |        |
| 5                                | 8.40  | 16.79 | 16.79                                            | 18.25 | 18.13 | 18.39 | 22.22 | 18.50 | 17.90 | 17.78 | 17.78 | 17.78 |        |
| 6                                | 16.79 | 16.79 | 16.79                                            | 18.19 | 18.11 | 18.40 | 22.36 | 18.17 | 17.85 | 17.78 | 17.78 | 17.78 |        |
| 7                                | 16.79 | 16.79 | 16.79                                            | 18.17 | 18.09 | 18.45 | 22.01 | 18.21 | 17.80 | 17.78 | 17.78 | 17.78 |        |
| 8                                | 16.79 | 16.79 | 16.79                                            | 18.16 | 18.12 | 19.79 | 20.69 | 18.20 | 17.79 | 17.78 | 17.78 | 17.78 |        |
| 9                                | 16.79 | 16.79 | 16.96                                            | 18.18 | 18.16 | 20.22 | 20.33 | 18.11 | 17.79 | 17.78 | 17.78 | 17.78 |        |
| 10                               | 16.79 | 16.79 | 17.24                                            | 18.31 | 18.18 | 20.67 | 19.71 | 18.33 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 11                               | 16.79 | 16.79 | 17.58                                            | 18.49 | 18.18 | 21.08 | 19.43 | 18.16 | 17.79 | 17.78 | 17.78 | 17.78 |        |
| 12                               | 16.79 | 16.79 | 17.66                                            | 19.31 | 20.11 | 21.56 | 18.97 | 18.07 | 17.79 | 17.78 | 17.78 | 17.78 |        |
| 13                               | 16.79 | 16.79 | 17.76                                            | 20.10 | 21.18 | 21.90 | 19.05 | 18.02 | 17.80 | 17.78 | 17.78 | 17.78 |        |
| 14                               | 16.79 | 16.79 | 18.36                                            | 20.25 | 21.71 | 22.31 | 18.94 | 18.01 | 17.80 | 17.78 | 17.78 | 17.78 |        |
| 15                               | 16.79 | 16.79 | 20.83                                            | 19.63 | 21.46 | 22.55 | 18.80 | 17.99 | 17.79 | 17.78 | 17.78 | 17.78 |        |
| 16                               | 16.79 | 16.79 | 20.29                                            | 19.62 | 20.81 | 22.41 | 18.77 | 17.98 | 17.79 | 17.78 | 17.78 | 17.78 |        |
| 17                               | 16.79 | 16.79 | 19.69                                            | 19.38 | 20.16 | 22.25 | 18.81 | 17.98 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 18                               | 16.79 | 16.79 | 19.05                                            | 18.87 | 19.50 | 22.13 | 18.80 | 17.97 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 19                               | 16.79 | 16.79 | 18.87                                            | 18.59 | 18.92 | 22.66 | 19.77 | 18.01 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 20                               | 16.79 | 16.79 | 18.91                                            | 18.45 | 18.66 | 22.99 | 21.69 | 18.25 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 21                               | 16.79 | 16.79 | 19.50                                            | 18.35 | 18.52 | 23.39 | 22.08 | 18.43 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 22                               | 16.79 | 16.79 | 19.61                                            | 18.30 | 18.47 | 23.64 | 22.20 | 18.27 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 23                               | 16.79 | 16.79 | 19.24                                            | 18.27 | 18.46 | 23.80 | 21.87 | 18.09 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 24                               | 16.79 | 16.79 | 19.05                                            | 18.25 | 18.47 | 23.90 | 20.80 | 18.02 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 25                               | 16.79 | 16.79 | 19.22                                            | 18.24 | 18.47 | 23.94 | 19.96 | 18.03 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 26                               | 16.79 | 16.79 | 19.10                                            | 18.24 | 18.47 | 23.95 | 19.72 | 18.04 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 27                               | 16.79 | 16.79 | 18.73                                            | 18.24 | 18.48 | 23.83 | 19.89 | 18.01 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 28                               | 16.79 | 16.79 | 18.86                                            | 18.22 | 18.46 | 23.16 | 19.84 | 17.99 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 29                               | 16.79 | 16.79 | 18.98                                            | 18.23 | 18.44 | 22.85 | 19.50 | 17.97 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 30                               | 16.79 | 16.79 | 18.72                                            | 18.24 | 18.43 | 22.39 | 18.93 | 17.94 | 17.78 | 17.78 | 17.78 | 17.78 |        |
| 31                               |       | 16.79 |                                                  | 18.24 | 18.42 |       | 18.96 |       | 17.78 | 17.78 | 17.78 | 17.78 |        |
| Mean                             | 16.51 | 16.79 | 18.28                                            | 18.59 | 18.88 | 21.54 | 20.38 | 18.18 | 17.81 | 17.78 | 17.78 | 17.78 |        |
| Max                              | 16.79 | 16.79 | 20.83                                            | 20.25 | 21.71 | 23.95 | 22.36 | 18.90 | 17.92 | 17.78 | 17.78 | 17.78 | 23.95  |
| Min                              | 8.40  | 16.79 | 16.79                                            | 18.16 | 18.09 | 18.39 | 18.77 | 17.94 | 17.78 | 17.78 | 17.78 | 17.78 | 8.40   |
| Annual Max Momentary Gage Height |       | 24.00 | m. (MSL.) , at 22.00 Hours , on Sep 25 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 16.79 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 24.36 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 24.35 | m. (MSL.) , Drainage Area 3454 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec  | Jan  | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|-------|------|------|------|------|----------------|
| 1              | 0.00                                                             | 0.00                     | 0.00   | 2.40                 | 0.00   | 0.40    | 195.10                   | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.20    | 168.70                   | 5.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 138.40                   | 4.20  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 143.80                   | 3.60  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 196.20                   | 2.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 212.20                   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 1.00    | 173.10                   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 37.60   | 76.50                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 54.80   | 59.20                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 75.50   | 34.40                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 0.00   | 1.80                 | 0.00   | 96.00   | 24.90                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                             | 0.00                     | 0.00   | 21.30                | 50.40  | 129.80  | 11.40                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                             | 0.00                     | 0.00   | 50.00                | 101.80 | 161.00  | 13.50                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                             | 0.00                     | 0.00   | 56.00                | 142.90 | 206.20  | 10.80                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 83.50  | 31.20                | 121.80 | 237.00  | 8.00                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                             | 0.00                     | 57.60  | 30.80                | 82.50  | 218.30  | 7.40                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 33.60  | 23.40                | 52.40  | 199.50  | 8.20                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                             | 0.00                     | 13.50  | 9.40                 | 27.00  | 186.30  | 8.00                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                             | 0.00                     | 9.40   | 3.80                 | 10.40  | 252.40  | 36.80                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                             | 0.00                     | 10.20  | 1.00                 | 5.20   | 300.50  | 141.10                   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                             | 0.00                     | 27.00  | 0.00                 | 2.40   | 367.20  | 180.80                   | 0.60  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                             | 0.00                     | 30.40  | 0.00                 | 1.40   | 415.00  | 194.00                   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                             | 0.00                     | 19.20  | 0.00                 | 1.20   | 447.00  | 158.00                   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                             | 0.00                     | 13.50  | 0.00                 | 1.40   | 468.00  | 82.00                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                             | 0.00                     | 18.60  | 0.00                 | 1.40   | 476.80  | 44.40                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                             | 0.00                     | 15.00  | 0.00                 | 1.40   | 479.00  | 34.80                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                             | 0.00                     | 6.60   | 0.00                 | 1.60   | 453.30  | 41.60                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                             | 0.00                     | 9.20   | 0.00                 | 1.20   | 327.60  | 39.60                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                             | 0.00                     | 11.60  | 0.00                 | 0.80   | 279.50  | 27.00                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 30             | 0.00                                                             | 0.00                     | 6.40   | 0.00                 | 0.60   | 215.80  | 10.60                    | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 31             |                                                                  | 0.00                     |        | 0.00                 | 0.40   |         | 11.20                    |       | 0.00 | 0.00 |      | 0.00 |                |
| Total          | 0.00                                                             | 0.00                     | 365.30 | 231.10               | 608.20 | 6085.70 | 2491.70                  | 25.40 | 0.00 | 0.00 | 0.00 | 0.00 | 9807.40 CMSDAY |
| Mean           | 0.00                                                             | 0.00                     | 12.18  | 7.45                 | 19.62  | 202.86  | 80.38                    | 0.85  | 0.00 | 0.00 | 0.00 | 0.00 | 26.87 CMS      |
| Max            | 0.00                                                             | 0.00                     | 83.50  | 56.00                | 142.90 | 479.00  | 212.20                   | 10.00 | 0.00 | 0.00 | 0.00 | 0.00 | 479.00 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00   | 0.00                 | 0.00   | 0.00    | 7.40                     | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                             | 0.00                     | 31.56  | 19.97                | 52.55  | 525.80  | 215.28                   | 2.20  | 0.00 | 0.00 | 0.00 | 0.00 | 847.36 MCM     |
| Momentary Peak | 490.00 CMS. at 24.00 m. (MSL.) at 22.00 Hours , on Sep 25 , 2013 |                          |        |                      |        |         |                          |       |      |      |      |      |                |
| Runoff Yield   | 7.78                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 141.865 | Liters/Second/Square KM. |       |      |      |      |      |                |

**WATER YEAR : 2013**  
**SAKAE KRANG RIVER BASIN**

**Lower Huai Thap Salao at Ban Saphan Leak, Uthai Thani (Ct.20)**

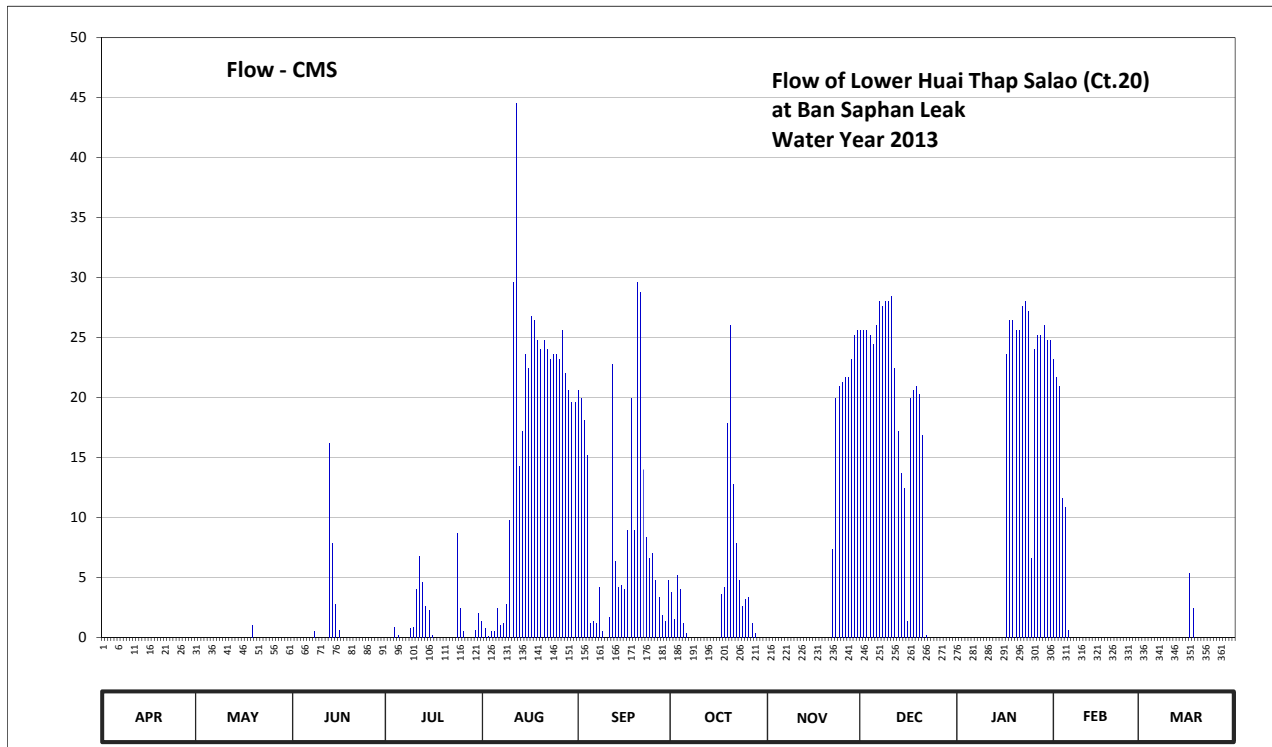
Lat 15 - 26 - 43 N    Long 99 - 35 - 24 E

**Location : on right bank at Ban Saphan Leak**

|                                         |                                                                                           |             |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Saphan Leak | <b>Amphoe</b> | Lan Sak | <b>Changwat</b>  | Uthai Thani        |
| <b>Drainage Area</b>                    | 691                                                                                       | sq.km.      |               |         |                  |                    |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |             |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)   |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |         |                  |                    |
| <b>Location BM</b>                      | On right bank near the automatic gage buiding                                             |             |               |         | <b>Elevation</b> | +101.800 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |             |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |             |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |             |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |             |               |         |                  |                    |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |             |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |             |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |             |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                                          |             |               |         |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 22 discharge measurements made in 2013. |             |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

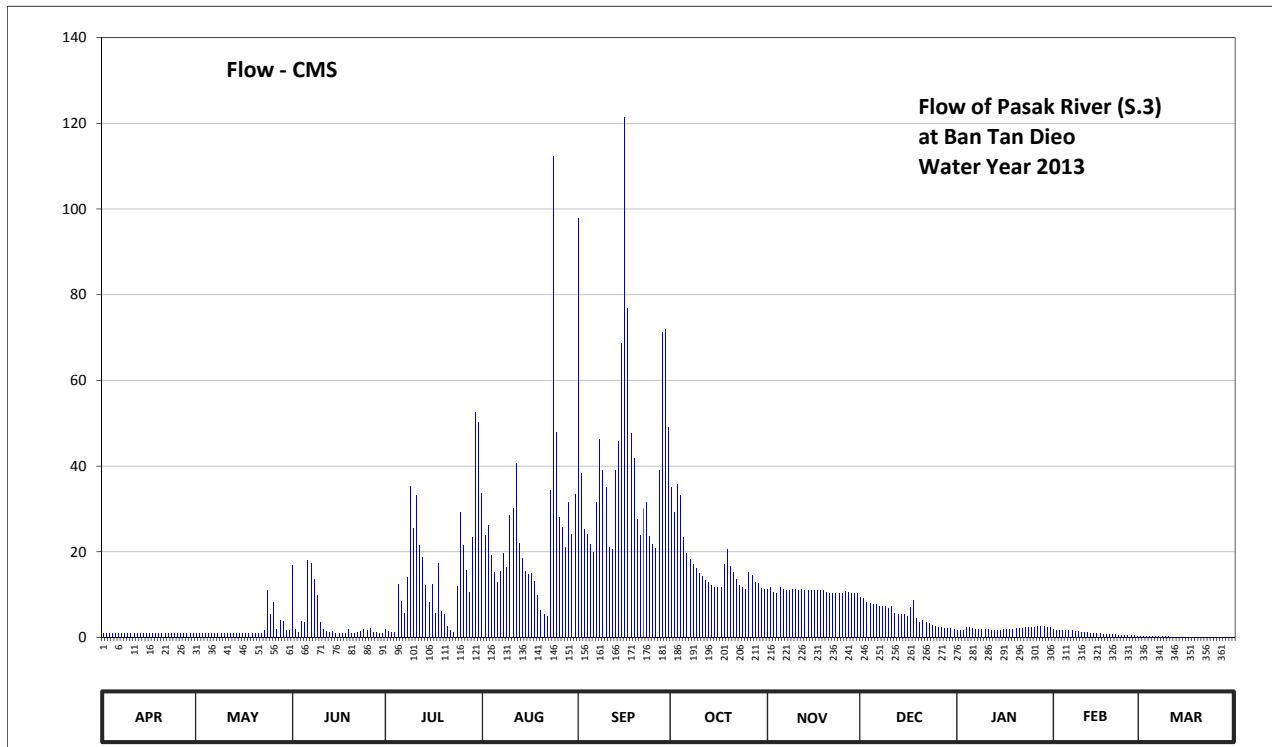
| Date                             | Apr    | May   | Jun         | Jul   | Aug                               | Sep   | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|--------|-------|-------------|-------|-----------------------------------|-------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 98.36  | 98.40 | 98.45       | 98.55 | 98.92                             | 99.66 | 99.05 | 98.70             | 99.79 | 98.57 | 99.73 | 98.62 |        |
| 2                                | 98.35  | 98.38 | 98.44       | 98.54 | 98.88                             | 99.64 | 98.93 | 98.68             | 99.79 | 98.57 | 99.69 | 98.62 |        |
| 3                                | 98.41  | 98.38 | 98.40       | 98.59 | 98.81                             | 99.59 | 99.12 | 98.67             | 99.79 | 98.57 | 99.67 | 98.62 |        |
| 4                                | 98.44  | 98.40 | 98.40       | 98.89 | 98.85                             | 99.50 | 99.06 | 98.65             | 99.78 | 98.55 | 99.38 | 98.61 |        |
| 5                                | 98.39  | 98.39 | 98.48       | 98.82 | 98.85                             | 98.91 | 98.91 | 98.59             | 99.76 | 98.55 | 99.35 | 98.62 |        |
| 6                                | 98.38  | 98.38 | 98.59       | 98.71 | 98.98                             | 98.92 | 98.84 | 98.60             | 99.80 | 98.53 | 98.86 | 98.51 |        |
| 7                                | 98.39  | 98.39 | 98.57       | 98.69 | 98.90                             | 98.91 | 98.79 | 98.54             | 99.85 | 98.48 | 98.70 | 98.44 |        |
| 8                                | 98.39  | 98.39 | 98.85       | 98.73 | 98.91                             | 99.07 | 98.77 | 98.53             | 99.84 | 98.44 | 98.64 | 98.42 |        |
| 9                                | 98.38  | 98.39 | 98.66       | 98.88 | 99.00                             | 98.85 | 98.75 | 98.53             | 99.85 | 98.43 | 98.67 | 98.42 |        |
| 10                               | 98.37  | 98.42 | 98.62       | 98.89 | 99.31                             | 98.79 | 98.73 | 98.54             | 99.85 | 98.42 | 98.70 | 98.42 |        |
| 11                               | 98.37  | 98.43 | 98.57       | 99.06 | 99.89                             | 98.94 | 98.69 | 98.51             | 99.86 | 98.45 | 98.65 | 98.45 |        |
| 12                               | 98.37  | 98.43 | 98.77       | 99.20 | 100.23                            | 99.72 | 98.69 | 98.55             | 99.71 | 98.43 | 98.62 | 98.49 |        |
| 13                               | 98.36  | 98.44 | 99.53       | 99.09 | 99.47                             | 99.18 | 98.69 | 98.53             | 99.56 | 98.42 | 98.61 | 98.51 |        |
| 14                               | 98.35  | 98.45 | 99.24       | 98.99 | 99.56                             | 99.07 | 98.69 | 98.53             | 99.45 | 98.51 | 98.51 | 98.51 |        |
| 15                               | 98.35  | 98.43 | 99.00       | 98.97 | 99.74                             | 99.08 | 98.69 | 98.53             | 99.41 | 98.45 | 98.49 | 98.51 |        |
| 16                               | 98.35  | 98.43 | 98.86       | 98.82 | 99.71                             | 99.06 | 98.69 | 98.55             | 98.92 | 98.43 | 98.49 | 98.51 |        |
| 17                               | 98.35  | 98.53 | 98.75       | 98.74 | 99.82                             | 99.28 | 99.04 | 98.55             | 99.64 | 99.74 | 98.49 | 99.13 |        |
| 18                               | 98.35  | 98.50 | 98.69       | 98.67 | 99.81                             | 99.64 | 99.07 | 98.54             | 99.66 | 99.81 | 98.48 | 98.98 |        |
| 19                               | 98.34  | 98.90 | 98.66       | 98.64 | 99.77                             | 99.28 | 99.58 | 98.53             | 99.67 | 99.81 | 98.48 | 98.79 |        |
| 20                               | 98.32  | 98.60 | 98.67       | 98.65 | 99.75                             | 99.89 | 99.80 | 98.53             | 99.65 | 99.79 | 98.47 | 98.76 |        |
| 21                               | 98.33  | 98.54 | 98.65       | 98.61 | 99.77                             | 99.87 | 99.42 | 98.52             | 99.55 | 99.79 | 98.47 | 98.71 |        |
| 22                               | 98.34  | 98.55 | 98.64       | 98.56 | 99.75                             | 99.46 | 99.24 | 99.22             | 98.82 | 99.84 | 98.47 | 98.67 |        |
| 23                               | 98.32  | 98.57 | 98.69       | 98.55 | 99.73                             | 99.26 | 99.10 | 99.64             | 98.70 | 99.85 | 98.53 | 98.62 |        |
| 24                               | 98.33  | 98.57 | 98.65       | 99.27 | 99.74                             | 99.19 | 98.99 | 99.67             | 98.64 | 99.83 | 98.56 | 98.59 |        |
| 25                               | 98.39  | 98.52 | 98.63       | 98.98 | 99.74                             | 99.21 | 99.02 | 99.68             | 98.61 | 99.19 | 98.54 | 98.59 |        |
| 26                               | 98.37  | 98.53 | 98.60       | 98.85 | 99.73                             | 99.10 | 99.03 | 99.69             | 98.59 | 99.75 | 98.57 | 98.59 |        |
| 27                               | 98.37  | 98.57 | 98.70       | 98.69 | 99.79                             | 99.03 | 98.91 | 99.69             | 98.58 | 99.78 | 98.58 | 98.58 |        |
| 28                               | 98.36  | 98.60 | 98.67       | 98.51 | 99.70                             | 98.95 | 98.84 | 99.73             | 98.57 | 99.78 | 98.61 | 98.58 |        |
| 29                               | 98.40  | 98.54 | 98.62       | 98.55 | 99.66                             | 98.92 | 98.79 | 99.78             | 98.57 | 99.80 |       | 98.55 |        |
| 30                               | 98.39  | 98.49 | 98.58       | 98.86 | 99.63                             | 99.10 | 98.77 | 99.79             | 98.57 | 99.77 |       | 98.51 |        |
| 31                               |        | 98.47 |             | 98.96 | 99.63                             |       | 98.74 |                   | 98.57 | 99.77 |       | 98.48 |        |
| Mean                             | 98.37  | 98.48 | 98.69       | 98.79 | 99.48                             | 99.24 | 98.95 | 98.89             | 99.34 | 99.10 | 98.75 | 98.59 |        |
| Max                              | 98.44  | 98.90 | 99.53       | 99.27 | 100.23                            | 99.89 | 99.80 | 99.79             | 99.86 | 99.85 | 99.73 | 99.13 | 100.23 |
| Min                              | 98.32  | 98.38 | 98.40       | 98.51 | 98.81                             | 98.79 | 98.69 | 98.51             | 98.57 | 98.42 | 98.47 | 98.42 | 98.32  |
| Annual Max Momentary Gage Height | 100.50 |       | m. (MSL.) , |       | at 12.00 Hours , on Aug 12 , 2013 |       |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00   |       | m. (MSL.) , |       | River Bed                         |       | 97.82 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 104.35 |       | m. (MSL.) , |       |                                   |       |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 104.34 |       | m. (MSL.) , |       | Drainage Area                     |       | 691   | Square Kilometers |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|--------------------------|--------|--------|--------|-------|------|----------------|
| 1              | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 1.36   | 20.60  | 3.80                     | 0.00   | 25.60  | 0.00   | 23.20 | 0.00 |                |
| 2              | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 0.80   | 19.90  | 1.54                     | 0.00   | 25.60  | 0.00   | 21.65 | 0.00 |                |
| 3              | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 0.10   | 18.17  | 5.20                     | 0.00   | 25.60  | 0.00   | 20.95 | 0.00 |                |
| 4              | 0.00                                                             | 0.00                     | 0.00  | 0.90                 | 0.50   | 15.20  | 4.00                     | 0.00   | 25.20  | 0.00   | 11.66 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 0.00  | 0.20                 | 0.50   | 1.18   | 1.18                     | 0.00   | 24.40  | 0.00   | 10.85 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 2.44   | 1.36   | 0.40                     | 0.00   | 26.00  | 0.00   | 0.60  | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 1.00   | 1.18   | 0.00                     | 0.00   | 28.00  | 0.00   | 0.00  | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 0.50  | 0.00                 | 1.18   | 4.20   | 0.00                     | 0.00   | 27.60  | 0.00   | 0.00  | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 0.00  | 0.80                 | 2.80   | 0.50   | 0.00                     | 0.00   | 28.00  | 0.00   | 0.00  | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 0.00  | 0.90                 | 9.77   | 0.00   | 0.00                     | 0.00   | 28.00  | 0.00   | 0.00  | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 0.00  | 4.00                 | 29.60  | 1.72   | 0.00                     | 0.00   | 28.40  | 0.00   | 0.00  | 0.00 |                |
| 12             | 0.00                                                             | 0.00                     | 0.00  | 6.80                 | 44.50  | 22.80  | 0.00                     | 0.00   | 22.40  | 0.00   | 0.00  | 0.00 |                |
| 13             | 0.00                                                             | 0.00                     | 16.19 | 4.60                 | 14.30  | 6.40   | 0.00                     | 0.00   | 17.18  | 0.00   | 0.00  | 0.00 |                |
| 14             | 0.00                                                             | 0.00                     | 7.88  | 2.62                 | 17.18  | 4.20   | 0.00                     | 0.00   | 13.70  | 0.00   | 0.00  | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 2.80  | 2.26                 | 23.60  | 4.40   | 0.00                     | 0.00   | 12.50  | 0.00   | 0.00  | 0.00 |                |
| 16             | 0.00                                                             | 0.00                     | 0.60  | 0.20                 | 22.40  | 4.00   | 0.00                     | 0.00   | 1.36   | 0.00   | 0.00  | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 26.80  | 8.96   | 3.60                     | 0.00   | 19.90  | 23.60  | 0.00  | 5.40 |                |
| 18             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 26.40  | 19.90  | 4.20                     | 0.00   | 20.60  | 26.40  | 0.00  | 2.44 |                |
| 19             | 0.00                                                             | 1.00                     | 0.00  | 0.00                 | 24.80  | 8.96   | 17.84                    | 0.00   | 20.95  | 26.40  | 0.00  | 0.00 |                |
| 20             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 24.00  | 29.60  | 26.00                    | 0.00   | 20.25  | 25.60  | 0.00  | 0.00 |                |
| 21             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 24.80  | 28.80  | 12.80                    | 0.00   | 16.85  | 25.60  | 0.00  | 0.00 |                |
| 22             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 24.00  | 14.00  | 7.88                     | 7.34   | 0.20   | 27.60  | 0.00  | 0.00 |                |
| 23             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 23.20  | 8.42   | 4.80                     | 19.90  | 0.00   | 28.00  | 0.00  | 0.00 |                |
| 24             | 0.00                                                             | 0.00                     | 0.00  | 8.69                 | 23.60  | 6.60   | 2.62                     | 20.95  | 0.00   | 27.20  | 0.00  | 0.00 |                |
| 25             | 0.00                                                             | 0.00                     | 0.00  | 2.44                 | 23.60  | 7.07   | 3.20                     | 21.30  | 0.00   | 6.60   | 0.00  | 0.00 |                |
| 26             | 0.00                                                             | 0.00                     | 0.00  | 0.50                 | 23.20  | 4.80   | 3.40                     | 21.65  | 0.00   | 24.00  | 0.00  | 0.00 |                |
| 27             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 25.60  | 3.40   | 1.18                     | 21.65  | 0.00   | 25.20  | 0.00  | 0.00 |                |
| 28             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 22.00  | 1.90   | 0.40                     | 23.20  | 0.00   | 25.20  | 0.00  | 0.00 |                |
| 29             | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 20.60  | 1.36   | 0.00                     | 25.20  | 0.00   | 26.00  |       | 0.00 |                |
| 30             | 0.00                                                             | 0.00                     | 0.00  | 0.60                 | 19.55  | 4.80   | 0.00                     | 25.60  | 0.00   | 24.80  |       | 0.00 |                |
| 31             |                                                                  | 0.00                     |       | 2.08                 | 19.55  |        | 0.00                     |        | 0.00   | 24.80  |       | 0.00 |                |
| Total          | 0.00                                                             | 1.00                     | 27.97 | 37.59                | 523.73 | 274.38 | 104.04                   | 186.79 | 458.29 | 367.00 | 88.91 | 7.84 | 2077.54 CMSDAY |
| Mean           | 0.00                                                             | 0.03                     | 0.93  | 1.21                 | 16.89  | 9.15   | 3.36                     | 6.23   | 14.78  | 11.84  | 3.18  | 0.25 | 5.69 CMS       |
| Max            | 0.00                                                             | 1.00                     | 16.19 | 8.69                 | 44.50  | 29.60  | 26.00                    | 25.60  | 28.40  | 28.00  | 23.20 | 5.40 | 44.50 CMS      |
| Min            | 0.00                                                             | 0.00                     | 0.00  | 0.00                 | 0.10   | 0.00   | 0.00                     | 0.00   | 0.00   | 0.00   | 0.00  | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                             | 0.09                     | 2.42  | 3.25                 | 45.25  | 23.71  | 8.99                     | 16.14  | 39.60  | 31.71  | 7.68  | 0.68 | 179.50 MCM     |
| Momentary Peak | 58.50 CMS. at 100.50 m. (MSL.) at 12.00 Hours , on Aug 12 , 2013 |                          |       |                      |        |        |                          |        |        |        |       |      |                |
| Runoff Yield   | 8.24                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 84.643 | Liters/Second/Square KM. |        |        |        |       |      |                |

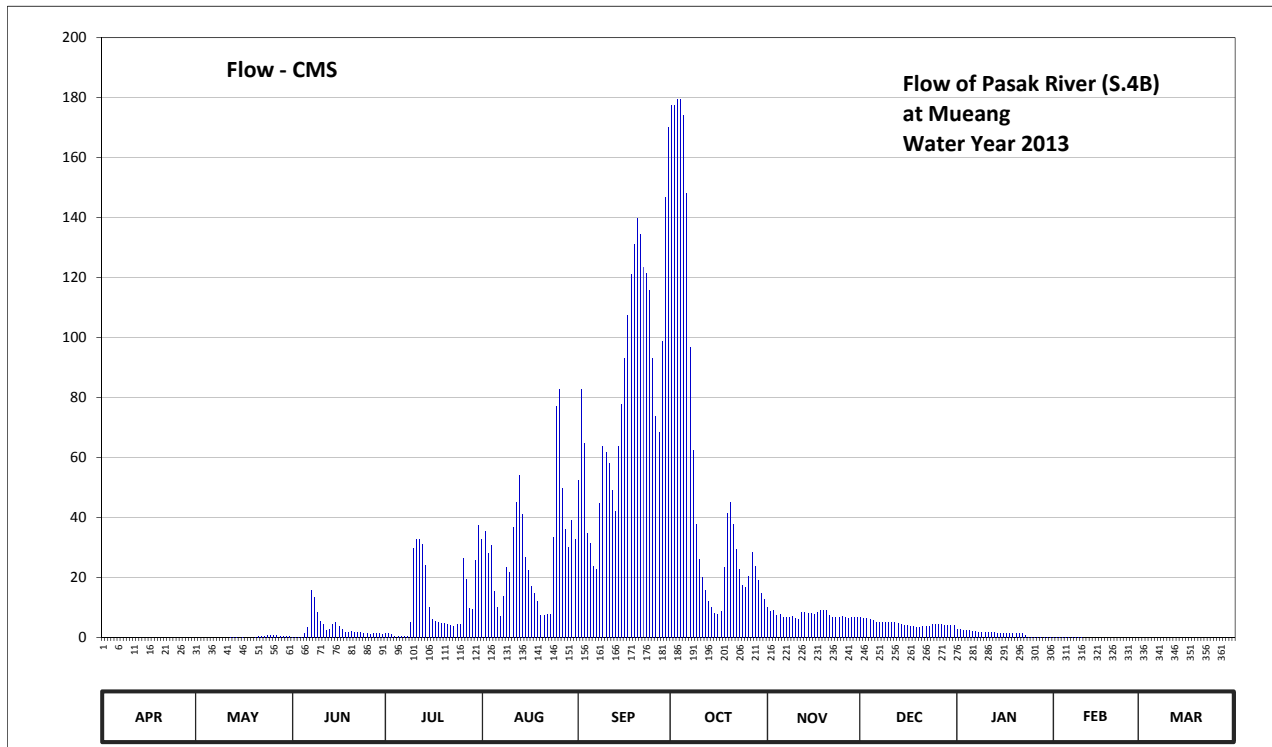




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar  | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|------|----------------|
| 1              | 1.00                                                              | 0.95                     | 17.00  | 1.87                 | 33.60  | 97.70   | 35.10                    | 11.40  | 9.50   | 1.73  | 2.10  | 0.42 |                |
| 2              | 1.00                                                              | 0.95                     | 2.10   | 1.57                 | 23.87  | 38.40   | 29.40                    | 11.70  | 9.30   | 1.73  | 1.73  | 0.40 |                |
| 3              | 1.00                                                              | 0.95                     | 1.20   | 1.30                 | 26.25  | 25.25   | 35.85                    | 10.70  | 8.30   | 1.73  | 1.73  | 0.38 |                |
| 4              | 1.00                                                              | 0.95                     | 3.90   | 1.30                 | 19.25  | 24.13   | 33.30                    | 10.30  | 8.00   | 2.47  | 1.73  | 0.36 |                |
| 5              | 1.00                                                              | 0.95                     | 3.67   | 12.50                | 15.25  | 21.75   | 23.50                    | 11.70  | 7.80   | 2.47  | 1.73  | 0.34 |                |
| 6              | 0.95                                                              | 0.95                     | 18.13  | 8.40                 | 12.88  | 19.88   | 19.63                    | 11.30  | 7.80   | 2.32  | 1.73  | 0.32 |                |
| 7              | 0.95                                                              | 0.95                     | 17.37  | 5.62                 | 15.62  | 31.65   | 18.37                    | 11.10  | 7.30   | 2.10  | 1.63  | 0.30 |                |
| 8              | 0.95                                                              | 0.95                     | 13.63  | 14.12                | 19.75  | 46.27   | 17.25                    | 11.10  | 7.30   | 2.10  | 1.53  | 0.28 |                |
| 9              | 0.95                                                              | 0.95                     | 10.00  | 35.40                | 16.38  | 39.15   | 16.13                    | 11.30  | 7.30   | 2.10  | 1.44  | 0.26 |                |
| 10             | 0.95                                                              | 0.95                     | 3.67   | 25.50                | 28.65  | 35.10   | 15.13                    | 11.30  | 6.80   | 1.95  | 1.36  | 0.24 |                |
| 11             | 0.95                                                              | 0.95                     | 1.95   | 33.15                | 30.15  | 21.12   | 14.25                    | 11.10  | 7.30   | 1.87  | 1.28  | 0.23 |                |
| 12             | 0.95                                                              | 0.95                     | 1.45   | 21.50                | 40.67  | 20.63   | 13.38                    | 11.30  | 5.62   | 1.73  | 1.20  | 0.22 |                |
| 13             | 0.95                                                              | 0.95                     | 1.25   | 18.75                | 22.12  | 39.00   | 13.00                    | 11.10  | 5.48   | 1.73  | 1.13  | 0.21 |                |
| 14             | 0.95                                                              | 0.95                     | 1.45   | 12.25                | 18.63  | 45.93   | 12.37                    | 11.10  | 5.48   | 1.73  | 1.03  | 0.20 |                |
| 15             | 0.95                                                              | 0.95                     | 1.15   | 8.30                 | 15.62  | 68.52   | 11.80                    | 11.10  | 5.40   | 1.80  | 1.00  | 0.19 |                |
| 16             | 0.95                                                              | 0.95                     | 1.15   | 12.50                | 14.87  | 121.50  | 11.80                    | 11.10  | 5.10   | 1.87  | 0.94  | 0.18 |                |
| 17             | 0.95                                                              | 0.95                     | 1.05   | 5.70                 | 15.00  | 76.70   | 11.80                    | 11.10  | 7.20   | 1.95  | 0.88  | 0.17 |                |
| 18             | 0.95                                                              | 0.95                     | 1.05   | 17.37                | 13.12  | 47.67   | 17.13                    | 11.10  | 8.80   | 2.02  | 0.83  | 0.16 |                |
| 19             | 0.95                                                              | 0.95                     | 1.95   | 6.10                 | 9.80   | 41.90   | 20.75                    | 11.00  | 4.42   | 2.10  | 0.78  | 0.15 |                |
| 20             | 0.95                                                              | 0.95                     | 1.15   | 5.55                 | 6.30   | 27.75   | 16.75                    | 10.60  | 3.60   | 2.17  | 0.73  | 0.14 |                |
| 21             | 0.95                                                              | 0.95                     | 1.15   | 2.70                 | 5.40   | 24.00   | 15.25                    | 10.50  | 3.97   | 2.25  | 0.69  | 0.13 |                |
| 22             | 0.95                                                              | 0.95                     | 1.30   | 1.65                 | 4.95   | 30.15   | 13.75                    | 10.30  | 3.52   | 2.32  | 0.65  | 0.12 |                |
| 23             | 0.95                                                              | 1.65                     | 1.57   | 1.30                 | 34.35  | 31.65   | 12.37                    | 10.30  | 3.30   | 2.40  | 0.61  | 0.11 |                |
| 24             | 0.95                                                              | 11.00                    | 1.87   | 11.90                | 112.25 | 23.62   | 11.80                    | 10.30  | 2.93   | 2.47  | 0.57  | 0.10 |                |
| 25             | 0.95                                                              | 5.55                     | 1.73   | 29.40                | 47.85  | 21.75   | 11.30                    | 10.30  | 2.55   | 2.47  | 0.54  | 0.09 |                |
| 26             | 0.95                                                              | 8.20                     | 2.32   | 21.63                | 28.05  | 21.00   | 15.25                    | 10.90  | 2.47   | 2.47  | 0.51  | 0.08 |                |
| 27             | 0.95                                                              | 2.10                     | 1.35   | 15.75                | 25.75  | 39.15   | 14.50                    | 10.70  | 2.40   | 2.55  | 0.48  | 0.08 |                |
| 28             | 0.95                                                              | 4.05                     | 1.25   | 10.60                | 21.12  | 71.30   | 13.00                    | 10.50  | 2.32   | 2.62  | 0.45  | 0.08 |                |
| 29             | 0.95                                                              | 3.83                     | 1.15   | 23.50                | 31.65  | 71.90   | 12.63                    | 10.40  | 2.32   | 2.55  |       | 0.08 |                |
| 30             | 0.95                                                              | 1.80                     | 1.15   | 52.57                | 24.13  | 49.07   | 11.50                    | 10.30  | 2.17   | 2.47  |       | 0.08 |                |
| 31             |                                                                   | 1.73                     |        | 50.30                | 33.45  |         | 11.20                    |        | 2.10   | 2.47  |       | 0.08 |                |
| Total          | 28.75                                                             | 60.81                    | 119.11 | 470.05               | 766.73 | 1273.59 | 529.24                   | 327.00 | 167.85 | 66.71 | 31.01 | 6.18 | 3847.03 CMSDAY |
| Mean           | 0.96                                                              | 1.96                     | 3.97   | 15.16                | 24.73  | 42.45   | 17.07                    | 10.90  | 5.41   | 2.15  | 1.11  | 0.20 | 10.54 CMS      |
| Max            | 1.00                                                              | 11.00                    | 18.13  | 52.57                | 112.25 | 121.50  | 35.85                    | 11.70  | 9.50   | 2.62  | 2.10  | 0.42 | 121.50 CMS     |
| Min            | 0.95                                                              | 0.95                     | 1.05   | 1.30                 | 4.95   | 19.88   | 11.20                    | 10.30  | 2.10   | 1.73  | 0.45  | 0.08 | 0.08 CMS       |
| Runoff         | 2.48                                                              | 5.25                     | 10.29  | 40.61                | 66.25  | 110.04  | 45.73                    | 28.25  | 14.50  | 5.76  | 2.68  | 0.53 | 332.38 MCM     |
| Momentary Peak | 131.65 CMS. at 145.58 m. (MSL.) at 15.00 Hours , on Aug 24 , 2013 |                          |        |                      |        |         |                          |        |        |       |       |      |                |
| Runoff Yield   | 10.16                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 126.953 | Liters/Second/Square KM. |        |        |       |       |      |                |



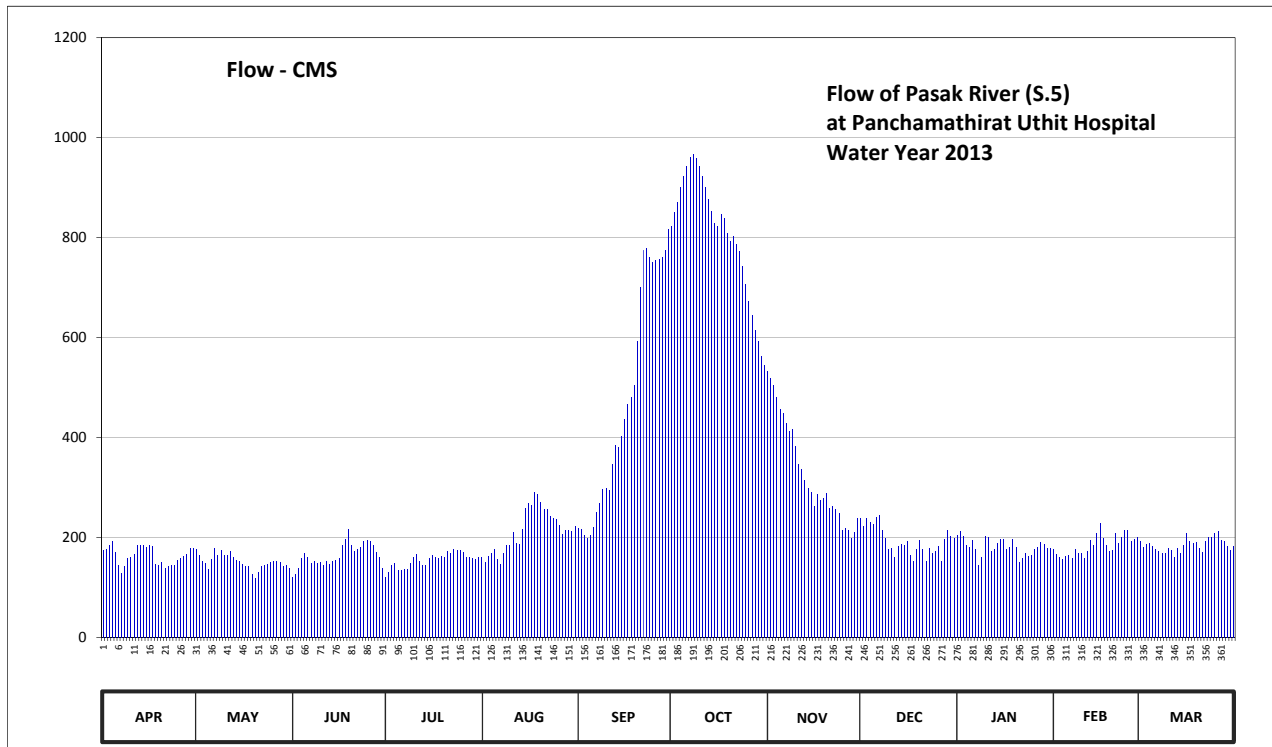


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul    | Aug                  | Sep     | Oct     | Nov                             | Dec    | Jan   | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|--------|----------------------|---------|---------|---------------------------------|--------|-------|------|------|----------------|
| 1              | 0.00                                                             | 0.00                     | 0.15  | 1.40   | 32.75                | 52.57   | 177.37  | 10.00                           | 6.63   | 2.85  | 0.12 | 0.00 |                |
| 2              | 0.00                                                             | 0.00                     | 0.15  | 1.35   | 35.35                | 82.88   | 177.37  | 8.90                            | 6.33   | 2.70  | 0.12 | 0.00 |                |
| 3              | 0.00                                                             | 0.00                     | 0.05  | 1.20   | 28.15                | 64.85   | 179.40  | 9.00                            | 6.55   | 2.55  | 0.12 | 0.00 |                |
| 4              | 0.00                                                             | 0.00                     | 0.10  | 0.50   | 30.95                | 34.95   | 179.40  | 7.40                            | 6.17   | 2.40  | 0.12 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 1.55  | 0.50   | 15.45                | 31.35   | 174.00  | 7.70                            | 5.73   | 2.35  | 0.10 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 3.60  | 0.47   | 10.13                | 23.82   | 147.90  | 6.92                            | 5.28   | 2.20  | 0.10 | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 15.75 | 0.43   | 7.10                 | 22.78   | 96.55   | 6.63                            | 5.28   | 2.05  | 0.10 | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 13.50 | 0.40   | 13.80                | 44.97   | 62.47   | 6.78                            | 5.20   | 1.95  | 0.10 | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 8.40  | 5.28   | 23.65                | 63.95   | 38.00   | 7.10                            | 5.20   | 1.85  | 0.10 | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 5.65  | 29.95  | 21.90                | 61.65   | 26.15   | 6.40                            | 5.05   | 1.80  | 0.07 | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 4.60  | 32.75  | 36.87                | 58.08   | 20.32   | 6.03                            | 5.05   | 1.80  | 0.00 | 0.00 |                |
| 12             | 0.00                                                             | 0.07                     | 2.50  | 32.75  | 45.20                | 49.02   | 15.75   | 8.40                            | 5.05   | 1.75  | 0.00 | 0.00 |                |
| 13             | 0.00                                                             | 0.07                     | 2.85  | 31.15  | 54.23                | 42.05   | 12.30   | 8.50                            | 4.83   | 1.70  | 0.00 | 0.00 |                |
| 14             | 0.00                                                             | 0.02                     | 4.52  | 24.00  | 41.15                | 63.95   | 10.13   | 8.30                            | 4.45   | 1.65  | 0.00 | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 4.98  | 10.25  | 26.95                | 77.60   | 8.30    | 8.00                            | 4.30   | 1.65  | 0.00 | 0.00 |                |
| 16             | 0.00                                                             | 0.02                     | 3.85  | 6.17   | 22.60                | 93.20   | 7.90    | 7.90                            | 4.00   | 1.60  | 0.00 | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 2.70  | 5.58   | 17.25                | 107.45  | 8.80    | 8.40                            | 3.85   | 1.55  | 0.00 | 0.00 |                |
| 18             | 0.00                                                             | 0.00                     | 1.80  | 4.98   | 15.00                | 121.00  | 23.65   | 9.10                            | 3.70   | 1.60  | 0.00 | 0.00 |                |
| 19             | 0.00                                                             | 0.00                     | 1.70  | 4.75   | 12.30                | 130.95  | 41.60   | 9.10                            | 3.60   | 1.55  | 0.00 | 0.00 |                |
| 20             | 0.00                                                             | 0.32                     | 2.00  | 4.68   | 7.60                 | 139.75  | 45.20   | 9.00                            | 3.50   | 1.55  | 0.00 | 0.00 |                |
| 21             | 0.00                                                             | 0.60                     | 1.80  | 4.52   | 7.50                 | 134.25  | 38.00   | 7.50                            | 3.95   | 1.50  | 0.00 | 0.00 |                |
| 22             | 0.00                                                             | 0.50                     | 1.80  | 4.08   | 7.80                 | 123.50  | 29.55   | 6.78                            | 3.70   | 1.50  | 0.00 | 0.00 |                |
| 23             | 0.00                                                             | 0.65                     | 1.70  | 3.85   | 7.80                 | 121.50  | 22.95   | 7.00                            | 3.80   | 0.95  | 0.00 | 0.00 |                |
| 24             | 0.00                                                             | 0.75                     | 1.35  | 4.38   | 33.35                | 115.55  | 17.55   | 6.92                            | 4.45   | 0.20  | 0.00 | 0.00 |                |
| 25             | 0.00                                                             | 0.70                     | 1.45  | 4.52   | 77.25                | 93.20   | 16.80   | 7.20                            | 4.38   | 0.25  | 0.00 | 0.00 |                |
| 26             | 0.00                                                             | 0.80                     | 1.25  | 26.35  | 82.88                | 73.75   | 20.50   | 6.70                            | 4.38   | 0.20  | 0.00 | 0.00 |                |
| 27             | 0.00                                                             | 0.90                     | 1.40  | 19.45  | 49.75                | 68.45   | 28.35   | 6.48                            | 4.38   | 0.20  | 0.00 | 0.00 |                |
| 28             | 0.00                                                             | 0.65                     | 1.35  | 9.70   | 36.20                | 98.68   | 23.82   | 6.63                            | 4.30   | 0.18  | 0.00 | 0.00 |                |
| 29             | 0.00                                                             | 0.45                     | 1.40  | 9.30   | 30.15                | 146.70  | 19.10   | 6.85                            | 4.30   | 0.18  |      | 0.00 |                |
| 30             | 0.00                                                             | 0.60                     | 1.25  | 25.95  | 39.13                | 170.10  | 14.85   | 7.00                            | 4.30   | 0.15  |      | 0.00 |                |
| 31             |                                                                  | 0.65                     |       | 37.55  | 32.95                |         | 12.90   |                                 | 4.23   | 0.12  |      | 0.00 |                |
| Total          | 0.00                                                             | 7.75                     | 95.15 | 348.19 | 903.14               | 2512.50 | 1696.93 | 228.62                          | 145.92 | 44.53 | 1.05 | 0.00 | 5983.78 CMSDAY |
| Mean           | 0.00                                                             | 0.25                     | 3.17  | 11.23  | 29.13                | 83.75   | 54.74   | 7.62                            | 4.71   | 1.44  | 0.04 | 0.00 | 16.39 CMS      |
| Max            | 0.00                                                             | 0.90                     | 15.75 | 37.55  | 82.88                | 170.10  | 179.40  | 10.00                           | 6.63   | 2.85  | 0.12 | 0.00 | 179.40 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.05  | 0.40   | 7.10                 | 22.78   | 7.90    | 6.03                            | 3.50   | 0.12  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                             | 0.67                     | 8.22  | 30.08  | 78.03                | 217.08  | 146.62  | 19.75                           | 12.61  | 3.85  | 0.09 | 0.00 | 517.00 MCM     |
| Momentary Peak | 180.07 CMS. at 115.99 m. (MSL.) at 06.00 Hours , on Oct 4 , 2013 |                          |       |        |                      |         |         |                                 |        |       |      |      |                |
| Runoff Yield   | 4.74                                                             | Liters/Second/Square KM. |       |        | Momentary Peak Yield |         |         | 52.058 Liters/Second/Square KM. |        |       |      |      |                |







**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 174.80                                                         | 176.40                   | 122.00  | 120.60               | 162.00  | 218.20   | 823.00                   | 531.60  | 239.80  | 205.60  | 176.40  | 194.00  |          |        |
| 2              | 178.00                                                         | 165.20                   | 126.80  | 131.60               | 150.80  | 216.40   | 850.00                   | 517.20  | 223.60  | 212.80  | 166.80  | 181.20  |          |        |
| 3              | 186.00                                                         | 154.00                   | 139.60  | 146.00               | 163.60  | 205.60   | 871.00                   | 505.20  | 238.00  | 203.80  | 160.40  | 187.60  |          |        |
| 4              | 192.40                                                         | 149.20                   | 158.80  | 149.20               | 170.00  | 198.80   | 901.00                   | 479.40  | 230.80  | 184.40  | 157.20  | 189.20  |          |        |
| 5              | 171.60                                                         | 136.40                   | 170.00  | 134.80               | 176.40  | 205.60   | 922.00                   | 457.40  | 227.20  | 181.20  | 163.60  | 182.80  |          |        |
| 6              | 144.40                                                         | 157.20                   | 162.00  | 134.80               | 157.20  | 221.80   | 943.00                   | 448.60  | 241.60  | 195.60  | 165.20  | 176.40  |          |        |
| 7              | 128.40                                                         | 179.60                   | 149.20  | 136.40               | 147.60  | 250.60   | 961.00                   | 428.80  | 245.20  | 178.00  | 158.80  | 173.20  |          |        |
| 8              | 142.80                                                         | 165.20                   | 154.00  | 136.40               | 168.40  | 268.60   | 967.00                   | 413.40  | 214.60  | 146.00  | 178.00  | 170.00  |          |        |
| 9              | 158.80                                                         | 174.80                   | 149.20  | 149.20               | 184.40  | 296.00   | 958.00                   | 417.80  | 198.80  | 162.00  | 170.00  | 170.00  |          |        |
| 10             | 160.40                                                         | 165.20                   | 150.80  | 162.00               | 186.00  | 298.00   | 943.00                   | 382.60  | 178.00  | 203.80  | 168.40  | 179.60  |          |        |
| 11             | 166.80                                                         | 165.20                   | 146.00  | 166.80               | 211.00  | 294.00   | 922.00                   | 348.00  | 179.60  | 200.40  | 158.80  | 174.80  |          |        |
| 12             | 186.00                                                         | 173.20                   | 152.40  | 154.00               | 189.20  | 348.00   | 901.00                   | 336.00  | 160.40  | 173.20  | 173.20  | 160.40  |          |        |
| 13             | 184.40                                                         | 162.00                   | 147.60  | 144.40               | 187.60  | 384.80   | 877.00                   | 316.00  | 182.80  | 176.40  | 195.60  | 179.60  |          |        |
| 14             | 184.40                                                         | 155.60                   | 154.00  | 146.00               | 216.40  | 380.40   | 853.00                   | 300.00  | 187.60  | 189.20  | 186.00  | 170.00  |          |        |
| 15             | 181.20                                                         | 154.00                   | 155.60  | 158.80               | 259.60  | 402.40   | 829.00                   | 292.00  | 184.40  | 197.20  | 209.20  | 184.40  |          |        |
| 16             | 186.00                                                         | 147.60                   | 158.80  | 165.20               | 268.60  | 437.60   | 823.00                   | 263.20  | 194.00  | 197.20  | 229.00  | 209.20  |          |        |
| 17             | 182.80                                                         | 142.80                   | 186.00  | 162.00               | 265.00  | 466.20   | 847.00                   | 286.00  | 165.20  | 178.00  | 198.80  | 194.00  |          |        |
| 18             | 147.60                                                         | 142.80                   | 197.20  | 158.80               | 290.00  | 479.40   | 838.00                   | 276.00  | 152.40  | 181.20  | 184.40  | 189.20  |          |        |
| 19             | 144.40                                                         | 126.80                   | 216.40  | 163.60               | 286.00  | 505.20   | 808.00                   | 278.00  | 178.00  | 197.20  | 173.20  | 190.80  |          |        |
| 20             | 150.80                                                         | 119.20                   | 186.00  | 160.40               | 270.40  | 591.80   | 793.00                   | 288.00  | 195.60  | 181.20  | 174.80  | 179.60  |          |        |
| 21             | 139.60                                                         | 131.60                   | 173.20  | 173.20               | 257.80  | 701.20   | 802.00                   | 259.60  | 176.40  | 150.80  | 209.20  | 171.60  |          |        |
| 22             | 142.80                                                         | 142.80                   | 178.00  | 168.40               | 257.80  | 775.00   | 787.00                   | 263.20  | 154.00  | 158.80  | 189.20  | 192.40  |          |        |
| 23             | 146.00                                                         | 144.40                   | 181.20  | 178.00               | 243.40  | 778.00   | 772.00                   | 256.00  | 179.60  | 170.00  | 200.40  | 200.40  |          |        |
| 24             | 146.00                                                         | 147.60                   | 194.00  | 174.80               | 238.00  | 760.00   | 742.00                   | 248.80  | 170.00  | 163.60  | 214.60  | 200.40  |          |        |
| 25             | 155.60                                                         | 150.80                   | 195.60  | 174.80               | 236.20  | 751.00   | 706.80                   | 214.60  | 173.20  | 165.20  | 214.60  | 209.20  |          |        |
| 26             | 158.80                                                         | 152.40                   | 192.40  | 171.60               | 225.40  | 754.00   | 673.20                   | 218.20  | 182.80  | 176.40  | 194.00  | 212.80  |          |        |
| 27             | 163.60                                                         | 154.00                   | 186.00  | 162.00               | 207.40  | 757.00   | 643.80                   | 214.60  | 154.00  | 181.20  | 197.20  | 195.60  |          |        |
| 28             | 166.80                                                         | 150.80                   | 171.60  | 160.40               | 214.60  | 760.00   | 615.20                   | 198.80  | 197.20  | 190.80  | 200.40  | 192.40  |          |        |
| 29             | 179.60                                                         | 142.80                   | 160.40  | 158.80               | 214.60  | 775.00   | 591.80                   | 211.00  | 214.60  | 187.60  |         | 182.80  |          |        |
| 30             | 179.60                                                         | 144.40                   | 139.60  | 157.20               | 212.80  | 817.00   | 563.20                   | 238.00  | 203.80  | 179.60  |         | 174.80  |          |        |
| 31             |                                                                | 139.60                   |         | 162.00               | 223.60  |          | 543.60                   |         | 198.80  | 179.60  |         | 182.80  |          |        |
| Total          | 4930.40                                                        | 4713.60                  | 4954.40 | 4822.20              | 6641.80 | 14297.60 | 25070.60                 | 9888.00 | 6022.00 | 5648.00 | 5167.40 | 5751.20 | 97907.21 | CMSDAY |
| Mean           | 164.35                                                         | 152.05                   | 165.15  | 155.55               | 214.25  | 476.59   | 808.73                   | 329.60  | 194.26  | 182.19  | 184.55  | 185.52  | 268.24   | CMS    |
| Max            | 192.40                                                         | 179.60                   | 216.40  | 178.00               | 290.00  | 817.00   | 967.00                   | 531.60  | 245.20  | 212.80  | 229.00  | 212.80  | 967.00   | CMS    |
| Min            | 128.40                                                         | 119.20                   | 122.00  | 120.60               | 147.60  | 198.80   | 543.60                   | 198.80  | 152.40  | 146.00  | 157.20  | 160.40  | 119.20   | CMS    |
| Runoff         | 425.99                                                         | 407.26                   | 428.06  | 416.64               | 573.85  | 1235.31  | 2166.10                  | 854.32  | 520.30  | 487.99  | 446.46  | 496.90  | 8459.18  | MCM    |
| Momentary Peak | 973.00 CMS. at 3.95 m. (MSL.) at 02.00 Hours , on Oct 8 , 2013 |                          |         |                      |         |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 16.94                                                          | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 61.466   | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013**

## PASAK RIVER BASIN

**Lam Muak Lek at Ban Tharahad , Saraburi (S.7A)**

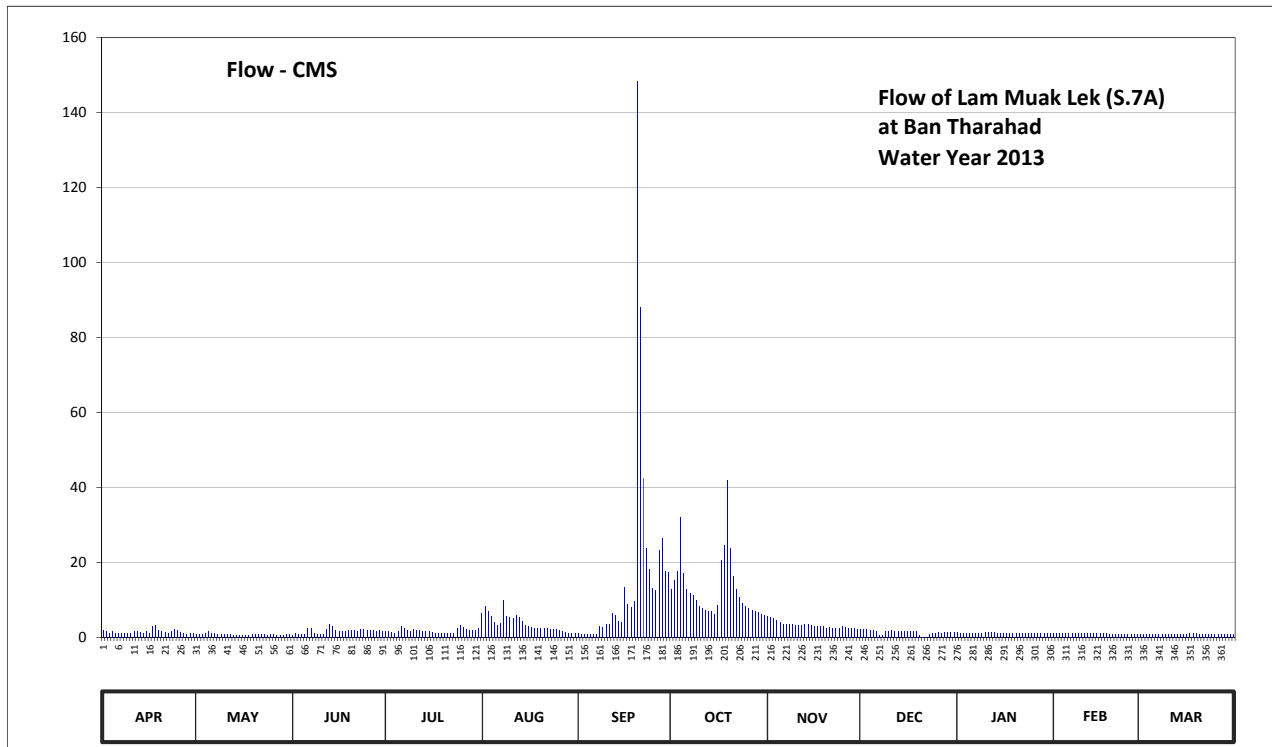
Lat 14 - 47 - 17 N    Long 101 - 07 - 18 E

**Location : on right bank at Ban Tharahad.**

|                                         |                                                                                           |           |               |            |                  |                 |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|-----------------|
|                                         | <b>Ban</b>                                                                                | Tharahad  | <b>Amphoe</b> | Wang Muang | <b>Changwat</b>  | Saraburi        |
| <b>Drainage Area</b>                    | 580                                                                                       | sq.km.    |               |            |                  |                 |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |            |                  |                 |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |            |                  |                 |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |            |                  |                 |
| <b>Location BM</b>                      | On right bank near the bridge.                                                            |           |               |            | <b>Elevation</b> | +52.984. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |            |                  |                 |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |            |                  |                 |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                              |           |               |            |                  |                 |
| <b>Rating Operation</b>                 |                                                                                           |           |               |            |                  |                 |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |           |               |            |                  |                 |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |            |                  |                 |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |           |               |            |                  |                 |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |            |                  |                 |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |            |                  |                 |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 38 discharge measurements made in 2013. |           |               |            |                  |                 |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

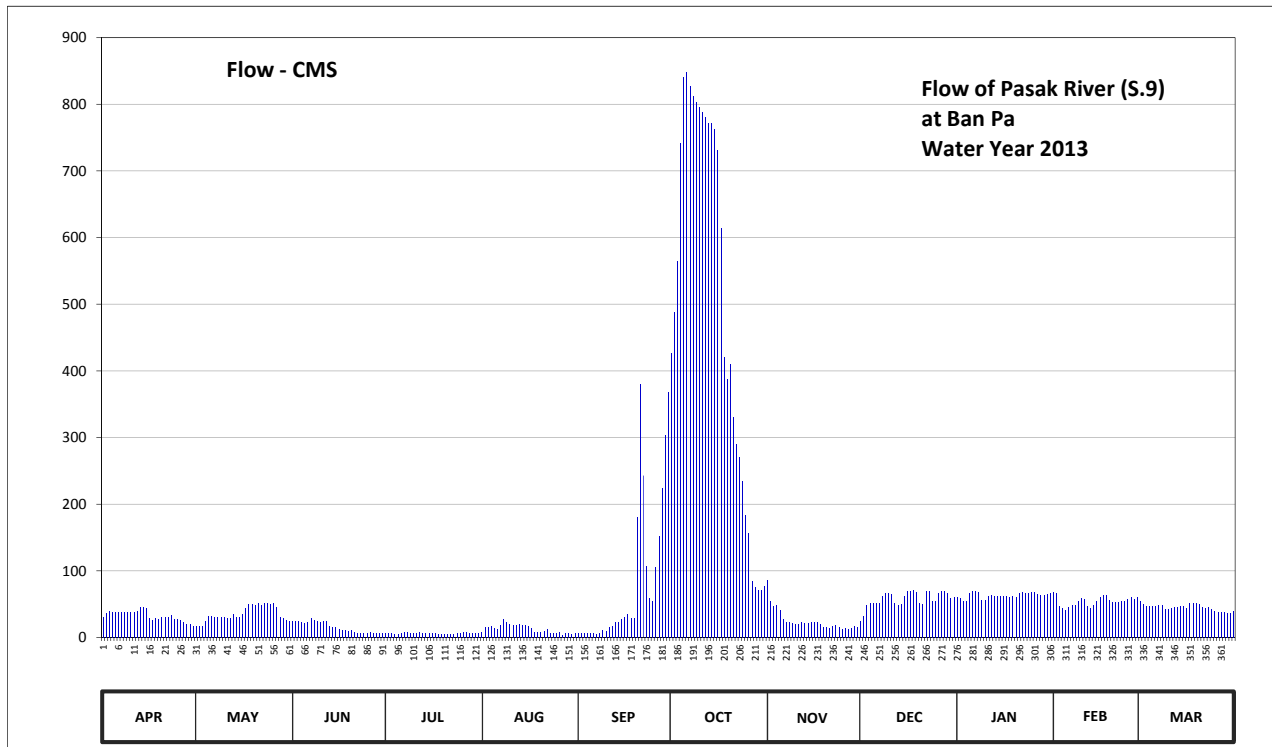
| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 42.17 | 42.10 | 42.07                                           | 42.14 | 42.40 | 42.11 | 42.63 | 42.37 | 42.19 | 42.13 | 42.11 | 42.10 |        |
| 2                                | 42.15 | 42.10 | 42.11                                           | 42.14 | 42.47 | 42.10 | 42.71 | 42.36 | 42.18 | 42.12 | 42.11 | 42.10 |        |
| 3                                | 42.12 | 42.10 | 42.10                                           | 42.13 | 42.42 | 42.10 | 42.78 | 42.35 | 42.18 | 42.12 | 42.11 | 42.10 |        |
| 4                                | 42.15 | 42.11 | 42.10                                           | 42.12 | 42.37 | 42.09 | 43.15 | 42.33 | 42.16 | 42.12 | 42.11 | 42.10 |        |
| 5                                | 42.11 | 42.15 | 42.10                                           | 42.14 | 42.30 | 42.09 | 42.76 | 42.30 | 42.17 | 42.12 | 42.11 | 42.10 |        |
| 6                                | 42.11 | 42.12 | 42.20                                           | 42.23 | 42.25 | 42.09 | 42.63 | 42.28 | 42.14 | 42.12 | 42.11 | 42.10 |        |
| 7                                | 42.12 | 42.11 | 42.21                                           | 42.21 | 42.29 | 42.10 | 42.60 | 42.28 | 42.07 | 42.12 | 42.11 | 42.10 |        |
| 8                                | 42.12 | 42.09 | 42.12                                           | 42.16 | 42.53 | 42.23 | 42.58 | 42.27 | 42.07 | 42.12 | 42.11 | 42.09 |        |
| 9                                | 42.11 | 42.09 | 42.10                                           | 42.15 | 42.37 | 42.22 | 42.53 | 42.27 | 42.15 | 42.12 | 42.11 | 42.09 |        |
| 10                               | 42.12 | 42.09 | 42.10                                           | 42.18 | 42.36 | 42.27 | 42.48 | 42.26 | 42.15 | 42.13 | 42.11 | 42.09 |        |
| 11                               | 42.15 | 42.08 | 42.10                                           | 42.16 | 42.35 | 42.28 | 42.45 | 42.26 | 42.16 | 42.13 | 42.11 | 42.09 |        |
| 12                               | 42.14 | 42.08 | 42.18                                           | 42.16 | 42.38 | 42.40 | 42.43 | 42.25 | 42.15 | 42.13 | 42.11 | 42.09 |        |
| 13                               | 42.13 | 42.07 | 42.27                                           | 42.15 | 42.36 | 42.38 | 42.42 | 42.27 | 42.15 | 42.13 | 42.11 | 42.09 |        |
| 14                               | 42.11 | 42.07 | 42.24                                           | 42.14 | 42.32 | 42.32 | 42.42 | 42.27 | 42.15 | 42.12 | 42.11 | 42.09 |        |
| 15                               | 42.15 | 42.06 | 42.16                                           | 42.14 | 42.25 | 42.30 | 42.39 | 42.25 | 42.15 | 42.12 | 42.11 | 42.09 |        |
| 16                               | 42.12 | 42.06 | 42.15                                           | 42.13 | 42.23 | 42.65 | 42.49 | 42.24 | 42.15 | 42.12 | 42.11 | 42.09 |        |
| 17                               | 42.23 | 42.06 | 42.15                                           | 42.12 | 42.22 | 42.50 | 42.86 | 42.24 | 42.15 | 42.12 | 42.11 | 42.11 |        |
| 18                               | 42.25 | 42.07 | 42.15                                           | 42.12 | 42.21 | 42.46 | 42.97 | 42.23 | 42.15 | 42.12 | 42.11 | 42.12 |        |
| 19                               | 42.16 | 42.09 | 42.16                                           | 42.12 | 42.21 | 42.52 | 43.36 | 42.23 | 42.14 | 42.12 | 42.10 | 42.11 |        |
| 20                               | 42.14 | 42.09 | 42.17                                           | 42.11 | 42.21 | 44.98 | 42.95 | 42.20 | 42.06 | 42.12 | 42.10 | 42.10 |        |
| 21                               | 42.13 | 42.08 | 42.16                                           | 42.11 | 42.21 | 44.17 | 42.74 | 42.22 | 42.01 | 42.12 | 42.10 | 42.09 |        |
| 22                               | 42.12 | 42.08 | 42.15                                           | 42.11 | 42.20 | 43.37 | 42.63 | 42.21 | 42.01 | 42.12 | 42.10 | 42.09 |        |
| 23                               | 42.14 | 42.09 | 42.18                                           | 42.12 | 42.18 | 42.95 | 42.56 | 42.21 | 42.09 | 42.12 | 42.10 | 42.09 |        |
| 24                               | 42.19 | 42.07 | 42.18                                           | 42.20 | 42.18 | 42.79 | 42.51 | 42.21 | 42.12 | 42.12 | 42.10 | 42.09 |        |
| 25                               | 42.17 | 42.08 | 42.17                                           | 42.26 | 42.18 | 42.64 | 42.48 | 42.23 | 42.12 | 42.12 | 42.10 | 42.08 |        |
| 26                               | 42.13 | 42.08 | 42.16                                           | 42.22 | 42.17 | 42.62 | 42.45 | 42.22 | 42.13 | 42.12 | 42.10 | 42.08 |        |
| 27                               | 42.12 | 42.07 | 42.16                                           | 42.18 | 42.15 | 42.93 | 42.43 | 42.21 | 42.12 | 42.12 | 42.10 | 42.08 |        |
| 28                               | 42.10 | 42.07 | 42.15                                           | 42.16 | 42.13 | 43.01 | 42.42 | 42.20 | 42.13 | 42.12 | 42.10 | 42.08 |        |
| 29                               | 42.11 | 42.07 | 42.17                                           | 42.16 | 42.12 | 42.78 | 42.41 | 42.21 | 42.13 | 42.11 |       | 42.08 |        |
| 30                               | 42.11 | 42.08 | 42.15                                           | 42.16 | 42.11 | 42.77 | 42.39 | 42.19 | 42.13 | 42.11 |       | 42.08 |        |
| 31                               |       | 42.09 |                                                 | 42.20 | 42.11 |       | 42.38 |       | 42.13 | 42.11 |       | 42.08 |        |
| Mean                             | 42.14 | 42.09 | 42.15                                           | 42.16 | 42.27 | 42.61 | 42.61 | 42.25 | 42.13 | 42.12 | 42.11 | 42.09 |        |
| Max                              | 42.25 | 42.15 | 42.27                                           | 42.26 | 42.53 | 44.98 | 43.36 | 42.37 | 42.19 | 42.13 | 42.11 | 42.12 | 44.98  |
| Min                              | 42.10 | 42.06 | 42.07                                           | 42.11 | 42.11 | 42.09 | 42.38 | 42.19 | 42.01 | 42.11 | 42.10 | 42.08 | 42.01  |
| Annual Max Momentary Gage Height |       | 45.96 | m. (MSL.) , at 20.00 Hours , on Sep 20 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 41.23 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 52.79 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 52.94 | m. (MSL.) , Drainage Area 580 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 2.05                                                             | 1.00                     | 0.70  | 1.60                 | 6.50   | 1.15    | 12.90                    | 5.75   | 2.35  | 1.45  | 1.15  | 1.00  |                |
| 2              | 1.75                                                             | 1.00                     | 1.15  | 1.60                 | 8.25   | 1.00    | 15.35                    | 5.50   | 2.20  | 1.30  | 1.15  | 1.00  |                |
| 3              | 1.30                                                             | 1.00                     | 1.00  | 1.45                 | 7.00   | 1.00    | 17.80                    | 5.25   | 2.20  | 1.30  | 1.15  | 1.00  |                |
| 4              | 1.75                                                             | 1.15                     | 1.00  | 1.30                 | 5.75   | 0.90    | 32.25                    | 4.75   | 1.90  | 1.30  | 1.15  | 1.00  |                |
| 5              | 1.15                                                             | 1.75                     | 1.00  | 1.60                 | 4.00   | 0.90    | 17.10                    | 4.00   | 2.05  | 1.30  | 1.15  | 1.00  |                |
| 6              | 1.15                                                             | 1.30                     | 2.50  | 2.95                 | 3.25   | 0.90    | 12.90                    | 3.70   | 1.60  | 1.30  | 1.15  | 1.00  |                |
| 7              | 1.30                                                             | 1.15                     | 2.65  | 2.65                 | 3.85   | 1.00    | 12.00                    | 3.70   | 0.70  | 1.30  | 1.15  | 1.00  |                |
| 8              | 1.30                                                             | 0.90                     | 1.30  | 1.90                 | 9.90   | 2.95    | 11.40                    | 3.55   | 0.70  | 1.30  | 1.15  | 0.90  |                |
| 9              | 1.15                                                             | 0.90                     | 1.00  | 1.75                 | 5.75   | 2.80    | 9.90                     | 3.55   | 1.75  | 1.30  | 1.15  | 0.90  |                |
| 10             | 1.30                                                             | 0.90                     | 1.00  | 2.20                 | 5.50   | 3.55    | 8.50                     | 3.40   | 1.75  | 1.45  | 1.15  | 0.90  |                |
| 11             | 1.75                                                             | 0.80                     | 1.00  | 1.90                 | 5.25   | 3.70    | 7.75                     | 3.40   | 1.90  | 1.45  | 1.15  | 0.90  |                |
| 12             | 1.60                                                             | 0.80                     | 2.20  | 1.90                 | 6.00   | 6.50    | 7.25                     | 3.25   | 1.75  | 1.45  | 1.15  | 0.90  |                |
| 13             | 1.45                                                             | 0.70                     | 3.55  | 1.75                 | 5.50   | 6.00    | 7.00                     | 3.55   | 1.75  | 1.45  | 1.15  | 0.90  |                |
| 14             | 1.15                                                             | 0.70                     | 3.10  | 1.60                 | 4.50   | 4.50    | 7.00                     | 3.55   | 1.75  | 1.30  | 1.15  | 0.90  |                |
| 15             | 1.75                                                             | 0.60                     | 1.90  | 1.60                 | 3.25   | 4.00    | 6.25                     | 3.25   | 1.75  | 1.30  | 1.15  | 0.90  |                |
| 16             | 1.30                                                             | 0.60                     | 1.75  | 1.45                 | 2.95   | 13.50   | 8.75                     | 3.10   | 1.75  | 1.30  | 1.15  | 0.90  |                |
| 17             | 2.95                                                             | 0.60                     | 1.75  | 1.30                 | 2.80   | 9.00    | 20.60                    | 3.10   | 1.75  | 1.30  | 1.15  | 1.15  |                |
| 18             | 3.25                                                             | 0.70                     | 1.75  | 1.30                 | 2.65   | 8.00    | 24.80                    | 2.95   | 1.75  | 1.30  | 1.15  | 1.30  |                |
| 19             | 1.90                                                             | 0.90                     | 1.90  | 1.30                 | 2.65   | 9.60    | 42.00                    | 2.95   | 1.60  | 1.30  | 1.00  | 1.15  |                |
| 20             | 1.60                                                             | 0.90                     | 2.05  | 1.15                 | 2.65   | 148.40  | 24.00                    | 2.50   | 0.60  | 1.30  | 1.00  | 1.00  |                |
| 21             | 1.45                                                             | 0.80                     | 1.90  | 1.15                 | 2.65   | 88.05   | 16.40                    | 2.80   | 0.10  | 1.30  | 1.00  | 0.90  |                |
| 22             | 1.30                                                             | 0.80                     | 1.75  | 1.15                 | 2.50   | 42.50   | 12.90                    | 2.65   | 0.10  | 1.30  | 1.00  | 0.90  |                |
| 23             | 1.60                                                             | 0.90                     | 2.20  | 1.30                 | 2.20   | 24.00   | 10.80                    | 2.65   | 0.90  | 1.30  | 1.00  | 0.90  |                |
| 24             | 2.35                                                             | 0.70                     | 2.20  | 2.50                 | 2.20   | 18.15   | 9.30                     | 2.65   | 1.30  | 1.30  | 1.00  | 0.90  |                |
| 25             | 2.05                                                             | 0.80                     | 2.05  | 3.40                 | 2.20   | 13.20   | 8.50                     | 2.95   | 1.30  | 1.30  | 1.00  | 0.80  |                |
| 26             | 1.45                                                             | 0.80                     | 1.90  | 2.80                 | 2.05   | 12.60   | 7.75                     | 2.80   | 1.45  | 1.30  | 1.00  | 0.80  |                |
| 27             | 1.30                                                             | 0.70                     | 1.90  | 2.20                 | 1.75   | 23.20   | 7.25                     | 2.65   | 1.30  | 1.30  | 1.00  | 0.80  |                |
| 28             | 1.00                                                             | 0.70                     | 1.75  | 1.90                 | 1.45   | 26.40   | 7.00                     | 2.50   | 1.45  | 1.30  | 1.00  | 0.80  |                |
| 29             | 1.15                                                             | 0.70                     | 2.05  | 1.90                 | 1.30   | 17.80   | 6.75                     | 2.65   | 1.45  | 1.15  |       | 0.80  |                |
| 30             | 1.15                                                             | 0.80                     | 1.75  | 1.90                 | 1.15   | 17.45   | 6.25                     | 2.35   | 1.45  | 1.15  |       | 0.80  |                |
| 31             |                                                                  | 0.90                     |       | 2.50                 | 1.15   |         | 6.00                     |        | 1.45  | 1.15  |       | 0.80  |                |
| Total          | 47.70                                                            | 26.95                    | 53.70 | 56.95                | 118.55 | 512.70  | 404.40                   | 101.40 | 45.80 | 40.60 | 30.70 | 28.90 | 1468.35 CMSDAY |
| Mean           | 1.59                                                             | 0.87                     | 1.79  | 1.84                 | 3.82   | 17.09   | 13.05                    | 3.38   | 1.48  | 1.31  | 1.10  | 0.93  | 4.02 CMS       |
| Max            | 3.25                                                             | 1.75                     | 3.55  | 3.40                 | 9.90   | 148.40  | 42.00                    | 5.75   | 2.35  | 1.45  | 1.15  | 1.30  | 148.40 CMS     |
| Min            | 1.00                                                             | 0.60                     | 0.70  | 1.15                 | 1.15   | 0.90    | 6.00                     | 2.35   | 0.10  | 1.15  | 1.00  | 0.80  | 0.10 CMS       |
| Runoff         | 4.12                                                             | 2.33                     | 4.64  | 4.92                 | 10.24  | 44.30   | 34.94                    | 8.76   | 3.96  | 3.51  | 2.65  | 2.50  | 126.87 MCM     |
| Momentary Peak | 235.70 CMS. at 45.96 m. (MSL.) at 20.00 Hours , on Sep 20 , 2013 |                          |       |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 6.94                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 406.379 | Liters/Second/Square KM. |        |       |       |       |       |                |

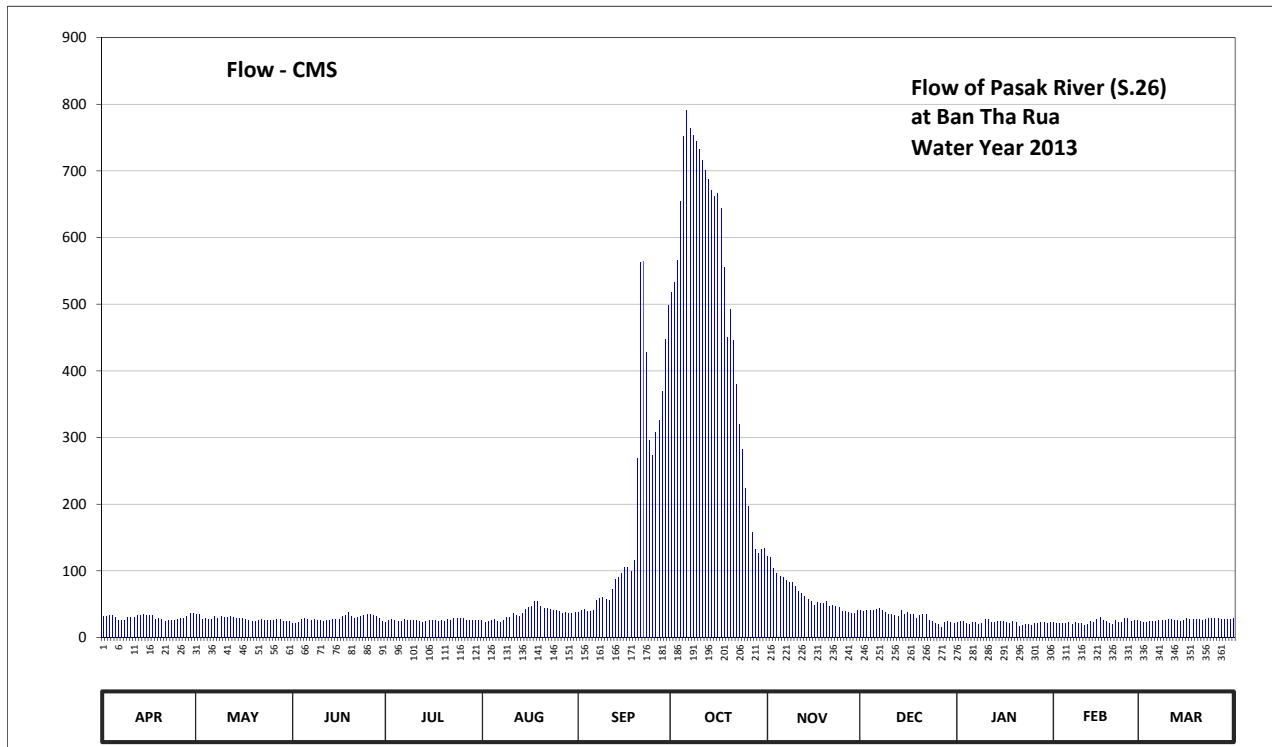




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|---------|---------|---------|---------|----------|--------|
| 1              | 30.00                                                           | 17.40                    | 25.00  | 6.60                 | 7.80   | 6.60    | 426.80                   | 86.90  | 24.60   | 61.40   | 68.70   | 54.80   |          |        |
| 2              | 36.50                                                           | 17.40                    | 24.20  | 6.60                 | 15.80  | 6.30    | 488.00                   | 54.20  | 32.00   | 59.60   | 66.20   | 50.60   |          |        |
| 3              | 39.00                                                           | 17.40                    | 25.50  | 6.00                 | 16.20  | 6.90    | 563.60                   | 47.00  | 48.50   | 54.80   | 46.50   | 47.00   |          |        |
| 4              | 38.50                                                           | 25.00                    | 23.00  | 5.40                 | 17.00  | 6.90    | 741.10                   | 48.00  | 51.20   | 54.20   | 44.00   | 46.50   |          |        |
| 5              | 38.50                                                           | 32.00                    | 21.40  | 5.70                 | 14.60  | 6.30    | 839.90                   | 41.50  | 51.20   | 67.40   | 40.50   | 46.50   |          |        |
| 6              | 38.50                                                           | 32.00                    | 22.60  | 6.30                 | 13.40  | 6.30    | 847.70                   | 28.00  | 51.20   | 69.40   | 45.00   | 47.00   |          |        |
| 7              | 38.50                                                           | 30.50                    | 28.50  | 7.80                 | 19.40  | 5.10    | 826.90                   | 23.00  | 51.20   | 70.10   | 49.50   | 49.00   |          |        |
| 8              | 38.50                                                           | 31.00                    | 26.00  | 7.80                 | 27.50  | 6.30    | 812.60                   | 23.00  | 62.60   | 68.00   | 49.50   | 48.00   |          |        |
| 9              | 38.50                                                           | 30.50                    | 24.20  | 6.60                 | 23.80  | 11.80   | 803.50                   | 21.80  | 66.20   | 56.00   | 55.40   | 43.50   |          |        |
| 10             | 38.00                                                           | 30.50                    | 23.40  | 7.20                 | 19.80  | 9.00    | 795.70                   | 20.60  | 66.20   | 56.60   | 59.00   | 43.50   |          |        |
| 11             | 38.50                                                           | 29.50                    | 25.00  | 7.50                 | 18.20  | 15.40   | 787.90                   | 20.60  | 65.00   | 62.60   | 57.80   | 44.50   |          |        |
| 12             | 39.00                                                           | 28.50                    | 25.50  | 7.80                 | 18.60  | 16.60   | 780.10                   | 23.00  | 51.80   | 64.40   | 47.00   | 45.00   |          |        |
| 13             | 45.00                                                           | 34.50                    | 17.40  | 7.20                 | 19.80  | 23.40   | 771.00                   | 21.40  | 49.00   | 62.60   | 44.50   | 45.00   |          |        |
| 14             | 46.00                                                           | 30.00                    | 15.40  | 6.60                 | 18.60  | 23.40   | 771.00                   | 22.20  | 50.00   | 62.60   | 48.50   | 47.00   |          |        |
| 15             | 44.50                                                           | 30.00                    | 15.00  | 6.30                 | 18.20  | 28.00   | 761.90                   | 23.80  | 62.60   | 62.60   | 54.80   | 47.00   |          |        |
| 16             | 29.50                                                           | 34.50                    | 12.20  | 6.30                 | 17.00  | 31.50   | 730.70                   | 23.00  | 70.10   | 62.00   | 61.40   | 44.00   |          |        |
| 17             | 26.00                                                           | 44.50                    | 11.80  | 6.00                 | 14.20  | 35.00   | 613.70                   | 23.00  | 70.10   | 62.00   | 64.40   | 51.20   |          |        |
| 18             | 28.50                                                           | 50.00                    | 10.60  | 5.70                 | 8.10   | 29.00   | 420.90                   | 20.20  | 71.50   | 61.40   | 63.80   | 52.40   |          |        |
| 19             | 28.00                                                           | 50.60                    | 10.20  | 5.40                 | 8.70   | 29.00   | 386.80                   | 15.00  | 68.00   | 62.60   | 56.00   | 51.80   |          |        |
| 20             | 30.00                                                           | 49.50                    | 11.40  | 5.40                 | 8.40   | 181.30  | 409.90                   | 15.40  | 51.80   | 60.80   | 53.00   | 50.00   |          |        |
| 21             | 30.50                                                           | 51.20                    | 8.40   | 5.40                 | 9.00   | 379.10  | 330.70                   | 13.80  | 50.60   | 66.20   | 53.60   | 45.50   |          |        |
| 22             | 30.50                                                           | 49.00                    | 6.90   | 5.40                 | 13.00  | 243.00  | 290.00                   | 16.60  | 69.40   | 68.70   | 53.60   | 44.00   |          |        |
| 23             | 33.00                                                           | 51.20                    | 6.60   | 5.40                 | 7.20   | 107.20  | 271.00                   | 18.60  | 70.10   | 66.80   | 54.80   | 45.50   |          |        |
| 24             | 28.00                                                           | 51.20                    | 6.60   | 6.00                 | 6.30   | 59.60   | 234.00                   | 16.20  | 55.40   | 66.80   | 54.20   | 43.00   |          |        |
| 25             | 27.00                                                           | 50.60                    | 7.20   | 7.20                 | 7.20   | 54.20   | 183.10                   | 13.40  | 54.20   | 68.00   | 58.40   | 39.50   |          |        |
| 26             | 26.00                                                           | 51.20                    | 8.40   | 7.80                 | 8.70   | 105.80  | 157.00                   | 13.80  | 66.80   | 68.00   | 60.80   | 38.50   |          |        |
| 27             | 23.40                                                           | 45.00                    | 7.20   | 7.80                 | 3.90   | 151.60  | 85.50                    | 13.40  | 69.40   | 65.60   | 57.80   | 38.50   |          |        |
| 28             | 20.60                                                           | 31.50                    | 6.90   | 6.90                 | 6.00   | 225.00  | 75.00                    | 14.60  | 70.10   | 64.40   | 60.20   | 38.00   |          |        |
| 29             | 19.80                                                           | 28.50                    | 6.90   | 6.90                 | 6.30   | 304.30  | 70.80                    | 16.60  | 66.80   | 64.40   |         | 37.50   |          |        |
| 30             | 17.80                                                           | 26.50                    | 6.60   | 6.60                 | 5.70   | 367.00  | 70.80                    | 15.40  | 59.00   | 65.60   |         | 37.50   |          |        |
| 31             |                                                                 | 25.50                    |        | 6.90                 | 6.30   |         | 77.80                    |        | 60.80   | 67.40   |         | 39.00   |          |        |
| Total          | 986.10                                                          | 1106.70                  | 470.00 | 202.50               | 404.70 | 2480.90 | 15425.40                 | 754.00 | 1807.40 | 1973.00 | 1528.90 | 1400.80 | 28540.40 | CMSDAY |
| Mean           | 32.87                                                           | 35.70                    | 15.67  | 6.53                 | 13.05  | 82.70   | 497.59                   | 25.13  | 58.30   | 63.65   | 54.60   | 45.19   | 78.19    | CMS    |
| Max            | 46.00                                                           | 51.20                    | 28.50  | 7.80                 | 27.50  | 379.10  | 847.70                   | 86.90  | 71.50   | 70.10   | 68.70   | 54.80   | 847.70   | CMS    |
| Min            | 17.80                                                           | 17.40                    | 6.60   | 5.40                 | 3.90   | 5.10    | 70.80                    | 13.40  | 24.60   | 54.20   | 40.50   | 37.50   | 3.90     | CMS    |
| Runoff         | 85.20                                                           | 95.62                    | 40.61  | 17.50                | 34.97  | 214.35  | 1332.76                  | 65.15  | 156.16  | 170.47  | 132.10  | 121.03  | 2465.89  | MCM    |
| Momentary Peak | 855.50 CMS. at 16.95 m. (MSL.) at 23.00 Hours , on Oct 5 , 2013 |                          |        |                      |        |         |                          |        |         |         |         |         |          |        |
| Runoff Yield   | 5.49                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 60.107  | Liters/Second/Square KM. |        |         |         |         |         |          |        |



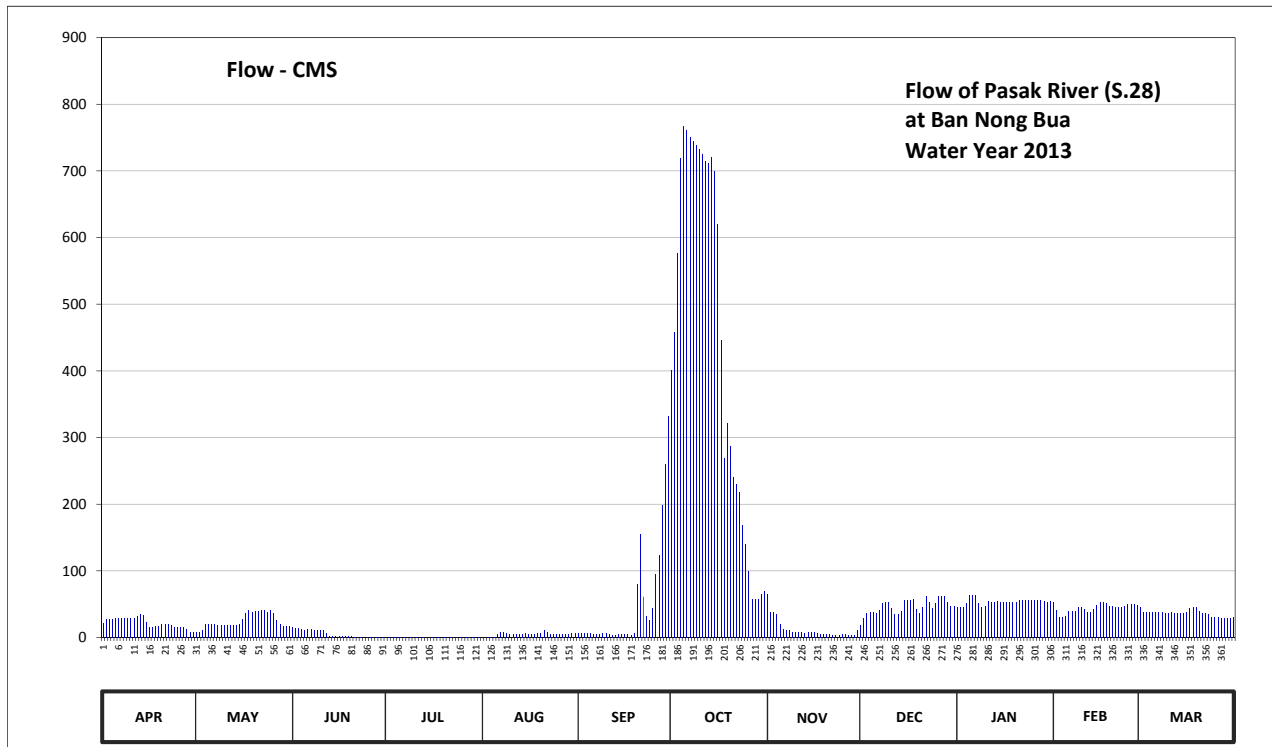


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul    | Aug                  | Sep     | Oct      | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual          |
|----------------|----------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|----------|---------|--------------------------|--------|--------|--------|-----------------|
| 1              | 32.50                                                          | 35.50                    | 21.10  | 22.90  | 26.50                | 38.20   | 517.80   | 122.90  | 41.50                    | 23.50  | 23.20  | 25.00  |                 |
| 2              | 32.20                                                          | 34.90                    | 22.30  | 25.90  | 23.50                | 40.60   | 532.10   | 120.10  | 39.70                    | 25.00  | 21.40  | 22.60  |                 |
| 3              | 33.70                                                          | 28.00                    | 23.50  | 27.70  | 25.30                | 42.10   | 565.90   | 104.80  | 41.80                    | 24.10  | 21.10  | 23.80  |                 |
| 4              | 34.30                                                          | 28.60                    | 27.10  | 26.80  | 26.50                | 39.70   | 654.30   | 97.50   | 41.50                    | 21.10  | 21.10  | 24.10  |                 |
| 5              | 30.40                                                          | 27.70                    | 29.20  | 25.30  | 27.70                | 39.10   | 752.80   | 92.00   | 40.90                    | 19.90  | 22.00  | 24.10  |                 |
| 6              | 25.90                                                          | 28.30                    | 28.30  | 25.00  | 24.40                | 41.80   | 791.50   | 90.50   | 43.00                    | 23.20  | 22.60  | 24.40  |                 |
| 7              | 25.60                                                          | 32.80                    | 25.90  | 28.00  | 23.20                | 55.80   | 764.00   | 86.50   | 44.60                    | 23.20  | 20.80  | 25.90  |                 |
| 8              | 25.90                                                          | 29.80                    | 27.40  | 26.20  | 26.20                | 59.00   | 754.20   | 82.50   | 40.60                    | 19.60  | 23.50  | 25.90  |                 |
| 9              | 30.10                                                          | 31.90                    | 26.50  | 26.80  | 30.40                | 61.40   | 744.40   | 83.00   | 37.60                    | 21.70  | 22.30  | 25.90  |                 |
| 10             | 30.40                                                          | 31.30                    | 26.20  | 25.90  | 31.00                | 58.20   | 731.80   | 77.00   | 34.90                    | 28.30  | 21.10  | 27.70  |                 |
| 11             | 31.00                                                          | 31.00                    | 25.00  | 26.80  | 36.10                | 56.20   | 716.40   | 70.20   | 35.20                    | 28.30  | 18.40  | 28.30  |                 |
| 12             | 33.40                                                          | 32.20                    | 25.90  | 25.30  | 33.10                | 73.40   | 701.00   | 67.00   | 34.30                    | 23.50  | 20.80  | 26.80  |                 |
| 13             | 33.40                                                          | 30.70                    | 25.60  | 23.50  | 31.60                | 88.00   | 687.00   | 61.80   | 32.80                    | 22.60  | 25.30  | 25.90  |                 |
| 14             | 34.60                                                          | 29.20                    | 27.40  | 24.10  | 37.00                | 91.00   | 670.20   | 57.00   | 40.60                    | 25.00  | 23.20  | 24.40  |                 |
| 15             | 33.10                                                          | 29.50                    | 27.10  | 25.90  | 43.40                | 97.00   | 662.10   | 55.00   | 35.50                    | 25.00  | 27.10  | 25.60  |                 |
| 16             | 33.40                                                          | 28.90                    | 28.00  | 26.80  | 45.00                | 106.00  | 666.00   | 49.00   | 37.90                    | 25.30  | 31.00  | 28.60  |                 |
| 17             | 33.40                                                          | 27.40                    | 32.20  | 26.20  | 47.40                | 106.00  | 643.90   | 53.40   | 35.50                    | 22.90  | 26.80  | 27.40  |                 |
| 18             | 28.00                                                          | 26.50                    | 33.40  | 25.00  | 54.60                | 99.50   | 555.50   | 52.20   | 35.20                    | 21.70  | 24.10  | 27.40  |                 |
| 19             | 28.90                                                          | 24.10                    | 37.60  | 26.50  | 55.40                | 116.20  | 450.20   | 51.80   | 29.80                    | 25.30  | 22.00  | 28.30  |                 |
| 20             | 27.40                                                          | 24.10                    | 32.80  | 25.00  | 47.40                | 269.00  | 491.80   | 54.20   | 33.70                    | 23.20  | 20.50  | 27.40  |                 |
| 21             | 25.30                                                          | 26.50                    | 29.80  | 27.10  | 43.80                | 563.30  | 445.00   | 47.80   | 34.60                    | 17.80  | 26.20  | 26.80  |                 |
| 22             | 26.80                                                          | 27.40                    | 31.00  | 26.80  | 43.80                | 564.60  | 379.60   | 48.20   | 35.20                    | 18.40  | 23.80  | 27.70  |                 |
| 23             | 26.80                                                          | 25.60                    | 31.60  | 28.60  | 42.10                | 428.10  | 319.80   | 47.00   | 26.20                    | 20.50  | 23.20  | 29.20  |                 |
| 24             | 26.50                                                          | 25.60                    | 34.30  | 28.60  | 41.20                | 296.00  | 282.00   | 45.00   | 24.70                    | 20.50  | 28.60  | 28.60  |                 |
| 25             | 28.30                                                          | 26.20                    | 35.20  | 28.60  | 41.20                | 274.00  | 224.80   | 39.70   | 21.40                    | 18.40  | 28.60  | 29.20  |                 |
| 26             | 29.20                                                          | 26.50                    | 34.90  | 28.60  | 40.00                | 308.80  | 197.80   | 39.10   | 20.50                    | 22.30  | 25.00  | 29.50  |                 |
| 27             | 29.80                                                          | 27.10                    | 34.30  | 26.50  | 36.40                | 325.60  | 158.20   | 38.80   | 15.70                    | 22.30  | 25.60  | 27.40  |                 |
| 28             | 31.90                                                          | 27.40                    | 31.60  | 25.90  | 37.60                | 368.80  | 132.70   | 36.70   | 22.60                    | 23.20  | 26.20  | 27.10  |                 |
| 29             | 36.40                                                          | 25.30                    | 29.50  | 25.90  | 37.30                | 447.60  | 127.10   | 36.10   | 24.70                    | 22.60  |        | 28.00  |                 |
| 30             | 37.00                                                          | 24.70                    | 25.30  | 25.60  | 36.70                | 498.30  | 132.70   | 40.90   | 23.80                    | 22.30  |        | 27.70  |                 |
| 31             |                                                                | 24.40                    |        | 25.60  | 38.20                |         | 134.80   |         | 22.00                    | 22.90  |        | 28.90  |                 |
| Total          | 915.60                                                         | 879.10                   | 870.00 | 813.40 | 1134.00              | 5653.30 | 15587.40 | 1947.70 | 1028.00                  | 703.60 | 665.50 | 829.60 | 31027.20 CMSDAY |
| Mean           | 30.52                                                          | 28.36                    | 29.00  | 26.24  | 36.58                | 188.44  | 502.82   | 64.92   | 33.16                    | 22.70  | 23.77  | 26.76  | 85.01 CMS       |
| Max            | 37.00                                                          | 35.50                    | 37.60  | 28.60  | 55.40                | 564.60  | 791.50   | 122.90  | 44.60                    | 28.30  | 31.00  | 29.50  | 791.50 CMS      |
| Min            | 25.30                                                          | 24.10                    | 21.10  | 22.90  | 23.20                | 38.20   | 127.10   | 36.10   | 15.70                    | 17.80  | 18.40  | 22.60  | 15.70 CMS       |
| Runoff         | 79.11                                                          | 75.95                    | 75.17  | 70.28  | 97.98                | 488.45  | 1346.75  | 168.28  | 88.82                    | 60.79  | 57.50  | 71.68  | 2680.75 MCM     |
| Momentary Peak | 799.00 CMS. at 8.64 m. (MSL.) at 07.00 Hours , on Oct 6 , 2013 |                          |        |        |                      |         |          |         |                          |        |        |        |                 |
| Runoff Yield   | 5.51                                                           | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |          | 51.799  | Liters/Second/Square KM. |        |        |        |                 |







Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                     | Jun    | Jul   | Aug                  | Sep     | Oct      | Nov    | Dec     | Jan                      | Feb     | Mar     | Annual   |        |
|----------------|--------|---------------------------------------------------------|--------|-------|----------------------|---------|----------|--------|---------|--------------------------|---------|---------|----------|--------|
| 1              | 21.80  | 8.80                                                    | 15.25  | 0.90  | 0.80                 | 6.20    | 401.00   | 65.60  | 18.75   | 46.25                    | 53.60   | 45.90   |          |        |
| 2              | 27.80  | 8.60                                                    | 14.50  | 0.90  | 1.30                 | 6.40    | 458.30   | 38.00  | 29.30   | 45.90                    | 40.40   | 38.90   |          |        |
| 3              | 27.20  | 11.50                                                   | 14.75  | 0.90  | 0.80                 | 6.40    | 576.00   | 38.60  | 36.80   | 45.55                    | 30.20   | 38.00   |          |        |
| 4              | 27.80  | 19.75                                                   | 12.00  | 0.80  | 0.80                 | 6.40    | 718.90   | 35.00  | 38.00   | 52.40                    | 30.20   | 37.70   |          |        |
| 5              | 28.40  | 20.60                                                   | 10.50  | 0.80  | 1.15                 | 6.00    | 767.00   | 20.00  | 37.70   | 63.60                    | 31.70   | 38.30   |          |        |
| 6              | 28.70  | 19.75                                                   | 12.75  | 0.80  | 5.80                 | 5.60    | 760.50   | 13.00  | 37.40   | 64.00                    | 39.50   | 38.00   |          |        |
| 7              | 29.00  | 19.75                                                   | 13.25  | 0.80  | 7.80                 | 5.80    | 750.10   | 11.50  | 41.70   | 63.60                    | 39.50   | 38.00   |          |        |
| 8              | 28.70  | 19.50                                                   | 11.50  | 0.80  | 8.60                 | 5.80    | 744.90   | 10.50  | 52.40   | 52.40                    | 40.10   | 38.30   |          |        |
| 9              | 28.40  | 19.50                                                   | 10.50  | 0.90  | 6.60                 | 6.00    | 738.40   | 8.60   | 52.80   | 45.20                    | 45.90   | 37.40   |          |        |
| 10             | 28.70  | 19.00                                                   | 11.50  | 0.90  | 5.20                 | 6.00    | 731.90   | 8.40   | 52.80   | 47.30                    | 45.90   | 37.10   |          |        |
| 11             | 28.70  | 19.00                                                   | 10.50  | 0.90  | 5.40                 | 5.80    | 725.40   | 8.40   | 44.15   | 54.00                    | 43.10   | 37.70   |          |        |
| 12             | 32.00  | 19.25                                                   | 6.20   | 0.80  | 5.60                 | 4.00    | 713.70   | 8.20   | 35.30   | 53.60                    | 38.00   | 37.40   |          |        |
| 13             | 35.00  | 19.50                                                   | 2.50   | 0.80  | 5.60                 | 4.20    | 711.10   | 7.40   | 35.60   | 53.60                    | 38.30   | 36.80   |          |        |
| 14             | 33.80  | 19.50                                                   | 2.50   | 0.80  | 5.80                 | 4.80    | 720.20   | 8.00   | 39.50   | 54.00                    | 43.45   | 36.20   |          |        |
| 15             | 22.70  | 20.30                                                   | 2.65   | 0.80  | 6.00                 | 4.80    | 699.60   | 7.60   | 56.80   | 53.60                    | 48.80   | 36.50   |          |        |
| 16             | 15.75  | 27.50                                                   | 2.65   | 0.80  | 5.20                 | 5.60    | 620.00   | 7.60   | 55.60   | 52.80                    | 52.80   | 38.90   |          |        |
| 17             | 15.75  | 37.10                                                   | 2.50   | 0.80  | 5.60                 | 4.80    | 445.20   | 7.40   | 56.80   | 52.80                    | 52.80   | 44.85   |          |        |
| 18             | 16.75  | 40.70                                                   | 2.35   | 0.80  | 5.80                 | 4.00    | 268.60   | 5.40   | 58.00   | 53.60                    | 51.20   | 45.55   |          |        |
| 19             | 17.00  | 38.60                                                   | 2.65   | 0.70  | 6.00                 | 6.00    | 321.95   | 4.40   | 43.45   | 53.20                    | 47.65   | 45.55   |          |        |
| 20             | 20.00  | 40.10                                                   | 1.75   | 0.70  | 7.40                 | 79.60   | 287.80   | 4.40   | 36.80   | 53.20                    | 46.95   | 39.50   |          |        |
| 21             | 20.00  | 39.80                                                   | 0.80   | 0.70  | 11.00                | 155.00  | 240.40   | 4.40   | 45.55   | 56.00                    | 46.25   | 37.10   |          |        |
| 22             | 19.75  | 40.40                                                   | 0.70   | 0.80  | 8.20                 | 61.20   | 230.80   | 4.20   | 62.40   | 56.40                    | 45.90   | 36.50   |          |        |
| 23             | 18.25  | 41.00                                                   | 0.70   | 0.70  | 5.60                 | 32.90   | 218.60   | 4.20   | 53.60   | 56.40                    | 45.90   | 34.70   |          |        |
| 24             | 16.25  | 38.90                                                   | 0.70   | 0.80  | 5.60                 | 26.90   | 169.10   | 4.20   | 44.50   | 56.40                    | 47.65   | 30.20   |          |        |
| 25             | 16.00  | 41.00                                                   | 0.90   | 0.80  | 5.60                 | 44.85   | 140.00   | 4.60   | 51.60   | 56.00                    | 50.80   | 30.20   |          |        |
| 26             | 16.00  | 37.40                                                   | 0.90   | 0.80  | 5.60                 | 94.80   | 99.60    | 4.40   | 62.40   | 56.00                    | 50.40   | 29.90   |          |        |
| 27             | 15.75  | 26.60                                                   | 0.90   | 0.80  | 5.60                 | 124.35  | 57.60    | 4.20   | 62.80   | 55.60                    | 50.80   | 29.60   |          |        |
| 28             | 12.25  | 19.75                                                   | 0.90   | 0.80  | 5.80                 | 198.80  | 58.40    | 4.20   | 62.80   | 55.60                    | 48.00   | 29.30   |          |        |
| 29             | 8.80   | 17.25                                                   | 0.80   | 0.80  | 5.80                 | 259.60  | 58.00    | 4.20   | 53.60   | 54.40                    |         | 29.30   |          |        |
| 30             | 8.80   | 17.25                                                   | 0.90   | 0.70  | 6.00                 | 333.00  | 65.20    | 10.50  | 47.65   | 53.60                    |         | 29.60   |          |        |
| 31             |        | 17.00                                                   |        | 0.70  | 6.40                 |         | 70.40    |        | 47.30   | 54.00                    |         | 29.90   |          |        |
| Total          | 665.80 | 784.65                                                  | 170.95 | 24.80 | 168.45               | 1515.60 | 13568.65 | 367.10 | 1453.85 | 1671.00                  | 1245.75 | 1132.85 | 22769.45 | CMSDAY |
| Mean           | 22.19  | 25.31                                                   | 5.70   | 0.80  | 5.43                 | 50.52   | 437.70   | 12.24  | 46.90   | 53.90                    | 44.49   | 36.54   | 62.38    | CMS    |
| Max            | 35.00  | 41.00                                                   | 15.25  | 0.90  | 11.00                | 333.00  | 767.00   | 65.60  | 62.80   | 64.00                    | 53.60   | 45.90   | 767.00   | CMS    |
| Min            | 8.80   | 8.60                                                    | 0.70   | 0.70  | 0.80                 | 4.00    | 57.60    | 4.20   | 18.75   | 45.20                    | 30.20   | 29.30   | 0.70     | CMS    |
| Runoff         | 57.53  | 67.79                                                   | 14.77  | 2.14  | 14.55                | 13.95   | 1172.33  | 31.72  | 125.61  | 144.37                   | 107.63  | 97.88   | 1967.28  | MCM    |
| Momentary Peak | 769.60 | CMS. at 28.52 m. (MSL.) at 13.00 Hours , on Oct 5, 2013 |        |       |                      |         |          |        |         |                          |         |         |          |        |
| Runoff Yield   | 7.11   | Liters/Second/Square KM.                                |        |       | Momentary Peak Yield |         |          |        | 87.674  | Liters/Second/Square KM. |         |         |          |        |

**WATER YEAR : 2013****PASAK RIVER BASIN****Pasak River at Mueang , Saraburi (S.32)**

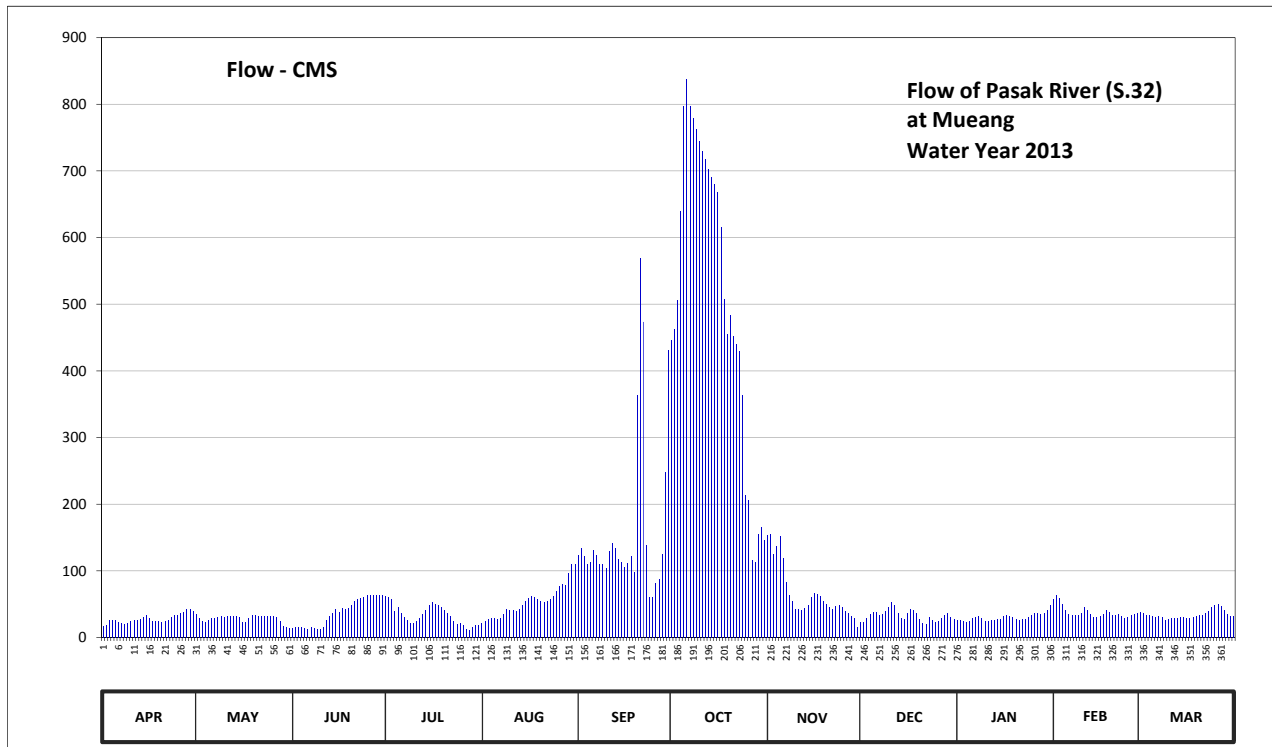
Lat 14 - 31 - 28 N Long 100 - 59 - 48 E

Location : on right bank at Mueang.

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | -         | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Saraburi          |
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank near the Staff gage.                                                        |           |               |        | <b>Elevation</b> | +12.827 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1990 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2012 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2012 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 50 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug  | Sep                              | Oct   | Nov               | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|------|----------------------------------|-------|-------------------|------|------|------|------|--------|
| 1                                | 5.82  | 6.45 | 5.73        | 7.02 | 6.01 | 7.74                             | 8.94  | 7.93              | 6.02 | 6.15 | 6.93 | 6.54 |        |
| 2                                | 5.91  | 6.26 | 5.75        | 7.00 | 6.07 | 7.82                             | 9.19  | 7.94              | 6.05 | 6.16 | 7.04 | 6.47 |        |
| 3                                | 6.12  | 6.07 | 5.75        | 6.94 | 6.20 | 7.73                             | 9.72  | 7.75              | 6.25 | 6.11 | 6.97 | 6.37 |        |
| 4                                | 6.16  | 6.02 | 5.78        | 6.57 | 6.23 | 7.63                             | 10.85 | 7.84              | 6.44 | 6.02 | 6.79 | 6.38 |        |
| 5                                | 6.13  | 6.13 | 5.69        | 6.70 | 6.24 | 7.66                             | 11.83 | 7.92              | 6.53 | 6.07 | 6.61 | 6.34 |        |
| 6                                | 6.06  | 6.22 | 5.62        | 6.51 | 6.18 | 7.80                             | 12.04 | 7.71              | 6.53 | 6.22 | 6.42 | 6.30 |        |
| 7                                | 5.98  | 6.26 | 5.75        | 6.30 | 6.26 | 7.74                             | 11.83 | 7.35              | 6.39 | 6.28 | 6.41 | 6.32 |        |
| 8                                | 5.96  | 6.31 | 5.71        | 6.13 | 6.46 | 7.64                             | 11.73 | 7.04              | 6.43 | 6.35 | 6.40 | 6.29 |        |
| 9                                | 6.01  | 6.34 | 5.67        | 5.99 | 6.62 | 7.63                             | 11.64 | 6.87              | 6.58 | 6.24 | 6.41 | 6.16 |        |
| 10                               | 6.10  | 6.30 | 5.67        | 5.99 | 6.61 | 7.58                             | 11.54 | 6.65              | 6.70 | 6.07 | 6.51 | 6.19 |        |
| 11                               | 6.15  | 6.32 | 5.80        | 6.11 | 6.59 | 7.79                             | 11.45 | 6.64              | 6.84 | 6.08 | 6.68 | 6.22 |        |
| 12                               | 6.15  | 6.32 | 6.15        | 6.24 | 6.56 | 7.86                             | 11.37 | 6.60              | 6.77 | 6.16 | 6.61 | 6.26 |        |
| 13                               | 6.18  | 6.34 | 6.33        | 6.42 | 6.62 | 7.82                             | 11.28 | 6.66              | 6.50 | 6.16 | 6.42 | 6.26 |        |
| 14                               | 6.28  | 6.36 | 6.49        | 6.61 | 6.75 | 7.70                             | 11.20 | 6.77              | 6.23 | 6.17 | 6.31 | 6.27 |        |
| 15                               | 6.37  | 6.27 | 6.64        | 6.75 | 6.88 | 7.66                             | 11.13 | 7.00              | 6.17 | 6.21 | 6.30 | 6.30 |        |
| 16                               | 6.26  | 6.04 | 6.53        | 6.84 | 6.96 | 7.59                             | 11.05 | 7.11              | 6.50 | 6.34 | 6.32 | 6.23 |        |
| 17                               | 6.10  | 6.05 | 6.66        | 6.78 | 7.02 | 7.65                             | 10.67 | 7.09              | 6.64 | 6.38 | 6.45 | 6.22 |        |
| 18                               | 6.09  | 6.23 | 6.65        | 6.76 | 7.01 | 7.73                             | 9.73  | 7.02              | 6.61 | 6.36 | 6.61 | 6.29 |        |
| 19                               | 6.11  | 6.37 | 6.67        | 6.70 | 6.92 | 7.52                             | 9.08  | 6.89              | 6.49 | 6.28 | 6.54 | 6.34 |        |
| 20                               | 6.06  | 6.37 | 6.76        | 6.59 | 6.86 | 8.51                             | 9.45  | 6.79              | 6.19 | 6.17 | 6.41 | 6.38 |        |
| 21                               | 6.07  | 6.36 | 6.87        | 6.49 | 6.85 | 10.31                            | 9.03  | 6.69              | 5.97 | 6.13 | 6.40 | 6.40 |        |
| 22                               | 6.14  | 6.33 | 6.92        | 6.33 | 6.86 | 9.33                             | 8.82  | 6.62              | 5.93 | 6.17 | 6.42 | 6.47 |        |
| 23                               | 6.27  | 6.34 | 6.97        | 6.10 | 6.92 | 7.85                             | 8.62  | 6.72              | 6.28 | 6.21 | 6.35 | 6.58 |        |
| 24                               | 6.39  | 6.36 | 7.00        | 5.92 | 7.03 | 7.00                             | 8.51  | 6.75              | 6.16 | 6.30 | 6.25 | 6.70 |        |
| 25                               | 6.41  | 6.35 | 7.04        | 5.97 | 7.16 | 6.98                             | 8.18  | 6.68              | 6.02 | 6.40 | 6.27 | 6.76 |        |
| 26                               | 6.49  | 6.35 | 7.05        | 5.88 | 7.27 | 7.34                             | 8.15  | 6.56              | 6.10 | 6.51 | 6.37 | 6.78 |        |
| 27                               | 6.54  | 6.27 | 7.05        | 5.65 | 7.31 | 7.41                             | 7.68  | 6.51              | 6.24 | 6.51 | 6.45 | 6.72 |        |
| 28                               | 6.65  | 6.09 | 7.06        | 5.57 | 7.30 | 7.76                             | 7.66  | 6.35              | 6.38 | 6.46 | 6.47 | 6.60 |        |
| 29                               | 6.65  | 5.86 | 7.06        | 5.77 | 7.51 | 8.28                             | 7.94  | 6.24              | 6.48 | 6.51 |      | 6.46 |        |
| 30                               | 6.58  | 5.75 | 7.04        | 5.87 | 7.64 | 8.66                             | 7.99  | 5.75              | 6.30 | 6.60 |      | 6.34 |        |
| 31                               |       | 5.71 |             | 5.91 | 7.63 |                                  | 7.89  |                   | 6.20 | 6.76 |      | 6.32 |        |
| Mean                             | 6.21  | 6.22 | 6.40        | 6.34 | 6.79 | 7.86                             | 9.88  | 6.95              | 6.35 | 6.28 | 6.50 | 6.40 |        |
| Max                              | 6.65  | 6.45 | 7.06        | 7.02 | 7.64 | 10.31                            | 12.04 | 7.94              | 6.84 | 6.76 | 7.04 | 6.78 | 12.04  |
| Min                              | 5.82  | 5.71 | 5.62        | 5.57 | 6.01 | 6.98                             | 7.66  | 5.75              | 5.93 | 6.02 | 6.25 | 6.16 | 5.57   |
| Annual Max Momentary Gage Height | 12.12 |      | m. (MSL.) , |      |      | at 05.00 Hours , on Oct 6 , 2013 |       |                   |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      |      | River Bed                        | 0.48  | m. (MSL.)         |      |      |      |      |        |
| Left Bank Elevation              | 16.09 |      | m. (MSL.) , |      |      |                                  |       |                   |      |      |      |      |        |
| Right Bank Elevation             | 16.11 |      | m. (MSL.) , |      |      | Drainage Area                    |       | Square Kilometers |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep     | Oct      | Nov     | Dec                      | Jan    | Feb     | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|----------|---------|--------------------------|--------|---------|---------|----------|--------|
| 1              | 16.60                                                           | 35.50                    | 14.60   | 62.00   | 22.30                | 123.20  | 446.40   | 153.70  | 22.60                    | 26.50  | 57.50   | 38.60   |          |        |
| 2              | 19.30                                                           | 29.80                    | 15.00   | 61.00   | 24.10                | 134.40  | 462.30   | 155.60  | 23.50                    | 26.80  | 63.00   | 36.10   |          |        |
| 3              | 25.60                                                           | 24.10                    | 15.00   | 58.00   | 28.00                | 121.90  | 506.00   | 124.50  | 29.50                    | 25.30  | 59.50   | 33.10   |          |        |
| 4              | 26.80                                                           | 22.60                    | 15.60   | 39.80   | 28.90                | 109.60  | 639.00   | 137.80  | 35.20                    | 22.60  | 50.50   | 33.40   |          |        |
| 5              | 25.90                                                           | 25.90                    | 13.80   | 46.00   | 29.20                | 113.20  | 796.70   | 151.80  | 38.20                    | 24.10  | 41.50   | 32.20   |          |        |
| 6              | 23.80                                                           | 28.60                    | 12.40   | 37.40   | 27.40                | 131.00  | 837.00   | 119.30  | 38.20                    | 28.60  | 34.60   | 31.00   |          |        |
| 7              | 21.40                                                           | 29.80                    | 15.00   | 31.00   | 29.80                | 123.20  | 796.70   | 83.00   | 33.70                    | 30.40  | 34.30   | 31.60   |          |        |
| 8              | 20.80                                                           | 31.30                    | 14.20   | 25.90   | 35.80                | 110.80  | 778.40   | 63.00   | 34.90                    | 32.50  | 34.00   | 30.70   |          |        |
| 9              | 22.30                                                           | 32.20                    | 13.40   | 21.70   | 42.00                | 109.60  | 762.20   | 54.50   | 40.20                    | 29.20  | 34.30   | 26.80   |          |        |
| 10             | 25.00                                                           | 31.00                    | 13.40   | 21.70   | 41.50                | 104.00  | 744.80   | 43.50   | 46.00                    | 24.10  | 37.40   | 27.70   |          |        |
| 11             | 26.50                                                           | 31.60                    | 16.00   | 25.30   | 40.60                | 129.70  | 730.00   | 43.00   | 53.00                    | 24.40  | 45.00   | 28.60   |          |        |
| 12             | 26.50                                                           | 31.60                    | 26.50   | 29.20   | 39.40                | 141.20  | 717.20   | 41.00   | 49.50                    | 26.80  | 41.50   | 29.80   |          |        |
| 13             | 27.40                                                           | 32.20                    | 31.90   | 34.60   | 42.00                | 134.40  | 702.80   | 44.00   | 37.00                    | 26.80  | 34.60   | 29.80   |          |        |
| 14             | 30.40                                                           | 32.80                    | 36.70   | 41.50   | 48.50                | 118.00  | 690.00   | 49.50   | 28.90                    | 27.10  | 31.30   | 30.10   |          |        |
| 15             | 33.10                                                           | 30.10                    | 43.00   | 48.50   | 55.00                | 113.20  | 679.50   | 61.00   | 27.10                    | 28.30  | 31.00   | 31.00   |          |        |
| 16             | 29.80                                                           | 23.20                    | 38.20   | 53.00   | 59.00                | 105.00  | 667.50   | 66.60   | 37.00                    | 32.20  | 31.60   | 28.90   |          |        |
| 17             | 25.00                                                           | 23.50                    | 44.00   | 50.00   | 62.00                | 112.00  | 615.10   | 65.50   | 43.00                    | 33.40  | 35.50   | 28.60   |          |        |
| 18             | 24.70                                                           | 28.90                    | 43.50   | 49.00   | 61.50                | 121.90  | 507.00   | 62.00   | 41.50                    | 32.80  | 41.50   | 30.70   |          |        |
| 19             | 25.30                                                           | 33.10                    | 44.50   | 46.00   | 57.00                | 98.00   | 454.80   | 55.50   | 36.70                    | 30.40  | 38.60   | 32.20   |          |        |
| 20             | 23.80                                                           | 33.10                    | 49.00   | 40.60   | 54.00                | 363.20  | 483.00   | 50.50   | 27.70                    | 27.10  | 34.30   | 33.40   |          |        |
| 21             | 24.10                                                           | 32.80                    | 54.50   | 36.70   | 53.50                | 569.20  | 451.80   | 45.50   | 21.10                    | 25.90  | 34.00   | 34.00   |          |        |
| 22             | 26.20                                                           | 31.90                    | 57.00   | 31.90   | 54.00                | 473.40  | 439.20   | 42.00   | 19.90                    | 27.10  | 34.60   | 36.10   |          |        |
| 23             | 30.10                                                           | 32.20                    | 59.50   | 25.00   | 57.00                | 139.50  | 429.00   | 47.00   | 30.40                    | 28.30  | 32.50   | 40.20   |          |        |
| 24             | 33.70                                                           | 32.80                    | 61.00   | 19.60   | 62.50                | 61.00   | 363.20   | 48.50   | 26.80                    | 31.00  | 29.50   | 46.00   |          |        |
| 25             | 34.30                                                           | 32.50                    | 63.00   | 21.10   | 69.60                | 60.00   | 213.60   | 45.00   | 22.60                    | 34.00  | 30.10   | 49.00   |          |        |
| 26             | 36.70                                                           | 32.50                    | 63.50   | 18.40   | 76.90                | 82.20   | 205.50   | 39.40   | 25.00                    | 37.40  | 33.10   | 50.00   |          |        |
| 27             | 38.60                                                           | 30.10                    | 63.50   | 13.00   | 79.80                | 87.90   | 115.60   | 37.40   | 29.20                    | 37.40  | 35.50   | 47.00   |          |        |
| 28             | 43.50                                                           | 24.70                    | 64.00   | 11.40   | 79.00                | 125.80  | 113.20   | 32.50   | 33.40                    | 35.80  | 36.10   | 41.00   |          |        |
| 29             | 43.50                                                           | 17.80                    | 64.00   | 15.40   | 97.00                | 247.80  | 155.60   | 29.20   | 36.40                    | 37.40  |         | 35.80   |          |        |
| 30             | 40.20                                                           | 15.00                    | 63.00   | 18.10   | 110.80               | 431.00  | 165.10   | 15.00   | 31.00                    | 41.00  |         | 32.20   |          |        |
| 31             |                                                                 | 14.20                    |         | 19.30   | 109.60               |         | 146.30   |         | 28.00                    | 49.00  |         | 31.60   |          |        |
| Total          | 850.90                                                          | 887.40                   | 1128.70 | 1052.10 | 1677.70              | 4895.30 | 15814.50 | 2006.80 | 1027.20                  | 943.70 | 1076.90 | 1067.20 | 32428.40 | CMSDAY |
| Mean           | 28.36                                                           | 28.63                    | 37.62   | 33.94   | 54.12                | 163.18  | 510.15   | 66.89   | 33.14                    | 30.44  | 38.46   | 34.43   | 88.84    | CMS    |
| Max            | 43.50                                                           | 35.50                    | 64.00   | 62.00   | 110.80               | 569.20  | 837.00   | 155.60  | 53.00                    | 49.00  | 63.00   | 50.00   | 837.00   | CMS    |
| Min            | 16.60                                                           | 14.20                    | 12.40   | 11.40   | 22.30                | 60.00   | 113.20   | 15.00   | 19.90                    | 22.60  | 29.50   | 26.80   | 11.40    | CMS    |
| Runoff         | 73.52                                                           | 76.67                    | 97.52   | 90.90   | 144.95               | 422.95  | 1366.37  | 173.39  | 88.75                    | 81.54  | 93.04   | 92.21   | 2801.81  | MCM    |
| Momentary Peak | 853.20 CMS. at 12.12 m. (MSL.) at 05.00 Hours , on Oct 6 , 2013 |                          |         |         |                      |         |          |         |                          |        |         |         |          |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |          | *****   | Liters/Second/Square KM. |        |         |         |          |        |

**WATER YEAR : 2013**

## PASAK RIVER BASIN

### Pasak River at Ban Tha Hi Yong , Phetchabun (S.33)

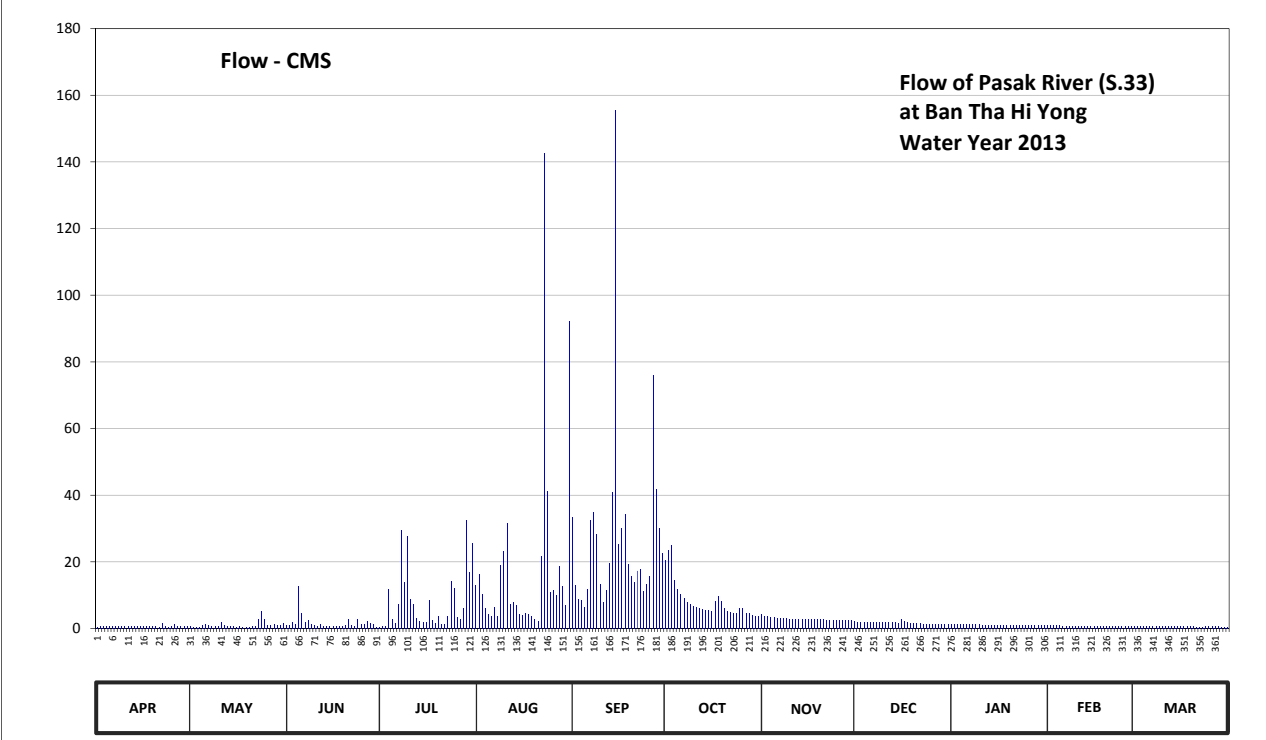
Lat 17 - 00 - 10 N    Long 101 - 21 - 23 E

**Location : on left bank at Ban Tha Hai Yong**

|                                         |                                                                                           |              |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Tha Hai Yong | <b>Amphoe</b> | Lom Kao | <b>Changwat</b>  | Phetchabun         |
| <b>Drainage Area</b>                    | 521                                                                                       | sq.km.       |               |         |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |              |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +190.090                                                                                  | m. (MSL.)    |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |         |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |              |               |         | <b>Elevation</b> | +198.009 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |              |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |              |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |              |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |              |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |              |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |              |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |              |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |         |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 22 discharge measurements made in 2013. |              |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun    | Jul         | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|--------|-------------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 190.69 | 190.72 | 190.81 | 190.71      | 191.67                            | 192.65 | 192.06            | 191.09 | 190.91 | 190.83 | 190.79 | 190.74 |        |
| 2                                | 190.75 | 190.70 | 190.80 | 190.74      | 191.84                            | 191.67 | 192.20            | 191.05 | 190.90 | 190.83 | 190.79 | 190.73 |        |
| 3                                | 190.74 | 190.70 | 190.89 | 190.74      | 191.52                            | 191.43 | 192.28            | 191.04 | 190.90 | 190.83 | 190.78 | 190.73 |        |
| 4                                | 190.74 | 190.71 | 190.82 | 191.61      | 191.22                            | 191.40 | 191.75            | 191.02 | 190.90 | 190.83 | 190.78 | 190.73 |        |
| 5                                | 190.74 | 190.80 | 191.65 | 190.96      | 191.09                            | 191.26 | 191.60            | 191.01 | 190.90 | 190.83 | 190.78 | 190.73 |        |
| 6                                | 190.74 | 190.82 | 191.12 | 190.86      | 191.03                            | 191.60 | 191.52            | 191.00 | 190.90 | 190.83 | 190.77 | 190.73 |        |
| 7                                | 190.74 | 190.78 | 190.88 | 191.33      | 191.26                            | 192.62 | 191.44            | 190.99 | 190.89 | 190.83 | 190.77 | 190.73 |        |
| 8                                | 190.75 | 190.76 | 190.94 | 192.48      | 191.05                            | 192.72 | 191.37            | 190.99 | 190.89 | 190.82 | 190.76 | 190.72 |        |
| 9                                | 190.73 | 190.75 | 190.83 | 191.72      | 191.97                            | 192.43 | 191.33            | 190.98 | 190.89 | 190.82 | 190.76 | 190.72 |        |
| 10                               | 190.74 | 190.72 | 190.78 | 192.40      | 192.19                            | 191.69 | 191.28            | 190.97 | 190.89 | 190.82 | 190.76 | 190.72 |        |
| 11                               | 190.73 | 190.90 | 190.76 | 191.42      | 192.57                            | 191.37 | 191.26            | 190.97 | 190.89 | 190.81 | 190.76 | 190.72 |        |
| 12                               | 190.72 | 190.78 | 190.84 | 191.32      | 191.33                            | 191.58 | 191.24            | 190.96 | 190.88 | 190.81 | 190.76 | 190.72 |        |
| 13                               | 190.72 | 190.74 | 190.76 | 190.98      | 191.36                            | 192.01 | 191.21            | 190.97 | 190.88 | 190.81 | 190.76 | 190.72 |        |
| 14                               | 190.72 | 190.72 | 190.75 | 190.92      | 191.30                            | 192.99 | 191.19            | 190.97 | 190.88 | 190.81 | 190.75 | 190.72 |        |
| 15                               | 190.72 | 190.74 | 190.75 | 190.90      | 191.09                            | 196.70 | 191.18            | 190.97 | 190.87 | 190.80 | 190.75 | 190.72 |        |
| 16                               | 190.72 | 190.70 | 190.74 | 190.89      | 191.06                            | 192.29 | 191.15            | 190.97 | 190.97 | 190.80 | 190.75 | 190.72 |        |
| 17                               | 190.72 | 190.75 | 190.73 | 191.41      | 191.12                            | 192.51 | 191.39            | 190.97 | 190.92 | 190.80 | 190.75 | 190.72 |        |
| 18                               | 190.72 | 190.71 | 190.75 | 190.94      | 191.08                            | 192.69 | 191.49            | 190.97 | 190.88 | 190.80 | 190.75 | 190.72 |        |
| 19                               | 190.72 | 190.70 | 190.73 | 190.87      | 191.05                            | 192.00 | 191.38            | 190.96 | 190.87 | 190.80 | 190.75 | 190.72 |        |
| 20                               | 190.72 | 190.70 | 190.78 | 191.03      | 190.96                            | 191.82 | 191.23            | 190.96 | 190.87 | 190.80 | 190.75 | 190.72 |        |
| 21                               | 190.71 | 190.74 | 190.97 | 190.84      | 190.92                            | 191.72 | 191.16            | 190.96 | 190.87 | 190.80 | 190.75 | 190.71 |        |
| 22                               | 190.86 | 190.72 | 190.80 | 190.82      | 192.11                            | 191.89 | 191.14            | 190.95 | 190.86 | 190.80 | 190.74 | 190.71 |        |
| 23                               | 190.75 | 190.96 | 190.77 | 191.05      | 196.34                            | 191.91 | 191.12            | 190.95 | 190.85 | 190.79 | 190.74 | 190.71 |        |
| 24                               | 190.71 | 191.15 | 190.96 | 191.74      | 193.00                            | 191.57 | 191.11            | 190.95 | 190.85 | 190.79 | 190.74 | 190.72 |        |
| 25                               | 190.77 | 190.96 | 190.82 | 191.63      | 191.55                            | 191.70 | 191.22            | 190.95 | 190.85 | 190.79 | 190.74 | 190.72 |        |
| 26                               | 190.82 | 190.80 | 190.82 | 191.02      | 191.59                            | 191.81 | 191.24            | 190.95 | 190.85 | 190.79 | 190.74 | 190.72 |        |
| 27                               | 190.72 | 190.81 | 190.91 | 190.96      | 191.51                            | 194.29 | 191.12            | 190.94 | 190.85 | 190.79 | 190.74 | 190.72 |        |
| 28                               | 190.73 | 190.85 | 190.87 | 191.24      | 191.96                            | 193.03 | 191.10            | 190.94 | 190.84 | 190.79 | 190.74 | 190.72 |        |
| 29                               | 190.73 | 190.78 | 190.85 | 192.61      | 191.65                            | 192.51 | 191.07            | 190.94 | 190.84 | 190.79 |        | 190.71 |        |
| 30                               | 190.72 | 190.78 | 190.69 | 191.87      | 191.31                            | 192.16 | 191.05            | 190.94 | 190.84 | 190.79 |        | 190.71 |        |
| 31                               |        | 190.87 |        | 192.31      | 194.83                            |        | 191.05            |        | 190.83 | 190.79 |        | 190.71 |        |
| Mean                             | 190.74 | 190.78 | 190.85 | 191.30      | 191.76                            | 192.27 | 191.35            | 190.98 | 190.88 | 190.81 | 190.76 | 190.72 |        |
| Max                              | 190.86 | 191.15 | 191.65 | 192.61      | 196.34                            | 196.70 | 192.28            | 191.09 | 190.97 | 190.83 | 190.79 | 190.74 | 196.70 |
| Min                              | 190.69 | 190.70 | 190.69 | 190.71      | 190.92                            | 191.26 | 191.05            | 190.94 | 190.83 | 190.79 | 190.74 | 190.71 | 190.69 |
| Annual Max Momentary Gage Height |        |        | 198.65 | m. (MSL.) , | at 09.00 Hours , on Sep 15 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |        |        | 190.09 | m. (MSL.) , | River Bed                         | 190.27 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |        |        | 198.96 | m. (MSL.) , |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |        |        | 198.93 | m. (MSL.) , | Drainage Area                     | 521    | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|------------------------------------------------------------------|--------------------------|-------|--------|----------------------|--------|--------|---------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 0.45                                                             | 0.60                     | 1.10  | 0.55   | 12.98                | 33.37  | 20.70  | 4.37    | 2.13                     | 1.30  | 0.95  | 0.70  |         |        |
| 2              | 0.75                                                             | 0.50                     | 1.00  | 0.70   | 16.30                | 12.98  | 23.50  | 3.88    | 2.00                     | 1.30  | 0.95  | 0.65  |         |        |
| 3              | 0.70                                                             | 0.50                     | 1.90  | 0.70   | 10.35                | 8.95   | 25.10  | 3.75    | 2.00                     | 1.30  | 0.90  | 0.65  |         |        |
| 4              | 0.70                                                             | 0.55                     | 1.20  | 11.93  | 6.00                 | 8.50   | 14.50  | 3.50    | 2.00                     | 1.30  | 0.90  | 0.65  |         |        |
| 5              | 0.70                                                             | 1.00                     | 12.62 | 2.75   | 4.37                 | 6.50   | 11.75  | 3.37    | 2.00                     | 1.30  | 0.90  | 0.65  |         |        |
| 6              | 0.70                                                             | 1.20                     | 4.75  | 1.60   | 3.63                 | 11.75  | 10.35  | 3.25    | 2.00                     | 1.30  | 0.85  | 0.65  |         |        |
| 7              | 0.70                                                             | 0.90                     | 1.80  | 7.45   | 6.50                 | 32.70  | 9.10   | 3.13    | 1.90                     | 1.30  | 0.85  | 0.65  |         |        |
| 8              | 0.75                                                             | 0.80                     | 2.50  | 29.55  | 3.88                 | 34.95  | 8.05   | 3.13    | 1.90                     | 1.20  | 0.80  | 0.60  |         |        |
| 9              | 0.65                                                             | 0.75                     | 1.30  | 13.90  | 18.90                | 28.42  | 7.45   | 3.00    | 1.90                     | 1.20  | 0.80  | 0.60  |         |        |
| 10             | 0.70                                                             | 0.60                     | 0.90  | 27.75  | 23.30                | 13.33  | 6.75   | 2.88    | 1.90                     | 1.20  | 0.80  | 0.60  |         |        |
| 11             | 0.65                                                             | 2.00                     | 0.80  | 8.80   | 31.58                | 8.05   | 6.50   | 2.88    | 1.90                     | 1.10  | 0.80  | 0.60  |         |        |
| 12             | 0.60                                                             | 0.90                     | 1.40  | 7.30   | 7.45                 | 11.40  | 6.25   | 2.75    | 1.80                     | 1.10  | 0.80  | 0.60  |         |        |
| 13             | 0.60                                                             | 0.70                     | 0.80  | 3.00   | 7.90                 | 19.70  | 5.88   | 2.88    | 1.80                     | 1.10  | 0.80  | 0.60  |         |        |
| 14             | 0.60                                                             | 0.60                     | 0.75  | 2.25   | 7.00                 | 41.02  | 5.63   | 2.88    | 1.80                     | 1.10  | 0.75  | 0.60  |         |        |
| 15             | 0.60                                                             | 0.70                     | 0.75  | 2.00   | 4.37                 | 155.50 | 5.50   | 2.88    | 1.70                     | 1.00  | 0.75  | 0.60  |         |        |
| 16             | 0.60                                                             | 0.50                     | 0.70  | 1.90   | 4.00                 | 25.30  | 5.12   | 2.88    | 2.88                     | 1.00  | 0.75  | 0.60  |         |        |
| 17             | 0.60                                                             | 0.75                     | 0.65  | 8.65   | 4.75                 | 30.22  | 8.35   | 2.88    | 2.25                     | 1.00  | 0.75  | 0.60  |         |        |
| 18             | 0.60                                                             | 0.55                     | 0.75  | 2.50   | 4.25                 | 34.27  | 9.85   | 2.88    | 1.80                     | 1.00  | 0.75  | 0.60  |         |        |
| 19             | 0.60                                                             | 0.50                     | 0.65  | 1.70   | 3.88                 | 19.50  | 8.20   | 2.75    | 1.70                     | 1.00  | 0.75  | 0.60  |         |        |
| 20             | 0.60                                                             | 0.50                     | 0.90  | 3.63   | 2.75                 | 15.90  | 6.12   | 2.75    | 1.70                     | 1.00  | 0.75  | 0.60  |         |        |
| 21             | 0.55                                                             | 0.70                     | 2.88  | 1.40   | 2.25                 | 13.90  | 5.25   | 2.75    | 1.70                     | 1.00  | 0.75  | 0.55  |         |        |
| 22             | 1.60                                                             | 0.60                     | 1.00  | 1.20   | 21.70                | 17.30  | 5.00   | 2.63    | 1.60                     | 1.00  | 0.70  | 0.55  |         |        |
| 23             | 0.75                                                             | 2.75                     | 0.85  | 3.88   | 142.65               | 17.70  | 4.75   | 2.63    | 1.50                     | 0.95  | 0.70  | 0.55  |         |        |
| 24             | 0.55                                                             | 5.12                     | 2.75  | 14.30  | 41.25                | 11.23  | 4.63   | 2.63    | 1.50                     | 0.95  | 0.70  | 0.60  |         |        |
| 25             | 0.85                                                             | 2.75                     | 1.20  | 12.28  | 10.88                | 13.50  | 6.00   | 2.63    | 1.50                     | 0.95  | 0.70  | 0.60  |         |        |
| 26             | 1.20                                                             | 1.00                     | 1.20  | 3.50   | 11.57                | 15.70  | 6.25   | 2.63    | 1.50                     | 0.95  | 0.70  | 0.60  |         |        |
| 27             | 0.60                                                             | 1.10                     | 2.13  | 2.75   | 10.17                | 75.95  | 4.75   | 2.50    | 1.50                     | 0.95  | 0.70  | 0.60  |         |        |
| 28             | 0.65                                                             | 1.50                     | 1.70  | 6.25   | 18.70                | 41.92  | 4.50   | 2.50    | 1.40                     | 0.95  | 0.70  | 0.60  |         |        |
| 29             | 0.65                                                             | 0.90                     | 1.50  | 32.47  | 12.62                | 30.22  | 4.13   | 2.50    | 1.40                     | 0.95  |       | 0.55  |         |        |
| 30             | 0.60                                                             | 0.90                     | 0.45  | 16.90  | 7.15                 | 22.70  | 3.88   | 2.50    | 1.40                     | 0.95  |       | 0.55  |         |        |
| 31             |                                                                  | 1.70                     |       | 25.72  | 92.15                |        | 3.88   |         | 1.30                     | 0.95  |       | 0.55  |         |        |
| Total          | 20.85                                                            | 34.12                    | 52.88 | 259.26 | 555.23               | 812.43 | 257.67 | 88.57   | 55.36                    | 33.65 | 22.00 | 18.70 | 2210.72 | CMSDAY |
| Mean           | 0.70                                                             | 1.10                     | 1.76  | 8.36   | 17.91                | 27.08  | 8.31   | 2.95    | 1.79                     | 1.09  | 0.79  | 0.60  | 6.06    | CMS    |
| Max            | 1.60                                                             | 5.12                     | 12.62 | 32.47  | 142.65               | 155.50 | 25.10  | 4.37    | 2.88                     | 1.30  | 0.95  | 0.70  | 155.50  | CMS    |
| Min            | 0.45                                                             | 0.50                     | 0.45  | 0.55   | 2.25                 | 6.50   | 3.88   | 2.50    | 1.30                     | 0.95  | 0.70  | 0.55  | 0.45    | CMS    |
| Runoff         | 1.80                                                             | 2.95                     | 4.57  | 22.40  | 47.97                | 70.19  | 22.26  | 7.65    | 4.78                     | 2.91  | 1.90  | 1.62  | 191.01  | MCM    |
| Momentary Peak | 231.25 CMS. at 198.65 m. (MSL.) at 09.00 Hours , on Sep 15, 2013 |                          |       |        |                      |        |        |         |                          |       |       |       |         |        |
| Runoff Yield   | 11.62                                                            | Liters/Second/Square KM. |       |        | Momentary Peak Yield |        |        | 443.526 | Liters/Second/Square KM. |       |       |       |         |        |

**WATER YEAR : 2013**  
**PASAK RIVER BASIN**

**Pasak River at Ban Non Thong , Phetchabun (S.36)**

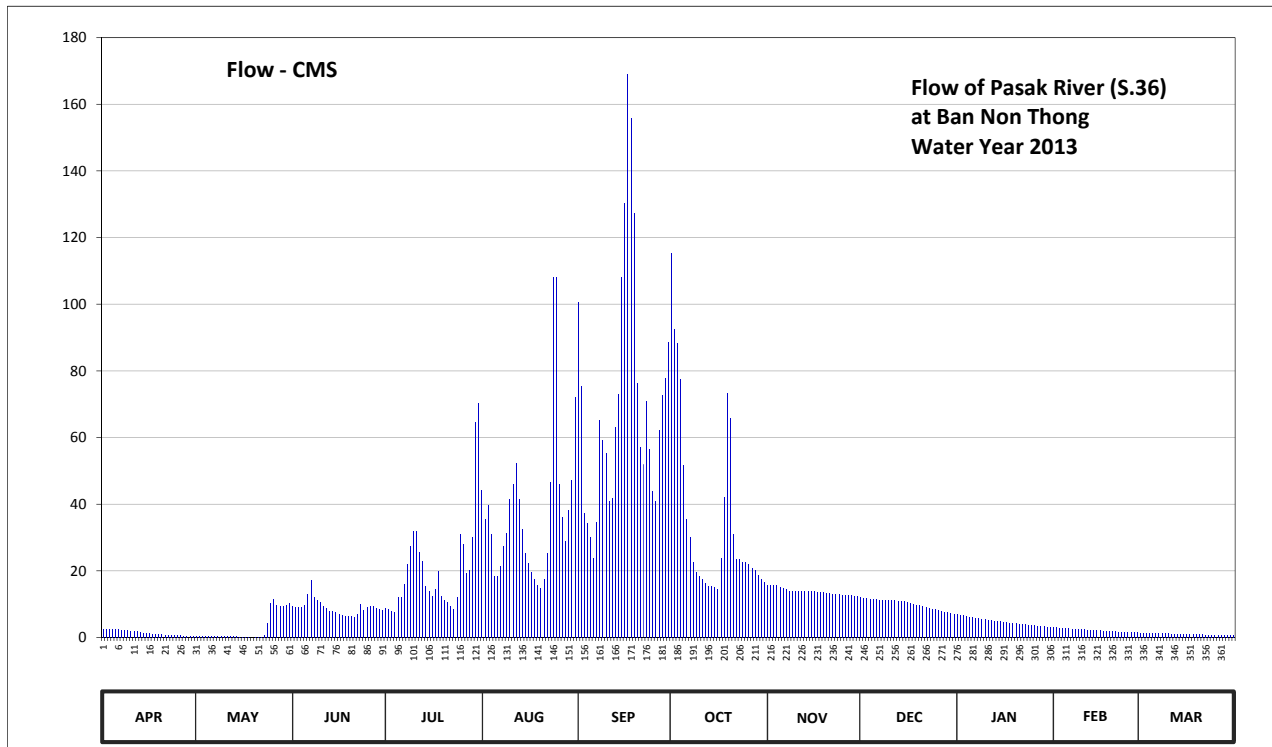
Lat 16 - 43 - 42 N    Long 101 - 14 - 32 E

**Location : on right bank at Ban Non Thong.**

|                                         |                                                                                           |           |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Non Thong | <b>Amphoe</b> | Lom Sak | <b>Changwat</b>  | Phetchabun         |
| <b>Drainage Area</b>                    | 1,775                                                                                     | sq.km.    |               |         |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +130.950                                                                                  | m. (MSL.) |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |         |                  |                    |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |           |               |         | <b>Elevation</b> | +143.140 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |           |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |           |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |           |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |           |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |         |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 10 discharge measurements made in 2013. |           |               |         |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov       | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|-----------|--------|--------|--------|--------|--------|
| 1                                | 133.99 | 133.32 | 134.88      | 134.83 | 136.71                            | 138.46 | 138.83            | 135.34    | 135.08 | 134.94 | 134.67 | 134.61 |        |
| 2                                | 133.97 | 133.32 | 134.86      | 134.80 | 136.35                            | 137.76 | 138.26            | 135.33    | 135.07 | 134.94 | 134.67 | 134.60 |        |
| 3                                | 133.96 | 133.32 | 134.84      | 134.73 | 136.53                            | 136.42 | 138.14            | 135.33    | 135.06 | 134.93 | 134.67 | 134.60 |        |
| 4                                | 133.96 | 133.32 | 134.86      | 134.72 | 136.15                            | 136.29 | 137.83            | 135.33    | 135.05 | 134.92 | 134.67 | 134.60 |        |
| 5                                | 133.95 | 133.32 | 134.90      | 135.08 | 135.49                            | 136.11 | 136.99            | 135.30    | 135.04 | 134.92 | 134.66 | 134.59 |        |
| 6                                | 133.95 | 133.32 | 135.16      | 135.09 | 135.49                            | 135.81 | 136.35            | 135.28    | 135.04 | 134.91 | 134.66 | 134.59 |        |
| 7                                | 133.92 | 133.32 | 135.43      | 135.35 | 135.67                            | 136.30 | 136.10            | 135.25    | 135.03 | 134.91 | 134.66 | 134.59 |        |
| 8                                | 133.91 | 133.32 | 135.08      | 135.70 | 135.98                            | 137.45 | 135.74            | 135.22    | 135.03 | 134.90 | 134.66 | 134.58 |        |
| 9                                | 133.89 | 133.32 | 135.03      | 135.99 | 136.16                            | 137.25 | 135.57            | 135.22    | 135.02 | 134.89 | 134.66 | 134.58 |        |
| 10                               | 133.86 | 133.32 | 134.98      | 136.19 | 136.60                            | 137.12 | 135.49            | 135.22    | 135.02 | 134.88 | 134.66 | 134.58 |        |
| 11                               | 133.84 | 133.32 | 134.88      | 136.19 | 136.78                            | 136.58 | 135.45            | 135.22    | 135.01 | 134.87 | 134.65 | 134.57 |        |
| 12                               | 133.82 | 133.32 | 134.82      | 135.90 | 137.01                            | 136.61 | 135.38            | 135.22    | 135.01 | 134.86 | 134.65 | 134.57 |        |
| 13                               | 133.78 | 133.32 | 134.75      | 135.75 | 136.60                            | 137.38 | 135.32            | 135.22    | 135.00 | 134.85 | 134.65 | 134.56 |        |
| 14                               | 133.74 | 133.32 | 134.73      | 135.32 | 136.22                            | 137.69 | 135.32            | 135.22    | 135.00 | 134.85 | 134.65 | 134.56 |        |
| 15                               | 133.70 | 133.31 | 134.72      | 135.21 | 135.88                            | 138.65 | 135.29            | 135.21    | 134.99 | 134.84 | 134.65 | 134.55 |        |
| 16                               | 133.67 | 133.29 | 134.63      | 135.12 | 135.72                            | 139.19 | 135.26            | 135.21    | 134.97 | 134.83 | 134.65 | 134.54 |        |
| 17                               | 133.64 | 133.26 | 134.58      | 135.25 | 135.57                            | 140.07 | 135.80            | 135.20    | 134.95 | 134.82 | 134.65 | 134.52 |        |
| 18                               | 133.62 | 133.22 | 134.57      | 135.58 | 135.44                            | 139.78 | 136.62            | 135.19    | 134.79 | 134.81 | 134.64 | 134.48 |        |
| 19                               | 133.60 | 133.20 | 134.56      | 135.11 | 135.33                            | 139.12 | 137.70            | 135.19    | 134.60 | 134.80 | 134.64 | 134.42 |        |
| 20                               | 133.57 | 133.24 | 134.55      | 135.02 | 135.27                            | 137.79 | 137.47            | 135.18    | 134.39 | 134.79 | 134.64 | 134.29 |        |
| 21                               | 133.54 | 133.26 | 134.52      | 134.97 | 135.44                            | 137.18 | 136.15            | 135.17    | 134.21 | 134.78 | 134.63 | 134.08 |        |
| 22                               | 133.53 | 133.26 | 134.65      | 134.87 | 135.88                            | 137.00 | 135.79            | 135.16    | 134.09 | 134.77 | 134.63 | 133.88 |        |
| 23                               | 133.51 | 133.51 | 134.93      | 134.79 | 136.81                            | 137.63 | 135.78            | 135.15    | 133.90 | 134.76 | 134.63 | 133.77 |        |
| 24                               | 133.49 | 134.26 | 134.77      | 135.10 | 138.65                            | 137.16 | 135.74            | 135.15    | 133.65 | 134.75 | 134.62 | 133.71 |        |
| 25                               | 133.46 | 134.94 | 134.85      | 136.14 | 138.65                            | 136.70 | 135.73            | 135.14    | 133.31 | 134.74 | 134.62 | 133.66 |        |
| 26                               | 133.45 | 135.04 | 134.88      | 136.02 | 136.78                            | 136.58 | 135.70            | 135.14    | 133.19 | 134.73 | 134.61 | 133.61 |        |
| 27                               | 133.43 | 134.89 | 134.88      | 135.55 | 136.37                            | 137.35 | 135.63            | 135.13    | 133.15 | 134.72 | 134.61 | 133.54 |        |
| 28                               | 133.42 | 134.88 | 134.83      | 135.60 | 136.05                            | 137.68 | 135.60            | 135.13    | 133.13 | 134.70 | 134.61 | 133.49 |        |
| 29                               | 133.41 | 134.88 | 134.80      | 136.10 | 136.46                            | 137.84 | 135.51            | 135.12    | 133.12 | 134.69 |        | 133.46 |        |
| 30                               | 133.39 | 134.91 | 134.76      | 137.43 | 136.83                            | 138.15 | 135.45            | 135.12    | 133.10 | 134.68 |        | 133.45 |        |
| 31                               |        | 134.95 |             | 137.61 | 137.66                            |        | 135.40            |           | 133.06 | 134.67 |        | 133.45 |        |
| Mean                             | 133.70 | 133.70 | 134.82      | 135.52 | 136.34                            | 137.50 | 136.17            | 135.21    | 134.42 | 134.82 | 134.65 | 134.23 |        |
| Max                              | 133.99 | 135.04 | 135.43      | 137.61 | 138.65                            | 140.07 | 138.83            | 135.34    | 135.08 | 134.94 | 134.67 | 134.61 | 140.07 |
| Min                              | 133.39 | 133.20 | 134.52      | 134.72 | 135.27                            | 135.81 | 135.26            | 135.12    | 133.06 | 134.67 | 134.61 | 133.45 | 133.06 |
| Annual Max Momentary Gage Height | 140.11 |        | m. (MSL.) , |        | at 15.00 Hours , on Sep 17 , 2013 |        |                   |           |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 130.95 |        | m. (MSL.) , |        | River Bed                         | 131.99 |                   | m. (MSL.) |        |        |        |        |        |
| Left Bank Elevation              | 143.34 |        | m. (MSL.) , |        |                                   |        |                   |           |        |        |        |        |        |
| Right Bank Elevation             | 143.27 |        | m. (MSL.) , |        | Drainage Area                     | 1775   | Square Kilometers |           |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan    | Feb   | Mar   | Annual         |
|----------------|-------------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|--------|--------------------------|--------|-------|-------|----------------|
| 1              | 2.70                                                              | 0.30                     | 9.50   | 8.88   | 44.25                | 100.40  | 115.20  | 15.85  | 12.00                    | 6.98   | 3.09  | 1.49  |                |
| 2              | 2.60                                                              | 0.30                     | 9.25   | 8.50   | 35.63                | 75.20   | 92.50   | 15.70  | 11.88                    | 6.80   | 3.01  | 1.45  |                |
| 3              | 2.55                                                              | 0.30                     | 9.00   | 7.80   | 39.75                | 37.20   | 88.15   | 15.70  | 11.75                    | 6.62   | 2.93  | 1.41  |                |
| 4              | 2.55                                                              | 0.30                     | 9.25   | 7.70   | 31.12                | 34.27   | 77.48   | 15.70  | 11.62                    | 6.45   | 2.85  | 1.37  |                |
| 5              | 2.50                                                              | 0.30                     | 9.78   | 12.00  | 18.33                | 30.23   | 51.73   | 15.25  | 11.50                    | 6.28   | 2.78  | 1.33  |                |
| 6              | 2.50                                                              | 0.30                     | 13.15  | 12.12  | 18.33                | 23.95   | 35.63   | 14.95  | 11.50                    | 6.12   | 2.71  | 1.30  |                |
| 7              | 2.35                                                              | 0.30                     | 17.27  | 16.00  | 21.47                | 34.50   | 30.00   | 14.50  | 11.37                    | 5.96   | 2.64  | 1.27  |                |
| 8              | 2.30                                                              | 0.30                     | 12.00  | 22.00  | 27.35                | 65.25   | 22.70   | 14.05  | 11.37                    | 5.81   | 2.57  | 1.24  |                |
| 9              | 2.20                                                              | 0.30                     | 11.37  | 27.55  | 31.35                | 59.25   | 19.73   | 14.05  | 11.25                    | 5.66   | 2.50  | 1.21  |                |
| 10             | 2.05                                                              | 0.30                     | 10.75  | 32.03  | 41.50                | 55.35   | 18.33   | 14.05  | 11.25                    | 5.51   | 2.44  | 1.18  |                |
| 11             | 1.95                                                              | 0.30                     | 9.50   | 32.03  | 46.00                | 41.00   | 17.63   | 14.05  | 11.12                    | 5.37   | 2.38  | 1.15  |                |
| 12             | 1.85                                                              | 0.30                     | 8.75   | 25.75  | 52.27                | 41.75   | 16.45   | 14.05  | 11.12                    | 5.23   | 2.32  | 1.12  |                |
| 13             | 1.65                                                              | 0.30                     | 8.00   | 22.87  | 41.50                | 63.15   | 15.55   | 14.05  | 11.00                    | 5.09   | 2.26  | 1.09  |                |
| 14             | 1.45                                                              | 0.30                     | 7.80   | 15.55  | 32.70                | 72.93   | 15.55   | 14.05  | 11.00                    | 4.96   | 2.20  | 1.06  |                |
| 15             | 1.25                                                              | 0.28                     | 7.70   | 13.90  | 25.35                | 108.00  | 15.10   | 13.90  | 10.88                    | 4.83   | 2.14  | 1.03  |                |
| 16             | 1.18                                                              | 0.23                     | 6.98   | 12.55  | 22.35                | 130.33  | 14.65   | 13.90  | 10.62                    | 4.70   | 2.08  | 1.00  |                |
| 17             | 1.10                                                              | 0.15                     | 6.60   | 14.50  | 19.73                | 168.90  | 23.75   | 13.75  | 10.37                    | 4.58   | 2.03  | 0.97  |                |
| 18             | 1.05                                                              | 0.05                     | 6.53   | 19.90  | 17.45                | 155.85  | 42.00   | 13.60  | 10.10                    | 4.46   | 1.98  | 0.94  |                |
| 19             | 1.00                                                              | 0.00                     | 6.45   | 12.40  | 15.70                | 127.35  | 73.25   | 13.60  | 9.84                     | 4.34   | 1.93  | 0.92  |                |
| 20             | 0.93                                                              | 0.10                     | 6.38   | 11.25  | 14.80                | 76.17   | 65.85   | 13.45  | 9.58                     | 4.23   | 1.88  | 0.90  |                |
| 21             | 0.85                                                              | 0.15                     | 6.15   | 10.62  | 17.45                | 57.15   | 31.12   | 13.30  | 9.33                     | 4.12   | 1.83  | 0.88  |                |
| 22             | 0.83                                                              | 0.15                     | 7.13   | 9.37   | 25.35                | 52.00   | 23.57   | 13.15  | 9.09                     | 4.01   | 1.78  | 0.86  |                |
| 23             | 0.78                                                              | 0.78                     | 10.12  | 8.40   | 46.77                | 70.98   | 23.40   | 13.00  | 8.85                     | 3.91   | 1.73  | 0.84  |                |
| 24             | 0.73                                                              | 4.20                     | 8.20   | 12.25  | 108.00               | 56.55   | 22.70   | 13.00  | 8.62                     | 3.81   | 1.69  | 0.82  |                |
| 25             | 0.65                                                              | 10.25                    | 9.12   | 30.90  | 108.00               | 44.00   | 22.52   | 12.85  | 8.40                     | 3.71   | 1.65  | 0.80  |                |
| 26             | 0.63                                                              | 11.50                    | 9.50   | 28.20  | 46.00                | 41.00   | 22.00   | 12.85  | 8.18                     | 3.61   | 1.61  | 0.78  |                |
| 27             | 0.58                                                              | 9.62                     | 9.50   | 19.38  | 36.07                | 62.25   | 20.78   | 12.70  | 7.97                     | 3.52   | 1.57  | 0.76  |                |
| 28             | 0.55                                                              | 9.50                     | 8.88   | 20.25  | 28.88                | 72.60   | 20.25   | 12.70  | 7.76                     | 3.43   | 1.53  | 0.74  |                |
| 29             | 0.53                                                              | 9.50                     | 8.50   | 30.00  | 38.10                | 77.80   | 18.67   | 12.55  | 7.56                     | 3.34   |       | 0.72  |                |
| 30             | 0.47                                                              | 9.87                     | 8.10   | 64.65  | 47.32                | 88.50   | 17.63   | 12.55  | 7.36                     | 3.25   |       | 0.70  |                |
| 31             |                                                                   | 10.37                    |        | 70.33  | 71.95                |         | 16.75   |        | 7.12                     | 3.17   |       | 0.68  |                |
| Total          | 44.31                                                             | 80.90                    | 271.21 | 639.63 | 1170.82              | 2123.86 | 1090.62 | 416.85 | 311.36                   | 149.86 | 62.11 | 32.01 | 6393.54 CMSDAY |
| Mean           | 1.48                                                              | 2.61                     | 9.04   | 20.63  | 37.77                | 70.80   | 35.18   | 13.90  | 10.04                    | 4.83   | 2.22  | 1.03  | 17.52 CMS      |
| Max            | 2.70                                                              | 11.50                    | 17.27  | 70.33  | 108.00               | 168.90  | 115.20  | 15.85  | 12.00                    | 6.98   | 3.09  | 1.49  | 168.90 CMS     |
| Min            | 0.47                                                              | 0.00                     | 6.15   | 7.70   | 14.80                | 23.95   | 14.65   | 12.55  | 7.12                     | 3.17   | 1.53  | 0.68  | 0.00 CMS       |
| Runoff         | 3.83                                                              | 6.99                     | 23.43  | 55.26  | 101.16               | 183.50  | 94.23   | 36.02  | 26.90                    | 12.95  | 5.37  | 2.77  | 552.40 MCM     |
| Momentary Peak | 170.70 CMS. at 140.11 m. (MSL.) at 15.00 Hours , on Sep 17 , 2013 |                          |        |        |                      |         |         |        |                          |        |       |       |                |
| Runoff Yield   | 9.87                                                              | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 96.145 | Liters/Second/Square KM. |        |       |       |                |

**WATER YEAR : 2013**

## PASAK RIVER BASIN

### Pasak River at Ban Bo Rang , Phetchabun (S.42

Lat 15 - 34 - 35 N      Long 101 - 05 - 28

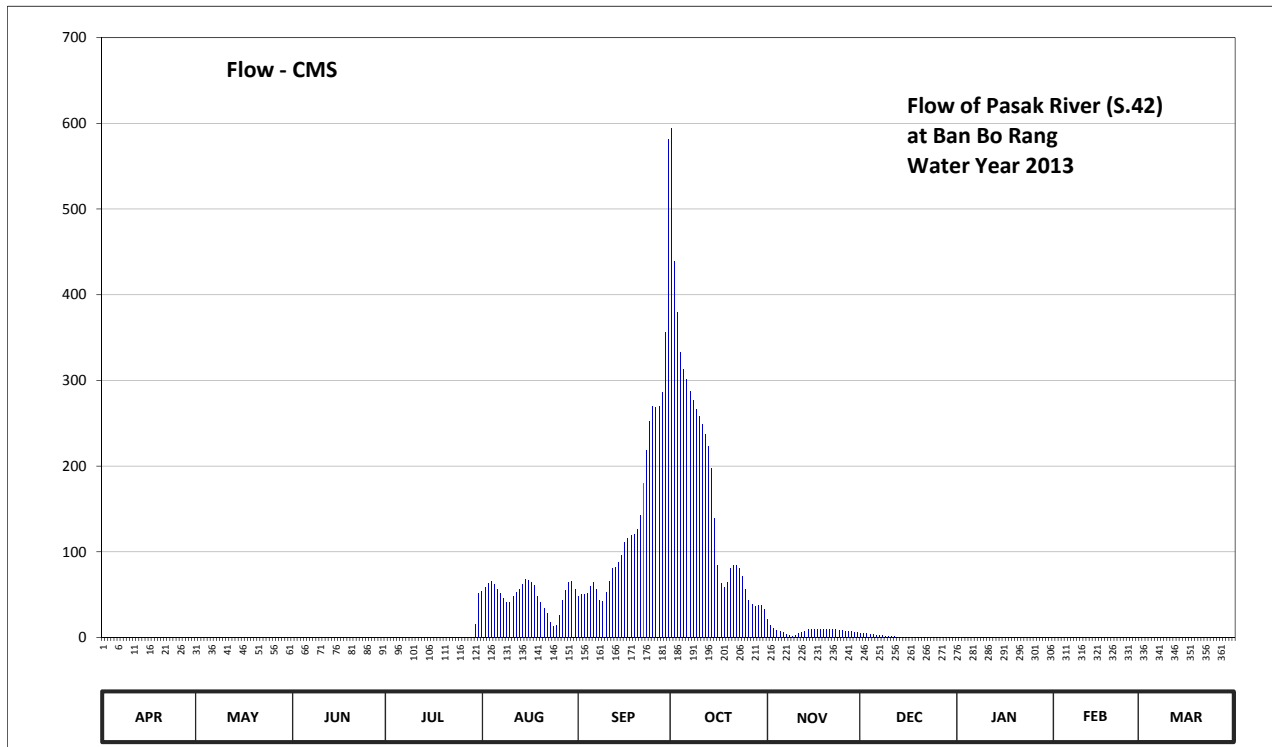
**Location :** on left bank at the bridge.

|                                         |                                                                                           |           |               |              |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Bo Rang   | <b>Amphoe</b> | Wichian Buri | <b>Changwat</b>  | Phetchabun        |
| <b>Drainage Area</b>                    | 7,233                                                                                     | sq.km.    |               |              |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |              |                  |                   |
| <b>Zero Gage at Bottom</b>              | +51.796                                                                                   | m. (MSL.) |               |              |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |              |                  |                   |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |           |               |              | <b>Elevation</b> | +63.900 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |              |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |              |                  |                   |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                              |           |               |              |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |              |                  |                   |
| <b>Period of Rating</b>                 | 2005 to date                                                                              |           |               |              |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |              |                  |                   |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                              |           |               |              |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |              |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +62.120 m. (MSL.) and is including overbank flow.       |           |               |              |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 12 discharge measurements made in 2013. |           |               |              |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 52.43 | 52.50 | 52.50                                            | 52.60 | 57.93 | 57.74 | 63.68 | 56.61 | 55.60 | 54.57 | 52.47 | 52.41 |        |
| 2                                | 52.43 | 52.46 | 52.51                                            | 52.54 | 58.11 | 57.81 | 63.52 | 56.24 | 55.56 | 54.55 | 52.49 | 52.40 |        |
| 3                                | 52.43 | 52.45 | 52.50                                            | 52.53 | 58.26 | 57.81 | 63.41 | 56.06 | 55.52 | 54.51 | 52.49 | 52.39 |        |
| 4                                | 52.48 | 52.46 | 52.50                                            | 52.54 | 58.32 | 57.85 | 63.31 | 55.85 | 55.46 | 54.49 | 52.47 | 52.39 |        |
| 5                                | 52.47 | 52.55 | 52.50                                            | 52.53 | 58.20 | 58.12 | 63.26 | 55.78 | 55.42 | 54.43 | 52.45 | 52.38 |        |
| 6                                | 52.47 | 52.60 | 52.54                                            | 52.53 | 58.03 | 58.29 | 63.23 | 55.65 | 55.38 | 54.39 | 52.45 | 52.38 |        |
| 7                                | 52.48 | 52.58 | 52.53                                            | 52.52 | 57.85 | 58.00 | 63.18 | 55.41 | 55.33 | 54.32 | 52.44 | 52.37 |        |
| 8                                | 52.48 | 52.53 | 52.52                                            | 52.52 | 57.65 | 57.56 | 63.08 | 55.37 | 55.28 | 54.27 | 52.44 | 52.37 |        |
| 9                                | 52.47 | 52.52 | 52.53                                            | 52.52 | 57.49 | 57.52 | 62.95 | 55.18 | 55.25 | 54.22 | 52.45 | 52.37 |        |
| 10                               | 52.47 | 52.51 | 52.52                                            | 52.53 | 57.48 | 57.89 | 62.79 | 55.34 | 55.21 | 54.15 | 52.43 | 52.37 |        |
| 11                               | 52.47 | 52.50 | 52.52                                            | 52.53 | 57.75 | 58.35 | 62.60 | 55.54 | 55.20 | 54.05 | 52.42 | 52.36 |        |
| 12                               | 52.47 | 52.49 | 52.59                                            | 52.52 | 57.92 | 58.78 | 62.37 | 55.69 | 55.15 | 53.96 | 52.41 | 52.35 |        |
| 13                               | 52.47 | 52.49 | 52.60                                            | 52.51 | 58.03 | 58.83 | 62.09 | 55.83 | 55.11 | 53.90 | 52.40 | 52.34 |        |
| 14                               | 52.47 | 52.49 | 52.91                                            | 52.50 | 58.23 | 58.97 | 61.58 | 55.93 | 55.07 | 53.82 | 52.40 | 52.35 |        |
| 15                               | 52.49 | 52.48 | 52.82                                            | 52.50 | 58.39 | 59.21 | 60.33 | 55.99 | 55.02 | 53.70 | 52.41 | 52.35 |        |
| 16                               | 52.49 | 52.48 | 52.85                                            | 52.51 | 58.36 | 59.62 | 58.89 | 55.98 | 55.00 | 53.70 | 52.41 | 52.35 |        |
| 17                               | 52.49 | 52.48 | 52.88                                            | 52.51 | 58.29 | 59.75 | 58.24 | 55.97 | 54.98 | 53.70 | 52.40 | 52.35 |        |
| 18                               | 52.49 | 52.48 | 52.90                                            | 52.50 | 58.19 | 59.84 | 58.08 | 55.98 | 54.96 | 53.67 | 52.40 | 52.35 |        |
| 19                               | 52.51 | 52.48 | 52.92                                            | 52.50 | 57.76 | 59.88 | 58.30 | 55.99 | 54.95 | 53.66 | 52.40 | 52.35 |        |
| 20                               | 52.51 | 52.48 | 52.92                                            | 52.50 | 57.47 | 60.01 | 58.79 | 55.99 | 54.94 | 53.54 | 52.39 | 52.34 |        |
| 21                               | 52.50 | 52.47 | 52.92                                            | 52.49 | 57.18 | 60.40 | 58.87 | 55.97 | 54.90 | 52.92 | 52.39 | 52.34 |        |
| 22                               | 52.50 | 52.46 | 52.92                                            | 52.49 | 56.92 | 61.22 | 58.87 | 55.96 | 54.81 | 51.85 | 52.39 | 52.34 |        |
| 23                               | 52.50 | 52.46 | 52.91                                            | 52.49 | 56.40 | 61.99 | 58.80 | 55.96 | 54.78 | 51.80 | 52.39 | 52.34 |        |
| 24                               | 52.50 | 52.46 | 52.91                                            | 52.50 | 56.19 | 62.66 | 58.53 | 55.90 | 54.77 | 51.80 | 52.38 | 52.34 |        |
| 25                               | 52.50 | 52.46 | 52.91                                            | 52.50 | 56.25 | 63.00 | 58.03 | 55.86 | 54.73 | 51.70 | 52.38 | 52.51 |        |
| 26                               | 52.49 | 52.47 | 52.85                                            | 52.50 | 56.86 | 62.99 | 57.59 | 55.78 | 54.71 | 52.25 | 52.38 | 52.50 |        |
| 27                               | 52.50 | 52.47 | 52.83                                            | 52.50 | 57.59 | 63.00 | 57.37 | 55.76 | 54.70 | 52.27 | 52.39 | 52.50 |        |
| 28                               | 52.50 | 52.47 | 52.78                                            | 52.52 | 57.97 | 63.17 | 57.28 | 55.76 | 54.67 | 52.33 | 52.39 | 52.50 |        |
| 29                               | 52.50 | 52.47 | 52.78                                            | 52.55 | 58.28 | 63.36 | 57.31 | 55.71 | 54.66 | 52.33 |       | 52.50 |        |
| 30                               | 52.50 | 52.47 | 52.69                                            | 56.31 | 58.34 | 63.67 | 57.34 | 55.69 | 54.62 | 52.41 |       | 52.50 |        |
| 31                               |       | 52.47 |                                                  | 57.88 | 58.03 |       | 57.15 |       | 54.59 | 52.42 |       | 52.50 |        |
| Mean                             | 52.48 | 52.49 | 52.72                                            | 52.81 | 57.73 | 59.91 | 60.35 | 55.82 | 55.04 | 53.41 | 52.42 | 52.39 |        |
| Max                              | 52.51 | 52.60 | 52.92                                            | 57.88 | 58.39 | 63.67 | 63.68 | 56.61 | 55.60 | 54.57 | 52.49 | 52.51 | 63.68  |
| Min                              | 52.43 | 52.45 | 52.50                                            | 52.49 | 56.19 | 57.52 | 57.15 | 55.18 | 54.59 | 51.70 | 52.38 | 52.34 | 51.70  |
| Annual Max Momentary Gage Height |       | 63.73 | m. (MSL.) , at 06.00 Hours , on Oct 1 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 51.80 | m. (MSL.) , River Bed 50.86 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 62.52 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 62.11 | m. (MSL.) , Drainage Area 7233 Square Kilometers |       |       |       |       |       |       |       |       |       |        |

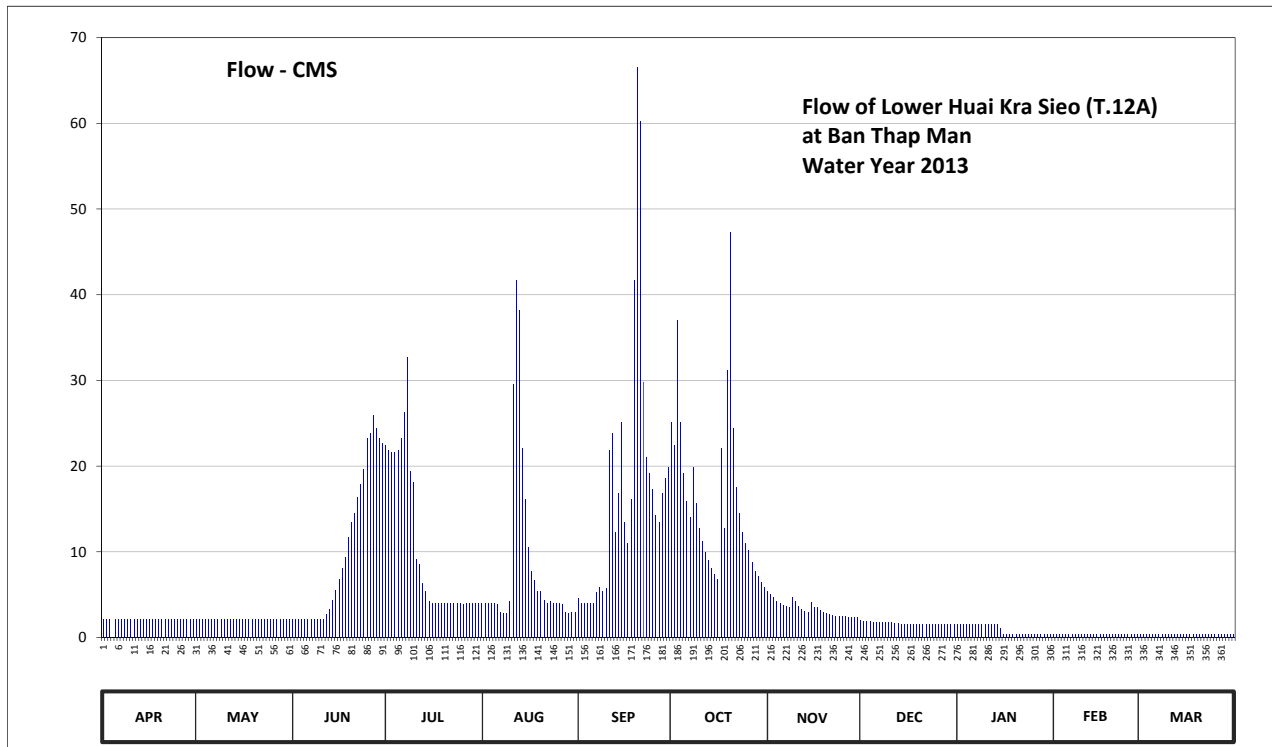




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul   | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan  | Feb  | Mar  | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|------|-------|----------------------|---------|---------|--------|--------------------------|------|------|------|-----------------|
| 1              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 53.90                | 48.35   | 594.00  | 21.70  | 5.50                     | 0.07 | 0.00 | 0.00 |                 |
| 2              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 59.30                | 50.30   | 438.80  | 14.30  | 5.10                     | 0.05 | 0.00 | 0.00 |                 |
| 3              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 63.80                | 50.30   | 379.20  | 11.40  | 4.70                     | 0.01 | 0.00 | 0.00 |                 |
| 4              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 65.60                | 51.50   | 332.60  | 8.25   | 4.10                     | 0.00 | 0.00 | 0.00 |                 |
| 5              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 62.00                | 59.60   | 312.80  | 7.30   | 3.70                     | 0.00 | 0.00 | 0.00 |                 |
| 6              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 56.90                | 64.70   | 301.40  | 6.00   | 3.30                     | 0.00 | 0.00 | 0.00 |                 |
| 7              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 51.50                | 56.00   | 287.60  | 3.60   | 2.80                     | 0.00 | 0.00 | 0.00 |                 |
| 8              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 45.88                | 43.50   | 276.40  | 3.20   | 2.30                     | 0.00 | 0.00 | 0.00 |                 |
| 9              | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 41.75                | 42.50   | 267.00  | 1.40   | 2.00                     | 0.00 | 0.00 | 0.00 |                 |
| 10             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 41.50                | 52.70   | 258.50  | 2.90   | 1.60                     | 0.00 | 0.00 | 0.00 |                 |
| 11             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 48.63                | 66.50   | 249.00  | 4.90   | 1.50                     | 0.00 | 0.00 | 0.00 |                 |
| 12             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 53.60                | 80.80   | 237.50  | 6.40   | 1.25                     | 0.00 | 0.00 | 0.00 |                 |
| 13             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 56.90                | 82.55   | 223.50  | 7.95   | 1.05                     | 0.00 | 0.00 | 0.00 |                 |
| 14             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 62.90                | 87.45   | 198.00  | 9.45   | 0.91                     | 0.00 | 0.00 | 0.00 |                 |
| 15             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 67.70                | 95.85   | 139.85  | 10.35  | 0.76                     | 0.00 | 0.00 | 0.00 |                 |
| 16             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 66.80                | 110.80  | 84.65   | 10.20  | 0.70                     | 0.00 | 0.00 | 0.00 |                 |
| 17             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 64.70                | 116.00  | 63.20   | 10.05  | 0.66                     | 0.00 | 0.00 | 0.00 |                 |
| 18             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 61.70                | 119.60  | 58.40   | 10.20  | 0.62                     | 0.00 | 0.00 | 0.00 |                 |
| 19             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 48.90                | 121.20  | 65.00   | 10.35  | 0.60                     | 0.00 | 0.00 | 0.00 |                 |
| 20             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 41.25                | 126.40  | 81.15   | 10.35  | 0.58                     | 0.00 | 0.00 | 0.00 |                 |
| 21             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 34.00                | 143.00  | 83.95   | 10.05  | 0.50                     | 0.00 | 0.00 | 0.00 |                 |
| 22             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 27.90                | 180.20  | 83.95   | 9.90   | 0.32                     | 0.00 | 0.00 | 0.00 |                 |
| 23             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 17.50                | 218.50  | 81.50   | 9.90   | 0.28                     | 0.00 | 0.00 | 0.00 |                 |
| 24             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 13.35                | 252.00  | 72.05   | 9.00   | 0.27                     | 0.00 | 0.00 | 0.00 |                 |
| 25             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 14.50                | 270.00  | 56.90   | 8.40   | 0.23                     | 0.00 | 0.00 | 0.00 |                 |
| 26             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 26.70                | 269.40  | 44.25   | 7.30   | 0.21                     | 0.00 | 0.00 | 0.00 |                 |
| 27             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 44.25                | 270.00  | 38.75   | 7.10   | 0.20                     | 0.00 | 0.00 | 0.00 |                 |
| 28             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 55.10                | 286.40  | 36.50   | 7.10   | 0.17                     | 0.00 | 0.00 | 0.00 |                 |
| 29             | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 64.40                | 355.60  | 37.25   | 6.60   | 0.16                     | 0.00 |      | 0.00 |                 |
| 30             | 0.00                                                            | 0.00                     | 0.00 | 15.70 | 66.20                | 581.00  | 38.00   | 6.40   | 0.12                     | 0.00 |      | 0.00 |                 |
| 31             |                                                                 | 0.00                     |      | 52.40 | 56.90                |         | 33.25   |        | 0.09                     | 0.00 |      | 0.00 |                 |
| Total          | 0.00                                                            | 0.00                     | 0.00 | 68.10 | 1536.01              | 4352.70 | 5454.90 | 252.00 | 46.28                    | 0.13 | 0.00 | 0.00 | 11710.12 CMSDAY |
| Mean           | 0.00                                                            | 0.00                     | 0.00 | 2.20  | 49.55                | 145.09  | 175.96  | 8.40   | 1.49                     | 0.00 | 0.00 | 0.00 | 32.08 CMS       |
| Max            | 0.00                                                            | 0.00                     | 0.00 | 52.40 | 67.70                | 581.00  | 594.00  | 21.70  | 5.50                     | 0.07 | 0.00 | 0.00 | 594.00 CMS      |
| Min            | 0.00                                                            | 0.00                     | 0.00 | 0.00  | 13.35                | 42.50   | 33.25   | 1.40   | 0.09                     | 0.00 | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 0.00                                                            | 0.00                     | 0.00 | 5.88  | 132.71               | 376.07  | 471.30  | 21.77  | 4.00                     | 0.01 | 0.00 | 0.00 | 1011.76 MCM     |
| Momentary Peak | 677.20 CMS. at 63.73 m. (MSL.) at 06.00 Hours , on Oct 1 , 2013 |                          |      |       |                      |         |         |        |                          |      |      |      |                 |
| Runoff Yield   | 4.44                                                            | Liters/Second/Square KM. |      |       | Momentary Peak Yield |         |         | 93.626 | Liters/Second/Square KM. |      |      |      |                 |

| Date                             | Apr   | May    | Jun                                             | Jul   | Aug   | Sep    | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|--------|-------------------------------------------------|-------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 98.12 | 98.12  | 98.12                                           | 99.18 | 98.30 | 98.34  | 99.27 | 98.40 | 98.11 | 98.04 | 97.88 | 97.87 |        |
| 2                                | 98.12 | 98.12  | 98.12                                           | 99.16 | 98.30 | 98.30  | 99.18 | 98.38 | 98.09 | 98.04 | 97.88 | 97.87 |        |
| 3                                | 98.12 | 98.12  | 98.12                                           | 99.15 | 98.30 | 98.30  | 99.64 | 98.35 | 98.09 | 98.04 | 97.88 | 97.87 |        |
| 4                                | 49.06 | 98.12  | 98.12                                           | 99.15 | 98.30 | 98.30  | 99.27 | 98.32 | 98.09 | 98.04 | 97.88 | 97.87 |        |
| 5                                | 98.12 | 98.12  | 98.12                                           | 99.16 | 98.30 | 98.30  | 99.06 | 98.30 | 98.08 | 98.04 | 97.88 | 97.87 |        |
| 6                                | 98.12 | 98.12  | 98.12                                           | 99.21 | 98.29 | 98.30  | 98.93 | 98.28 | 98.08 | 98.04 | 97.88 | 97.87 |        |
| 7                                | 98.12 | 98.12  | 98.12                                           | 99.31 | 98.21 | 98.39  | 98.85 | 98.27 | 98.08 | 98.04 | 97.88 | 97.87 |        |
| 8                                | 98.12 | 98.12  | 98.12                                           | 99.51 | 98.20 | 98.43  | 99.09 | 98.26 | 98.07 | 98.04 | 97.88 | 97.87 |        |
| 9                                | 98.12 | 98.12  | 98.12                                           | 99.07 | 98.20 | 98.40  | 98.92 | 98.35 | 98.07 | 98.04 | 97.88 | 97.87 |        |
| 10                               | 98.12 | 98.12  | 98.12                                           | 99.02 | 98.32 | 98.42  | 98.79 | 98.32 | 98.07 | 98.04 | 97.88 | 97.87 |        |
| 11                               | 98.12 | 98.12  | 98.12                                           | 98.62 | 99.41 | 99.16  | 98.72 | 98.27 | 98.07 | 98.04 | 97.88 | 97.87 |        |
| 12                               | 98.12 | 98.12  | 98.18                                           | 98.59 | 99.77 | 99.23  | 98.66 | 98.24 | 98.06 | 98.04 | 97.88 | 97.87 |        |
| 13                               | 98.12 | 98.12  | 98.24                                           | 98.46 | 99.67 | 98.77  | 98.61 | 98.22 | 98.06 | 98.04 | 97.88 | 97.87 |        |
| 14                               | 98.12 | 98.12  | 98.33                                           | 98.40 | 99.17 | 98.97  | 98.56 | 98.21 | 98.05 | 98.04 | 97.88 | 97.87 |        |
| 15                               | 98.12 | 98.12  | 98.41                                           | 98.32 | 98.94 | 99.27  | 98.52 | 98.31 | 98.05 | 97.98 | 97.88 | 97.87 |        |
| 16                               | 98.12 | 98.12  | 98.49                                           | 98.30 | 98.69 | 98.82  | 98.49 | 98.26 | 98.05 | 97.89 | 97.88 | 97.87 |        |
| 17                               | 98.12 | 98.12  | 98.56                                           | 98.30 | 98.54 | 98.71  | 99.17 | 98.26 | 98.05 | 97.89 | 97.87 | 97.87 |        |
| 18                               | 98.12 | 98.12  | 98.63                                           | 98.30 | 98.48 | 98.94  | 98.79 | 98.23 | 98.05 | 97.89 | 97.87 | 97.87 |        |
| 19                               | 98.12 | 98.12  | 98.74                                           | 98.30 | 98.40 | 99.77  | 99.46 | 98.21 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 20                               | 98.12 | 98.12  | 98.82                                           | 98.30 | 98.40 | 100.39 | 99.92 | 98.19 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 21                               | 98.12 | 98.12  | 98.87                                           | 98.30 | 98.33 | 100.24 | 99.25 | 98.18 | 98.05 | 97.89 | 97.87 | 97.87 |        |
| 22                               | 98.12 | 98.12  | 98.95                                           | 98.30 | 98.30 | 99.42  | 99.00 | 98.17 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 23                               | 98.12 | 98.12  | 99.01                                           | 98.30 | 98.32 | 99.13  | 98.87 | 98.16 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 24                               | 98.12 | 98.12  | 99.08                                           | 98.30 | 98.30 | 99.06  | 98.77 | 98.16 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 25                               | 98.12 | 98.12  | 99.21                                           | 98.30 | 98.30 | 98.99  | 98.71 | 98.16 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 26                               | 98.12 | 98.12  | 99.23                                           | 98.29 | 98.30 | 98.86  | 98.67 | 98.16 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 27                               | 98.12 | 98.12  | 99.30                                           | 98.30 | 98.29 | 98.82  | 98.60 | 98.15 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 28                               | 98.12 | 98.12  | 99.25                                           | 98.30 | 98.21 | 98.97  | 98.54 | 98.15 | 98.05 | 97.88 | 97.87 | 97.87 |        |
| 29                               | 98.12 | 98.12  | 99.21                                           | 98.30 | 98.20 | 99.04  | 98.51 | 98.14 | 98.05 | 97.88 |       | 97.87 |        |
| 30                               | 98.12 | 98.12  | 99.19                                           | 98.30 | 98.21 | 99.09  | 98.47 | 98.14 | 98.05 | 97.88 |       | 97.87 |        |
| 31                               |       | 98.12  |                                                 | 98.30 | 98.21 |        | 98.43 |       | 98.04 | 97.88 |       | 97.87 |        |
| Mean                             | 96.48 | 98.12  | 98.57                                           | 98.62 | 98.49 | 98.90  | 98.89 | 98.24 | 98.06 | 97.96 | 97.88 | 97.87 |        |
| Max                              | 98.12 | 98.12  | 99.30                                           | 99.51 | 99.77 | 100.39 | 99.92 | 98.40 | 98.11 | 98.04 | 97.88 | 97.87 | 100.39 |
| Min                              | 49.06 | 98.12  | 98.12                                           | 98.29 | 98.20 | 98.30  | 98.43 | 98.14 | 98.04 | 97.88 | 97.87 | 97.87 | 49.06  |
| Annual Max Momentary Gage Height |       | 100.94 | m. (MSL.) , at 22.00 Hours , on Sep 20 , 2013   |       |       |        |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00   | m. (MSL.) , River Bed 98.13 m. (MSL.)           |       |       |        |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 103.24 | m. (MSL.) ,                                     |       |       |        |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 103.26 | m. (MSL.) , Drainage Area 686 Square Kilometers |       |       |        |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 2.18                                                             | 2.18                     | 2.18   | 22.44                | 4.00   | 4.56    | 25.10                    | 5.40   | 2.09  | 1.52  | 0.40  | 0.35  |                |
| 2              | 2.18                                                             | 2.18                     | 2.18   | 21.88                | 4.00   | 4.00    | 22.44                    | 5.12   | 1.92  | 1.52  | 0.40  | 0.35  |                |
| 3              | 2.18                                                             | 2.18                     | 2.18   | 21.60                | 4.00   | 4.00    | 37.04                    | 4.70   | 1.92  | 1.52  | 0.40  | 0.35  |                |
| 4              | 0.00                                                             | 2.18                     | 2.18   | 21.60                | 4.00   | 4.00    | 25.10                    | 4.28   | 1.92  | 1.52  | 0.40  | 0.35  |                |
| 5              | 2.18                                                             | 2.18                     | 2.18   | 21.88                | 4.00   | 4.00    | 19.16                    | 4.00   | 1.84  | 1.52  | 0.40  | 0.35  |                |
| 6              | 2.18                                                             | 2.18                     | 2.18   | 23.30                | 3.89   | 4.00    | 15.92                    | 3.78   | 1.84  | 1.52  | 0.40  | 0.35  |                |
| 7              | 2.18                                                             | 2.18                     | 2.18   | 26.32                | 3.01   | 5.26    | 14.10                    | 3.67   | 1.84  | 1.52  | 0.40  | 0.35  |                |
| 8              | 2.18                                                             | 2.18                     | 2.18   | 32.72                | 2.90   | 5.88    | 19.94                    | 3.56   | 1.76  | 1.52  | 0.40  | 0.35  |                |
| 9              | 2.18                                                             | 2.18                     | 2.18   | 19.42                | 2.90   | 5.40    | 15.68                    | 4.70   | 1.76  | 1.52  | 0.40  | 0.35  |                |
| 10             | 2.18                                                             | 2.18                     | 2.18   | 18.12                | 4.28   | 5.72    | 12.78                    | 4.28   | 1.76  | 1.52  | 0.40  | 0.35  |                |
| 11             | 2.18                                                             | 2.18                     | 2.18   | 9.20                 | 29.52  | 21.88   | 11.24                    | 3.67   | 1.76  | 1.52  | 0.40  | 0.35  |                |
| 12             | 2.18                                                             | 2.18                     | 2.72   | 8.62                 | 41.72  | 23.90   | 10.00                    | 3.34   | 1.68  | 1.52  | 0.40  | 0.35  |                |
| 13             | 2.18                                                             | 2.18                     | 3.34   | 6.36                 | 38.12  | 12.34   | 9.00                     | 3.12   | 1.68  | 1.52  | 0.40  | 0.35  |                |
| 14             | 2.18                                                             | 2.18                     | 4.42   | 5.40                 | 22.16  | 16.88   | 8.08                     | 3.01   | 1.60  | 1.52  | 0.40  | 0.35  |                |
| 15             | 2.18                                                             | 2.18                     | 5.56   | 4.28                 | 16.16  | 25.10   | 7.36                     | 4.14   | 1.60  | 1.06  | 0.40  | 0.35  |                |
| 16             | 2.18                                                             | 2.18                     | 6.84   | 4.00                 | 10.60  | 13.44   | 6.84                     | 3.56   | 1.60  | 0.45  | 0.40  | 0.35  |                |
| 17             | 2.18                                                             | 2.18                     | 8.08   | 4.00                 | 7.72   | 11.02   | 22.16                    | 3.56   | 1.60  | 0.45  | 0.35  | 0.35  |                |
| 18             | 2.18                                                             | 2.18                     | 9.40   | 4.00                 | 6.68   | 16.16   | 12.78                    | 3.23   | 1.60  | 0.45  | 0.35  | 0.35  |                |
| 19             | 2.18                                                             | 2.18                     | 11.68  | 4.00                 | 5.40   | 41.72   | 31.12                    | 3.01   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 20             | 2.18                                                             | 2.18                     | 13.44  | 4.00                 | 5.40   | 66.57   | 47.30                    | 2.81   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 21             | 2.18                                                             | 2.18                     | 14.54  | 4.00                 | 4.42   | 60.18   | 24.50                    | 2.72   | 1.60  | 0.45  | 0.35  | 0.35  |                |
| 22             | 2.18                                                             | 2.18                     | 16.40  | 4.00                 | 4.00   | 29.84   | 17.60                    | 2.63   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 23             | 2.18                                                             | 2.18                     | 17.86  | 4.00                 | 4.28   | 21.04   | 14.54                    | 2.54   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 24             | 2.18                                                             | 2.18                     | 19.68  | 4.00                 | 4.00   | 19.16   | 12.34                    | 2.54   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 25             | 2.18                                                             | 2.18                     | 23.30  | 4.00                 | 4.00   | 17.36   | 11.02                    | 2.54   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 26             | 2.18                                                             | 2.18                     | 23.90  | 3.89                 | 4.00   | 14.32   | 10.20                    | 2.54   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 27             | 2.18                                                             | 2.18                     | 26.00  | 4.00                 | 3.89   | 13.44   | 8.80                     | 2.45   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 28             | 2.18                                                             | 2.18                     | 24.50  | 4.00                 | 3.01   | 16.88   | 7.72                     | 2.45   | 1.60  | 0.40  | 0.35  | 0.35  |                |
| 29             | 2.18                                                             | 2.18                     | 23.30  | 4.00                 | 2.90   | 18.64   | 7.18                     | 2.36   | 1.60  | 0.40  |       | 0.35  |                |
| 30             | 2.18                                                             | 2.18                     | 22.72  | 4.00                 | 3.01   | 19.94   | 6.52                     | 2.36   | 1.60  | 0.40  |       | 0.35  |                |
| 31             |                                                                  | 2.18                     |        | 4.00                 | 3.01   |         | 5.88                     |        | 1.52  | 0.40  |       | 0.35  |                |
| Total          | 63.22                                                            | 67.58                    | 301.66 | 327.03               | 260.98 | 526.63  | 499.44                   | 102.07 | 52.49 | 28.94 | 10.60 | 10.85 | 2251.49 CMSDAY |
| Mean           | 2.11                                                             | 2.18                     | 10.06  | 10.55                | 8.42   | 17.55   | 16.11                    | 3.40   | 1.69  | 0.93  | 0.38  | 0.35  | 6.17 CMS       |
| Max            | 2.18                                                             | 2.18                     | 26.00  | 32.72                | 41.72  | 66.57   | 47.30                    | 5.40   | 2.09  | 1.52  | 0.40  | 0.35  | 66.57 CMS      |
| Min            | 0.00                                                             | 2.18                     | 2.18   | 3.89                 | 2.90   | 4.00    | 5.88                     | 2.36   | 1.52  | 0.40  | 0.35  | 0.35  | 0.00 CMS       |
| Runoff         | 5.46                                                             | 5.84                     | 26.06  | 28.26                | 22.55  | 45.50   | 43.15                    | 8.82   | 4.54  | 2.50  | 0.92  | 0.94  | 194.53 MCM     |
| Momentary Peak | 91.38 CMS. at 100.94 m. (MSL.) at 22.00 Hours , on Sep 20 , 2013 |                          |        |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 8.99                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 133.207 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Khwaee Noi River at Ban Lum Sum , Kanchanaburi (K.10)**

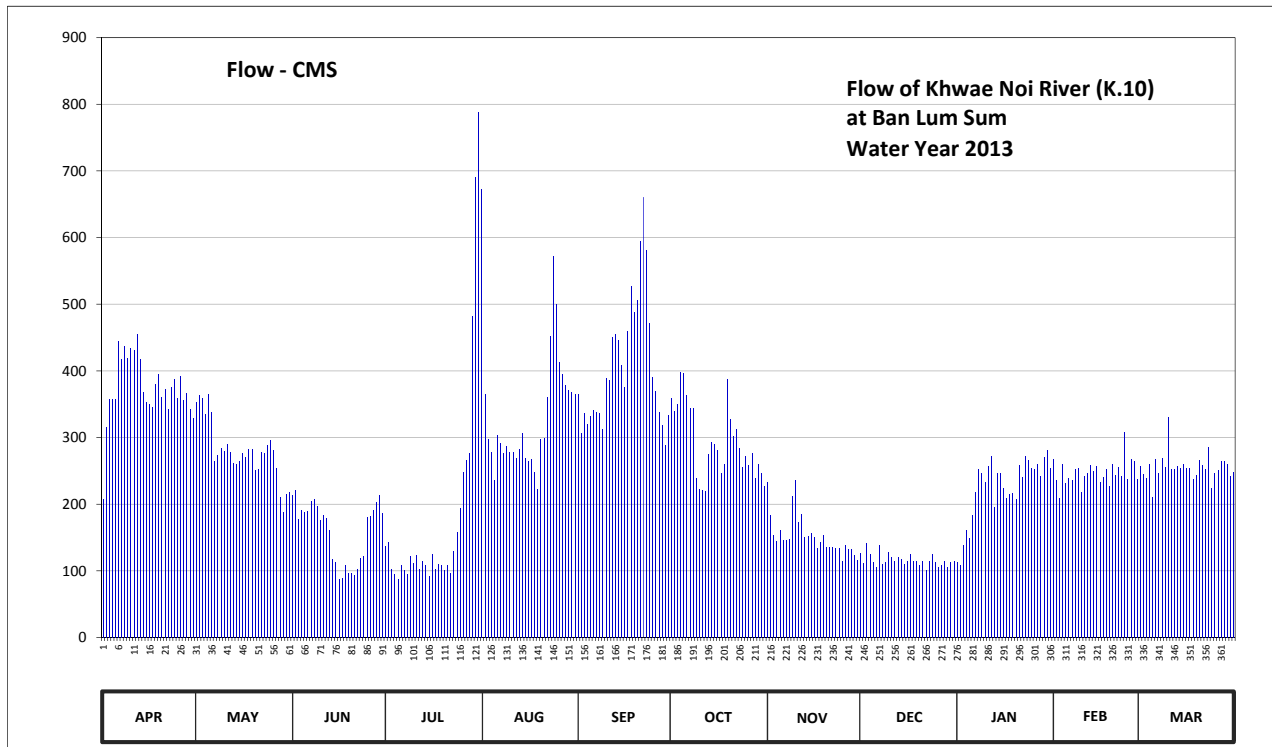
Lat 14 - 05 - 38 N Long 99 - 10 - 40 E

**Location : on left bank about 100 meters upstream from Ban Lum Sum railway station**

|                                         |                                                                             |                       |                              |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------------------|------------------------------|
|                                         | <b>Ban Lum Sum</b>                                                          | <b>Amphoe Sai Yok</b> | <b>Changwat Kanchanaburi</b> |
| <b>Drainage Area</b>                    | 6,991 sq.km.                                                                |                       |                              |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |                       |                              |
| <b>Zero Gage at Bottom</b>              | +30.400 m. (MSL.)                                                           |                       |                              |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |                       |                              |
| <b>Location BM</b>                      | On left bank near the gage site.                                            | <b>Elevation</b>      | +52.057 m. (MSL.)            |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |                       |                              |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |                       |                              |
| <b>Period of Available Gage Records</b> | 1965 to date                                                                |                       |                              |
| <b>Rating Operation</b>                 |                                                                             |                       |                              |
| <b>Period of Rating</b>                 | 1965 to date                                                                |                       |                              |
| <b>Rated by Flot</b>                    | -                                                                           |                       |                              |
| <b>Rated by Current Meter</b>           | 1965 to date                                                                |                       |                              |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |                       |                              |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |                       |                              |
| <b>General Description</b>              | Records good. Flow regulated by Khao Laem Dam.                              |                       |                              |
|                                         | Stage-discharge relation defined by 25 discharge measurements made in 2013. |                       |                              |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep                               | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 33.61 | 35.09 | 33.67       | 32.76 | 37.89 | 35.20                             | 35.14 | 33.89             | 32.63 | 32.45 | 34.25 | 34.14 |        |
| 2                                | 34.73 | 35.18 | 33.75       | 32.84 | 35.19 | 34.64                             | 34.96 | 33.33             | 32.43 | 32.40 | 33.92 | 34.02 |        |
| 3                                | 35.13 | 35.14 | 33.27       | 32.30 | 34.55 | 34.93                             | 35.05 | 32.97             | 32.83 | 32.79 | 33.62 | 33.96 |        |
| 4                                | 35.13 | 34.91 | 33.42       | 32.20 | 34.35 | 34.77                             | 35.50 | 32.86             | 32.62 | 33.06 | 34.17 | 34.18 |        |
| 5                                | 35.13 | 35.20 | 33.38       | 32.09 | 33.93 | 34.89                             | 35.48 | 33.07             | 32.46 | 32.91 | 33.87 | 33.64 |        |
| 6                                | 35.92 | 34.94 | 33.40       | 32.40 | 34.61 | 34.97                             | 35.18 | 32.88             | 32.35 | 33.34 | 33.96 | 34.25 |        |
| 7                                | 35.68 | 34.21 | 33.58       | 32.28 | 34.49 | 34.94                             | 35.01 | 32.87             | 32.78 | 33.72 | 33.92 | 34.03 |        |
| 8                                | 35.85 | 34.31 | 33.61       | 32.20 | 34.33 | 34.93                             | 35.01 | 32.90             | 32.42 | 34.09 | 34.10 | 34.26 |        |
| 9                                | 35.69 | 34.42 | 33.49       | 32.57 | 34.44 | 34.69                             | 33.95 | 33.66             | 32.45 | 34.03 | 34.11 | 34.13 |        |
| 10                               | 35.82 | 34.37 | 33.24       | 32.43 | 34.36 | 35.42                             | 33.78 | 33.93             | 32.65 | 33.89 | 33.72 | 34.87 |        |
| 11                               | 35.79 | 34.47 | 33.33       | 32.59 | 34.36 | 35.39                             | 33.75 | 33.21             | 32.56 | 34.14 | 34.00 | 34.10 |        |
| 12                               | 36.01 | 34.35 | 33.28       | 32.30 | 34.26 | 35.98                             | 33.74 | 33.35             | 32.48 | 34.29 | 34.03 | 34.10 |        |
| 13                               | 35.68 | 34.19 | 33.07       | 32.49 | 34.40 | 36.02                             | 34.32 | 32.93             | 32.56 | 33.48 | 34.16 | 34.14 |        |
| 14                               | 35.22 | 34.17 | 32.52       | 32.40 | 34.63 | 35.93                             | 34.50 | 32.96             | 32.53 | 34.03 | 34.07 | 34.12 |        |
| 15                               | 35.09 | 34.21 | 32.46       | 32.17 | 34.26 | 35.59                             | 34.47 | 33.01             | 32.42 | 34.04 | 34.14 | 34.17 |        |
| 16                               | 35.06 | 34.33 | 32.09       | 32.61 | 34.22 | 35.29                             | 34.38 | 32.93             | 32.47 | 33.80 | 33.89 | 34.12 |        |
| 17                               | 35.02 | 34.28 | 32.12       | 32.31 | 34.25 | 36.05                             | 34.03 | 32.72             | 32.62 | 33.62 | 33.98 | 34.11 |        |
| 18                               | 35.33 | 34.40 | 32.40       | 32.42 | 34.06 | 36.66                             | 34.18 | 32.84             | 32.47 | 33.69 | 34.10 | 33.94 |        |
| 19                               | 35.47 | 34.40 | 32.22       | 32.40 | 33.78 | 36.31                             | 35.40 | 32.97             | 32.47 | 33.71 | 33.83 | 34.01 |        |
| 20                               | 35.15 | 34.08 | 32.23       | 32.28 | 34.55 | 36.47                             | 34.84 | 32.75             | 32.39 | 33.61 | 34.18 | 34.24 |        |
| 21                               | 35.26 | 34.10 | 32.19       | 32.39 | 34.56 | 37.24                             | 34.60 | 32.74             | 32.49 | 34.15 | 34.01 | 34.15 |        |
| 22                               | 34.99 | 34.36 | 32.30       | 32.22 | 35.16 | 37.79                             | 34.69 | 32.75             | 32.29 | 33.97 | 34.13 | 34.10 |        |
| 23                               | 35.29 | 34.34 | 32.54       | 32.67 | 35.99 | 37.12                             | 34.42 | 32.72             | 32.49 | 34.30 | 34.00 | 34.43 |        |
| 24                               | 35.40 | 34.45 | 32.57       | 33.02 | 37.05 | 36.16                             | 34.13 | 32.72             | 32.61 | 34.24 | 34.65 | 33.79 |        |
| 25                               | 35.14 | 34.54 | 33.30       | 33.46 | 36.43 | 35.43                             | 34.29 | 32.48             | 32.45 | 34.12 | 33.94 | 34.03 |        |
| 26                               | 35.44 | 34.38 | 33.31       | 34.06 | 35.64 | 35.24                             | 34.15 | 32.78             | 32.36 | 34.09 | 34.25 | 34.08 |        |
| 27                               | 35.11 | 34.11 | 33.42       | 34.24 | 35.47 | 34.95                             | 34.34 | 32.70             | 32.39 | 34.17 | 34.22 | 34.21 |        |
| 28                               | 35.21 | 33.64 | 33.56       | 34.34 | 35.32 | 34.75                             | 33.95 | 32.70             | 32.48 | 33.99 | 33.94 | 34.21 |        |
| 29                               | 34.99 | 33.38 | 33.67       | 36.26 | 35.25 | 34.45                             | 34.17 | 32.60             | 32.36 | 34.28 |       | 34.17 |        |
| 30                               | 34.86 | 33.69 | 33.36       | 38.04 | 35.23 | 34.90                             | 34.03 | 32.50             | 32.45 | 34.38 |       | 33.99 |        |
| 31                               |       | 33.73 |             | 38.84 | 35.19 |                                   | 33.83 |                   | 32.48 | 34.11 |       | 34.05 |        |
| Mean                             | 35.27 | 34.37 | 33.02       | 33.15 | 34.91 | 35.57                             | 34.49 | 32.96             | 32.50 | 33.77 | 34.04 | 34.12 |        |
| Max                              | 36.01 | 35.20 | 33.75       | 38.84 | 37.89 | 37.79                             | 35.50 | 33.93             | 32.83 | 34.38 | 34.65 | 34.87 | 38.84  |
| Min                              | 33.61 | 33.38 | 32.09       | 32.09 | 33.78 | 34.45                             | 33.74 | 32.48             | 32.29 | 32.40 | 33.62 | 33.64 | 32.09  |
| Annual Max Momentary Gage Height | 39.33 |       | m. (MSL.) , |       |       | at 17.00 Hours , on Jul 31 , 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 30.40 |       | m. (MSL.) , |       |       | River Bed                         | 30.15 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 50.86 |       | m. (MSL.) , |       |       |                                   |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 46.80 |       | m. (MSL.) , |       |       | Drainage Area                     | 6991  | Square Kilometers |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug      | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|----------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 207.90                                                           | 353.45                   | 213.30  | 136.80               | 672.80   | 365.00   | 358.70                   | 233.10  | 126.40  | 112.50  | 268.00  | 257.00  |          |        |
| 2              | 316.00                                                           | 362.90                   | 220.50  | 143.20               | 363.95   | 307.00   | 339.80                   | 183.55  | 111.10  | 109.00  | 235.80  | 245.00  |          |        |
| 3              | 357.65                                                           | 358.70                   | 178.45  | 102.00               | 298.00   | 336.65   | 349.25                   | 153.60  | 142.40  | 139.20  | 208.80  | 239.40  |          |        |
| 4              | 357.65                                                           | 334.55                   | 191.20  | 95.00                | 278.00   | 320.00   | 398.00                   | 144.80  | 125.60  | 160.80  | 260.00  | 261.00  |          |        |
| 5              | 357.65                                                           | 365.00                   | 187.80  | 87.30                | 236.70   | 332.45   | 395.80                   | 161.60  | 113.20  | 148.80  | 231.30  | 210.60  |          |        |
| 6              | 444.20                                                           | 337.70                   | 189.50  | 109.00               | 304.00   | 340.85   | 362.90                   | 146.40  | 105.50  | 184.40  | 239.40  | 268.00  |          |        |
| 7              | 417.80                                                           | 264.00                   | 205.20  | 100.60               | 292.00   | 337.70   | 345.05                   | 145.60  | 138.40  | 217.80  | 235.80  | 246.00  |          |        |
| 8              | 436.50                                                           | 274.00                   | 207.90  | 95.00                | 276.00   | 336.65   | 345.05                   | 148.00  | 110.40  | 252.00  | 253.00  | 269.00  |          |        |
| 9              | 418.90                                                           | 285.00                   | 197.15  | 121.60               | 287.00   | 312.00   | 238.50                   | 212.40  | 112.50  | 246.00  | 254.00  | 256.00  |          |        |
| 10             | 433.20                                                           | 280.00                   | 175.90  | 111.10               | 279.00   | 389.20   | 223.20                   | 236.70  | 128.00  | 233.10  | 217.80  | 330.35  |          |        |
| 11             | 429.90                                                           | 290.00                   | 183.55  | 123.20               | 279.00   | 385.90   | 220.50                   | 173.35  | 120.80  | 257.00  | 243.00  | 253.00  |          |        |
| 12             | 454.10                                                           | 278.00                   | 179.30  | 102.00               | 269.00   | 450.80   | 219.60                   | 185.25  | 114.60  | 272.00  | 246.00  | 253.00  |          |        |
| 13             | 417.80                                                           | 262.00                   | 161.60  | 115.30               | 283.00   | 455.20   | 275.00                   | 150.40  | 120.80  | 196.30  | 259.00  | 257.00  |          |        |
| 14             | 367.20                                                           | 260.00                   | 117.60  | 109.00               | 306.00   | 445.30   | 293.00                   | 152.80  | 118.40  | 246.00  | 250.00  | 255.00  |          |        |
| 15             | 353.45                                                           | 264.00                   | 113.20  | 92.90                | 269.00   | 407.90   | 290.00                   | 156.80  | 110.40  | 247.00  | 257.00  | 260.00  |          |        |
| 16             | 350.30                                                           | 276.00                   | 87.30   | 124.80               | 265.00   | 374.90   | 281.00                   | 150.40  | 113.90  | 225.00  | 233.10  | 255.00  |          |        |
| 17             | 346.10                                                           | 271.00                   | 89.40   | 102.70               | 268.00   | 458.50   | 246.00                   | 133.60  | 125.60  | 208.80  | 241.20  | 254.00  |          |        |
| 18             | 379.30                                                           | 283.00                   | 109.00  | 110.40               | 249.00   | 526.90   | 261.00                   | 143.20  | 113.90  | 215.10  | 253.00  | 237.60  |          |        |
| 19             | 394.70                                                           | 283.00                   | 96.40   | 109.00               | 223.20   | 487.10   | 387.00                   | 153.60  | 113.90  | 216.90  | 227.70  | 244.00  |          |        |
| 20             | 359.75                                                           | 251.00                   | 97.10   | 100.60               | 298.00   | 505.05   | 327.20                   | 136.00  | 108.30  | 207.90  | 261.00  | 267.00  |          |        |
| 21             | 371.60                                                           | 253.00                   | 94.30   | 108.30               | 299.00   | 594.80   | 303.00                   | 135.20  | 115.30  | 258.00  | 244.00  | 258.00  |          |        |
| 22             | 342.95                                                           | 279.00                   | 102.00  | 96.40                | 360.80   | 660.80   | 312.00                   | 136.00  | 101.30  | 240.30  | 256.00  | 253.00  |          |        |
| 23             | 374.90                                                           | 277.00                   | 119.20  | 129.60               | 451.90   | 580.40   | 285.00                   | 133.60  | 115.30  | 273.00  | 243.00  | 286.00  |          |        |
| 24             | 387.00                                                           | 288.00                   | 121.60  | 157.60               | 572.00   | 470.60   | 256.00                   | 133.60  | 124.80  | 267.00  | 308.00  | 224.10  |          |        |
| 25             | 358.70                                                           | 297.00                   | 181.00  | 194.60               | 500.45   | 390.30   | 272.00                   | 114.60  | 112.50  | 255.00  | 237.60  | 246.00  |          |        |
| 26             | 391.40                                                           | 281.00                   | 181.85  | 249.00               | 413.40   | 369.40   | 258.00                   | 138.40  | 106.20  | 252.00  | 268.00  | 251.00  |          |        |
| 27             | 355.55                                                           | 254.00                   | 191.20  | 267.00               | 394.70   | 338.75   | 277.00                   | 132.00  | 108.30  | 260.00  | 265.00  | 264.00  |          |        |
| 28             | 366.10                                                           | 210.60                   | 203.40  | 277.00               | 378.20   | 318.00   | 238.50                   | 132.00  | 114.60  | 242.10  | 237.60  | 264.00  |          |        |
| 29             | 342.95                                                           | 187.80                   | 213.30  | 481.60               | 370.50   | 288.00   | 260.00                   | 124.00  | 106.20  | 271.00  |         | 260.00  |          |        |
| 30             | 329.30                                                           | 215.10                   | 186.10  | 690.80               | 368.30   | 333.50   | 246.00                   | 116.00  | 112.50  | 281.00  |         | 242.10  |          |        |
| 31             |                                                                  | 218.70                   |         | 788.20               | 363.95   |          | 227.70                   |         | 114.60  | 254.00  |         | 248.00  |          |        |
| Total          | 11220.50                                                         | 8694.50                  | 4795.30 | 5631.60              | 10469.85 | 12219.60 | 9091.75                  | 4596.55 | 3605.70 | 6949.00 | 6934.10 | 7914.15 | 92122.61 | CMSDAY |
| Mean           | 374.02                                                           | 280.47                   | 159.84  | 181.66               | 337.74   | 407.32   | 293.28                   | 153.22  | 116.31  | 224.16  | 247.65  | 255.30  | 252.39   | CMS    |
| Max            | 454.10                                                           | 365.00                   | 220.50  | 788.20               | 672.80   | 660.80   | 398.00                   | 236.70  | 142.40  | 281.00  | 308.00  | 330.35  | 788.20   | CMS    |
| Min            | 207.90                                                           | 187.80                   | 87.30   | 87.30                | 223.20   | 288.00   | 219.60                   | 114.60  | 101.30  | 109.00  | 208.80  | 210.60  | 87.30    | CMS    |
| Runoff         | 969.45                                                           | 751.21                   | 414.31  | 486.57               | 904.60   | 1055.77  | 785.53                   | 397.14  | 311.53  | 600.39  | 599.11  | 683.78  | 7959.39  | MCM    |
| Momentary Peak | 851.90 CMS. at 39.33 m. (MSL.) at 17.00 Hours , on Jul 31 , 2013 |                          |         |                      |          |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 36.10                                                            | Liters/Second/Square KM. |         | Momentary Peak Yield |          | 121.857  | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013**

## MAE KLONG RIVER BASIN

**Mae Klong River at Ban Wang Khanai , Kanchanaburi (K.11A)**

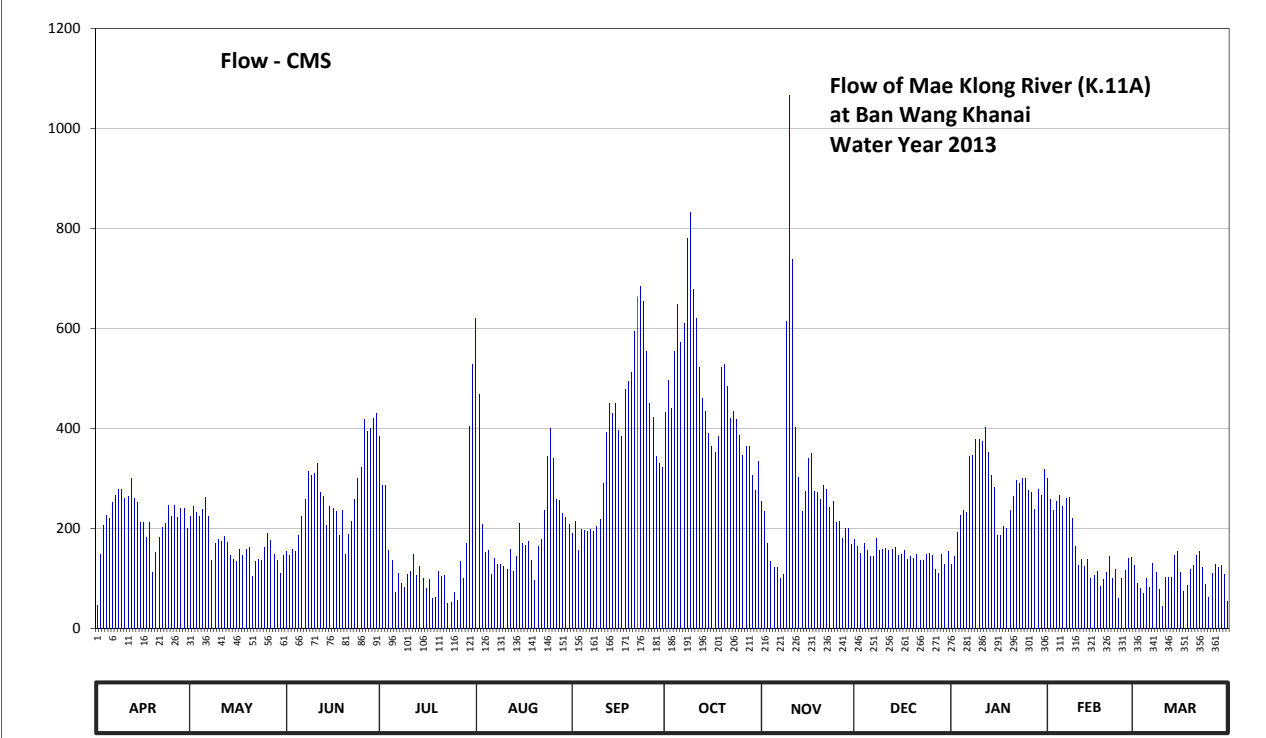
Lat 13 - 56 - 55 N      Long 99 - 38 - 42

**Location : on left bank at Ban Wang Khanai**

|                                         |                                                                                           |             |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Wang Khanai | <b>Amphoe</b> | Tha Muang | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 26,449                                                                                    | sq.km.      |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |             |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +9.810                                                                                    | m. (MSL.)   |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |           |                  |                   |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |             |               |           | <b>Elevation</b> | +24.879 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |             |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |             |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 1993 to date                                                                              |             |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |             |               |           |                  |                   |
| <b>Period of Rating</b>                 | 1993 - 1999 , 2005 to date                                                                |             |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 1993 - 1999 , 2005 to date                                                                |             |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |             |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |           |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 24 discharge measurements made in 2013. |             |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 10.98 | 11.98 | 11.63                                             | 12.67 | 13.57 | 11.81 | 12.86 | 12.12 | 11.75 | 11.50 | 12.33 | 11.48 |        |
| 2                                | 11.60 | 12.08 | 11.59                                             | 12.27 | 13.00 | 11.93 | 13.11 | 12.03 | 11.68 | 11.58 | 12.14 | 11.26 |        |
| 3                                | 11.89 | 12.02 | 11.65                                             | 12.27 | 11.90 | 11.64 | 12.89 | 11.71 | 11.61 | 11.82 | 12.04 | 11.20 |        |
| 4                                | 12.00 | 11.99 | 11.63                                             | 11.64 | 11.62 | 11.85 | 13.33 | 11.52 | 11.71 | 12.00 | 12.12 | 11.14 |        |
| 5                                | 11.96 | 12.05 | 11.79                                             | 11.53 | 11.64 | 11.84 | 13.67 | 11.46 | 11.64 | 12.04 | 12.18 | 11.33 |        |
| 6                                | 12.11 | 12.16 | 11.98                                             | 11.15 | 11.38 | 11.83 | 13.40 | 11.46 | 11.58 | 12.02 | 12.08 | 11.21 |        |
| 7                                | 12.18 | 11.98 | 12.14                                             | 11.39 | 11.56 | 11.85 | 13.54 | 11.33 | 11.58 | 12.51 | 12.15 | 11.51 |        |
| 8                                | 12.23 | 11.53 | 12.39                                             | 11.26 | 11.50 | 11.83 | 14.13 | 11.38 | 11.76 | 12.52 | 12.16 | 11.40 |        |
| 9                                | 12.23 | 11.71 | 12.35                                             | 11.21 | 11.49 | 11.88 | 14.31 | 13.55 | 11.64 | 12.64 | 11.96 | 11.19 |        |
| 10                               | 12.15 | 11.75 | 12.37                                             | 11.38 | 11.47 | 11.95 | 13.78 | 15.08 | 11.65 | 12.64 | 11.68 | 10.95 |        |
| 11                               | 12.17 | 11.73 | 12.45                                             | 11.41 | 11.43 | 12.29 | 13.57 | 13.99 | 11.66 | 12.63 | 11.48 | 11.34 |        |
| 12                               | 12.33 | 11.78 | 12.20                                             | 11.60 | 11.65 | 12.70 | 13.21 | 12.74 | 11.64 | 12.74 | 11.55 | 11.34 |        |
| 13                               | 12.15 | 11.72 | 12.17                                             | 11.36 | 11.41 | 12.93 | 12.97 | 12.34 | 11.65 | 12.54 | 11.47 | 11.34 |        |
| 14                               | 12.11 | 11.59 | 11.89                                             | 11.47 | 11.58 | 12.85 | 12.87 | 12.03 | 11.67 | 12.35 | 11.55 | 11.59 |        |
| 15                               | 11.92 | 11.55 | 12.08                                             | 11.32 | 11.91 | 12.93 | 12.69 | 12.21 | 11.59 | 12.25 | 11.33 | 11.63 |        |
| 16                               | 11.92 | 11.52 | 12.06                                             | 11.20 | 11.71 | 12.72 | 12.59 | 12.49 | 11.60 | 11.79 | 11.36 | 11.40 |        |
| 17                               | 11.77 | 11.65 | 12.03                                             | 11.31 | 11.69 | 12.67 | 12.54 | 12.53 | 11.64 | 11.79 | 11.41 | 11.16 |        |
| 18                               | 11.92 | 11.59 | 11.79                                             | 11.07 | 11.73 | 13.04 | 12.67 | 12.21 | 11.55 | 11.88 | 11.23 | 11.24 |        |
| 19                               | 11.40 | 11.65 | 12.04                                             | 11.08 | 11.54 | 13.10 | 13.21 | 12.20 | 11.58 | 11.86 | 11.31 | 11.44 |        |
| 20                               | 11.62 | 11.67 | 11.60                                             | 11.41 | 11.30 | 13.17 | 13.23 | 12.14 | 11.56 | 12.04 | 11.40 | 11.48 |        |
| 21                               | 11.77 | 11.35 | 11.80                                             | 11.35 | 11.68 | 13.48 | 13.06 | 12.27 | 11.60 | 12.17 | 11.58 | 11.59 |        |
| 22                               | 11.87 | 11.52 | 11.93                                             | 11.36 | 11.75 | 13.73 | 12.81 | 12.23 | 11.54 | 12.31 | 11.32 | 11.63 |        |
| 23                               | 11.91 | 11.55 | 12.14                                             | 11.01 | 12.04 | 13.80 | 12.87 | 12.07 | 11.53 | 12.29 | 11.44 | 11.46 |        |
| 24                               | 12.09 | 11.53 | 12.33                                             | 11.02 | 12.51 | 13.69 | 12.80 | 12.12 | 11.60 | 12.33 | 11.07 | 11.25 |        |
| 25                               | 11.98 | 11.67 | 12.42                                             | 11.15 | 12.73 | 13.33 | 12.68 | 11.92 | 11.61 | 12.33 | 11.33 | 11.08 |        |
| 26                               | 12.09 | 11.81 | 12.80                                             | 11.05 | 12.49 | 12.93 | 12.52 | 11.93 | 11.59 | 12.22 | 11.42 | 11.39 |        |
| 27                               | 11.97 | 11.74 | 12.71                                             | 11.52 | 12.14 | 12.82 | 12.59 | 11.76 | 11.43 | 12.20 | 11.56 | 11.49 |        |
| 28                               | 12.06 | 11.60 | 12.73                                             | 11.33 | 12.13 | 12.51 | 12.59 | 11.86 | 11.39 | 12.05 | 11.57 | 11.46 |        |
| 29                               | 12.06 | 11.53 | 12.81                                             | 11.71 | 12.01 | 12.45 | 12.35 | 11.86 | 11.60 | 12.23 |       | 11.48 |        |
| 30                               | 11.86 | 11.39 | 12.85                                             | 12.75 | 11.97 | 12.42 | 12.22 | 11.70 | 11.49 | 12.18 |       | 11.37 |        |
| 31                               |       | 11.59 |                                                   | 13.23 | 11.90 |       | 12.47 |       | 11.63 | 12.40 |       | 11.03 |        |
| Mean                             | 11.94 | 11.71 | 12.15                                             | 11.53 | 11.88 | 12.60 | 13.02 | 12.21 | 11.60 | 12.19 | 11.65 | 11.35 |        |
| Max                              | 12.33 | 12.16 | 12.85                                             | 13.23 | 13.57 | 13.80 | 14.31 | 15.08 | 11.76 | 12.74 | 12.33 | 11.63 | 15.08  |
| Min                              | 10.98 | 11.35 | 11.59                                             | 11.01 | 11.30 | 11.64 | 12.22 | 11.33 | 11.39 | 11.50 | 11.07 | 10.95 | 10.95  |
| Annual Max Momentary Gage Height |       | 15.35 | m. (MSL.) , at 15.00 Hours , on Nov 10 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 9.81  | m. (MSL.) , River Bed 10.08 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 19.56 | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 16.60 | m. (MSL.) , Drainage Area 26449 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr     | May                      | Jun                                                      | Jul     | Aug     | Sep                  | Oct      | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|---------|--------------------------|----------------------------------------------------------|---------|---------|----------------------|----------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 47.60   | 224.08                   | 155.48                                                   | 385.50  | 619.60  | 190.76               | 433.00   | 254.40  | 179.00                   | 130.00  | 301.20  | 126.60  |          |        |
| 2              | 149.60  | 245.60                   | 147.64                                                   | 287.40  | 468.00  | 214.28               | 496.60   | 234.60  | 165.28                   | 145.68  | 258.80  | 90.60   |          |        |
| 3              | 206.44  | 232.40                   | 159.40                                                   | 287.40  | 208.40  | 157.44               | 440.50   | 171.16  | 151.56                   | 192.72  | 236.80  | 81.00   |          |        |
| 4              | 228.00  | 226.04                   | 155.48                                                   | 157.44  | 153.52  | 198.60               | 553.80   | 133.92  | 171.16                   | 228.00  | 254.40  | 71.40   |          |        |
| 5              | 220.16  | 239.00                   | 186.84                                                   | 135.88  | 157.44  | 196.64               | 647.60   | 123.20  | 157.44                   | 236.80  | 267.60  | 101.80  |          |        |
| 6              | 252.20  | 263.20                   | 224.08                                                   | 73.00   | 109.80  | 194.68               | 572.00   | 123.20  | 145.68                   | 232.40  | 245.60  | 82.60   |          |        |
| 7              | 267.60  | 224.08                   | 258.80                                                   | 111.40  | 141.76  | 198.60               | 611.20   | 101.80  | 145.68                   | 345.50  | 261.00  | 131.96  |          |        |
| 8              | 278.60  | 135.88                   | 315.60                                                   | 90.60   | 130.00  | 194.68               | 779.70   | 109.80  | 180.96                   | 348.00  | 263.20  | 113.00  |          |        |
| 9              | 278.60  | 171.16                   | 306.00                                                   | 82.60   | 128.30  | 204.48               | 831.90   | 614.00  | 157.44                   | 378.00  | 220.16  | 79.40   |          |        |
| 10             | 261.00  | 179.00                   | 310.80                                                   | 109.80  | 124.90  | 218.20               | 678.40   | 1066.80 | 159.40                   | 378.00  | 165.28  | 44.00   |          |        |
| 11             | 265.40  | 175.08                   | 330.50                                                   | 114.70  | 118.10  | 291.80               | 619.60   | 739.10  | 161.36                   | 375.50  | 126.60  | 103.40  |          |        |
| 12             | 301.20  | 184.88                   | 272.00                                                   | 149.60  | 159.40  | 393.00               | 522.60   | 403.00  | 157.44                   | 403.00  | 139.80  | 103.40  |          |        |
| 13             | 261.00  | 173.12                   | 265.40                                                   | 106.60  | 114.70  | 450.50               | 460.50   | 303.60  | 159.40                   | 353.00  | 124.90  | 103.40  |          |        |
| 14             | 252.20  | 147.64                   | 206.44                                                   | 124.90  | 145.68  | 430.50               | 435.50   | 234.60  | 163.32                   | 306.00  | 139.80  | 147.64  |          |        |
| 15             | 212.32  | 139.80                   | 245.60                                                   | 100.20  | 210.36  | 450.50               | 390.50   | 274.20  | 147.64                   | 283.00  | 101.80  | 155.48  |          |        |
| 16             | 212.32  | 133.92                   | 241.20                                                   | 81.00   | 171.16  | 398.00               | 365.50   | 340.50  | 149.60                   | 186.84  | 106.60  | 113.00  |          |        |
| 17             | 182.92  | 159.40                   | 234.60                                                   | 98.60   | 167.24  | 385.50               | 353.00   | 350.50  | 157.44                   | 186.84  | 114.70  | 74.60   |          |        |
| 18             | 212.32  | 147.64                   | 186.84                                                   | 60.50   | 175.08  | 478.40               | 385.50   | 274.20  | 139.80                   | 204.48  | 85.80   | 87.40   |          |        |
| 19             | 113.00  | 159.40                   | 236.80                                                   | 62.00   | 137.84  | 494.00               | 522.60   | 272.00  | 145.68                   | 200.56  | 98.60   | 119.80  |          |        |
| 20             | 153.52  | 163.32                   | 149.60                                                   | 114.70  | 97.00   | 512.20               | 527.80   | 258.80  | 141.76                   | 236.80  | 113.00  | 126.60  |          |        |
| 21             | 182.92  | 105.00                   | 188.80                                                   | 105.00  | 165.28  | 594.40               | 483.60   | 287.40  | 149.60                   | 265.40  | 145.68  | 147.64  |          |        |
| 22             | 202.52  | 133.92                   | 214.28                                                   | 106.60  | 179.00  | 664.40               | 420.50   | 278.60  | 137.84                   | 296.40  | 100.20  | 155.48  |          |        |
| 23             | 210.36  | 139.80                   | 258.80                                                   | 51.50   | 236.80  | 684.00               | 435.50   | 243.40  | 135.88                   | 291.80  | 119.80  | 123.20  |          |        |
| 24             | 247.80  | 135.88                   | 301.20                                                   | 53.00   | 345.50  | 653.20               | 418.00   | 254.40  | 149.60                   | 301.20  | 60.50   | 89.00   |          |        |
| 25             | 224.08  | 163.32                   | 323.00                                                   | 73.00   | 400.50  | 553.80               | 388.00   | 212.32  | 151.56                   | 301.20  | 101.80  | 62.00   |          |        |
| 26             | 247.80  | 190.76                   | 418.00                                                   | 57.50   | 340.50  | 450.50               | 348.00   | 214.28  | 147.64                   | 276.40  | 116.40  | 111.40  |          |        |
| 27             | 222.12  | 177.04                   | 395.50                                                   | 133.92  | 258.80  | 423.00               | 365.50   | 180.96  | 118.10                   | 272.00  | 141.76  | 128.30  |          |        |
| 28             | 241.20  | 149.60                   | 400.50                                                   | 101.80  | 256.60  | 345.50               | 365.50   | 200.56  | 111.40                   | 239.00  | 143.72  | 123.20  |          |        |
| 29             | 241.20  | 135.88                   | 420.50                                                   | 171.16  | 230.20  | 330.50               | 306.00   | 200.56  | 149.60                   | 278.60  |         | 126.60  |          |        |
| 30             | 200.56  | 111.40                   | 430.50                                                   | 405.50  | 222.12  | 323.00               | 276.40   | 169.20  | 128.30                   | 267.60  |         | 108.20  |          |        |
| 31             |         | 147.64                   |                                                          | 527.80  | 208.40  |                      | 335.50   |         | 155.48                   | 318.00  |         | 54.50   |          |        |
| Total          | 6576.56 | 5314.88                  | 7940.18                                                  | 4520.60 | 6581.98 | 11275.06             | 14770.30 | 8625.06 | 4672.04                  | 8458.72 | 4555.50 | 3286.60 | 86577.48 | CMSDAY |
| Mean           | 219.22  | 171.45                   | 264.67                                                   | 145.83  | 212.32  | 375.84               | 476.46   | 287.50  | 150.71                   | 272.86  | 162.70  | 106.02  | 237.20   | CMS    |
| Max            | 301.20  | 263.20                   | 430.50                                                   | 527.80  | 619.60  | 684.00               | 831.90   | 1066.80 | 180.96                   | 403.00  | 301.20  | 155.48  | 1066.80  | CMS    |
| Min            | 47.60   | 105.00                   | 147.64                                                   | 51.50   | 97.00   | 157.44               | 276.40   | 101.80  | 111.40                   | 130.00  | 60.50   | 44.00   | 44.00    | CMS    |
| Runoff         | 568.22  | 459.21                   | 686.03                                                   | 390.58  | 568.68  | 974.17               | 1276.15  | 745.21  | 403.66                   | 730.83  | 393.60  | 283.96  | 7480.30  | MCM    |
| Momentary Peak | 1150.50 |                          | CMS. at 15.35 m. (MSL.) at 15.00 Hours , on Nov 10, 2013 |         |         |                      |          |         |                          |         |         |         |          |        |
| Runoff Yield   | 8.97    | Liters/Second/Square KM. |                                                          |         |         | Momentary Peak Yield |          | 43.499  | Liters/Second/Square KM. |         |         |         |          |        |

**WATER YEAR : 2013**

## MAE KLONG RIVER BASIN

**Lam Ta Phoen at Ban Thung Na Nang Rok , Kanchanaburi (K.12)**

Lat 14 - 09 - 17 N    Long 99 - 25 - 07 E

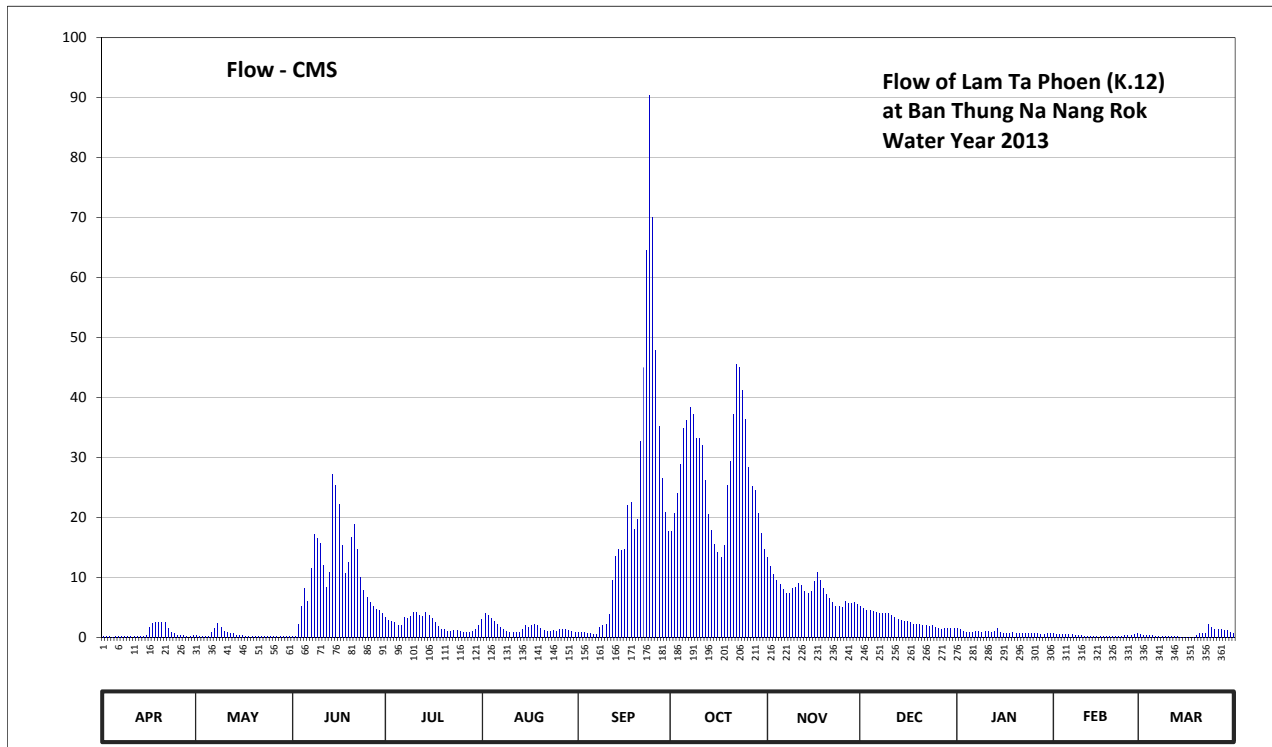
**Location : on left bank about 50 meters downstream from Wat Thung Na Nang Rok.**

|                                         |                                                                                           |                   |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Thung Na Nang Rok | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 2,375                                                                                     | sq.km.            |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                   |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +40.437                                                                                   | m. (MSL.)         |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                   |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank about 6 meters from the top staff gage.                                      |                   |               |        | <b>Elevation</b> | +49.887 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                   |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                   |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1965 to date                                                                              |                   |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                   |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1965 - 1968 , 1995 to date                                                                |                   |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                   |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1965 - 1968 , 1995 to date                                                                |                   |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                   |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                   |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 35 discharge measurements made in 2013. |                   |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 40.59 | 40.62 | 40.58                                            | 41.06 | 41.02 | 40.78 | 42.07 | 41.82 | 41.23 | 40.88 | 40.72 | 40.71 |        |
| 2                                | 40.59 | 40.60 | 40.59                                            | 41.01 | 41.12 | 40.77 | 42.23 | 41.73 | 41.21 | 40.86 | 40.71 | 40.63 |        |
| 3                                | 40.58 | 40.59 | 40.95                                            | 40.99 | 41.10 | 40.76 | 42.39 | 41.64 | 41.18 | 40.81 | 40.71 | 40.62 |        |
| 4                                | 40.55 | 40.58 | 41.23                                            | 40.97 | 41.05 | 40.75 | 42.62 | 41.57 | 41.17 | 40.78 | 40.71 | 40.61 |        |
| 5                                | 40.59 | 40.58 | 41.47                                            | 40.92 | 41.00 | 40.74 | 42.87 | 41.52 | 41.16 | 40.78 | 40.71 | 40.61 |        |
| 6                                | 40.58 | 40.76 | 41.30                                            | 40.93 | 40.95 | 40.70 | 42.92 | 41.46 | 41.14 | 40.78 | 40.70 | 40.60 |        |
| 7                                | 40.58 | 40.88 | 41.71                                            | 41.06 | 40.90 | 40.70 | 43.01 | 41.42 | 41.13 | 40.80 | 40.67 | 40.60 |        |
| 8                                | 40.58 | 40.96 | 42.04                                            | 41.05 | 40.86 | 40.90 | 42.96 | 41.42 | 41.12 | 40.80 | 40.63 | 40.60 |        |
| 9                                | 40.57 | 40.90 | 42.00                                            | 41.08 | 40.81 | 40.92 | 42.80 | 41.48 | 41.12 | 40.79 | 40.61 | 40.59 |        |
| 10                               | 40.57 | 40.80 | 41.96                                            | 41.14 | 40.79 | 40.94 | 42.80 | 41.49 | 41.12 | 40.80 | 40.61 | 40.58 |        |
| 11                               | 40.58 | 40.76 | 41.74                                            | 41.15 | 40.78 | 41.11 | 42.75 | 41.53 | 41.09 | 40.80 | 40.60 | 40.58 |        |
| 12                               | 40.58 | 40.75 | 41.49                                            | 41.10 | 40.79 | 41.57 | 42.50 | 41.51 | 41.07 | 40.79 | 40.60 | 40.58 |        |
| 13                               | 40.58 | 40.72 | 41.67                                            | 41.08 | 40.79 | 41.83 | 42.22 | 41.44 | 41.02 | 40.80 | 40.60 | 40.58 |        |
| 14                               | 40.58 | 40.64 | 42.54                                            | 41.15 | 40.85 | 41.90 | 42.08 | 41.42 | 41.01 | 40.88 | 40.59 | 40.54 |        |
| 15                               | 40.65 | 40.61 | 42.46                                            | 41.10 | 40.92 | 41.89 | 41.95 | 41.44 | 41.00 | 40.79 | 40.59 | 40.53 |        |
| 16                               | 40.90 | 40.61 | 42.30                                            | 41.04 | 40.89 | 41.90 | 41.87 | 41.56 | 41.00 | 40.73 | 40.59 | 40.55 |        |
| 17                               | 40.96 | 40.59 | 41.94                                            | 40.97 | 40.92 | 42.29 | 41.82 | 41.66 | 40.98 | 40.74 | 40.59 | 40.55 |        |
| 18                               | 40.98 | 40.59 | 41.65                                            | 40.91 | 40.94 | 42.32 | 41.94 | 41.57 | 40.94 | 40.74 | 40.60 | 40.54 |        |
| 19                               | 40.98 | 40.59 | 41.77                                            | 40.86 | 40.92 | 42.09 | 42.46 | 41.48 | 40.94 | 40.76 | 40.60 | 40.65 |        |
| 20                               | 40.98 | 40.59 | 42.01                                            | 40.84 | 40.87 | 42.18 | 42.64 | 41.40 | 40.94 | 40.73 | 40.60 | 40.72 |        |
| 21                               | 40.97 | 40.58 | 42.13                                            | 40.81 | 40.82 | 42.78 | 42.96 | 41.35 | 40.92 | 40.72 | 40.59 | 40.75 |        |
| 22                               | 40.87 | 40.58 | 41.90                                            | 40.80 | 40.81 | 43.26 | 43.28 | 41.29 | 40.93 | 40.72 | 40.59 | 40.75 |        |
| 23                               | 40.76 | 40.58 | 41.61                                            | 40.82 | 40.81 | 43.91 | 43.26 | 41.24 | 40.91 | 40.72 | 40.60 | 40.95 |        |
| 24                               | 40.72 | 40.59 | 41.45                                            | 40.83 | 40.82 | 44.69 | 43.12 | 41.24 | 40.92 | 40.72 | 40.61 | 40.89 |        |
| 25                               | 40.66 | 40.59 | 41.36                                            | 40.80 | 40.81 | 44.08 | 42.93 | 41.22 | 40.90 | 40.73 | 40.66 | 40.86 |        |
| 26                               | 40.64 | 40.59 | 41.29                                            | 40.78 | 40.84 | 43.36 | 42.60 | 41.31 | 40.88 | 40.73 | 40.65 | 40.86 |        |
| 27                               | 40.61 | 40.59 | 41.24                                            | 40.76 | 40.85 | 42.88 | 42.45 | 41.28 | 40.86 | 40.72 | 40.67 | 40.84 |        |
| 28                               | 40.60 | 40.59 | 41.19                                            | 40.78 | 40.84 | 42.51 | 42.42 | 41.28 | 40.88 | 40.71 | 40.74 | 40.82 |        |
| 29                               | 40.59 | 40.58 | 41.17                                            | 40.81 | 40.82 | 42.24 | 42.23 | 41.29 | 40.88 | 40.71 |       | 40.82 |        |
| 30                               | 40.63 | 40.58 | 41.12                                            | 40.84 | 40.81 | 42.07 | 42.05 | 41.26 | 40.88 | 40.72 |       | 40.77 |        |
| 31                               |       | 40.57 |                                                  | 40.92 | 40.79 |       | 41.90 |       | 40.88 | 40.72 |       | 40.74 |        |
| Mean                             | 40.69 | 40.65 | 41.60                                            | 40.95 | 40.88 | 41.96 | 42.52 | 41.44 | 41.01 | 40.77 | 40.64 | 40.68 |        |
| Max                              | 40.98 | 40.96 | 42.54                                            | 41.15 | 41.12 | 44.69 | 43.28 | 41.82 | 41.23 | 40.88 | 40.74 | 40.95 | 44.69  |
| Min                              | 40.55 | 40.57 | 40.58                                            | 40.76 | 40.78 | 40.70 | 41.82 | 41.22 | 40.86 | 40.71 | 40.59 | 40.53 | 40.53  |
| Annual Max Momentary Gage Height |       | 44.79 | m. (MSL.) , at 12.00 Hours , on Sep 24 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 40.44 | m. (MSL.) , River Bed 40.47 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 49.45 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 46.59 | m. (MSL.) , Drainage Area 2375 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul                  | Aug   | Sep    | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|----------------------------------------------------------------|--------------------------|--------|----------------------|-------|--------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.27                                                           | 0.36                     | 0.24   | 3.40                 | 3.00  | 0.92   | 17.76                    | 13.34  | 5.16  | 1.64  | 0.68  | 0.64  |                |
| 2              | 0.27                                                           | 0.30                     | 0.27   | 2.90                 | 4.00  | 0.88   | 20.80                    | 11.88  | 4.92  | 1.48  | 0.64  | 0.39  |                |
| 3              | 0.24                                                           | 0.27                     | 2.30   | 2.70                 | 3.80  | 0.84   | 24.00                    | 10.56  | 4.60  | 1.08  | 0.64  | 0.36  |                |
| 4              | 0.15                                                           | 0.24                     | 5.16   | 2.50                 | 3.30  | 0.80   | 28.96                    | 9.58   | 4.50  | 0.92  | 0.64  | 0.33  |                |
| 5              | 0.27                                                           | 0.24                     | 8.18   | 2.00                 | 2.80  | 0.76   | 34.95                    | 8.88   | 4.40  | 0.92  | 0.64  | 0.33  |                |
| 6              | 0.24                                                           | 0.84                     | 6.00   | 2.10                 | 2.30  | 0.60   | 36.20                    | 8.04   | 4.20  | 0.92  | 0.60  | 0.30  |                |
| 7              | 0.24                                                           | 1.64                     | 11.56  | 3.40                 | 1.80  | 0.60   | 38.45                    | 7.48   | 4.10  | 1.00  | 0.51  | 0.30  |                |
| 8              | 0.24                                                           | 2.40                     | 17.22  | 3.30                 | 1.48  | 1.80   | 37.20                    | 7.48   | 4.00  | 1.00  | 0.39  | 0.30  |                |
| 9              | 0.21                                                           | 1.80                     | 16.50  | 3.60                 | 1.08  | 2.00   | 33.20                    | 8.32   | 4.00  | 0.96  | 0.33  | 0.27  |                |
| 10             | 0.21                                                           | 1.00                     | 15.78  | 4.20                 | 0.96  | 2.20   | 33.20                    | 8.46   | 4.00  | 1.00  | 0.33  | 0.24  |                |
| 11             | 0.24                                                           | 0.84                     | 12.04  | 4.30                 | 0.92  | 3.90   | 32.00                    | 9.02   | 3.70  | 1.00  | 0.30  | 0.24  |                |
| 12             | 0.24                                                           | 0.80                     | 8.46   | 3.80                 | 0.96  | 9.58   | 26.30                    | 8.74   | 3.50  | 0.96  | 0.30  | 0.24  |                |
| 13             | 0.24                                                           | 0.68                     | 10.98  | 3.60                 | 0.96  | 13.51  | 20.60                    | 7.76   | 3.00  | 1.00  | 0.30  | 0.24  |                |
| 14             | 0.24                                                           | 0.42                     | 27.18  | 4.30                 | 1.40  | 14.70  | 17.94                    | 7.48   | 2.90  | 1.64  | 0.27  | 0.12  |                |
| 15             | 0.45                                                           | 0.33                     | 25.46  | 3.80                 | 2.00  | 14.53  | 15.60                    | 7.76   | 2.80  | 0.96  | 0.27  | 0.09  |                |
| 16             | 1.80                                                           | 0.33                     | 22.20  | 3.20                 | 1.72  | 14.70  | 14.19                    | 9.44   | 2.80  | 0.72  | 0.27  | 0.15  |                |
| 17             | 2.40                                                           | 0.27                     | 15.42  | 2.50                 | 2.00  | 22.00  | 13.34                    | 10.84  | 2.60  | 0.76  | 0.27  | 0.15  |                |
| 18             | 2.60                                                           | 0.27                     | 10.70  | 1.90                 | 2.20  | 22.60  | 15.42                    | 9.58   | 2.20  | 0.76  | 0.30  | 0.12  |                |
| 19             | 2.60                                                           | 0.27                     | 12.52  | 1.48                 | 2.00  | 18.12  | 25.46                    | 8.32   | 2.20  | 0.84  | 0.30  | 0.45  |                |
| 20             | 2.60                                                           | 0.27                     | 16.68  | 1.32                 | 1.56  | 19.82  | 29.42                    | 7.20   | 2.20  | 0.72  | 0.30  | 0.68  |                |
| 21             | 2.50                                                           | 0.24                     | 18.87  | 1.08                 | 1.16  | 32.72  | 37.20                    | 6.60   | 2.00  | 0.68  | 0.27  | 0.80  |                |
| 22             | 1.56                                                           | 0.24                     | 14.70  | 1.00                 | 1.08  | 45.02  | 45.56                    | 5.88   | 2.10  | 0.68  | 0.27  | 0.80  |                |
| 23             | 0.84                                                           | 0.24                     | 10.14  | 1.16                 | 1.08  | 64.52  | 45.02                    | 5.28   | 1.90  | 0.68  | 0.30  | 2.30  |                |
| 24             | 0.68                                                           | 0.27                     | 7.90   | 1.24                 | 1.16  | 90.35  | 41.24                    | 5.28   | 2.00  | 0.68  | 0.33  | 1.72  |                |
| 25             | 0.48                                                           | 0.27                     | 6.72   | 1.00                 | 1.08  | 69.96  | 36.45                    | 5.04   | 1.80  | 0.72  | 0.48  | 1.48  |                |
| 26             | 0.42                                                           | 0.27                     | 5.88   | 0.92                 | 1.32  | 47.84  | 28.50                    | 6.12   | 1.64  | 0.72  | 0.45  | 1.48  |                |
| 27             | 0.33                                                           | 0.27                     | 5.28   | 0.84                 | 1.40  | 35.20  | 25.25                    | 5.76   | 1.48  | 0.68  | 0.51  | 1.32  |                |
| 28             | 0.30                                                           | 0.27                     | 4.70   | 0.92                 | 1.32  | 26.52  | 24.62                    | 5.76   | 1.64  | 0.64  | 0.76  | 1.16  |                |
| 29             | 0.27                                                           | 0.24                     | 4.50   | 1.08                 | 1.16  | 21.00  | 20.80                    | 5.88   | 1.64  | 0.64  |       | 1.16  |                |
| 30             | 0.39                                                           | 0.24                     | 4.00   | 1.32                 | 1.08  | 17.76  | 17.40                    | 5.52   | 1.64  | 0.68  |       | 0.88  |                |
| 31             |                                                                | 0.21                     |        | 2.00                 | 0.96  |        | 14.70                    |        | 1.64  | 0.68  |       | 0.76  |                |
| Total          | 23.52                                                          | 16.33                    | 327.54 | 72.86                | 53.04 | 615.75 | 851.73                   | 237.28 | 91.26 | 27.76 | 11.65 | 19.80 | 2348.52 CMSDAY |
| Mean           | 0.78                                                           | 0.53                     | 10.92  | 2.35                 | 1.71  | 20.53  | 27.48                    | 7.91   | 2.94  | 0.90  | 0.42  | 0.64  | 6.43 CMS       |
| Max            | 2.60                                                           | 2.40                     | 27.18  | 4.30                 | 4.00  | 90.35  | 45.56                    | 13.34  | 5.16  | 1.64  | 0.76  | 2.30  | 90.35 CMS      |
| Min            | 0.15                                                           | 0.21                     | 0.24   | 0.84                 | 0.92  | 0.60   | 13.34                    | 5.04   | 1.48  | 0.64  | 0.27  | 0.09  | 0.09 CMS       |
| Runoff         | 2.03                                                           | 1.41                     | 28.30  | 6.30                 | 4.58  | 53.20  | 73.59                    | 20.50  | 7.89  | 2.40  | 1.01  | 1.71  | 202.91 MCM     |
| Momentary Peak | 93.85 CMS. at 44.79 m. (MSL.) at 12.00 Hours , on Sep 24, 2013 |                          |        |                      |       |        |                          |        |       |       |       |       |                |
| Runoff Yield   | 2.71                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |       | 39.516 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Lam Phachi at Ban Bo , Ratchaburi (K.17)**

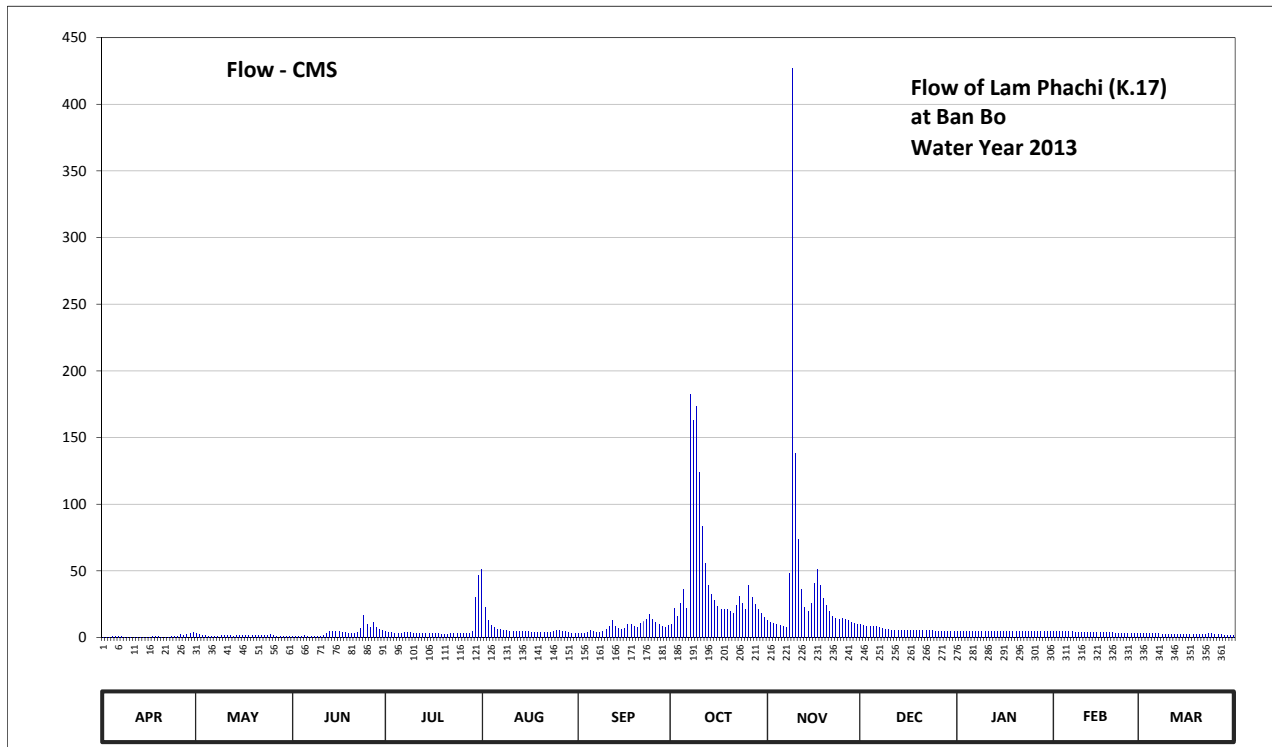
Lat 13 - 32 - 31 N Long 99 - 21 - 24 E

Location : on left bank oppositeto the 'Sai Ngam' fronter police station.

|                                         |                                                                                           |                          |                            |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------------------|----------------------------|
|                                         | <b>Ban Bo</b>                                                                             | <b>Amphoe Suan Phung</b> | <b>Changwat Ratchaburi</b> |
| <b>Drainage Area</b>                    | 1,344 sq.km.                                                                              |                          |                            |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                          |                            |
| <b>Zero Gage at Bottom</b>              | +97.460 m. (MSL.)                                                                         |                          |                            |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                          |                            |
| <b>Location BM</b>                      | Along the measuring line.                                                                 | <b>Elevation</b>         | +109.256 m. (MSL.)         |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                          |                            |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                          |                            |
| <b>Period of Available Gage Records</b> | 1966 to date                                                                              |                          |                            |
| <b>Rating Operation</b>                 |                                                                                           |                          |                            |
| <b>Period of Rating</b>                 | 1966 - 1988 , 1993 to date                                                                |                          |                            |
| <b>Rated by Flot</b>                    | -                                                                                         |                          |                            |
| <b>Rated by Current Meter</b>           | 1966 - 1988 , 1993 to date                                                                |                          |                            |
| <b>Stability of Channel Regimes</b>     | Fairly stable by some scouring.                                                           |                          |                            |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +103.220 m.(MSL.), records are channel flow only.       |                          |                            |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 47 discharge measurements made in 2013. |                          |                            |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May   | Jun         | Jul   | Aug   | Sep                             | Oct    | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|--------|-------|-------------|-------|-------|---------------------------------|--------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 97.47  | 97.71 | 97.53       | 97.85 | 99.45 | 97.72                           | 98.26  | 98.41             | 98.24 | 97.91 | 97.88 | 97.76 |        |
| 2                                | 97.47  | 97.63 | 97.53       | 97.80 | 98.75 | 97.72                           | 98.73  | 98.33             | 98.21 | 97.91 | 97.88 | 97.76 |        |
| 3                                | 97.47  | 97.59 | 97.53       | 97.78 | 98.39 | 97.72                           | 98.53  | 98.28             | 98.19 | 97.91 | 97.87 | 97.76 |        |
| 4                                | 97.48  | 97.55 | 97.54       | 97.77 | 98.22 | 97.84                           | 98.86  | 98.24             | 98.18 | 97.91 | 97.87 | 97.74 |        |
| 5                                | 97.51  | 97.54 | 97.57       | 97.77 | 98.13 | 97.94                           | 99.11  | 98.20             | 98.18 | 97.91 | 97.86 | 97.72 |        |
| 6                                | 97.51  | 97.53 | 97.54       | 97.77 | 98.07 | 97.86                           | 98.74  | 98.17             | 98.16 | 97.90 | 97.86 | 97.72 |        |
| 7                                | 97.50  | 97.53 | 97.53       | 97.79 | 98.02 | 97.82                           | 101.03 | 98.15             | 98.13 | 97.90 | 97.85 | 97.71 |        |
| 8                                | 97.47  | 97.54 | 97.53       | 97.80 | 97.96 | 97.82                           | 100.85 | 99.38             | 98.08 | 97.90 | 97.84 | 97.68 |        |
| 9                                | 97.47  | 97.55 | 97.53       | 97.80 | 97.92 | 97.91                           | 100.95 | 102.51            | 98.04 | 97.90 | 97.84 | 97.65 |        |
| 10                               | 97.47  | 97.56 | 97.53       | 97.72 | 97.89 | 98.00                           | 100.46 | 100.60            | 98.01 | 97.90 | 97.83 | 97.64 |        |
| 11                               | 97.47  | 97.56 | 97.56       | 97.70 | 97.87 | 98.16                           | 99.95  | 99.81             | 97.99 | 97.90 | 97.82 | 97.63 |        |
| 12                               | 97.46  | 97.56 | 97.75       | 97.72 | 97.88 | 98.39                           | 99.53  | 99.11             | 97.97 | 97.90 | 97.82 | 97.62 |        |
| 13                               | 97.46  | 97.54 | 97.89       | 97.73 | 97.88 | 98.19                           | 99.18  | 98.77             | 97.96 | 97.90 | 97.81 | 97.63 |        |
| 14                               | 97.46  | 97.56 | 97.91       | 97.71 | 97.86 | 98.11                           | 99.04  | 98.66             | 97.95 | 97.90 | 97.81 | 97.63 |        |
| 15                               | 97.46  | 97.55 | 97.86       | 97.71 | 97.86 | 98.07                           | 98.91  | 98.86             | 97.94 | 97.90 | 97.80 | 97.63 |        |
| 16                               | 97.47  | 97.55 | 97.86       | 97.70 | 97.85 | 98.12                           | 98.78  | 99.22             | 97.93 | 97.90 | 97.80 | 97.62 |        |
| 17                               | 97.50  | 97.55 | 97.83       | 97.70 | 97.83 | 98.27                           | 98.71  | 99.44             | 97.93 | 97.90 | 97.79 | 97.62 |        |
| 18                               | 97.48  | 97.56 | 97.78       | 97.70 | 97.82 | 98.27                           | 98.72  | 99.18             | 97.92 | 97.90 | 97.79 | 97.63 |        |
| 19                               | 97.48  | 97.58 | 97.77       | 97.69 | 97.81 | 98.17                           | 98.72  | 98.96             | 97.92 | 97.90 | 97.78 | 97.64 |        |
| 20                               | 97.46  | 97.59 | 97.76       | 97.69 | 97.81 | 98.15                           | 98.65  | 98.81             | 97.92 | 97.90 | 97.78 | 97.64 |        |
| 21                               | 97.46  | 97.61 | 97.75       | 97.69 | 97.81 | 98.29                           | 98.60  | 98.67             | 97.92 | 97.90 | 97.77 | 97.64 |        |
| 22                               | 97.46  | 97.57 | 97.80       | 97.71 | 97.81 | 98.36                           | 98.82  | 98.53             | 97.93 | 97.90 | 97.77 | 97.66 |        |
| 23                               | 97.48  | 97.56 | 98.10       | 97.72 | 97.82 | 98.43                           | 99.01  | 98.47             | 97.94 | 97.90 | 97.77 | 97.72 |        |
| 24                               | 97.52  | 97.60 | 98.55       | 97.71 | 97.89 | 98.59                           | 98.85  | 98.45             | 97.93 | 97.90 | 97.77 | 97.71 |        |
| 25                               | 97.54  | 97.64 | 98.25       | 97.71 | 97.96 | 98.43                           | 98.70  | 98.48             | 97.91 | 97.90 | 97.76 | 97.68 |        |
| 26                               | 97.63  | 97.55 | 98.13       | 97.70 | 97.95 | 98.32                           | 99.18  | 98.43             | 97.91 | 97.90 | 97.76 | 97.67 |        |
| 27                               | 97.61  | 97.53 | 98.31       | 97.70 | 97.91 | 98.25                           | 98.97  | 98.39             | 97.91 | 97.90 | 97.76 | 97.66 |        |
| 28                               | 97.64  | 97.53 | 98.15       | 97.70 | 97.87 | 98.19                           | 98.84  | 98.33             | 97.91 | 97.89 | 97.76 | 97.60 |        |
| 29                               | 97.72  | 97.53 | 98.02       | 97.88 | 97.82 | 98.15                           | 98.72  | 98.30             | 97.91 | 97.89 |       | 97.56 |        |
| 30                               | 97.84  | 97.53 | 97.92       | 98.99 | 97.73 | 98.21                           | 98.60  | 98.26             | 97.91 | 97.89 |       | 97.55 |        |
| 31                               |        | 97.53 |             | 99.35 | 97.73 |                                 | 98.50  |                   | 97.91 | 97.88 |       | 97.55 |        |
| Mean                             | 97.51  | 97.56 | 97.81       | 97.83 | 97.99 | 98.12                           | 99.11  | 98.85             | 98.00 | 97.90 | 97.81 | 97.66 |        |
| Max                              | 97.84  | 97.71 | 98.55       | 99.35 | 99.45 | 98.59                           | 101.03 | 102.51            | 98.24 | 97.91 | 97.88 | 97.76 | 102.51 |
| Min                              | 97.46  | 97.53 | 97.53       | 97.69 | 97.73 | 97.72                           | 98.26  | 98.15             | 97.91 | 97.88 | 97.76 | 97.55 | 97.46  |
| Annual Max Momentary Gage Height | 103.52 |       | m. (MSL.) , |       |       | at 05.00 Hours , on Nov 9, 2013 |        |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 97.46  |       | m. (MSL.) , |       |       | River Bed                       | 97.01  | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 108.06 |       | m. (MSL.) , |       |       |                                 |        |                   |       |       |       |       |        |
| Right Bank Elevation             | 103.21 |       | m. (MSL.) , |       |       | Drainage Area                   | 1344   | Square Kilometers |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|---------|--------------------------|--------|--------|--------|-------|----------------|
| 1              | 0.70                                                            | 3.10                     | 1.30   | 4.50                 | 51.50  | 3.20    | 10.20   | 13.20                    | 9.80   | 5.10   | 4.80   | 3.60  |                |
| 2              | 0.70                                                            | 2.30                     | 1.30   | 4.00                 | 22.50  | 3.20    | 21.90   | 11.60                    | 9.20   | 5.10   | 4.80   | 3.60  |                |
| 3              | 0.70                                                            | 1.90                     | 1.30   | 3.80                 | 12.80  | 3.20    | 15.90   | 10.60                    | 8.80   | 5.10   | 4.70   | 3.60  |                |
| 4              | 0.80                                                            | 1.50                     | 1.40   | 3.70                 | 9.40   | 4.40    | 26.10   | 9.80                     | 8.60   | 5.10   | 4.70   | 3.40  |                |
| 5              | 1.10                                                            | 1.40                     | 1.70   | 3.70                 | 7.60   | 5.40    | 35.95   | 9.00                     | 8.60   | 5.10   | 4.60   | 3.20  |                |
| 6              | 1.10                                                            | 1.30                     | 1.40   | 3.70                 | 6.70   | 4.60    | 22.20   | 8.40                     | 8.20   | 5.00   | 4.60   | 3.20  |                |
| 7              | 1.00                                                            | 1.30                     | 1.30   | 3.90                 | 6.20   | 4.20    | 182.60  | 8.00                     | 7.60   | 5.00   | 4.50   | 3.10  |                |
| 8              | 0.70                                                            | 1.40                     | 1.30   | 4.00                 | 5.60   | 4.20    | 163.00  | 48.10                    | 6.80   | 5.00   | 4.40   | 2.80  |                |
| 9              | 0.70                                                            | 1.50                     | 1.30   | 4.00                 | 5.20   | 5.10    | 173.50  | 427.20                   | 6.40   | 5.00   | 4.40   | 2.50  |                |
| 10             | 0.70                                                            | 1.60                     | 1.30   | 3.20                 | 4.90   | 6.00    | 124.40  | 138.00                   | 6.10   | 5.00   | 4.30   | 2.40  |                |
| 11             | 0.70                                                            | 1.60                     | 1.60   | 3.00                 | 4.70   | 8.20    | 83.50   | 73.70                    | 5.90   | 5.00   | 4.20   | 2.30  |                |
| 12             | 0.60                                                            | 1.60                     | 3.50   | 3.20                 | 4.80   | 12.80   | 55.80   | 35.95                    | 5.70   | 5.00   | 4.20   | 2.20  |                |
| 13             | 0.60                                                            | 1.40                     | 4.90   | 3.30                 | 4.80   | 8.80    | 39.10   | 23.10                    | 5.60   | 5.00   | 4.10   | 2.30  |                |
| 14             | 0.60                                                            | 1.60                     | 5.10   | 3.10                 | 4.60   | 7.20    | 32.80   | 19.80                    | 5.50   | 5.00   | 4.10   | 2.30  |                |
| 15             | 0.60                                                            | 1.50                     | 4.60   | 3.10                 | 4.60   | 6.70    | 27.85   | 26.10                    | 5.40   | 5.00   | 4.00   | 2.30  |                |
| 16             | 0.70                                                            | 1.50                     | 4.60   | 3.00                 | 4.50   | 7.40    | 23.40   | 40.90                    | 5.30   | 5.00   | 4.00   | 2.20  |                |
| 17             | 1.00                                                            | 1.50                     | 4.30   | 3.00                 | 4.30   | 10.40   | 21.30   | 51.00                    | 5.30   | 5.00   | 3.90   | 2.20  |                |
| 18             | 0.80                                                            | 1.60                     | 3.80   | 3.00                 | 4.20   | 10.40   | 21.60   | 39.10                    | 5.20   | 5.00   | 3.90   | 2.30  |                |
| 19             | 0.80                                                            | 1.80                     | 3.70   | 2.90                 | 4.10   | 8.40    | 21.60   | 29.60                    | 5.20   | 5.00   | 3.80   | 2.40  |                |
| 20             | 0.60                                                            | 1.90                     | 3.60   | 2.90                 | 4.10   | 8.00    | 19.50   | 24.35                    | 5.20   | 5.00   | 3.80   | 2.40  |                |
| 21             | 0.60                                                            | 2.10                     | 3.50   | 2.90                 | 4.10   | 10.80   | 18.00   | 20.10                    | 5.20   | 5.00   | 3.70   | 2.40  |                |
| 22             | 0.60                                                            | 1.70                     | 4.00   | 3.10                 | 4.10   | 12.20   | 24.70   | 15.90                    | 5.30   | 5.00   | 3.70   | 2.60  |                |
| 23             | 0.80                                                            | 1.60                     | 7.00   | 3.20                 | 4.20   | 13.60   | 31.45   | 14.40                    | 5.40   | 5.00   | 3.70   | 3.20  |                |
| 24             | 1.20                                                            | 2.00                     | 16.50  | 3.10                 | 4.90   | 17.70   | 25.75   | 14.00                    | 5.30   | 5.00   | 3.70   | 3.10  |                |
| 25             | 1.40                                                            | 2.40                     | 10.00  | 3.10                 | 5.60   | 13.60   | 21.00   | 14.60                    | 5.10   | 5.00   | 3.60   | 2.80  |                |
| 26             | 2.30                                                            | 1.50                     | 7.60   | 3.00                 | 5.50   | 11.40   | 39.10   | 13.60                    | 5.10   | 5.00   | 3.60   | 2.70  |                |
| 27             | 2.10                                                            | 1.30                     | 11.20  | 3.00                 | 5.10   | 10.00   | 29.95   | 12.80                    | 5.10   | 5.00   | 3.60   | 2.60  |                |
| 28             | 2.40                                                            | 1.30                     | 8.00   | 3.00                 | 4.70   | 8.80    | 25.40   | 11.60                    | 5.10   | 4.90   | 3.60   | 2.00  |                |
| 29             | 3.20                                                            | 1.30                     | 6.20   | 4.80                 | 4.20   | 8.00    | 21.60   | 11.00                    | 5.10   | 4.90   |        | 1.60  |                |
| 30             | 4.40                                                            | 1.30                     | 5.20   | 30.65                | 3.30   | 9.20    | 18.00   | 10.20                    | 5.10   | 4.90   |        | 1.50  |                |
| 31             |                                                                 | 1.30                     |        | 46.75                | 3.30   |         | 15.00   |                          | 5.10   | 4.80   |        | 1.50  |                |
| Total          | 34.20                                                           | 51.10                    | 132.50 | 175.60               | 226.10 | 247.10  | 1392.15 | 1185.70                  | 191.30 | 155.00 | 115.00 | 80.30 | 3986.05 CMSDAY |
| Mean           | 1.14                                                            | 1.65                     | 4.42   | 5.66                 | 7.29   | 8.24    | 44.91   | 39.52                    | 6.17   | 5.00   | 4.11   | 2.59  | 10.92 CMS      |
| Max            | 4.40                                                            | 3.10                     | 16.50  | 46.75                | 51.50  | 17.70   | 182.60  | 427.20                   | 9.80   | 5.10   | 4.80   | 3.60  | 427.20 CMS     |
| Min            | 0.60                                                            | 1.30                     | 1.30   | 2.90                 | 3.30   | 3.20    | 10.20   | 8.00                     | 5.10   | 4.80   | 3.60   | 1.50  | 0.60 CMS       |
| Runoff         | 2.96                                                            | 4.42                     | 11.45  | 15.17                | 19.54  | 21.35   | 120.28  | 102.44                   | 16.53  | 13.39  | 9.94   | 6.94  | 344.40 MCM     |
| Momentary Peak | 675.40 CMS. at 103.52 m. (MSL.) at 05.00 Hours , on Nov 9, 2013 |                          |        |                      |        |         |         |                          |        |        |        |       |                |
| Runoff Yield   | 8.13                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 502.530 |         | Liters/Second/Square KM. |        |        |        |       |                |

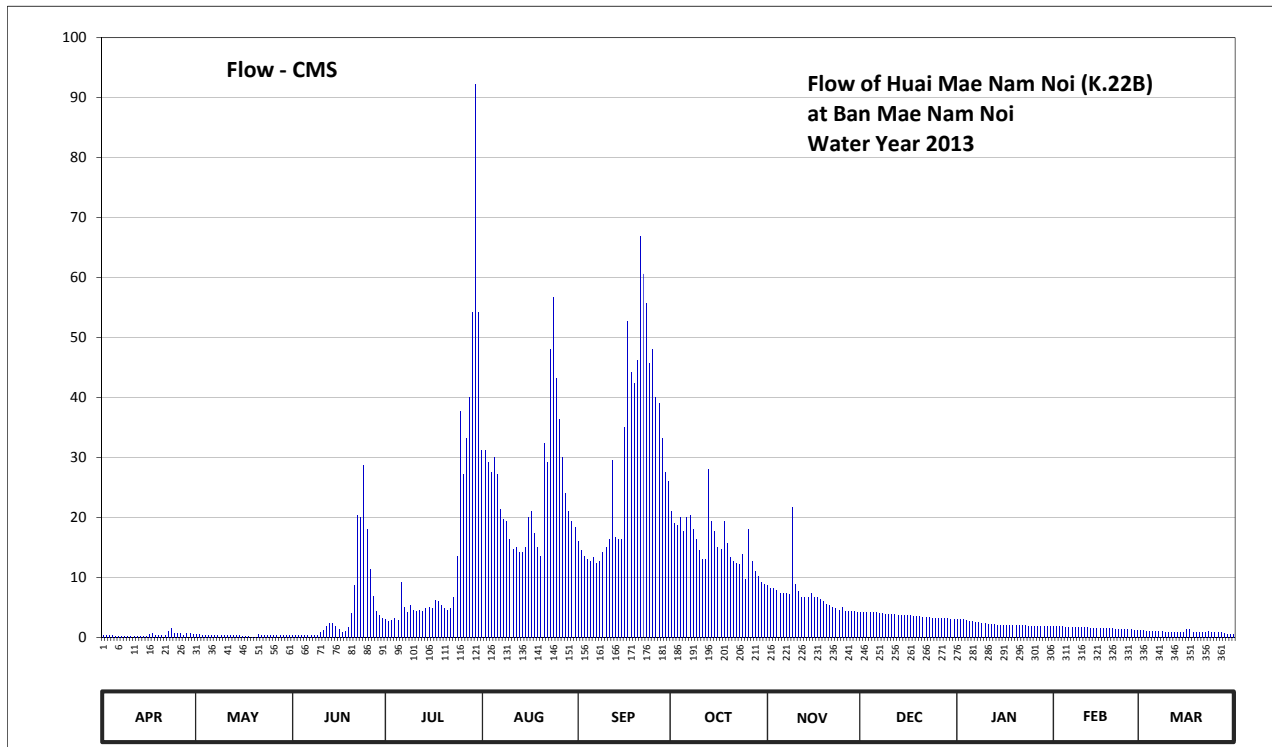
Lat 14 - 26 - 59 N    Long 98 - 48 - 08 E

**Location :** on right bank about 640 meters upstream from station K.22A

|                                         |                                                                                           |             |               |         |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Mae Nam Noi | <b>Amphoe</b> | Sai Yok | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 311                                                                                       | sq.km.      |               |         |                  |                   |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |             |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +67.000                                                                                   | m. (MSL.)   |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank about 10 meters from the top staff gage.                                    |             |               |         | <b>Elevation</b> | +72.434 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |             |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |             |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1989 to date                                                                              |             |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |             |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1989 to date                                                                              |             |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1989 to date                                                                              |             |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |             |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 50 discharge measurements made in 2013. |             |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 68.03 | 68.05 | 68.03       | 68.22 | 69.15                             | 68.74 | 68.89             | 68.48 | 68.29 | 68.22 | 68.15 | 68.10 |        |
| 2                                | 68.03 | 68.05 | 68.04       | 68.20 | 69.15                             | 68.69 | 68.83             | 68.46 | 68.29 | 68.22 | 68.15 | 68.10 |        |
| 3                                | 68.03 | 68.03 | 68.03       | 68.21 | 69.10                             | 68.66 | 68.82             | 68.46 | 68.29 | 68.22 | 68.15 | 68.09 |        |
| 4                                | 68.03 | 68.03 | 68.03       | 68.23 | 69.06                             | 68.64 | 68.86             | 68.45 | 68.29 | 68.21 | 68.15 | 68.09 |        |
| 5                                | 68.02 | 68.03 | 68.03       | 68.21 | 69.12                             | 68.63 | 68.79             | 68.43 | 68.29 | 68.20 | 68.14 | 68.09 |        |
| 6                                | 68.02 | 68.03 | 68.03       | 68.50 | 69.05                             | 68.65 | 68.86             | 68.43 | 68.29 | 68.20 | 68.14 | 68.09 |        |
| 7                                | 68.02 | 68.03 | 68.03       | 68.33 | 68.90                             | 68.62 | 68.87             | 68.43 | 68.28 | 68.19 | 68.14 | 68.09 |        |
| 8                                | 68.02 | 68.03 | 68.03       | 68.29 | 68.85                             | 68.63 | 68.80             | 68.42 | 68.28 | 68.19 | 68.14 | 68.09 |        |
| 9                                | 68.02 | 68.04 | 68.04       | 68.34 | 68.84                             | 68.68 | 68.75             | 68.91 | 68.27 | 68.18 | 68.14 | 68.08 |        |
| 10                               | 68.02 | 68.03 | 68.08       | 68.31 | 68.75                             | 68.71 | 68.69             | 68.49 | 68.27 | 68.18 | 68.14 | 68.08 |        |
| 11                               | 68.02 | 68.03 | 68.10       | 68.30 | 68.70                             | 68.75 | 68.64             | 68.44 | 68.27 | 68.17 | 68.14 | 68.08 |        |
| 12                               | 68.02 | 68.03 | 68.15       | 68.31 | 68.71                             | 69.11 | 68.64             | 68.40 | 68.27 | 68.17 | 68.14 | 68.07 |        |
| 13                               | 68.02 | 68.03 | 68.18       | 68.30 | 68.68                             | 68.76 | 69.07             | 68.40 | 68.26 | 68.17 | 68.13 | 68.07 |        |
| 14                               | 68.02 | 68.03 | 68.18       | 68.32 | 68.68                             | 68.75 | 68.84             | 68.40 | 68.26 | 68.16 | 68.13 | 68.07 |        |
| 15                               | 68.02 | 68.03 | 68.15       | 68.33 | 68.71                             | 68.75 | 68.79             | 68.43 | 68.26 | 68.16 | 68.13 | 68.07 |        |
| 16                               | 68.05 | 68.02 | 68.11       | 68.32 | 68.86                             | 69.24 | 68.71             | 68.40 | 68.26 | 68.16 | 68.13 | 68.12 |        |
| 17                               | 68.06 | 68.02 | 68.08       | 68.38 | 68.89                             | 69.61 | 68.70             | 68.40 | 68.26 | 68.16 | 68.13 | 68.11 |        |
| 18                               | 68.04 | 68.02 | 68.09       | 68.37 | 68.78                             | 69.44 | 68.84             | 68.39 | 68.25 | 68.16 | 68.13 | 68.08 |        |
| 19                               | 68.03 | 68.01 | 68.14       | 68.34 | 68.71                             | 69.40 | 68.73             | 68.37 | 68.25 | 68.16 | 68.13 | 68.08 |        |
| 20                               | 68.03 | 68.01 | 68.28       | 68.32 | 68.66                             | 69.48 | 68.65             | 68.35 | 68.25 | 68.16 | 68.13 | 68.08 |        |
| 21                               | 68.03 | 68.05 | 68.48       | 68.31 | 69.18                             | 69.87 | 68.63             | 68.34 | 68.24 | 68.16 | 68.12 | 68.08 |        |
| 22                               | 68.09 | 68.04 | 68.87       | 68.32 | 69.10                             | 69.76 | 68.62             | 68.33 | 68.24 | 68.16 | 68.12 | 68.07 |        |
| 23                               | 68.13 | 68.03 | 68.86       | 68.40 | 69.52                             | 69.67 | 68.61             | 68.32 | 68.24 | 68.16 | 68.12 | 68.09 |        |
| 24                               | 68.06 | 68.04 | 69.09       | 68.66 | 69.69                             | 69.47 | 68.67             | 68.31 | 68.23 | 68.15 | 68.12 | 68.08 |        |
| 25                               | 68.06 | 68.03 | 68.80       | 69.30 | 69.42                             | 69.52 | 68.52             | 68.33 | 68.23 | 68.15 | 68.11 | 68.07 |        |
| 26                               | 68.06 | 68.03 | 68.58       | 69.05 | 69.27                             | 69.35 | 68.80             | 68.30 | 68.23 | 68.15 | 68.11 | 68.07 |        |
| 27                               | 68.04 | 68.03 | 68.41       | 69.20 | 69.12                             | 69.33 | 68.63             | 68.30 | 68.23 | 68.15 | 68.10 | 68.08 |        |
| 28                               | 68.06 | 68.04 | 68.30       | 69.35 | 68.97                             | 69.20 | 68.57             | 68.30 | 68.23 | 68.15 | 68.10 | 68.06 |        |
| 29                               | 68.06 | 68.03 | 68.26       | 69.64 | 68.89                             | 69.06 | 68.54             | 68.30 | 68.23 | 68.15 |       | 68.05 |        |
| 30                               | 68.05 | 68.03 | 68.23       | 70.28 | 68.84                             | 69.02 | 68.50             | 68.29 | 68.22 | 68.15 |       | 68.05 |        |
| 31                               |       | 68.03 |             | 69.64 | 68.81                             |       | 68.49             |       | 68.22 | 68.15 |       | 68.05 |        |
| Mean                             | 68.04 | 68.03 | 68.26       | 68.59 | 68.97                             | 69.07 | 68.72             | 68.40 | 68.26 | 68.17 | 68.13 | 68.08 |        |
| Max                              | 68.13 | 68.05 | 69.09       | 70.28 | 69.69                             | 69.87 | 69.07             | 68.91 | 68.29 | 68.22 | 68.15 | 68.12 | 70.28  |
| Min                              | 68.02 | 68.01 | 68.03       | 68.20 | 68.66                             | 68.62 | 68.49             | 68.29 | 68.22 | 68.15 | 68.10 | 68.05 | 68.01  |
| Annual Max Momentary Gage Height | 70.59 |       | m. (MSL.) , |       | at 18.00 Hours , on Jul 30 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 67.00 |       | m. (MSL.) , |       | River Bed                         | 66.78 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 78.52 |       | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 71.49 |       | m. (MSL.) , |       | Drainage Area                     | 311   | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 0.36                                                            | 0.60                     | 0.36   | 3.04                 | 31.25  | 16.08   | 21.06                    | 8.70   | 4.23   | 3.04  | 1.95  | 1.20  |                |
| 2              | 0.36                                                            | 0.60                     | 0.48   | 2.70                 | 31.25  | 14.51   | 19.02                    | 8.20   | 4.23   | 3.04  | 1.95  | 1.20  |                |
| 3              | 0.36                                                            | 0.36                     | 0.36   | 2.87                 | 29.20  | 13.64   | 18.68                    | 8.20   | 4.23   | 3.04  | 1.95  | 1.08  |                |
| 4              | 0.36                                                            | 0.36                     | 0.36   | 3.21                 | 27.64  | 13.06   | 20.04                    | 7.95   | 4.23   | 2.87  | 1.95  | 1.08  |                |
| 5              | 0.24                                                            | 0.36                     | 0.36   | 2.87                 | 30.02  | 12.77   | 17.68                    | 7.45   | 4.23   | 2.70  | 1.80  | 1.08  |                |
| 6              | 0.24                                                            | 0.36                     | 0.36   | 9.20                 | 27.25  | 13.35   | 20.04                    | 7.45   | 4.23   | 2.70  | 1.80  | 1.08  |                |
| 7              | 0.24                                                            | 0.36                     | 0.36   | 5.09                 | 21.40  | 12.48   | 20.38                    | 7.45   | 4.06   | 2.55  | 1.80  | 1.08  |                |
| 8              | 0.24                                                            | 0.36                     | 0.36   | 4.23                 | 19.70  | 12.77   | 18.00                    | 7.20   | 4.06   | 2.55  | 1.80  | 1.08  |                |
| 9              | 0.24                                                            | 0.48                     | 0.48   | 5.32                 | 19.36  | 14.22   | 16.40                    | 21.79  | 3.89   | 2.40  | 1.80  | 0.96  |                |
| 10             | 0.24                                                            | 0.36                     | 0.96   | 4.63                 | 16.40  | 15.12   | 14.51                    | 8.95   | 3.89   | 2.40  | 1.80  | 0.96  |                |
| 11             | 0.24                                                            | 0.36                     | 1.20   | 4.40                 | 14.80  | 16.40   | 13.06                    | 7.70   | 3.89   | 2.25  | 1.80  | 0.96  |                |
| 12             | 0.24                                                            | 0.36                     | 1.95   | 4.63                 | 15.12  | 29.61   | 13.06                    | 6.70   | 3.89   | 2.25  | 1.80  | 0.84  |                |
| 13             | 0.24                                                            | 0.36                     | 2.40   | 4.40                 | 14.22  | 16.72   | 28.03                    | 6.70   | 3.72   | 2.25  | 1.65  | 0.84  |                |
| 14             | 0.24                                                            | 0.36                     | 2.40   | 4.86                 | 14.22  | 16.40   | 19.36                    | 6.70   | 3.72   | 2.10  | 1.65  | 0.84  |                |
| 15             | 0.24                                                            | 0.36                     | 1.95   | 5.09                 | 15.12  | 16.40   | 17.68                    | 7.45   | 3.72   | 2.10  | 1.65  | 0.84  |                |
| 16             | 0.60                                                            | 0.24                     | 1.35   | 4.86                 | 20.04  | 35.06   | 15.12                    | 6.70   | 3.72   | 2.10  | 1.65  | 1.50  |                |
| 17             | 0.72                                                            | 0.24                     | 0.96   | 6.24                 | 21.06  | 52.62   | 14.80                    | 6.70   | 3.72   | 2.10  | 1.65  | 1.35  |                |
| 18             | 0.48                                                            | 0.24                     | 1.08   | 6.01                 | 17.36  | 44.22   | 19.36                    | 6.47   | 3.55   | 2.10  | 1.65  | 0.96  |                |
| 19             | 0.36                                                            | 0.12                     | 1.80   | 5.32                 | 15.12  | 42.30   | 15.76                    | 6.01   | 3.55   | 2.10  | 1.65  | 0.96  |                |
| 20             | 0.36                                                            | 0.12                     | 4.06   | 4.86                 | 13.64  | 46.14   | 13.35                    | 5.55   | 3.55   | 2.10  | 1.65  | 0.96  |                |
| 21             | 0.36                                                            | 0.60                     | 8.70   | 4.63                 | 32.48  | 66.79   | 12.77                    | 5.32   | 3.38   | 2.10  | 1.50  | 0.96  |                |
| 22             | 1.08                                                            | 0.48                     | 20.38  | 4.86                 | 29.20  | 60.60   | 12.48                    | 5.09   | 3.38   | 2.10  | 1.50  | 0.84  |                |
| 23             | 1.65                                                            | 0.36                     | 20.04  | 6.70                 | 48.10  | 55.74   | 12.19                    | 4.86   | 3.38   | 2.10  | 1.50  | 1.08  |                |
| 24             | 0.72                                                            | 0.48                     | 28.81  | 13.64                | 56.78  | 45.66   | 13.93                    | 4.63   | 3.21   | 1.95  | 1.50  | 0.96  |                |
| 25             | 0.72                                                            | 0.36                     | 18.00  | 37.70                | 43.26  | 48.10   | 9.74                     | 5.09   | 3.21   | 1.95  | 1.35  | 0.84  |                |
| 26             | 0.72                                                            | 0.36                     | 11.36  | 27.25                | 36.38  | 40.00   | 18.00                    | 4.40   | 3.21   | 1.95  | 1.35  | 0.84  |                |
| 27             | 0.48                                                            | 0.36                     | 6.95   | 33.30                | 30.02  | 39.08   | 12.77                    | 4.40   | 3.21   | 1.95  | 1.20  | 0.96  |                |
| 28             | 0.72                                                            | 0.48                     | 4.40   | 40.00                | 24.13  | 33.30   | 11.09                    | 4.40   | 3.21   | 1.95  | 1.20  | 0.72  |                |
| 29             | 0.72                                                            | 0.36                     | 3.72   | 54.18                | 21.06  | 27.64   | 10.28                    | 4.40   | 3.21   | 1.95  |       | 0.60  |                |
| 30             | 0.60                                                            | 0.36                     | 3.21   | 92.20                | 19.36  | 26.08   | 9.20                     | 4.23   | 3.04   | 1.95  |       | 0.60  |                |
| 31             |                                                                 | 0.36                     |        | 54.18                | 18.34  |         | 8.95                     |        | 3.04   | 1.95  |       | 0.60  |                |
| Total          | 14.37                                                           | 11.52                    | 149.16 | 462.47               | 773.28 | 896.86  | 486.79                   | 206.84 | 113.79 | 70.64 | 46.50 | 29.85 | 3262.07 CMSDAY |
| Mean           | 0.48                                                            | 0.37                     | 4.97   | 14.92                | 24.94  | 29.90   | 15.70                    | 6.89   | 3.67   | 2.28  | 1.66  | 0.96  | 8.94 CMS       |
| Max            | 1.65                                                            | 0.60                     | 28.81  | 92.20                | 56.78  | 66.79   | 28.03                    | 21.79  | 4.23   | 3.04  | 1.95  | 1.50  | 92.20 CMS      |
| Min            | 0.24                                                            | 0.12                     | 0.36   | 2.70                 | 13.64  | 12.48   | 8.95                     | 4.23   | 3.04   | 1.95  | 1.20  | 0.60  | 0.12 CMS       |
| Runoff         | 1.24                                                            | 1.00                     | 12.89  | 39.96                | 66.81  | 77.49   | 42.06                    | 17.87  | 9.83   | 6.10  | 4.02  | 2.58  | 281.84 MCM     |
| Momentary Peak | 113.80 CMS. at 70.59 m. (MSL.) at 18.00 Hours , on Jul 30, 2013 |                          |        |                      |        |         |                          |        |        |       |       |       |                |
| Runoff Yield   | 28.74                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 365.916 | Liters/Second/Square KM. |        |        |       |       |       |                |

**WATER YEAR : 2013**

## MAE KLONG RIVER BASIN

**Huai Tha Khoei at Ban Kha , Ratchaburi (K.25A)**

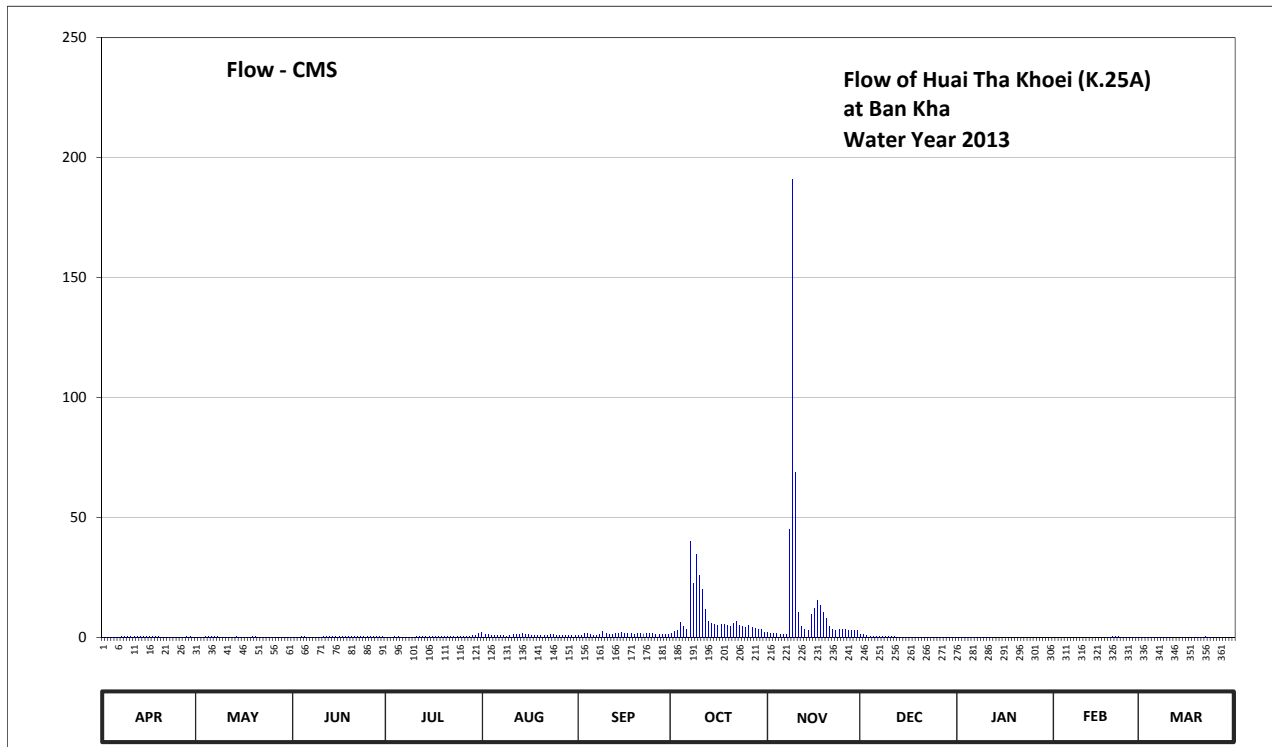
Lat 13 - 24 - 07 N    Long 99 - 25 - 14 E

**Location :** on right bank about 8 kilometers upstream from station K.25

|                                         |                                                                                           |            |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Kha</b> | <b>Amphoe</b> | Ban Kha | <b>Changwat</b>  | Ratchaburi         |
| <b>Drainage Area</b>                    | 367                                                                                       | sq.km.     |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +152.071                                                                                  | m. (MSL.)  |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |         |                  |                    |
| <b>Location BM</b>                      | On right bank about 1 meter from the top staff gage.                                      |            |               |         | <b>Elevation</b> | +160.094 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 1994 to date                                                                              |            |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |            |               |         |                  |                    |
| <b>Period of Rating</b>                 | 1994 to date                                                                              |            |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 1994 to date                                                                              |            |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |            |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |         |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 43 discharge measurements made in 2013. |            |               |         |                  |                    |

**Gage Height in Meter (A.D.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun         | Jul    | Aug                             | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|-------------|--------|---------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 152.50 | 152.51 | 152.46      | 152.46 | 152.94                          | 152.68 | 152.84            | 152.91 | 152.79 | 152.44 | 152.40 | 152.44 |        |
|                                  | 2  | 152.50 | 152.50 | 152.46      | 152.46 | 152.81                          | 152.69 | 152.97            | 152.89 | 152.76 | 152.43 | 152.40 | 152.44 |        |
|                                  | 3  | 152.50 | 152.50 | 152.47      | 152.47 | 152.75                          | 152.87 | 153.00            | 152.87 | 152.73 | 152.43 | 152.40 | 152.43 |        |
|                                  | 4  | 152.50 | 152.52 | 152.53      | 152.53 | 152.71                          | 152.87 | 153.26            | 152.84 | 152.66 | 152.43 | 152.40 | 152.43 |        |
|                                  | 5  | 152.50 | 152.52 | 152.52      | 152.52 | 152.70                          | 152.76 | 153.16            | 152.82 | 152.59 | 152.42 | 152.40 | 152.43 |        |
|                                  | 6  | 152.50 | 152.52 | 152.51      | 152.51 | 152.70                          | 152.72 | 153.06            | 152.81 | 152.59 | 152.42 | 152.40 | 152.43 |        |
|                                  | 7  | 152.52 | 152.52 | 152.50      | 152.50 | 152.70                          | 152.73 | 154.12            | 152.82 | 152.58 | 152.42 | 152.38 | 152.43 |        |
|                                  | 8  | 152.52 | 152.52 | 152.48      | 152.48 | 152.67                          | 152.75 | 153.81            | 154.19 | 152.56 | 152.41 | 152.38 | 152.43 |        |
|                                  | 9  | 152.52 | 152.51 | 152.48      | 152.48 | 152.66                          | 152.96 | 154.04            | 155.55 | 152.54 | 152.41 | 152.40 | 152.43 |        |
|                                  | 10 | 152.53 | 152.50 | 152.47      | 152.47 | 152.67                          | 152.87 | 153.88            | 154.48 | 152.53 | 152.41 | 152.40 | 152.41 |        |
|                                  | 11 | 152.53 | 152.49 | 152.58      | 152.58 | 152.78                          | 152.81 | 153.76            | 153.49 | 152.52 | 152.41 | 152.40 | 152.39 |        |
|                                  | 12 | 152.54 | 152.49 | 152.64      | 152.64 | 152.79                          | 152.78 | 153.53            | 153.17 | 152.52 | 152.41 | 152.38 | 152.37 |        |
|                                  | 13 | 152.54 | 152.50 | 152.58      | 152.58 | 152.82                          | 152.85 | 153.30            | 153.07 | 152.51 | 152.39 | 152.34 | 152.39 |        |
|                                  | 14 | 152.53 | 152.52 | 152.54      | 152.54 | 152.86                          | 152.90 | 153.25            | 153.01 | 152.51 | 152.40 | 152.35 | 152.39 |        |
|                                  | 15 | 152.52 | 152.50 | 152.52      | 152.52 | 152.80                          | 152.93 | 153.21            | 153.43 | 152.50 | 152.40 | 152.35 | 152.41 |        |
|                                  | 16 | 152.52 | 152.49 | 152.53      | 152.53 | 152.77                          | 152.87 | 153.20            | 153.54 | 152.50 | 152.40 | 152.35 | 152.41 |        |
|                                  | 17 | 152.53 | 152.48 | 152.54      | 152.54 | 152.74                          | 152.86 | 153.23            | 153.65 | 152.49 | 152.40 | 152.34 | 152.40 |        |
|                                  | 18 | 152.53 | 152.49 | 152.53      | 152.53 | 152.73                          | 152.83 | 153.23            | 153.58 | 152.48 | 152.40 | 152.35 | 152.41 |        |
|                                  | 19 | 152.52 | 152.52 | 152.52      | 152.52 | 152.70                          | 152.81 | 153.20            | 153.49 | 152.48 | 152.40 | 152.51 | 152.42 |        |
|                                  | 20 | 152.50 | 152.52 | 152.52      | 152.52 | 152.69                          | 152.83 | 153.17            | 153.36 | 152.48 | 152.40 | 152.54 | 152.44 |        |
|                                  | 21 | 152.50 | 152.51 | 152.52      | 152.60 | 152.70                          | 152.86 | 153.25            | 153.16 | 152.48 | 152.43 | 152.57 | 152.48 |        |
|                                  | 22 | 152.50 | 152.50 | 152.52      | 152.59 | 152.72                          | 152.83 | 153.29            | 153.03 | 152.47 | 152.40 | 152.52 | 152.53 |        |
|                                  | 23 | 152.49 | 152.50 | 152.56      | 152.58 | 152.76                          | 152.85 | 153.19            | 153.01 | 152.47 | 152.40 | 152.46 | 152.51 |        |
|                                  | 24 | 152.49 | 152.50 | 152.56      | 152.59 | 152.75                          | 152.86 | 153.16            | 153.06 | 152.46 | 152.40 | 152.44 | 152.44 |        |
|                                  | 25 | 152.49 | 152.50 | 152.57      | 152.60 | 152.74                          | 152.83 | 153.14            | 153.07 | 152.46 | 152.40 | 152.44 | 152.39 |        |
|                                  | 26 | 152.50 | 152.49 | 152.57      | 152.60 | 152.73                          | 152.81 | 153.18            | 153.03 | 152.46 | 152.40 | 152.44 | 152.39 |        |
|                                  | 27 | 152.50 | 152.48 | 152.57      | 152.59 | 152.71                          | 152.79 | 153.12            | 153.02 | 152.45 | 152.40 | 152.44 | 152.43 |        |
|                                  | 28 | 152.52 | 152.46 | 152.57      | 152.60 | 152.69                          | 152.78 | 153.09            | 153.02 | 152.45 | 152.40 | 152.43 | 152.37 |        |
|                                  | 29 | 152.53 | 152.46 | 152.56      | 152.68 | 152.69                          | 152.77 | 153.07            | 153.02 | 152.44 | 152.40 |        | 152.34 |        |
|                                  | 30 | 152.51 | 152.46 | 152.55      | 152.74 | 152.69                          | 152.82 | 153.04            | 153.02 | 152.44 | 152.40 |        | 152.34 |        |
|                                  | 31 |        | 152.46 |             | 152.84 | 152.69                          |        | 152.94            |        | 152.44 | 152.40 |        | 152.34 |        |
| Mean                             |    | 152.51 | 152.50 | 152.53      | 152.56 | 152.74                          | 152.82 | 153.28            | 153.28 | 152.53 | 152.41 | 152.41 | 152.42 |        |
| Max                              |    | 152.54 | 152.52 | 152.64      | 152.84 | 152.94                          | 152.96 | 154.12            | 155.55 | 152.79 | 152.44 | 152.57 | 152.53 | 155.55 |
| Min                              |    | 152.49 | 152.46 | 152.46      | 152.46 | 152.66                          | 152.68 | 152.84            | 152.81 | 152.44 | 152.39 | 152.34 | 152.34 | 152.34 |
| Annual Max Momentary Gage Height |    | 156.59 |        | m. (MSL.) , |        | at 24.00 Hours , on Nov 8, 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    | 152.07 |        | m. (MSL.) , |        | River Bed                       | 152.34 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              |    | 159.04 |        | m. (MSL.) , |        |                                 |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             |    | 158.94 |        | m. (MSL.) , |        | Drainage Area                   | 367    | Square Kilometers |        |        |        |        |        |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep   | Oct    | Nov      | Dec                      | Jan  | Feb  | Mar  | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|-------|--------|----------|--------------------------|------|------|------|---------------|
| 1              | 0.40                                                            | 0.41                     | 0.36  | 0.36                 | 2.40  | 0.90  | 1.70   | 2.10     | 1.45                     | 0.34 | 0.00 | 0.34 |               |
| 2              | 0.40                                                            | 0.40                     | 0.36  | 0.36                 | 1.55  | 0.95  | 2.70   | 1.95     | 1.30                     | 0.33 | 0.00 | 0.34 |               |
| 3              | 0.40                                                            | 0.40                     | 0.37  | 0.37                 | 1.25  | 1.85  | 3.00   | 1.85     | 1.15                     | 0.33 | 0.00 | 0.33 |               |
| 4              | 0.40                                                            | 0.42                     | 0.43  | 0.43                 | 1.05  | 1.85  | 6.32   | 1.70     | 0.80                     | 0.33 | 0.00 | 0.33 |               |
| 5              | 0.40                                                            | 0.42                     | 0.42  | 0.42                 | 1.00  | 1.30  | 4.78   | 1.60     | 0.49                     | 0.32 | 0.00 | 0.33 |               |
| 6              | 0.40                                                            | 0.42                     | 0.41  | 0.41                 | 1.00  | 1.10  | 3.60   | 1.55     | 0.49                     | 0.32 | 0.00 | 0.33 |               |
| 7              | 0.42                                                            | 0.42                     | 0.40  | 0.40                 | 1.00  | 1.15  | 40.00  | 1.60     | 0.48                     | 0.32 | 0.00 | 0.33 |               |
| 8              | 0.42                                                            | 0.42                     | 0.38  | 0.38                 | 0.85  | 1.25  | 22.50  | 45.25    | 0.46                     | 0.31 | 0.00 | 0.33 |               |
| 9              | 0.42                                                            | 0.41                     | 0.38  | 0.38                 | 0.80  | 2.60  | 34.60  | 190.75   | 0.44                     | 0.31 | 0.00 | 0.33 |               |
| 10             | 0.43                                                            | 0.40                     | 0.37  | 0.37                 | 0.85  | 1.85  | 26.00  | 68.80    | 0.43                     | 0.31 | 0.00 | 0.31 |               |
| 11             | 0.43                                                            | 0.39                     | 0.48  | 0.48                 | 1.40  | 1.55  | 20.20  | 10.80    | 0.42                     | 0.31 | 0.00 | 0.00 |               |
| 12             | 0.44                                                            | 0.39                     | 0.70  | 0.70                 | 1.45  | 1.40  | 11.90  | 4.91     | 0.42                     | 0.31 | 0.00 | 0.00 |               |
| 13             | 0.44                                                            | 0.40                     | 0.48  | 0.48                 | 1.60  | 1.75  | 7.00   | 3.70     | 0.41                     | 0.00 | 0.00 | 0.00 |               |
| 14             | 0.43                                                            | 0.42                     | 0.44  | 0.44                 | 1.80  | 2.00  | 6.15   | 3.10     | 0.41                     | 0.00 | 0.00 | 0.00 |               |
| 15             | 0.42                                                            | 0.40                     | 0.42  | 0.42                 | 1.50  | 2.30  | 5.47   | 9.60     | 0.40                     | 0.00 | 0.00 | 0.31 |               |
| 16             | 0.42                                                            | 0.39                     | 0.43  | 0.43                 | 1.35  | 1.85  | 5.30   | 12.20    | 0.40                     | 0.00 | 0.00 | 0.31 |               |
| 17             | 0.43                                                            | 0.38                     | 0.44  | 0.44                 | 1.20  | 1.80  | 5.81   | 15.75    | 0.39                     | 0.00 | 0.00 | 0.00 |               |
| 18             | 0.43                                                            | 0.39                     | 0.43  | 0.43                 | 1.15  | 1.65  | 5.81   | 13.40    | 0.38                     | 0.00 | 0.00 | 0.31 |               |
| 19             | 0.42                                                            | 0.42                     | 0.42  | 0.42                 | 1.00  | 1.55  | 5.30   | 10.80    | 0.38                     | 0.00 | 0.41 | 0.32 |               |
| 20             | 0.40                                                            | 0.42                     | 0.42  | 0.42                 | 0.95  | 1.65  | 4.91   | 8.20     | 0.38                     | 0.00 | 0.44 | 0.34 |               |
| 21             | 0.40                                                            | 0.41                     | 0.42  | 0.50                 | 1.00  | 1.80  | 6.15   | 4.78     | 0.38                     | 0.33 | 0.47 | 0.38 |               |
| 22             | 0.40                                                            | 0.40                     | 0.42  | 0.49                 | 1.10  | 1.65  | 6.83   | 3.30     | 0.37                     | 0.00 | 0.42 | 0.43 |               |
| 23             | 0.39                                                            | 0.40                     | 0.46  | 0.48                 | 1.30  | 1.75  | 5.17   | 3.10     | 0.37                     | 0.00 | 0.36 | 0.41 |               |
| 24             | 0.39                                                            | 0.40                     | 0.46  | 0.49                 | 1.25  | 1.80  | 4.78   | 3.60     | 0.36                     | 0.00 | 0.34 | 0.34 |               |
| 25             | 0.39                                                            | 0.40                     | 0.47  | 0.50                 | 1.20  | 1.65  | 4.52   | 3.70     | 0.36                     | 0.00 | 0.34 | 0.00 |               |
| 26             | 0.40                                                            | 0.39                     | 0.47  | 0.50                 | 1.15  | 1.55  | 5.04   | 3.30     | 0.36                     | 0.00 | 0.34 | 0.00 |               |
| 27             | 0.40                                                            | 0.38                     | 0.47  | 0.49                 | 1.05  | 1.45  | 4.26   | 3.20     | 0.35                     | 0.00 | 0.34 | 0.33 |               |
| 28             | 0.42                                                            | 0.36                     | 0.47  | 0.50                 | 0.95  | 1.40  | 3.90   | 3.20     | 0.35                     | 0.00 | 0.33 | 0.00 |               |
| 29             | 0.43                                                            | 0.36                     | 0.46  | 0.90                 | 0.95  | 1.35  | 3.70   | 3.20     | 0.34                     | 0.00 |      | 0.00 |               |
| 30             | 0.41                                                            | 0.36                     | 0.45  | 1.20                 | 0.95  | 1.60  | 3.40   | 3.20     | 0.34                     | 0.00 |      | 0.00 |               |
| 31             |                                                                 | 0.36                     |       | 1.70                 | 0.95  |       | 2.40   |          | 0.34                     | 0.00 |      | 0.00 |               |
| Total          | 12.38                                                           | 12.34                    | 13.09 | 16.29                | 37.00 | 48.30 | 273.20 | 444.19   | 15.40                    | 4.17 | 3.79 | 6.78 | 886.93 CMSDAY |
| Mean           | 0.41                                                            | 0.40                     | 0.44  | 0.53                 | 1.19  | 1.61  | 8.81   | 14.81    | 0.50                     | 0.13 | 0.14 | 0.22 | 2.43 CMS      |
| Max            | 0.44                                                            | 0.42                     | 0.70  | 1.70                 | 2.40  | 2.60  | 40.00  | 190.75   | 1.45                     | 0.34 | 0.47 | 0.43 | 190.75 CMS    |
| Min            | 0.39                                                            | 0.36                     | 0.36  | 0.36                 | 0.80  | 0.90  | 1.70   | 1.55     | 0.34                     | 0.00 | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 1.07                                                            | 1.07                     | 1.13  | 1.41                 | 3.20  | 4.17  | 23.60  | 38.38    | 1.33                     | 0.36 | 0.33 | 0.59 | 76.63 MCM     |
| Momentary Peak | 375.95 CMS. at 156.59 m. (MSL.) at 24.00 Hours , on Nov 8, 2013 |                          |       |                      |       |       |        |          |                          |      |      |      |               |
| Runoff Yield   | 6.61                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |       |       |        | 1023.244 | Liters/Second/Square KM. |      |      |      |               |

Lat 14 - 26 - 27 N      Long 98 - 47 - 48 E

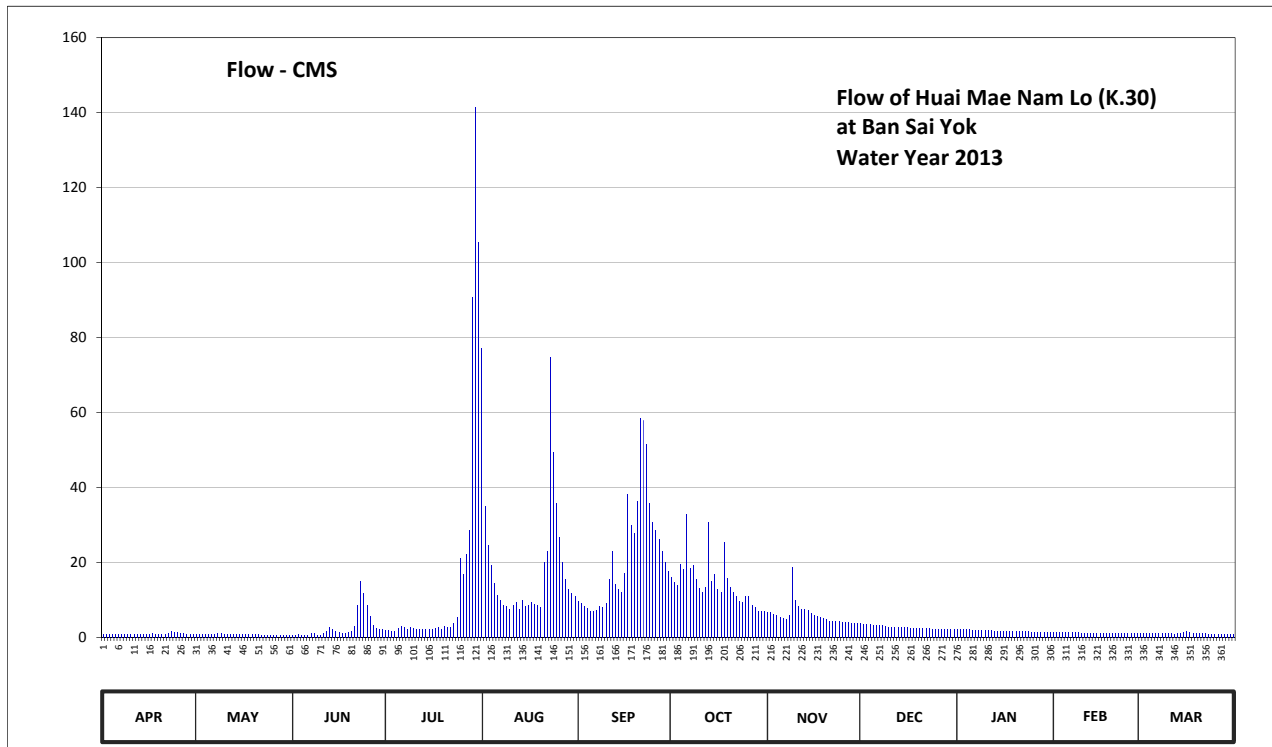
**Location :** on left bank about 1 kilometer downstream from station K.22A

|                                         |                                                                                          |                  |               |         |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|------------------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Sai Yok          | <b>Amphoe</b> | Sai Yok | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 466                                                                                      | sq.km.           |               |         |                  |                   |
| <b>Type of Gage</b>                     | Water                                                                                    | - stage recorder |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +68.000                                                                                  | m. (MSL.)        |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |                  |               |         |                  |                   |
| <b>Location BM</b>                      | On left bank about 30 meters from the top staff gage.                                    |                  |               |         | <b>Elevation</b> | +77.305 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |                  |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |                  |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                             |                  |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |                  |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1994 to date                                                                             |                  |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |                  |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1994 to date                                                                             |                  |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |                  |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                  |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 49 discharge measurements made in 2013 |                  |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep   | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 68.00 | 68.00 | 67.93       | 68.11 | 70.01                            | 68.53 | 68.75 | 68.40             | 68.25 | 68.14 | 68.06 | 68.01 |        |
| 2                                | 68.00 | 68.00 | 67.93       | 68.11 | 69.23                            | 68.50 | 68.71 | 68.40             | 68.24 | 68.13 | 68.06 | 68.01 |        |
| 3                                | 68.00 | 68.00 | 67.99       | 68.10 | 68.98                            | 68.47 | 68.68 | 68.38             | 68.24 | 68.13 | 68.06 | 68.01 |        |
| 4                                | 68.00 | 68.00 | 67.92       | 68.10 | 68.84                            | 68.45 | 68.85 | 68.36             | 68.24 | 68.13 | 68.06 | 68.01 |        |
| 5                                | 68.00 | 68.00 | 67.93       | 68.16 | 68.70                            | 68.41 | 68.81 | 68.34             | 68.23 | 68.13 | 68.06 | 68.01 |        |
| 6                                | 68.00 | 68.00 | 67.93       | 68.21 | 68.60                            | 68.41 | 69.18 | 68.33             | 68.23 | 68.12 | 68.05 | 68.01 |        |
| 7                                | 68.00 | 68.00 | 68.01       | 68.18 | 68.54                            | 68.42 | 68.82 | 68.32             | 68.23 | 68.12 | 68.05 | 68.01 |        |
| 8                                | 68.00 | 68.03 | 68.02       | 68.13 | 68.48                            | 68.47 | 68.84 | 68.36             | 68.22 | 68.12 | 68.05 | 68.01 |        |
| 9                                | 68.00 | 68.04 | 67.93       | 68.18 | 68.47                            | 68.46 | 68.73 | 68.83             | 68.21 | 68.12 | 68.05 | 68.01 |        |
| 10                               | 68.00 | 68.00 | 67.92       | 68.16 | 68.44                            | 68.50 | 68.66 | 68.54             | 68.19 | 68.11 | 68.04 | 68.01 |        |
| 11                               | 68.00 | 68.00 | 68.01       | 68.15 | 68.48                            | 68.73 | 68.62 | 68.47             | 68.19 | 68.11 | 68.04 | 68.01 |        |
| 12                               | 68.00 | 68.00 | 68.08       | 68.14 | 68.52                            | 68.94 | 68.67 | 68.44             | 68.19 | 68.11 | 68.04 | 68.00 |        |
| 13                               | 68.00 | 68.00 | 68.19       | 68.13 | 68.44                            | 68.69 | 69.13 | 68.43             | 68.19 | 68.10 | 68.04 | 68.01 |        |
| 14                               | 68.00 | 68.00 | 68.13       | 68.13 | 68.54                            | 68.65 | 68.72 | 68.42             | 68.19 | 68.10 | 68.04 | 68.03 |        |
| 15                               | 68.00 | 68.00 | 68.09       | 68.14 | 68.47                            | 68.62 | 68.77 | 68.39             | 68.18 | 68.10 | 68.03 | 68.06 |        |
| 16                               | 68.00 | 68.00 | 68.07       | 68.13 | 68.48                            | 68.78 | 68.65 | 68.36             | 68.18 | 68.09 | 68.03 | 68.10 |        |
| 17                               | 68.01 | 68.00 | 68.02       | 68.17 | 68.52                            | 69.30 | 68.62 | 68.35             | 68.17 | 68.09 | 68.03 | 68.06 |        |
| 18                               | 68.00 | 68.00 | 68.03       | 68.18 | 68.49                            | 69.11 | 69.00 | 68.34             | 68.17 | 68.09 | 68.03 | 68.04 |        |
| 19                               | 68.00 | 68.00 | 68.05       | 68.14 | 68.48                            | 69.06 | 68.74 | 68.33             | 68.17 | 68.09 | 68.03 | 68.03 |        |
| 20                               | 68.00 | 68.00 | 68.10       | 68.20 | 68.46                            | 69.26 | 68.67 | 68.32             | 68.17 | 68.09 | 68.03 | 68.01 |        |
| 21                               | 68.00 | 68.00 | 68.21       | 68.19 | 68.86                            | 69.70 | 68.62 | 68.30             | 68.16 | 68.08 | 68.03 | 68.01 |        |
| 22                               | 68.02 | 67.94 | 68.48       | 68.18 | 68.94                            | 69.69 | 68.58 | 68.30             | 68.16 | 68.08 | 68.03 | 68.01 |        |
| 23                               | 68.09 | 67.94 | 68.72       | 68.25 | 69.97                            | 69.57 | 68.53 | 68.29             | 68.16 | 68.08 | 68.02 | 68.00 |        |
| 24                               | 68.07 | 67.94 | 68.61       | 68.34 | 69.53                            | 69.25 | 68.51 | 68.29             | 68.15 | 68.08 | 68.02 | 68.00 |        |
| 25                               | 68.06 | 67.93 | 68.48       | 68.89 | 69.25                            | 69.13 | 68.59 | 68.28             | 68.15 | 68.07 | 68.02 | 68.00 |        |
| 26                               | 68.02 | 67.93 | 68.35       | 68.77 | 69.03                            | 69.08 | 68.59 | 68.28             | 68.15 | 68.07 | 68.02 | 68.00 |        |
| 27                               | 68.01 | 67.93 | 68.23       | 68.92 | 68.86                            | 69.02 | 68.48 | 68.28             | 68.15 | 68.07 | 68.02 | 68.00 |        |
| 28                               | 68.00 | 67.93 | 68.16       | 69.08 | 68.73                            | 68.94 | 68.46 | 68.26             | 68.14 | 68.07 | 68.02 | 67.99 |        |
| 29                               | 68.00 | 67.93 | 68.15       | 70.21 | 68.65                            | 68.86 | 68.41 | 68.26             | 68.14 | 68.07 |       | 67.99 |        |
| 30                               | 68.00 | 67.93 | 68.13       | 70.87 | 68.61                            | 68.80 | 68.41 | 68.26             | 68.14 | 68.07 |       | 67.98 |        |
| 31                               |       | 67.93 |             | 70.41 | 68.59                            |       | 68.41 |                   | 68.14 | 68.07 |       | 67.98 |        |
| Mean                             | 68.01 | 67.98 | 68.13       | 68.49 | 68.78                            | 68.86 | 68.68 | 68.36             | 68.18 | 68.10 | 68.04 | 68.01 |        |
| Max                              | 68.09 | 68.04 | 68.72       | 70.87 | 70.01                            | 69.70 | 69.18 | 68.83             | 68.25 | 68.14 | 68.06 | 68.10 | 70.87  |
| Min                              | 68.00 | 67.93 | 67.92       | 68.10 | 68.44                            | 68.41 | 68.41 | 68.26             | 68.14 | 68.07 | 68.02 | 67.98 | 67.92  |
| Annual Max Momentary Gage Height | 71.41 |       | m. (MSL.) , |       | at 18.00 Hours , on Jul 30, 2013 |       |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 68.00 |       | m. (MSL.) , |       | River Bed                        | 67.51 |       | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 76.11 |       | m. (MSL.) , |       |                                  |       |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 80.00 |       | m. (MSL.) , |       | Drainage Area                    | 466   |       | Square Kilometers |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug    | Sep    | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|--------|--------|---------|--------------------------|-------|-------|-------|-------|----------------|
| 1              | 1.00                                                            | 1.00                     | 0.65  | 1.92                 | 77.15  | 9.79   | 16.15   | 6.80                     | 3.75  | 2.28  | 1.48  | 1.08  |                |
| 2              | 1.00                                                            | 1.00                     | 0.65  | 1.92                 | 35.05  | 9.10   | 14.83   | 6.80                     | 3.60  | 2.16  | 1.48  | 1.08  |                |
| 3              | 1.00                                                            | 1.00                     | 0.95  | 1.80                 | 24.70  | 8.41   | 13.88   | 6.34                     | 3.60  | 2.16  | 1.48  | 1.08  |                |
| 4              | 1.00                                                            | 1.00                     | 0.60  | 1.80                 | 19.28  | 7.95   | 19.65   | 5.88                     | 3.60  | 2.16  | 1.48  | 1.08  |                |
| 5              | 1.00                                                            | 1.00                     | 0.65  | 2.52                 | 14.50  | 7.03   | 18.17   | 5.42                     | 3.45  | 2.16  | 1.48  | 1.08  |                |
| 6              | 1.00                                                            | 1.00                     | 0.65  | 3.15                 | 11.40  | 7.03   | 32.86   | 5.19                     | 3.45  | 2.04  | 1.40  | 1.08  |                |
| 7              | 1.00                                                            | 1.00                     | 1.08  | 2.76                 | 10.02  | 7.26   | 18.54   | 4.96                     | 3.45  | 2.04  | 1.40  | 1.08  |                |
| 8              | 1.00                                                            | 1.24                     | 1.16  | 2.16                 | 8.64   | 8.41   | 19.28   | 5.88                     | 3.30  | 2.04  | 1.40  | 1.08  |                |
| 9              | 1.00                                                            | 1.32                     | 0.65  | 2.76                 | 8.41   | 8.18   | 15.49   | 18.91                    | 3.15  | 2.04  | 1.40  | 1.08  |                |
| 10             | 1.00                                                            | 1.00                     | 0.60  | 2.52                 | 7.72   | 9.10   | 13.26   | 10.02                    | 2.88  | 1.92  | 1.32  | 1.08  |                |
| 11             | 1.00                                                            | 1.00                     | 1.08  | 2.40                 | 8.64   | 15.49  | 12.02   | 8.41                     | 2.88  | 1.92  | 1.32  | 1.08  |                |
| 12             | 1.00                                                            | 1.00                     | 1.64  | 2.28                 | 9.56   | 23.10  | 13.57   | 7.72                     | 2.88  | 1.92  | 1.32  | 1.00  |                |
| 13             | 1.00                                                            | 1.00                     | 2.88  | 2.16                 | 7.72   | 14.19  | 30.76   | 7.49                     | 2.88  | 1.80  | 1.32  | 1.08  |                |
| 14             | 1.00                                                            | 1.00                     | 2.16  | 2.16                 | 10.02  | 12.95  | 15.16   | 7.26                     | 2.88  | 1.80  | 1.32  | 1.24  |                |
| 15             | 1.00                                                            | 1.00                     | 1.72  | 2.28                 | 8.41   | 12.02  | 16.81   | 6.57                     | 2.76  | 1.80  | 1.24  | 1.48  |                |
| 16             | 1.00                                                            | 1.00                     | 1.56  | 2.16                 | 8.64   | 17.14  | 12.95   | 5.88                     | 2.76  | 1.72  | 1.24  | 1.80  |                |
| 17             | 1.08                                                            | 1.00                     | 1.16  | 2.64                 | 9.56   | 38.20  | 12.02   | 5.65                     | 2.64  | 1.72  | 1.24  | 1.48  |                |
| 18             | 1.00                                                            | 1.00                     | 1.24  | 2.76                 | 8.87   | 29.92  | 25.50   | 5.42                     | 2.64  | 1.72  | 1.24  | 1.32  |                |
| 19             | 1.00                                                            | 1.00                     | 1.40  | 2.28                 | 8.64   | 27.90  | 15.82   | 5.19                     | 2.64  | 1.72  | 1.24  | 1.24  |                |
| 20             | 1.00                                                            | 1.00                     | 1.80  | 3.00                 | 8.18   | 36.40  | 13.57   | 4.96                     | 2.64  | 1.72  | 1.24  | 1.08  |                |
| 21             | 1.00                                                            | 1.00                     | 3.15  | 2.88                 | 20.02  | 58.50  | 12.02   | 4.50                     | 2.52  | 1.64  | 1.24  | 1.08  |                |
| 22             | 1.16                                                            | 0.70                     | 8.64  | 2.76                 | 23.10  | 57.95  | 10.94   | 4.50                     | 2.52  | 1.64  | 1.24  | 1.08  |                |
| 23             | 1.72                                                            | 0.70                     | 15.16 | 3.75                 | 74.61  | 51.50  | 9.79    | 4.35                     | 2.52  | 1.64  | 1.16  | 1.00  |                |
| 24             | 1.56                                                            | 0.70                     | 11.71 | 5.42                 | 49.50  | 35.95  | 9.33    | 4.35                     | 2.40  | 1.64  | 1.16  | 1.00  |                |
| 25             | 1.48                                                            | 0.65                     | 8.64  | 21.13                | 35.95  | 30.76  | 11.17   | 4.20                     | 2.40  | 1.56  | 1.16  | 1.00  |                |
| 26             | 1.16                                                            | 0.65                     | 5.65  | 16.81                | 26.70  | 28.70  | 11.17   | 4.20                     | 2.40  | 1.56  | 1.16  | 1.00  |                |
| 27             | 1.08                                                            | 0.65                     | 3.45  | 22.30                | 20.02  | 26.30  | 8.64    | 4.20                     | 2.40  | 1.56  | 1.16  | 1.00  |                |
| 28             | 1.00                                                            | 0.65                     | 2.52  | 28.70                | 15.49  | 23.10  | 8.18    | 3.90                     | 2.28  | 1.56  | 1.16  | 0.95  |                |
| 29             | 1.00                                                            | 0.65                     | 2.40  | 90.70                | 12.95  | 20.02  | 7.03    | 3.90                     | 2.28  | 1.56  |       | 0.95  |                |
| 30             | 1.00                                                            | 0.65                     | 2.16  | 141.45               | 11.71  | 17.80  | 7.03    | 3.90                     | 2.28  | 1.56  |       | 0.90  |                |
| 31             |                                                                 | 0.65                     |       | 105.25               | 11.17  |        | 7.03    |                          | 2.28  | 1.56  |       | 0.90  |                |
| Total          | 32.24                                                           | 28.21                    | 87.76 | 488.58               | 606.33 | 660.15 | 452.62  | 182.75                   | 88.11 | 56.32 | 36.48 | 34.46 | 2754.01 CMSDAY |
| Mean           | 1.07                                                            | 0.91                     | 2.93  | 15.76                | 19.56  | 22.00  | 14.60   | 6.09                     | 2.84  | 1.82  | 1.30  | 1.11  | 7.55 CMS       |
| Max            | 1.72                                                            | 1.32                     | 15.16 | 141.45               | 77.15  | 58.50  | 32.86   | 18.91                    | 3.75  | 2.28  | 1.48  | 1.80  | 141.45 CMS     |
| Min            | 1.00                                                            | 0.65                     | 0.60  | 1.80                 | 7.72   | 7.03   | 7.03    | 3.90                     | 2.28  | 1.56  | 1.16  | 0.90  | 0.60 CMS       |
| Runoff         | 2.79                                                            | 2.44                     | 7.58  | 42.21                | 52.39  | 57.04  | 39.11   | 15.79                    | 7.61  | 4.87  | 3.15  | 2.98  | 237.95 MCM     |
| Momentary Peak | 188.45 CMS. at 71.41 m. (MSL.) at 18.00 Hours , on Jul 30, 2013 |                          |       |                      |        |        |         |                          |       |       |       |       |                |
| Runoff Yield   | 16.19                                                           | Liters/Second/Square KM. |       | Momentary Peak Yield |        |        | 404.399 | Liters/Second/Square KM. |       |       |       |       |                |

## WATER YEAR : 2013

## MAE KLONG RIVER BASIN

**Huai Mae Nam Noi at Ban Nam Chon , Kanchanaburi (K.31)**

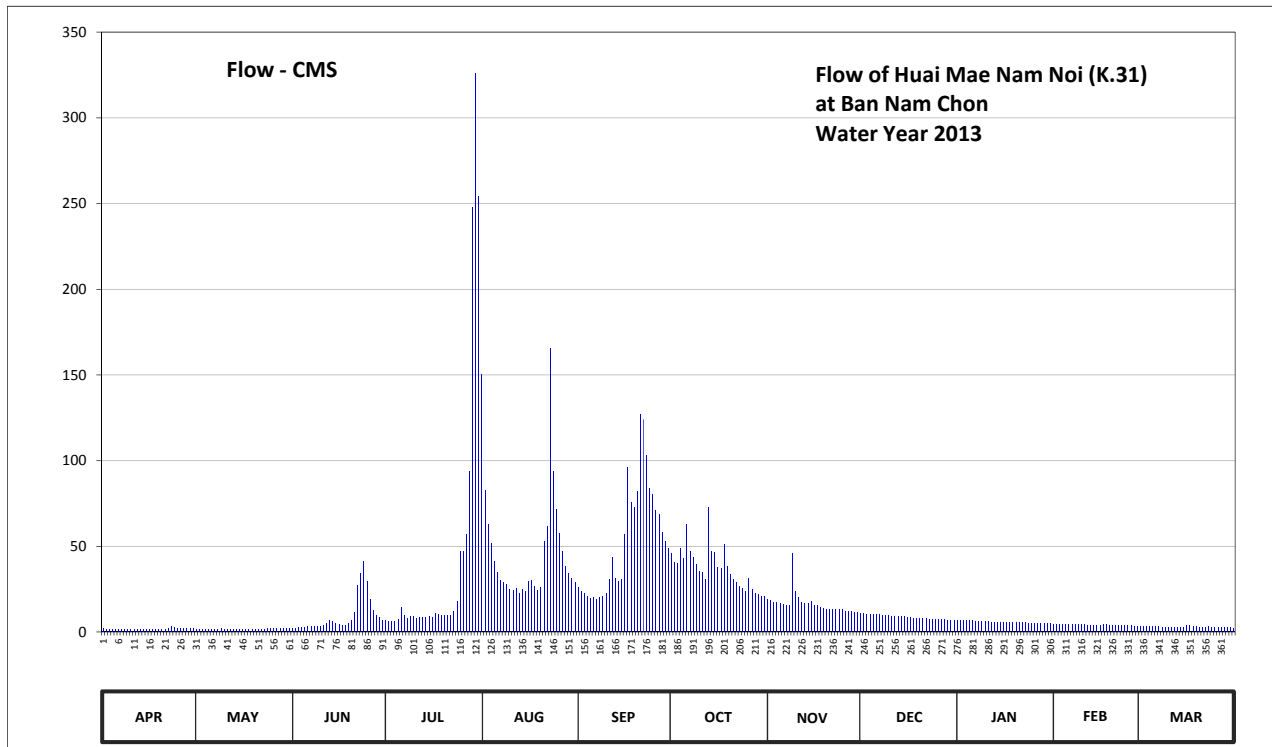
Lat 14 - 26 - 04 N      Long 98 - 49 - 20 W

**Location :** on right bank about 2 kilometers downstream from station K.22A

|                                         |                                                                                          |           |               |         |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Nam Chon  | <b>Amphoe</b> | Sai Yok | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 799                                                                                      | sq.km.    |               |         |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |           |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +54.200                                                                                  | m. (MSL.) |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank about 5 meters from the top staff gage.                                    |           |               |         | <b>Elevation</b> | +70.630 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |           |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |           |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                             |           |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1989 to date                                                                             |           |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1989 to date                                                                             |           |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 49 discharge measurements made in 2013 |           |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 57.18 | 57.16 | 57.20                                           | 57.42 | 59.67 | 57.96 | 58.34 | 57.80 | 57.58 | 57.43 | 57.33 | 57.27 |        |
|                                  | 2  | 57.17 | 57.15 | 57.20                                           | 57.41 | 58.88 | 57.92 | 58.26 | 57.78 | 57.57 | 57.43 | 57.33 | 57.26 |        |
|                                  | 3  | 57.17 | 57.14 | 57.22                                           | 57.41 | 58.60 | 57.89 | 58.25 | 57.76 | 57.56 | 57.43 | 57.31 | 57.26 |        |
|                                  | 4  | 57.17 | 57.14 | 57.24                                           | 57.41 | 58.43 | 57.84 | 58.39 | 57.76 | 57.56 | 57.42 | 57.32 | 57.26 |        |
|                                  | 5  | 57.17 | 57.13 | 57.24                                           | 57.45 | 58.27 | 57.82 | 58.30 | 57.74 | 57.55 | 57.42 | 57.32 | 57.25 |        |
|                                  | 6  | 57.17 | 57.13 | 57.27                                           | 57.68 | 58.15 | 57.83 | 58.60 | 57.73 | 57.55 | 57.42 | 57.32 | 57.25 |        |
|                                  | 7  | 57.16 | 57.14 | 57.27                                           | 57.54 | 58.06 | 57.80 | 58.36 | 57.71 | 57.55 | 57.41 | 57.32 | 57.25 |        |
|                                  | 8  | 57.16 | 57.16 | 57.26                                           | 57.48 | 58.03 | 57.83 | 58.31 | 57.71 | 57.54 | 57.41 | 57.31 | 57.24 |        |
|                                  | 9  | 57.16 | 57.18 | 57.25                                           | 57.52 | 58.00 | 57.85 | 58.24 | 58.34 | 57.54 | 57.41 | 57.31 | 57.24 |        |
|                                  | 10 | 57.14 | 57.16 | 57.27                                           | 57.51 | 57.94 | 57.89 | 58.17 | 57.92 | 57.53 | 57.41 | 57.31 | 57.24 |        |
|                                  | 11 | 57.13 | 57.16 | 57.29                                           | 57.48 | 57.93 | 58.07 | 58.15 | 57.83 | 57.52 | 57.40 | 57.31 | 57.24 |        |
|                                  | 12 | 57.13 | 57.16 | 57.34                                           | 57.50 | 57.95 | 58.31 | 58.07 | 57.76 | 57.52 | 57.39 | 57.30 | 57.24 |        |
|                                  | 13 | 57.13 | 57.16 | 57.42                                           | 57.49 | 57.89 | 58.09 | 58.74 | 57.74 | 57.51 | 57.39 | 57.30 | 57.24 |        |
|                                  | 14 | 57.13 | 57.15 | 57.40                                           | 57.50 | 57.94 | 58.04 | 58.36 | 57.74 | 57.51 | 57.39 | 57.30 | 57.23 |        |
|                                  | 15 | 57.13 | 57.14 | 57.35                                           | 57.51 | 57.92 | 58.07 | 58.35 | 57.77 | 57.51 | 57.38 | 57.30 | 57.23 |        |
|                                  | 16 | 57.15 | 57.14 | 57.32                                           | 57.50 | 58.05 | 58.51 | 58.21 | 57.71 | 57.50 | 57.38 | 57.30 | 57.30 |        |
|                                  | 17 | 57.17 | 57.14 | 57.29                                           | 57.57 | 58.06 | 59.05 | 58.20 | 57.71 | 57.49 | 57.38 | 57.31 | 57.29 |        |
|                                  | 18 | 57.16 | 57.13 | 57.30                                           | 57.56 | 57.98 | 58.78 | 58.42 | 57.69 | 57.48 | 57.38 | 57.31 | 57.27 |        |
|                                  | 19 | 57.14 | 57.13 | 57.34                                           | 57.53 | 57.93 | 58.74 | 58.22 | 57.66 | 57.48 | 57.38 | 57.29 | 57.25 |        |
|                                  | 20 | 57.14 | 57.14 | 57.42                                           | 57.54 | 57.96 | 58.87 | 58.13 | 57.64 | 57.47 | 57.37 | 57.29 | 57.24 |        |
|                                  | 21 | 57.14 | 57.16 | 57.60                                           | 57.53 | 58.45 | 59.42 | 58.07 | 57.65 | 57.47 | 57.37 | 57.29 | 57.23 |        |
|                                  | 22 | 57.21 | 57.16 | 57.99                                           | 57.54 | 58.58 | 59.39 | 58.03 | 57.65 | 57.47 | 57.37 | 57.29 | 57.23 |        |
|                                  | 23 | 57.25 | 57.15 | 58.14                                           | 57.61 | 59.82 | 59.14 | 57.98 | 57.64 | 57.46 | 57.37 | 57.29 | 57.25 |        |
|                                  | 24 | 57.22 | 57.18 | 58.27                                           | 57.77 | 59.02 | 58.90 | 57.95 | 57.64 | 57.46 | 57.36 | 57.29 | 57.24 |        |
|                                  | 25 | 57.20 | 57.20 | 58.04                                           | 58.36 | 58.72 | 58.85 | 57.92 | 57.64 | 57.46 | 57.36 | 57.29 | 57.24 |        |
|                                  | 26 | 57.19 | 57.21 | 57.80                                           | 58.36 | 58.52 | 58.71 | 58.08 | 57.62 | 57.45 | 57.36 | 57.28 | 57.24 |        |
|                                  | 27 | 57.18 | 57.21 | 57.63                                           | 58.51 | 58.36 | 58.68 | 57.94 | 57.61 | 57.45 | 57.36 | 57.27 | 57.23 |        |
|                                  | 28 | 57.19 | 57.21 | 57.53                                           | 59.02 | 58.22 | 58.53 | 57.89 | 57.61 | 57.45 | 57.36 | 57.27 | 57.22 |        |
|                                  | 29 | 57.18 | 57.20 | 57.49                                           | 60.52 | 58.14 | 58.45 | 57.87 | 57.60 | 57.44 | 57.36 |       | 57.22 |        |
|                                  | 30 | 57.18 | 57.19 | 57.44                                           | 61.08 | 58.08 | 58.39 | 57.85 | 57.59 | 57.44 | 57.35 |       | 57.22 |        |
|                                  | 31 |       | 57.20 |                                                 | 60.57 | 58.03 |       | 57.84 |       | 57.43 | 57.35 |       | 57.21 |        |
| Mean                             |    | 57.17 | 57.16 | 57.46                                           | 57.96 | 58.31 | 58.39 | 58.18 | 57.73 | 57.50 | 57.39 | 57.30 | 57.24 |        |
| Max                              |    | 57.25 | 57.21 | 58.27                                           | 61.08 | 59.82 | 59.42 | 58.74 | 58.34 | 57.58 | 57.43 | 57.33 | 57.30 | 61.08  |
| Min                              |    | 57.13 | 57.13 | 57.20                                           | 57.41 | 57.89 | 57.80 | 57.84 | 57.59 | 57.43 | 57.35 | 57.27 | 57.21 | 57.13  |
| Annual Max Momentary Gage Height |    |       | 62.35 | m. (MSL.) , at 22.00 Hours , on Jul 30 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 54.20 | m. (MSL.) , River Bed 55.39 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 69.08 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 69.18 | m. (MSL.) , Drainage Area 799 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun    | Jul     | Aug                  | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar   | Annual  |        |
|----------------|------------------------------------------------------------------|--------------------------|--------|---------|----------------------|---------|---------|--------------------------|--------|--------|--------|-------|---------|--------|
| 1              | 1.80                                                             | 1.60                     | 2.00   | 6.50    | 150.00               | 25.70   | 45.60   | 19.00                    | 10.90  | 6.75   | 4.60   | 3.40  |         |        |
| 2              | 1.70                                                             | 1.50                     | 2.00   | 6.25    | 82.60                | 23.90   | 40.60   | 18.20                    | 10.60  | 6.75   | 4.60   | 3.20  |         |        |
| 3              | 1.70                                                             | 1.40                     | 2.40   | 6.25    | 63.00                | 22.60   | 40.00   | 17.40                    | 10.30  | 6.75   | 4.20   | 3.20  |         |        |
| 4              | 1.70                                                             | 1.40                     | 2.80   | 6.25    | 51.45                | 20.60   | 48.85   | 17.40                    | 10.30  | 6.50   | 4.40   | 3.20  |         |        |
| 5              | 1.70                                                             | 1.30                     | 2.80   | 7.25    | 41.20                | 19.80   | 43.00   | 16.60                    | 10.00  | 6.50   | 4.40   | 3.00  |         |        |
| 6              | 1.70                                                             | 1.30                     | 3.40   | 14.30   | 34.50                | 20.20   | 63.00   | 16.20                    | 10.00  | 6.50   | 4.40   | 3.00  |         |        |
| 7              | 1.60                                                             | 1.40                     | 3.40   | 9.70    | 30.20                | 19.00   | 46.90   | 15.40                    | 10.00  | 6.25   | 4.40   | 3.00  |         |        |
| 8              | 1.60                                                             | 1.60                     | 3.20   | 8.00    | 28.85                | 20.20   | 43.65   | 15.40                    | 9.70   | 6.25   | 4.20   | 2.80  |         |        |
| 9              | 1.60                                                             | 1.80                     | 3.00   | 9.10    | 27.50                | 21.00   | 39.40   | 45.60                    | 9.70   | 6.25   | 4.20   | 2.80  |         |        |
| 10             | 1.40                                                             | 1.60                     | 3.40   | 8.80    | 24.80                | 22.60   | 35.50   | 23.90                    | 9.40   | 6.25   | 4.20   | 2.80  |         |        |
| 11             | 1.30                                                             | 1.60                     | 3.80   | 8.00    | 24.35                | 30.65   | 34.50   | 20.20                    | 9.10   | 6.00   | 4.20   | 2.80  |         |        |
| 12             | 1.30                                                             | 1.60                     | 4.80   | 8.50    | 25.25                | 43.65   | 30.65   | 17.40                    | 9.10   | 5.80   | 4.00   | 2.80  |         |        |
| 13             | 1.30                                                             | 1.60                     | 6.50   | 8.25    | 22.60                | 31.55   | 72.80   | 16.60                    | 8.80   | 5.80   | 4.00   | 2.80  |         |        |
| 14             | 1.30                                                             | 1.50                     | 6.00   | 8.50    | 24.80                | 29.30   | 46.90   | 16.60                    | 8.80   | 5.80   | 4.00   | 2.60  |         |        |
| 15             | 1.30                                                             | 1.40                     | 5.00   | 8.80    | 23.90                | 30.65   | 46.25   | 17.80                    | 8.80   | 5.60   | 4.00   | 2.60  |         |        |
| 16             | 1.50                                                             | 1.40                     | 4.40   | 8.50    | 29.75                | 56.70   | 37.60   | 15.40                    | 8.50   | 5.60   | 4.00   | 4.00  |         |        |
| 17             | 1.70                                                             | 1.40                     | 3.80   | 10.60   | 30.20                | 96.00   | 37.00   | 15.40                    | 8.25   | 5.60   | 4.20   | 3.80  |         |        |
| 18             | 1.60                                                             | 1.30                     | 4.00   | 10.30   | 26.60                | 75.60   | 50.80   | 14.65                    | 8.00   | 5.60   | 4.20   | 3.40  |         |        |
| 19             | 1.40                                                             | 1.30                     | 4.80   | 9.40    | 24.35                | 72.80   | 38.20   | 13.60                    | 8.00   | 5.60   | 3.80   | 3.00  |         |        |
| 20             | 1.40                                                             | 1.40                     | 6.50   | 9.70    | 25.70                | 81.90   | 33.50   | 12.90                    | 7.75   | 5.40   | 3.80   | 2.80  |         |        |
| 21             | 1.40                                                             | 1.60                     | 11.50  | 9.40    | 52.75                | 126.80  | 30.65   | 13.25                    | 7.75   | 5.40   | 3.80   | 2.60  |         |        |
| 22             | 2.20                                                             | 1.60                     | 27.05  | 9.70    | 61.60                | 124.10  | 28.85   | 13.25                    | 7.75   | 5.40   | 3.80   | 2.60  |         |        |
| 23             | 3.00                                                             | 1.50                     | 34.00  | 11.85   | 165.20               | 103.20  | 26.60   | 12.90                    | 7.50   | 5.40   | 3.80   | 3.00  |         |        |
| 24             | 2.40                                                             | 1.80                     | 41.20  | 17.80   | 93.60                | 84.00   | 25.25   | 12.90                    | 7.50   | 5.20   | 3.80   | 2.80  |         |        |
| 25             | 2.00                                                             | 2.00                     | 29.30  | 46.90   | 71.40                | 80.50   | 23.90   | 12.90                    | 7.50   | 5.20   | 3.80   | 2.80  |         |        |
| 26             | 1.90                                                             | 2.20                     | 19.00  | 46.90   | 57.40                | 70.70   | 31.10   | 12.20                    | 7.25   | 5.20   | 3.60   | 2.80  |         |        |
| 27             | 1.80                                                             | 2.20                     | 12.55  | 56.70   | 46.90                | 68.60   | 24.80   | 11.85                    | 7.25   | 5.20   | 3.40   | 2.60  |         |        |
| 28             | 1.90                                                             | 2.20                     | 9.40   | 93.60   | 38.20                | 58.10   | 22.60   | 11.85                    | 7.25   | 5.20   | 3.40   | 2.40  |         |        |
| 29             | 1.80                                                             | 2.00                     | 8.25   | 247.60  | 34.00                | 52.75   | 21.80   | 11.50                    | 7.00   | 5.20   |        | 2.40  |         |        |
| 30             | 1.80                                                             | 1.90                     | 7.00   | 326.00  | 31.10                | 48.85   | 21.00   | 11.20                    | 7.00   | 5.00   |        | 2.40  |         |        |
| 31             |                                                                  | 2.00                     |        | 254.10  | 28.85                |         | 20.60   |                          | 6.75   | 5.00   |        | 2.20  |         |        |
| Total          | 50.80                                                            | 50.40                    | 277.25 | 1293.50 | 1472.60              | 1582.00 | 1151.85 | 489.45                   | 266.50 | 178.95 | 113.20 | 89.60 | 7016.10 | CMSDAY |
| Mean           | 1.69                                                             | 1.63                     | 9.24   | 41.73   | 47.50                | 52.73   | 37.16   | 16.31                    | 8.60   | 5.77   | 4.04   | 2.89  | 19.22   | CMS    |
| Max            | 3.00                                                             | 2.20                     | 41.20  | 326.00  | 165.20               | 126.80  | 72.80   | 45.60                    | 10.90  | 6.75   | 4.60   | 4.00  | 326.00  | CMS    |
| Min            | 1.30                                                             | 1.30                     | 2.00   | 6.25    | 22.60                | 19.00   | 20.60   | 11.20                    | 6.75   | 5.00   | 3.40   | 2.20  | 1.30    | CMS    |
| Runoff         | 4.39                                                             | 4.36                     | 23.95  | 111.76  | 127.23               | 136.69  | 99.52   | 42.29                    | 23.03  | 15.46  | 9.78   | 7.74  | 606.19  | MCM    |
| Momentary Peak | 543.50 CMS. at 62.35 m. (MSL.) at 22.00 Hours , on Jul 30 , 2013 |                          |        |         |                      |         |         |                          |        |        |        |       |         |        |
| Runoff Yield   | 24.06                                                            | Liters/Second/Square KM. |        |         | Momentary Peak Yield |         | 680.225 | Liters/Second/Square KM. |        |        |        |       |         |        |

## WATER YEAR : 2013

## MAE KLONG RIVER BASIN

**Huai Bong Ti at Ban Bong Ti , Kanchanaburi (K.32A)**

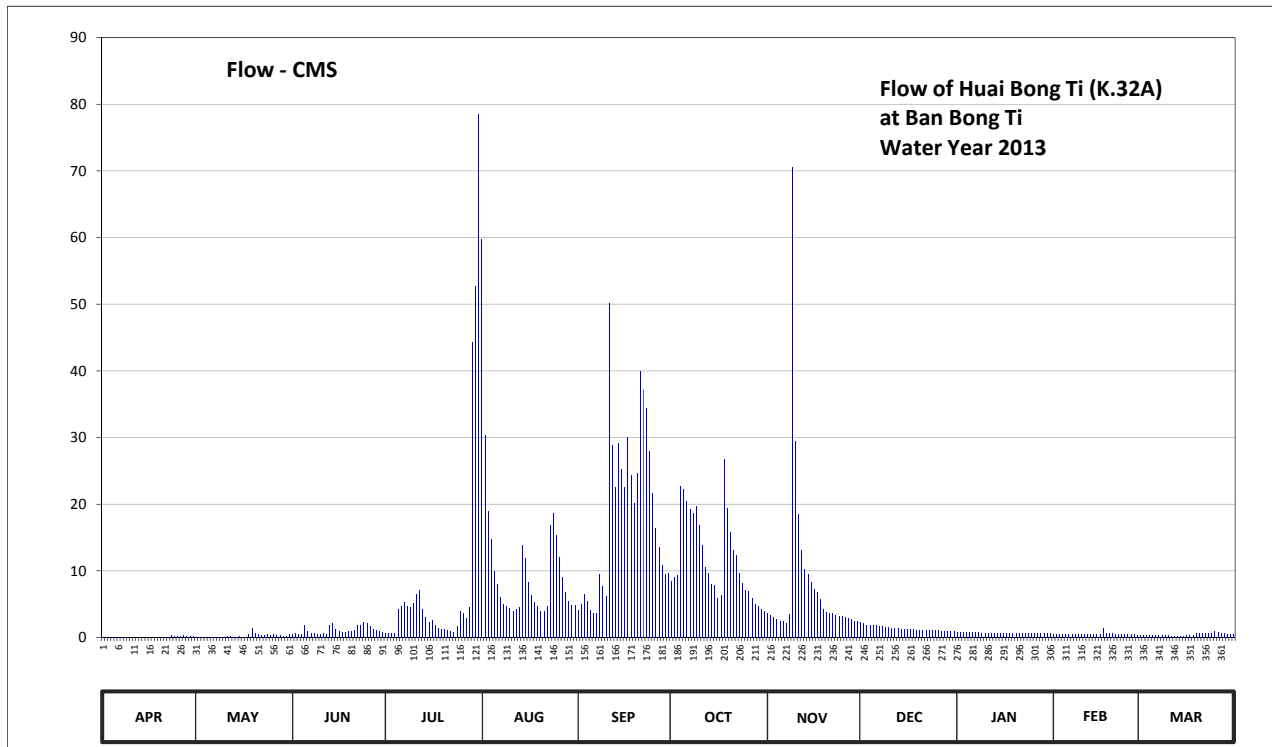
Lat 14 - 16 - 27 N      Long 98 - 56 - 04 E

**Location :** on right bank at Ban Bong Ti

|                                         |                                                                                          |           |               |         |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Bong Ti   | <b>Amphoe</b> | Sai Yok | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 518                                                                                      | sq.km.    |               |         |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |           |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +84.191                                                                                  | m. (MSL.) |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank about 6.50 meters from the top staff gage.                                 |           |               |         | <b>Elevation</b> | +90.239 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |           |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |           |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                             |           |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1984 to date                                                                             |           |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                             |           |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 63 discharge measurements made in 2013 |           |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 84.42 | 84.47 | 84.59       | 84.68 | 87.03                             | 85.10 | 85.40             | 85.05 | 84.90 | 84.71 | 84.62 | 84.57 |        |
| 2                                | 84.42 | 84.47 | 84.63       | 84.66 | 86.30                             | 85.18 | 85.43             | 85.02 | 84.88 | 84.71 | 84.62 | 84.56 |        |
| 3                                | 84.42 | 84.46 | 84.58       | 84.64 | 85.89                             | 85.28 | 85.45             | 84.99 | 84.86 | 84.71 | 84.62 | 84.56 |        |
| 4                                | 84.42 | 84.45 | 84.61       | 84.64 | 85.71                             | 85.21 | 86.04             | 84.95 | 84.86 | 84.70 | 84.61 | 84.55 |        |
| 5                                | 84.41 | 84.45 | 84.86       | 85.11 | 85.49                             | 85.10 | 86.02             | 84.91 | 84.85 | 84.70 | 84.60 | 84.55 |        |
| 6                                | 84.41 | 84.44 | 84.72       | 85.15 | 85.37                             | 85.06 | 85.95             | 84.91 | 84.85 | 84.69 | 84.60 | 84.55 |        |
| 7                                | 84.41 | 84.43 | 84.66       | 85.20 | 85.25                             | 85.06 | 85.90             | 84.88 | 84.83 | 84.69 | 84.60 | 84.56 |        |
| 8                                | 84.40 | 84.43 | 84.66       | 85.15 | 85.18                             | 85.46 | 85.88             | 85.03 | 84.83 | 84.69 | 84.59 | 84.55 |        |
| 9                                | 84.40 | 84.43 | 84.61       | 85.14 | 85.15                             | 85.35 | 85.92             | 87.23 | 84.82 | 84.68 | 84.59 | 84.54 |        |
| 10                               | 84.40 | 84.45 | 84.59       | 85.19 | 85.13                             | 85.26 | 85.81             | 86.27 | 84.82 | 84.68 | 84.59 | 84.54 |        |
| 11                               | 84.40 | 84.49 | 84.63       | 85.28 | 85.09                             | 86.82 | 85.67             | 85.87 | 84.81 | 84.68 | 84.58 | 84.53 |        |
| 12                               | 84.40 | 84.48 | 84.61       | 85.32 | 85.12                             | 86.25 | 85.52             | 85.64 | 84.80 | 84.67 | 84.58 | 84.53 |        |
| 13                               | 84.40 | 84.47 | 84.86       | 85.11 | 85.14                             | 86.03 | 85.47             | 85.50 | 84.80 | 84.67 | 84.58 | 84.53 |        |
| 14                               | 84.40 | 84.47 | 84.89       | 84.99 | 85.67                             | 86.26 | 85.37             | 85.46 | 84.79 | 84.66 | 84.58 | 84.52 |        |
| 15                               | 84.40 | 84.48 | 84.77       | 84.90 | 85.58                             | 86.13 | 85.36             | 85.39 | 84.79 | 84.66 | 84.58 | 84.52 |        |
| 16                               | 84.41 | 84.46 | 84.72       | 84.93 | 85.39                             | 86.03 | 85.24             | 85.33 | 84.79 | 84.65 | 84.61 | 84.54 |        |
| 17                               | 84.40 | 84.47 | 84.69       | 84.85 | 85.27                             | 86.29 | 85.27             | 85.30 | 84.78 | 84.65 | 84.81 | 84.55 |        |
| 18                               | 84.40 | 84.58 | 84.71       | 84.81 | 85.20                             | 86.10 | 86.18             | 85.23 | 84.77 | 84.65 | 84.68 | 84.55 |        |
| 19                               | 84.40 | 84.81 | 84.72       | 84.77 | 85.15                             | 85.94 | 85.91             | 85.11 | 84.76 | 84.65 | 84.65 | 84.64 |        |
| 20                               | 84.45 | 84.65 | 84.72       | 84.77 | 85.08                             | 86.11 | 85.76             | 85.07 | 84.75 | 84.64 | 84.63 | 84.67 |        |
| 21                               | 84.44 | 84.59 | 84.76       | 84.74 | 85.08                             | 86.57 | 85.64             | 85.06 | 84.75 | 84.64 | 84.61 | 84.67 |        |
| 22                               | 84.42 | 84.56 | 84.85       | 84.72 | 85.15                             | 86.50 | 85.60             | 85.05 | 84.75 | 84.64 | 84.60 | 84.68 |        |
| 23                               | 84.56 | 84.54 | 84.86       | 84.71 | 85.81                             | 86.42 | 85.47             | 85.02 | 84.74 | 84.64 | 84.60 | 84.65 |        |
| 24                               | 84.52 | 84.58 | 84.90       | 84.83 | 85.88                             | 86.22 | 85.38             | 85.01 | 84.74 | 84.64 | 84.59 | 84.65 |        |
| 25                               | 84.49 | 84.55 | 84.88       | 85.09 | 85.74                             | 86.00 | 85.32             | 85.01 | 84.74 | 84.64 | 84.59 | 84.73 |        |
| 26                               | 84.50 | 84.60 | 84.83       | 85.06 | 85.59                             | 85.79 | 85.31             | 84.99 | 84.74 | 84.64 | 84.58 | 84.69 |        |
| 27                               | 84.54 | 84.57 | 84.78       | 84.96 | 85.43                             | 85.66 | 85.24             | 84.97 | 84.73 | 84.64 | 84.58 | 84.65 |        |
| 28                               | 84.50 | 84.54 | 84.74       | 85.14 | 85.30                             | 85.53 | 85.18             | 84.95 | 84.73 | 84.64 | 84.57 | 84.63 |        |
| 29                               | 84.48 | 84.53 | 84.72       | 86.68 | 85.21                             | 85.46 | 85.15             | 84.92 | 84.72 | 84.64 |       | 84.61 |        |
| 30                               | 84.48 | 84.53 | 84.70       | 86.88 | 85.16                             | 85.47 | 85.12             | 84.92 | 84.72 | 84.64 |       | 84.59 |        |
| 31                               |       | 84.61 |             | 87.37 | 85.17                             |       | 85.08             |       | 84.72 | 84.63 |       | 84.58 |        |
| Mean                             | 84.44 | 84.52 | 84.73       | 85.14 | 85.44                             | 85.79 | 85.55             | 85.23 | 84.79 | 84.66 | 84.61 | 84.59 |        |
| Max                              | 84.56 | 84.81 | 84.90       | 87.37 | 87.03                             | 86.82 | 86.18             | 87.23 | 84.90 | 84.71 | 84.81 | 84.73 | 87.37  |
| Min                              | 84.40 | 84.43 | 84.58       | 84.64 | 85.08                             | 85.06 | 85.08             | 84.88 | 84.72 | 84.63 | 84.57 | 84.52 | 84.40  |
| Annual Max Momentary Gage Height |       | 87.70 | m. (MSL.) , |       | at 21.00 Hours , on Jul 30 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 84.19 | m. (MSL.) , |       | River Bed                         | 84.52 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 90.31 | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 91.76 | m. (MSL.) , |       | Drainage Area                     | 518   | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|--------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.04                                                            | 0.14                     | 0.47  | 0.74                 | 59.74  | 4.10    | 8.50                     | 3.65   | 2.30  | 0.86  | 0.56  | 0.41  |                |
| 2              | 0.04                                                            | 0.14                     | 0.59  | 0.68                 | 30.40  | 5.06    | 9.01                     | 3.38   | 2.12  | 0.86  | 0.56  | 0.38  |                |
| 3              | 0.04                                                            | 0.12                     | 0.44  | 0.62                 | 18.95  | 6.50    | 9.35                     | 3.11   | 1.94  | 0.86  | 0.56  | 0.38  |                |
| 4              | 0.04                                                            | 0.10                     | 0.53  | 0.62                 | 14.72  | 5.45    | 22.78                    | 2.75   | 1.94  | 0.80  | 0.53  | 0.35  |                |
| 5              | 0.02                                                            | 0.10                     | 1.94  | 4.22                 | 10.03  | 4.10    | 22.24                    | 2.39   | 1.85  | 0.80  | 0.50  | 0.35  |                |
| 6              | 0.02                                                            | 0.08                     | 0.92  | 4.70                 | 7.99   | 3.74    | 20.45                    | 2.39   | 1.85  | 0.77  | 0.50  | 0.35  |                |
| 7              | 0.02                                                            | 0.06                     | 0.68  | 5.30                 | 6.05   | 3.74    | 19.20                    | 2.12   | 1.67  | 0.77  | 0.50  | 0.38  |                |
| 8              | 0.00                                                            | 0.06                     | 0.68  | 4.70                 | 5.06   | 9.52    | 18.70                    | 3.47   | 1.67  | 0.77  | 0.47  | 0.35  |                |
| 9              | 0.00                                                            | 0.06                     | 0.53  | 4.58                 | 4.70   | 7.65    | 19.70                    | 70.51  | 1.58  | 0.74  | 0.47  | 0.32  |                |
| 10             | 0.00                                                            | 0.10                     | 0.47  | 5.18                 | 4.46   | 6.20    | 16.95                    | 29.47  | 1.58  | 0.74  | 0.47  | 0.32  |                |
| 11             | 0.00                                                            | 0.18                     | 0.59  | 6.50                 | 4.01   | 50.08   | 13.84                    | 18.45  | 1.49  | 0.74  | 0.44  | 0.29  |                |
| 12             | 0.00                                                            | 0.16                     | 0.53  | 7.14                 | 4.34   | 28.85   | 10.62                    | 13.18  | 1.40  | 0.71  | 0.44  | 0.29  |                |
| 13             | 0.00                                                            | 0.14                     | 1.94  | 4.22                 | 4.58   | 22.51   | 9.69                     | 10.20  | 1.40  | 0.71  | 0.44  | 0.29  |                |
| 14             | 0.00                                                            | 0.14                     | 2.21  | 3.11                 | 13.84  | 29.16   | 7.99                     | 9.52   | 1.34  | 0.68  | 0.44  | 0.26  |                |
| 15             | 0.00                                                            | 0.16                     | 1.22  | 2.30                 | 11.88  | 25.27   | 7.82                     | 8.33   | 1.34  | 0.68  | 0.44  | 0.26  |                |
| 16             | 0.02                                                            | 0.12                     | 0.92  | 2.57                 | 8.33   | 22.51   | 5.90                     | 7.31   | 1.34  | 0.65  | 0.53  | 0.32  |                |
| 17             | 0.00                                                            | 0.14                     | 0.77  | 1.85                 | 6.35   | 30.09   | 6.35                     | 6.80   | 1.28  | 0.65  | 1.49  | 0.35  |                |
| 18             | 0.00                                                            | 0.44                     | 0.86  | 1.49                 | 5.30   | 24.40   | 26.72                    | 5.75   | 1.22  | 0.65  | 0.74  | 0.35  |                |
| 19             | 0.00                                                            | 1.49                     | 0.92  | 1.22                 | 4.70   | 20.20   | 19.45                    | 4.22   | 1.16  | 0.65  | 0.65  | 0.62  |                |
| 20             | 0.10                                                            | 0.65                     | 0.92  | 1.22                 | 3.92   | 24.69   | 15.82                    | 3.83   | 1.10  | 0.62  | 0.59  | 0.71  |                |
| 21             | 0.08                                                            | 0.47                     | 1.16  | 1.04                 | 3.92   | 39.86   | 13.18                    | 3.74   | 1.10  | 0.62  | 0.53  | 0.71  |                |
| 22             | 0.04                                                            | 0.38                     | 1.85  | 0.92                 | 4.70   | 37.20   | 12.30                    | 3.65   | 1.10  | 0.62  | 0.50  | 0.74  |                |
| 23             | 0.38                                                            | 0.32                     | 1.94  | 0.86                 | 16.95  | 34.40   | 9.69                     | 3.38   | 1.04  | 0.62  | 0.50  | 0.65  |                |
| 24             | 0.26                                                            | 0.44                     | 2.30  | 1.67                 | 18.70  | 27.92   | 8.16                     | 3.29   | 1.04  | 0.62  | 0.47  | 0.65  |                |
| 25             | 0.18                                                            | 0.35                     | 2.12  | 4.01                 | 15.38  | 21.70   | 7.14                     | 3.29   | 1.04  | 0.62  | 0.47  | 0.98  |                |
| 26             | 0.20                                                            | 0.50                     | 1.67  | 3.74                 | 12.09  | 16.48   | 6.97                     | 3.11   | 1.04  | 0.62  | 0.44  | 0.77  |                |
| 27             | 0.32                                                            | 0.41                     | 1.28  | 2.84                 | 9.01   | 13.62   | 5.90                     | 2.93   | 0.98  | 0.62  | 0.44  | 0.65  |                |
| 28             | 0.20                                                            | 0.32                     | 1.04  | 4.58                 | 6.80   | 10.83   | 5.06                     | 2.75   | 0.98  | 0.62  | 0.41  | 0.59  |                |
| 29             | 0.16                                                            | 0.29                     | 0.92  | 44.20                | 5.45   | 9.52    | 4.70                     | 2.48   | 0.92  | 0.62  |       | 0.53  |                |
| 30             | 0.16                                                            | 0.29                     | 0.80  | 52.72                | 4.82   | 9.69    | 4.34                     | 2.48   | 0.92  | 0.62  |       | 0.47  |                |
| 31             |                                                                 | 0.53                     |       | 78.56                | 4.94   |         | 3.92                     |        | 0.92  | 0.59  |       | 0.44  |                |
| Total          | 2.32                                                            | 8.88                     | 33.21 | 258.10               | 332.11 | 555.04  | 372.44                   | 241.93 | 42.65 | 21.50 | 15.08 | 14.51 | 1897.77 CMSDAY |
| Mean           | 0.08                                                            | 0.29                     | 1.11  | 8.33                 | 10.71  | 18.50   | 12.01                    | 8.06   | 1.38  | 0.69  | 0.54  | 0.47  | 5.20 CMS       |
| Max            | 0.38                                                            | 1.49                     | 2.30  | 78.56                | 59.74  | 50.08   | 26.72                    | 70.51  | 2.30  | 0.86  | 1.49  | 0.98  | 78.56 CMS      |
| Min            | 0.00                                                            | 0.06                     | 0.44  | 0.62                 | 3.92   | 3.74    | 3.92                     | 2.12   | 0.92  | 0.59  | 0.41  | 0.26  | 0.00 CMS       |
| Runoff         | 0.20                                                            | 0.77                     | 2.87  | 22.30                | 28.69  | 47.96   | 32.18                    | 20.90  | 3.69  | 1.86  | 1.30  | 1.25  | 163.97 MCM     |
| Momentary Peak | 99.30 CMS. at 87.70 m. (MSL.) at 21.00 Hours , on Jul 30 , 2013 |                          |       |                      |        |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 10.04                                                           | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 191.699 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013**  
**MAE KLONG RIVER BASIN**

**Khwaie Yai River at Ban Nong Bua , Kanchanaburi (K.35A)**

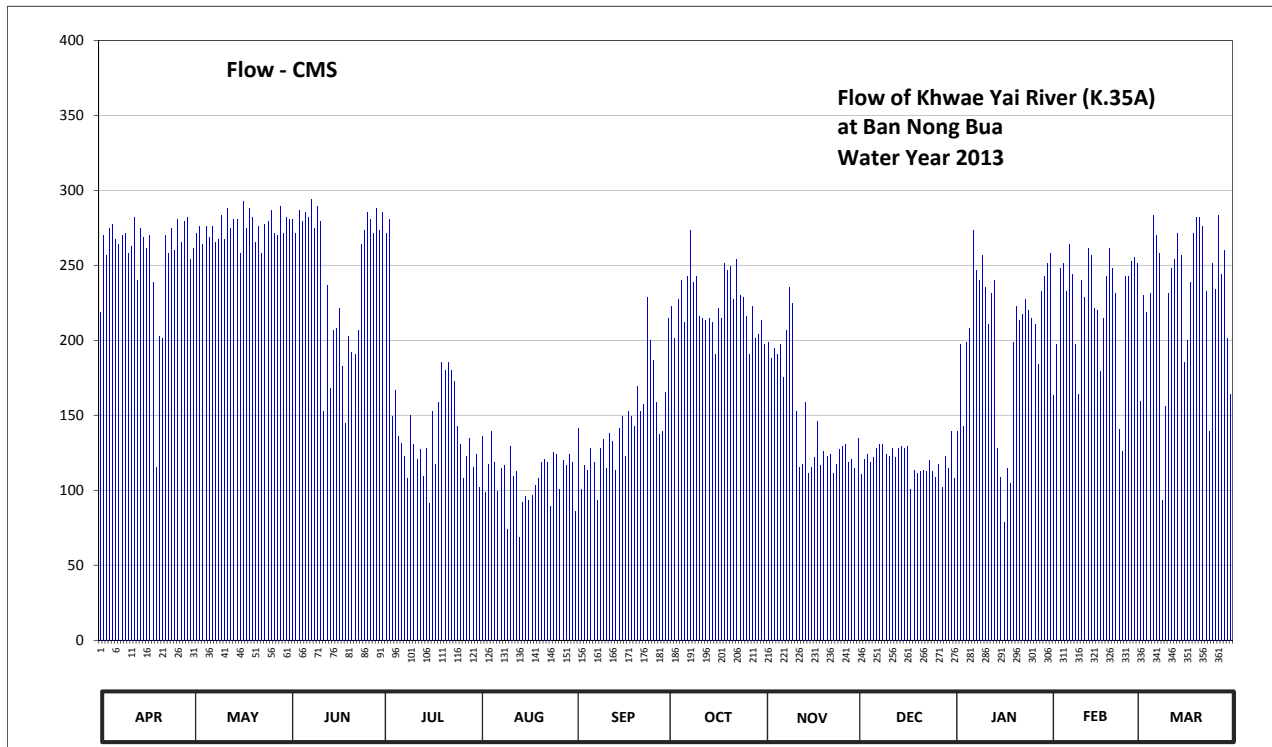
Lat 14 - 03 - 22 N      Long 99 - 27 - 32 E

**Location :** on left bank at Ban Nong Bua.

|                                         |                                                                            |           |               |        |                  |                   |
|-----------------------------------------|----------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                 | Nong Bua  | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 14,444                                                                     | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                     |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +21.498                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                  |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank about 3 meters from the third staff gage.                     |           |               |        | <b>Elevation</b> | +27.498 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                  |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                             |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1984 to date                                                               |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                            |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1984 - 1985 , 1987 to date                                                 |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                          |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1984 - 1985 , 1987 to date                                                 |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                    |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                          |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by Sri Nakarindra Dam.                        |           |               |        |                  |                   |
|                                         | Stage-discharge relation defined by 31 discharge measurements made in 2013 |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 25.58 | 25.88 | 26.01                                             | 26.04 | 24.58 | 24.40 | 25.55 | 25.42 | 24.90 | 24.64 | 25.86 | 25.81 |        |
| 2                                | 25.94 | 25.95 | 26.01                                             | 25.95 | 24.91 | 24.96 | 25.61 | 25.43 | 24.67 | 24.94 | 25.15 | 25.12 |        |
| 3                                | 25.85 | 25.98 | 25.95                                             | 26.01 | 24.54 | 24.56 | 25.45 | 25.35 | 24.77 | 25.42 | 25.42 | 25.66 |        |
| 4                                | 25.97 | 25.90 | 26.05                                             | 25.03 | 24.74 | 24.73 | 25.64 | 25.40 | 24.80 | 24.97 | 25.79 | 25.58 |        |
| 5                                | 25.99 | 25.98 | 26.00                                             | 25.18 | 24.94 | 24.70 | 25.73 | 25.37 | 24.75 | 25.43 | 25.81 | 25.67 |        |
| 6                                | 25.92 | 25.93 | 26.04                                             | 24.91 | 24.75 | 24.84 | 25.53 | 25.42 | 24.78 | 25.50 | 25.68 | 26.03 |        |
| 7                                | 25.90 | 25.98 | 26.02                                             | 24.87 | 24.55 | 24.75 | 25.75 | 25.25 | 24.84 | 25.96 | 25.90 | 25.94 |        |
| 8                                | 25.94 | 25.91 | 26.10                                             | 24.79 | 24.71 | 24.48 | 25.96 | 25.49 | 24.86 | 25.78 | 25.76 | 25.86 |        |
| 9                                | 25.95 | 25.92 | 25.97                                             | 24.64 | 24.73 | 24.84 | 25.72 | 25.70 | 24.86 | 25.73 | 25.42 | 24.48 |        |
| 10                               | 25.86 | 26.03 | 26.07                                             | 25.04 | 24.26 | 24.89 | 25.75 | 25.62 | 24.80 | 25.85 | 25.16 | 25.09 |        |
| 11                               | 25.89 | 25.92 | 26.00                                             | 24.86 | 24.85 | 24.71 | 25.56 | 25.06 | 24.79 | 25.70 | 25.73 | 25.67 |        |
| 12                               | 26.02 | 26.06 | 25.06                                             | 24.77 | 24.66 | 24.93 | 25.55 | 24.72 | 24.84 | 25.52 | 25.65 | 25.79 |        |
| 13                               | 25.73 | 25.97 | 25.71                                             | 24.83 | 24.69 | 24.88 | 25.54 | 24.74 | 24.78 | 25.67 | 25.88 | 25.83 |        |
| 14                               | 25.97 | 26.01 | 25.19                                             | 24.66 | 24.20 | 24.70 | 25.55 | 25.11 | 24.84 | 25.73 | 25.85 | 25.95 |        |
| 15                               | 25.93 | 26.01 | 25.49                                             | 24.84 | 24.47 | 24.96 | 25.53 | 24.68 | 24.85 | 24.84 | 25.60 | 25.85 |        |
| 16                               | 25.88 | 25.86 | 25.50                                             | 24.46 | 24.51 | 25.03 | 25.37 | 24.72 | 24.84 | 24.65 | 25.59 | 25.33 |        |
| 17                               | 25.94 | 26.09 | 25.60                                             | 25.06 | 24.48 | 24.79 | 25.60 | 24.78 | 24.85 | 24.32 | 25.28 | 25.44 |        |
| 18                               | 25.72 | 25.97 | 25.31                                             | 24.74 | 24.52 | 25.06 | 25.55 | 25.00 | 24.56 | 24.71 | 25.55 | 25.72 |        |
| 19                               | 24.72 | 26.06 | 24.99                                             | 25.11 | 24.59 | 25.03 | 25.81 | 24.73 | 24.70 | 24.61 | 25.75 | 25.95 |        |
| 20                               | 25.46 | 26.02 | 25.46                                             | 25.33 | 24.64 | 24.97 | 25.78 | 24.82 | 24.68 | 25.43 | 25.88 | 26.02 |        |
| 21                               | 25.45 | 25.91 | 25.38                                             | 25.29 | 24.75 | 25.20 | 25.80 | 24.79 | 24.69 | 25.61 | 25.79 | 26.02 |        |
| 22                               | 25.94 | 25.98 | 25.37                                             | 25.33 | 24.77 | 25.06 | 25.64 | 24.80 | 24.70 | 25.54 | 25.67 | 25.98 |        |
| 23                               | 25.86 | 25.86 | 25.49                                             | 25.29 | 24.75 | 25.10 | 25.83 | 24.68 | 24.69 | 25.57 | 24.95 | 25.68 |        |
| 24                               | 25.97 | 25.99 | 25.90                                             | 25.23 | 24.44 | 25.65 | 25.66 | 24.74 | 24.76 | 25.64 | 24.82 | 24.94 |        |
| 25                               | 25.87 | 26.00 | 25.96                                             | 24.97 | 24.81 | 25.44 | 25.65 | 24.83 | 24.69 | 25.59 | 25.75 | 25.81 |        |
| 26                               | 26.01 | 26.05 | 26.04                                             | 24.86 | 24.80 | 25.34 | 25.56 | 24.85 | 24.65 | 25.55 | 25.75 | 25.69 |        |
| 27                               | 25.91 | 25.95 | 26.01                                             | 24.64 | 24.56 | 25.11 | 25.37 | 24.86 | 24.74 | 25.52 | 25.82 | 26.03 |        |
| 28                               | 26.00 | 25.94 | 25.95                                             | 24.79 | 24.76 | 24.92 | 25.61 | 24.75 | 24.58 | 25.32 | 25.84 | 25.76 |        |
| 29                               | 26.02 | 26.07 | 26.06                                             | 24.90 | 24.73 | 24.94 | 25.45 | 24.77 | 24.79 | 25.68 |       | 25.87 |        |
| 30                               | 25.83 | 25.95 | 25.96                                             | 24.72 | 24.80 | 25.17 | 25.47 | 24.71 | 24.71 | 25.75 |       | 25.45 |        |
| 31                               |       | 26.02 |                                                   | 24.80 | 24.75 |       | 25.54 |       | 24.94 | 25.81 |       | 25.16 |        |
| Mean                             | 25.83 | 25.97 | 25.76                                             | 25.03 | 24.65 | 24.94 | 25.62 | 25.02 | 24.76 | 25.39 | 25.61 | 25.65 |        |
| Max                              | 26.02 | 26.09 | 26.10                                             | 26.04 | 24.94 | 25.65 | 25.96 | 25.70 | 24.94 | 25.96 | 25.90 | 26.03 | 26.10  |
| Min                              | 24.72 | 25.86 | 24.99                                             | 24.46 | 24.20 | 24.40 | 25.37 | 24.68 | 24.56 | 24.32 | 24.82 | 24.48 | 24.20  |
| Annual Max Momentary Gage Height | 26.46 |       | m. (MSL.) , at 23.00 Hours , on Oct 23 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 21.50 |       | m. (MSL.) , River Bed 22.53 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 26.96 |       | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 26.71 |       | m. (MSL.) , Drainage Area 14444 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 218.80                                                           | 261.10                   | 280.50  | 285.00               | 102.20  | 86.00   | 214.75                   | 197.20  | 135.00  | 107.80  | 258.20  | 250.95  |          |        |
| 2              | 270.00                                                           | 271.50                   | 280.50  | 271.50               | 136.10  | 141.60  | 222.90                   | 198.55  | 110.65  | 139.40  | 163.00  | 159.40  |          |        |
| 3              | 256.75                                                           | 276.00                   | 271.50  | 280.50               | 98.60   | 100.40  | 201.25                   | 188.00  | 120.85  | 197.20  | 197.20  | 229.90  |          |        |
| 4              | 274.50                                                           | 264.00                   | 286.50  | 149.30               | 117.70  | 116.65  | 227.10                   | 194.50  | 124.00  | 142.70  | 248.10  | 218.80  |          |        |
| 5              | 277.50                                                           | 276.00                   | 279.00  | 166.60               | 139.40  | 113.50  | 239.70                   | 190.60  | 118.75  | 198.55  | 250.95  | 231.30  |          |        |
| 6              | 267.00                                                           | 268.50                   | 285.00  | 136.10               | 118.75  | 128.40  | 212.05                   | 197.20  | 121.90  | 208.00  | 232.70  | 283.50  |          |        |
| 7              | 264.00                                                           | 276.00                   | 282.00  | 131.70               | 99.50   | 118.75  | 242.50                   | 175.25  | 128.40  | 273.00  | 264.00  | 270.00  |          |        |
| 8              | 270.00                                                           | 265.50                   | 294.00  | 122.95               | 114.55  | 93.20   | 273.00                   | 206.65  | 130.60  | 246.70  | 243.90  | 258.20  |          |        |
| 9              | 271.50                                                           | 267.00                   | 274.50  | 107.80               | 116.65  | 128.40  | 238.30                   | 235.50  | 130.60  | 239.70  | 197.20  | 93.20   |          |        |
| 10             | 258.20                                                           | 283.50                   | 289.50  | 150.40               | 73.80   | 133.90  | 242.50                   | 224.30  | 124.00  | 256.75  | 164.20  | 155.90  |          |        |
| 11             | 262.55                                                           | 267.00                   | 279.00  | 130.60               | 129.50  | 114.55  | 216.10                   | 152.60  | 122.95  | 235.50  | 239.70  | 231.30  |          |        |
| 12             | 282.00                                                           | 288.00                   | 152.60  | 120.85               | 109.70  | 138.30  | 214.75                   | 115.60  | 128.40  | 210.70  | 228.50  | 248.10  |          |        |
| 13             | 239.70                                                           | 274.50                   | 236.90  | 127.30               | 112.55  | 132.80  | 213.40                   | 117.70  | 121.90  | 231.30  | 261.10  | 253.85  |          |        |
| 14             | 274.50                                                           | 280.50                   | 167.80  | 109.70               | 69.00   | 113.50  | 214.75                   | 158.20  | 128.40  | 239.70  | 256.75  | 271.50  |          |        |
| 15             | 268.50                                                           | 280.50                   | 206.65  | 128.40               | 92.30   | 141.60  | 212.05                   | 111.60  | 129.50  | 128.40  | 221.50  | 256.75  |          |        |
| 16             | 261.10                                                           | 258.20                   | 208.00  | 91.40                | 95.90   | 149.30  | 190.60                   | 115.60  | 128.40  | 108.75  | 220.15  | 185.40  |          |        |
| 17             | 270.00                                                           | 292.50                   | 221.50  | 152.60               | 93.20   | 122.95  | 221.50                   | 121.90  | 129.50  | 78.80   | 179.00  | 199.90  |          |        |
| 18             | 238.30                                                           | 274.50                   | 182.80  | 117.70               | 96.80   | 152.60  | 214.75                   | 146.00  | 100.40  | 114.55  | 214.75  | 238.30  |          |        |
| 19             | 115.60                                                           | 288.00                   | 144.90  | 158.20               | 103.10  | 149.30  | 250.95                   | 116.65  | 113.50  | 104.95  | 242.50  | 271.50  |          |        |
| 20             | 202.60                                                           | 282.00                   | 202.60  | 185.40               | 107.80  | 142.70  | 246.70                   | 126.20  | 111.60  | 198.55  | 261.10  | 282.00  |          |        |
| 21             | 201.25                                                           | 265.50                   | 191.90  | 180.25               | 118.75  | 169.00  | 249.50                   | 122.95  | 112.55  | 222.90  | 248.10  | 282.00  |          |        |
| 22             | 270.00                                                           | 276.00                   | 190.60  | 185.40               | 120.85  | 152.60  | 227.10                   | 124.00  | 113.50  | 213.40  | 231.30  | 276.00  |          |        |
| 23             | 258.20                                                           | 258.20                   | 206.65  | 180.25               | 118.75  | 157.00  | 253.85                   | 111.60  | 112.55  | 217.45  | 140.50  | 232.70  |          |        |
| 24             | 274.50                                                           | 277.50                   | 264.00  | 172.75               | 89.60   | 228.50  | 229.90                   | 117.70  | 119.80  | 227.10  | 126.20  | 139.40  |          |        |
| 25             | 259.65                                                           | 279.00                   | 273.00  | 142.70               | 125.10  | 199.90  | 228.50                   | 127.30  | 112.55  | 220.15  | 242.50  | 250.95  |          |        |
| 26             | 280.50                                                           | 286.50                   | 285.00  | 130.60               | 124.00  | 186.70  | 216.10                   | 129.50  | 108.75  | 214.75  | 242.50  | 234.10  |          |        |
| 27             | 265.50                                                           | 271.50                   | 280.50  | 107.80               | 100.40  | 158.20  | 190.60                   | 130.60  | 117.70  | 210.70  | 252.40  | 283.50  |          |        |
| 28             | 279.00                                                           | 270.00                   | 271.50  | 122.95               | 119.80  | 137.20  | 222.90                   | 118.75  | 102.20  | 184.10  | 255.30  | 243.90  |          |        |
| 29             | 282.00                                                           | 289.50                   | 288.00  | 135.00               | 116.65  | 139.40  | 201.25                   | 120.85  | 122.95  | 232.70  |         | 259.65  |          |        |
| 30             | 253.85                                                           | 271.50                   | 273.00  | 115.60               | 124.00  | 165.40  | 203.95                   | 114.55  | 114.55  | 242.50  |         | 201.25  |          |        |
| 31             |                                                                  | 282                      |         | 124.00               | 118.75  |         | 213.40                   |         | 139.40  | 250.95  |         | 164.20  |          |        |
| Total          | 7667.55                                                          | 8522.00                  | 7349.90 | 4721.30              | 3403.75 | 4212.30 | 6946.65                  | 4507.60 | 3735.80 | 6097.70 | 6283.30 | 7157.40 | 70605.26 | CMSDAY |
| Mean           | 255.59                                                           | 274.90                   | 245.00  | 152.30               | 109.80  | 140.41  | 224.09                   | 150.25  | 120.51  | 196.70  | 224.40  | 230.88  | 193.44   | CMS    |
| Max            | 282.00                                                           | 292.50                   | 294.00  | 285.00               | 139.40  | 228.50  | 273.00                   | 235.50  | 139.40  | 273.00  | 264.00  | 283.50  | 294.00   | CMS    |
| Min            | 115.60                                                           | 258.20                   | 144.90  | 91.40                | 69.00   | 86.00   | 190.60                   | 111.60  | 100.40  | 78.80   | 126.20  | 93.20   | 69.00    | CMS    |
| Runoff         | 662.48                                                           | 736.30                   | 635.03  | 407.92               | 294.08  | 363.94  | 600.19                   | 389.46  | 322.77  | 526.84  | 542.88  | 618.40  | 6100.29  | MCM    |
| Momentary Peak | 350.60 CMS. at 26.46 m. (MSL.) at 23.00 Hours , on Oct 23 , 2013 |                          |         |                      |         |         |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 13.39                                                            | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 24.272  | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013**

## MAE KLONG RIVER BASIN

### Khwaee Noi River at Ban Wang Yen , Kanchanaburi (K.37)

Lat 13 - 55 - 54 N      Long 99 - 25 - 38 E

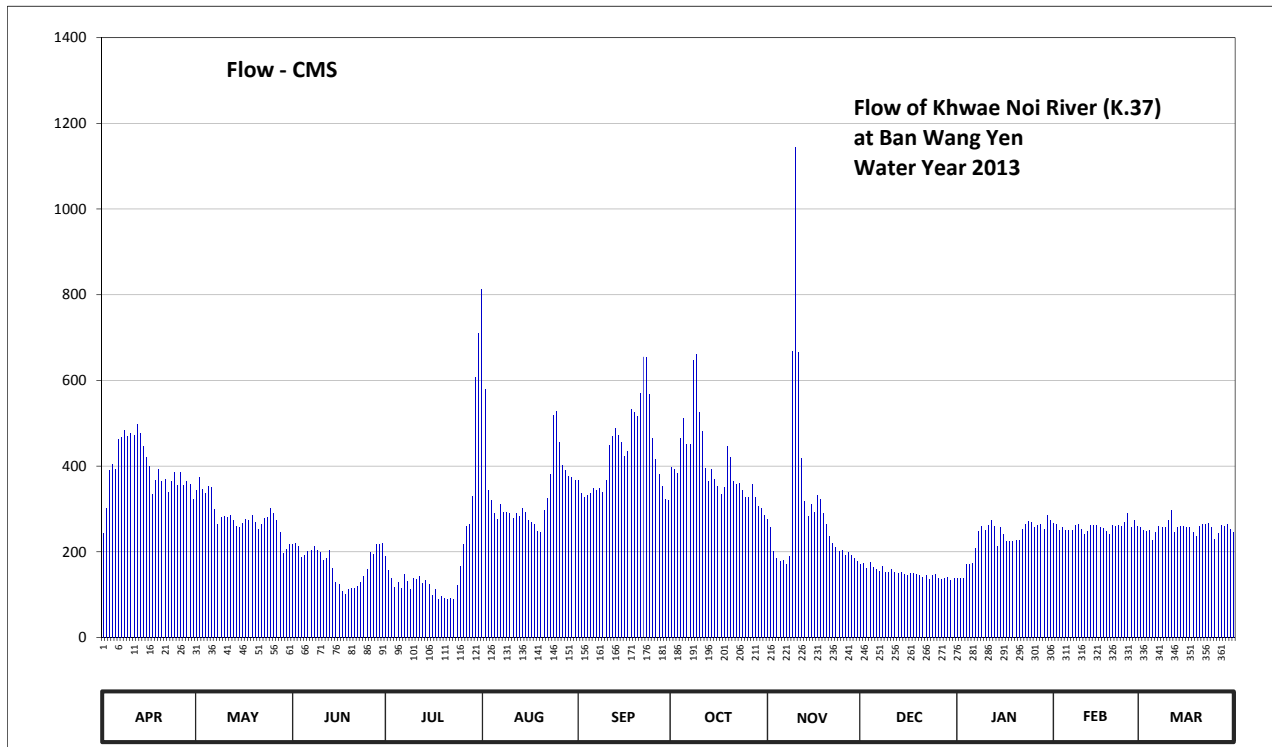
**Location : on left bank at Ban Wang Yen**

|                                         |                                                                            |           |               |        |                  |                   |
|-----------------------------------------|----------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                 | Wang Yen  | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 10,557                                                                     | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                     |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +19.840                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                  |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank about 5 meters from the automatic gage building.              |           |               |        | <b>Elevation</b> | +33.266 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                  |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                             |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1984 to date                                                               |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                            |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1984 to date                                                               |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                          |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1984 to date                                                               |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                    |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                          |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by Khao Laem Dam.                             |           |               |        |                  |                   |
|                                         | Stage-discharge relation defined by 35 discharge measurements made in 2013 |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                               | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 24.27 | 24.82 | 24.13                                             | 23.95 | 26.89 | 24.94 | 25.09 | 24.46 | 23.83 | 23.58 | 24.41 | 24.36 |        |
|                                  | 2  | 24.60 | 24.97 | 24.14                                             | 23.72 | 25.94 | 24.79 | 25.07 | 24.35 | 23.84 | 23.58 | 24.39 | 24.31 |        |
|                                  | 3  | 25.05 | 24.83 | 24.09                                             | 23.58 | 24.82 | 24.74 | 25.02 | 24.02 | 23.76 | 23.58 | 24.31 | 24.30 |        |
|                                  | 4  | 25.12 | 24.79 | 23.94                                             | 23.43 | 24.71 | 24.76 | 25.42 | 23.91 | 23.85 | 23.82 | 24.36 | 24.32 |        |
|                                  | 5  | 25.07 | 24.87 | 23.96                                             | 23.51 | 24.53 | 24.78 | 25.64 | 23.87 | 23.78 | 23.83 | 24.31 | 24.19 |        |
|                                  | 6  | 25.41 | 24.86 | 24.02                                             | 23.41 | 24.46 | 24.84 | 25.35 | 23.89 | 23.73 | 23.84 | 24.31 | 24.29 |        |
|                                  | 7  | 25.43 | 24.59 | 24.04                                             | 23.65 | 24.65 | 24.82 | 25.36 | 23.82 | 23.71 | 24.07 | 24.31 | 24.37 |        |
|                                  | 8  | 25.51 | 24.40 | 24.09                                             | 23.53 | 24.55 | 24.84 | 26.23 | 23.95 | 23.79 | 24.30 | 24.38 | 24.35 |        |
|                                  | 9  | 25.44 | 24.49 | 24.04                                             | 23.39 | 24.55 | 24.80 | 26.29 | 26.32 | 23.69 | 24.37 | 24.39 | 24.36 |        |
|                                  | 10 | 25.48 | 24.50 | 24.01                                             | 23.59 | 24.53 | 24.94 | 25.71 | 28.02 | 23.69 | 24.32 | 24.33 | 24.44 |        |
|                                  | 11 | 25.45 | 24.49 | 23.88                                             | 23.57 | 24.47 | 25.34 | 25.50 | 26.31 | 23.74 | 24.38 | 24.26 | 24.57 |        |
|                                  | 12 | 25.58 | 24.51 | 23.91                                             | 23.62 | 24.53 | 25.44 | 25.08 | 25.19 | 23.69 | 24.45 | 24.30 | 24.29 |        |
|                                  | 13 | 25.48 | 24.44 | 24.04                                             | 23.50 | 24.50 | 25.53 | 24.92 | 24.69 | 23.68 | 24.37 | 24.38 | 24.36 |        |
|                                  | 14 | 25.33 | 24.37 | 23.76                                             | 23.55 | 24.60 | 25.45 | 25.06 | 24.50 | 23.69 | 24.10 | 24.38 | 24.37 |        |
|                                  | 15 | 25.21 | 24.35 | 23.52                                             | 23.48 | 24.55 | 25.38 | 24.95 | 24.65 | 23.66 | 24.36 | 24.38 | 24.37 |        |
|                                  | 16 | 25.10 | 24.41 | 23.49                                             | 23.29 | 24.45 | 25.22 | 24.87 | 24.55 | 23.64 | 24.26 | 24.35 | 24.36 |        |
|                                  | 17 | 24.77 | 24.46 | 23.37                                             | 23.40 | 24.42 | 25.28 | 24.77 | 24.76 | 23.67 | 24.17 | 24.34 | 24.36 |        |
|                                  | 18 | 24.94 | 24.44 | 23.31                                             | 23.21 | 24.40 | 25.74 | 24.86 | 24.72 | 23.68 | 24.17 | 24.30 | 24.29 |        |
|                                  | 19 | 25.06 | 24.51 | 23.39                                             | 23.28 | 24.30 | 25.71 | 25.33 | 24.54 | 23.65 | 24.17 | 24.26 | 24.24 |        |
|                                  | 20 | 24.92 | 24.42 | 23.42                                             | 23.24 | 24.29 | 25.66 | 25.20 | 24.39 | 23.63 | 24.18 | 24.38 | 24.37 |        |
|                                  | 21 | 24.95 | 24.33 | 23.42                                             | 23.22 | 24.58 | 25.90 | 24.92 | 24.24 | 23.61 | 24.18 | 24.37 | 24.39 |        |
|                                  | 22 | 24.80 | 24.39 | 23.44                                             | 23.24 | 24.73 | 26.27 | 24.89 | 24.14 | 23.63 | 24.33 | 24.38 | 24.39 |        |
|                                  | 23 | 24.93 | 24.47 | 23.51                                             | 23.21 | 25.01 | 26.26 | 24.90 | 24.08 | 23.57 | 24.40 | 24.37 | 24.41 |        |
|                                  | 24 | 25.03 | 24.48 | 23.62                                             | 23.47 | 25.67 | 25.89 | 24.82 | 24.03 | 23.63 | 24.43 | 24.42 | 24.36 |        |
|                                  | 25 | 24.88 | 24.60 | 23.73                                             | 23.79 | 25.72 | 25.42 | 24.74 | 24.04 | 23.65 | 24.42 | 24.53 | 24.20 |        |
|                                  | 26 | 25.03 | 24.54 | 24.01                                             | 24.12 | 25.38 | 25.18 | 24.74 | 23.97 | 23.58 | 24.35 | 24.35 | 24.28 |        |
|                                  | 27 | 24.88 | 24.45 | 23.98                                             | 24.37 | 25.11 | 25.01 | 24.89 | 24.01 | 23.56 | 24.38 | 24.45 | 24.38 |        |
|                                  | 28 | 24.93 | 24.29 | 24.13                                             | 24.40 | 25.05 | 24.87 | 24.74 | 23.97 | 23.58 | 24.39 | 24.37 | 24.37 |        |
|                                  | 29 | 24.89 | 23.99 | 24.13                                             | 24.75 | 24.99 | 24.72 | 24.63 | 23.92 | 23.60 | 24.33 |       | 24.39 |        |
|                                  | 30 | 24.72 | 24.05 | 24.14                                             | 26.06 | 24.97 | 24.71 | 24.60 | 23.87 | 23.55 | 24.51 |       | 24.33 |        |
|                                  | 31 |       | 24.13 |                                                   | 26.50 | 24.94 |       | 24.51 |       | 23.59 | 24.45 |       | 24.29 |        |
| Mean                             |    | 25.08 | 24.49 | 23.82                                             | 23.78 | 24.85 | 25.24 | 25.10 | 24.51 | 23.68 | 24.20 | 24.36 | 24.34 |        |
| Max                              |    | 25.58 | 24.97 | 24.14                                             | 26.50 | 26.89 | 26.27 | 26.29 | 28.02 | 23.85 | 24.51 | 24.53 | 24.57 | 28.02  |
| Min                              |    | 24.27 | 23.99 | 23.31                                             | 23.21 | 24.29 | 24.71 | 24.51 | 23.82 | 23.55 | 23.58 | 24.26 | 24.19 | 23.21  |
| Annual Max Momentary Gage Height |    |       | 28.39 | m. (MSL.) , at 10.00 Hours , on Nov 10 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 19.84 | m. (MSL.) , River Bed 19.92 m. (MSL.)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 32.77 | m. (MSL.) ,                                       |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 32.63 | m. (MSL.) , Drainage Area 10557 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                               | May                      | Jun     | Jul     | Aug      | Sep                  | Oct      | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual    |        |
|----------------|-------------------------------------------------------------------|--------------------------|---------|---------|----------|----------------------|----------|---------|--------------------------|---------|---------|---------|-----------|--------|
| 1              | 242.60                                                            | 344.00                   | 218.80  | 190.50  | 813.30   | 368.00               | 398.00   | 276.80  | 172.50                   | 138.08  | 267.80  | 258.80  |           |        |
| 2              | 302.00                                                            | 374.00                   | 220.40  | 157.12  | 579.20   | 338.00               | 394.00   | 257.00  | 174.00                   | 138.08  | 264.20  | 249.80  |           |        |
| 3              | 390.00                                                            | 346.00                   | 212.40  | 138.08  | 344.00   | 328.00               | 384.00   | 201.20  | 162.56                   | 138.08  | 249.80  | 248.00  |           |        |
| 4              | 404.00                                                            | 338.00                   | 189.00  | 117.68  | 322.00   | 332.00               | 465.20   | 184.50  | 175.50                   | 171.00  | 258.80  | 251.60  |           |        |
| 5              | 394.00                                                            | 354.00                   | 192.00  | 128.56  | 289.40   | 336.00               | 511.80   | 178.50  | 165.28                   | 172.50  | 249.80  | 228.40  |           |        |
| 6              | 463.10                                                            | 352.00                   | 201.20  | 114.96  | 276.80   | 348.00               | 450.50   | 181.50  | 158.48                   | 174.00  | 249.80  | 246.20  |           |        |
| 7              | 467.30                                                            | 300.20                   | 204.40  | 147.60  | 311.00   | 344.00               | 452.60   | 171.00  | 155.76                   | 209.20  | 249.80  | 260.60  |           |        |
| 8              | 484.10                                                            | 266.00                   | 212.40  | 131.28  | 293.00   | 348.00               | 645.90   | 190.50  | 166.64                   | 248.00  | 262.40  | 257.00  |           |        |
| 9              | 469.40                                                            | 282.20                   | 204.40  | 112.24  | 293.00   | 340.00               | 659.70   | 666.80  | 153.04                   | 260.60  | 264.20  | 258.80  |           |        |
| 10             | 477.80                                                            | 284.00                   | 199.60  | 139.44  | 289.40   | 368.00               | 527.20   | 1143.40 | 153.04                   | 251.60  | 253.40  | 273.20  |           |        |
| 11             | 471.50                                                            | 282.20                   | 180.00  | 136.72  | 278.60   | 448.40               | 482.00   | 664.40  | 159.84                   | 262.40  | 240.80  | 296.60  |           |        |
| 12             | 498.80                                                            | 285.80                   | 184.50  | 143.52  | 289.40   | 469.40               | 396.00   | 418.00  | 153.04                   | 275.00  | 248.00  | 246.20  |           |        |
| 13             | 477.80                                                            | 273.20                   | 204.40  | 127.20  | 284.00   | 488.30               | 364.00   | 318.20  | 151.68                   | 260.60  | 262.40  | 258.80  |           |        |
| 14             | 446.30                                                            | 260.60                   | 162.56  | 134.00  | 302.00   | 471.50               | 392.00   | 284.00  | 153.04                   | 214.00  | 262.40  | 260.60  |           |        |
| 15             | 422.00                                                            | 257.00                   | 129.92  | 124.48  | 293.00   | 456.80               | 370.00   | 311.00  | 148.96                   | 258.80  | 262.40  | 260.60  |           |        |
| 16             | 400.00                                                            | 267.80                   | 125.84  | 98.80   | 275.00   | 424.00               | 354.00   | 293.00  | 146.24                   | 240.80  | 257.00  | 258.80  |           |        |
| 17             | 334.00                                                            | 276.80                   | 109.52  | 113.60  | 269.60   | 436.00               | 334.00   | 332.00  | 150.32                   | 225.20  | 255.20  | 258.80  |           |        |
| 18             | 368.00                                                            | 273.20                   | 101.36  | 89.20   | 266.00   | 533.80               | 352.00   | 324.00  | 151.68                   | 225.20  | 248.00  | 246.20  |           |        |
| 19             | 392.00                                                            | 285.80                   | 112.24  | 97.60   | 248.00   | 527.20               | 446.30   | 291.20  | 147.60                   | 225.20  | 240.80  | 237.20  |           |        |
| 20             | 364.00                                                            | 269.60                   | 116.32  | 92.80   | 246.20   | 516.20               | 420.00   | 264.20  | 144.88                   | 226.80  | 262.40  | 260.60  |           |        |
| 21             | 370.00                                                            | 253.40                   | 116.32  | 90.40   | 298.40   | 570.00               | 364.00   | 237.20  | 142.16                   | 226.80  | 260.60  | 264.20  |           |        |
| 22             | 340.00                                                            | 264.20                   | 119.04  | 92.80   | 326.00   | 655.10               | 358.00   | 220.40  | 144.88                   | 253.40  | 262.40  | 264.20  |           |        |
| 23             | 366.00                                                            | 278.60                   | 128.56  | 89.20   | 382.00   | 652.80               | 360.00   | 210.80  | 136.72                   | 266.00  | 260.60  | 267.80  |           |        |
| 24             | 386.00                                                            | 280.40                   | 143.52  | 123.12  | 518.40   | 567.70               | 344.00   | 202.80  | 144.88                   | 271.40  | 269.60  | 258.80  |           |        |
| 25             | 356.00                                                            | 302.00                   | 158.48  | 166.64  | 529.40   | 465.20               | 328.00   | 204.40  | 147.60                   | 269.60  | 289.40  | 230.00  |           |        |
| 26             | 386.00                                                            | 291.20                   | 199.60  | 217.20  | 456.80   | 416.00               | 328.00   | 193.50  | 138.08                   | 257.00  | 257.00  | 244.40  |           |        |
| 27             | 356.00                                                            | 275.00                   | 195.00  | 260.60  | 402.00   | 382.00               | 358.00   | 199.60  | 135.36                   | 262.40  | 275.00  | 262.40  |           |        |
| 28             | 366.00                                                            | 246.20                   | 218.80  | 266.00  | 390.00   | 354.00               | 328.00   | 193.50  | 138.08                   | 264.20  | 260.60  | 260.60  |           |        |
| 29             | 358.00                                                            | 196.50                   | 218.80  | 330.00  | 378.00   | 324.00               | 307.40   | 186.00  | 140.80                   | 253.40  |         | 264.20  |           |        |
| 30             | 324.00                                                            | 206.00                   | 220.40  | 606.80  | 374.00   | 322.00               | 302.00   | 178.50  | 134.00                   | 285.80  |         | 253.40  |           |        |
| 31             |                                                                   | 218.80                   |         | 710.00  | 368.00   |                      | 285.80   |         | 139.44                   | 275.00  |         | 246.20  |           |        |
| Total          | 11876.70                                                          | 8784.70                  | 5199.78 | 5488.14 | 10985.90 | 12930.40             | 12462.40 | 8977.90 | 4686.08                  | 7200.14 | 7244.60 | 7933.00 | 103769.74 | CMSDAY |
| Mean           | 395.89                                                            | 283.38                   | 173.33  | 177.04  | 354.38   | 431.01               | 402.01   | 299.26  | 151.16                   | 232.26  | 258.74  | 255.90  | 284.30    | CMS    |
| Max            | 498.80                                                            | 374.00                   | 220.40  | 710.00  | 813.30   | 655.10               | 659.70   | 1143.40 | 175.50                   | 285.80  | 289.40  | 296.60  | 1143.40   | CMS    |
| Min            | 242.60                                                            | 196.50                   | 101.36  | 89.20   | 246.20   | 322.00               | 285.80   | 171.00  | 134.00                   | 138.08  | 240.80  | 228.40  | 89.20     | CMS    |
| Runoff         | 1026.15                                                           | 759.00                   | 449.26  | 474.18  | 949.18   | 1117.19              | 1076.75  | 775.69  | 404.88                   | 622.09  | 625.93  | 685.41  | 8965.71   | MCM    |
| Momentary Peak | 1264.70 CMS. at 28.39 m. (MSL.) at 10.00 Hours , on Nov 10 , 2013 |                          |         |         |          |                      |          |         |                          |         |         |         |           |        |
| Runoff Yield   | 26.93                                                             | Liters/Second/Square KM. |         |         |          | Momentary Peak Yield |          | 119.797 | Liters/Second/Square KM. |         |         |         |           |        |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Lin Thin at Ban Nong Bang , Kanchanaburi (K.38A)**

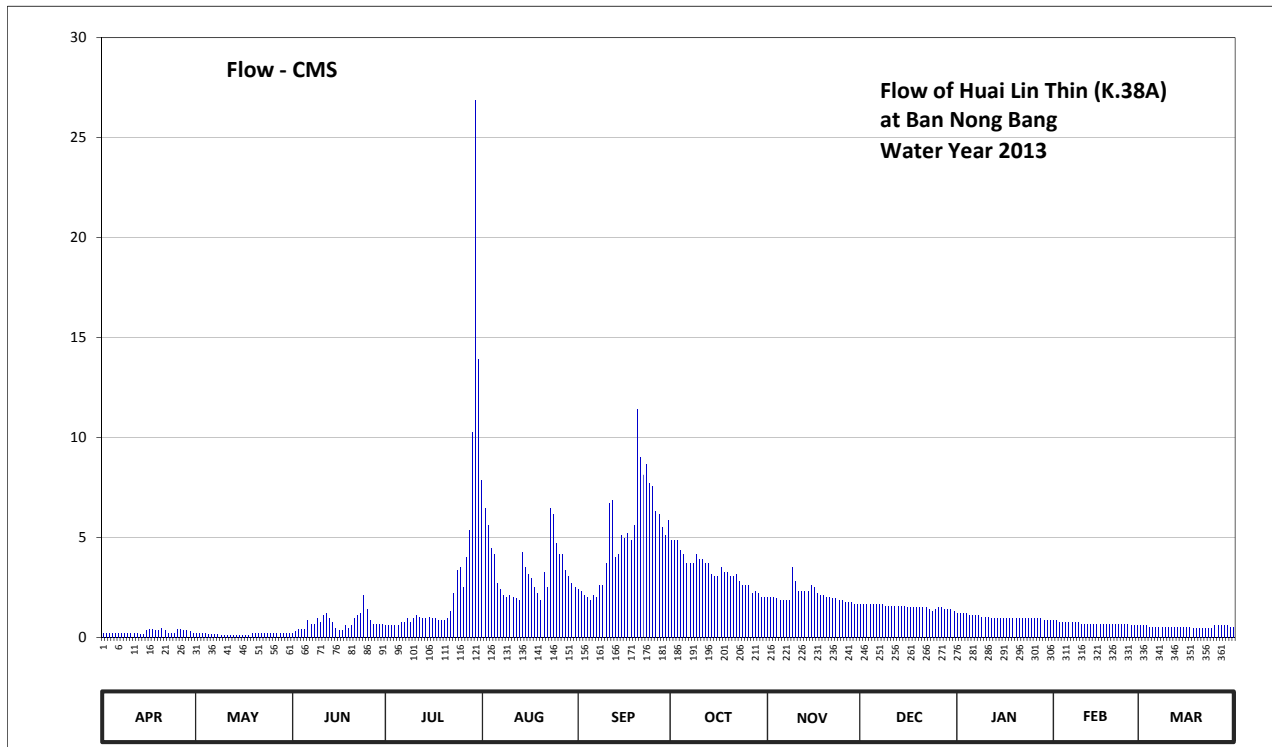
Lat 14 - 34 - 28 N Long 98 - 49 - 07 E

**Location : on left bank at KM. 95+700 on Kanchanaburi - Thong Pha Phum Highway.**

|                                         |                                                                                          |                  |               |                       |                  |                     |
|-----------------------------------------|------------------------------------------------------------------------------------------|------------------|---------------|-----------------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                               | <b>Nong Bang</b> | <b>Amphoe</b> | <b>Thong Pha Phum</b> | <b>Changwat</b>  | <b>Kanchanaburi</b> |
| <b>Drainage Area</b>                    | 122                                                                                      | sq.km.           |               |                       |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                               |                  |               |                       |                  |                     |
| <b>Zero Gage at Bottom</b>              | +90.019                                                                                  | m. (MSL.)        |               |                       |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |                  |               |                       |                  |                     |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                              |                  |               |                       | <b>Elevation</b> | +95.463 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                  |               |                       |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |                  |               |                       |                  |                     |
| <b>Period of Available Gage Records</b> | 2001 to date                                                                             |                  |               |                       |                  |                     |
| <b>Rating Operation</b>                 |                                                                                          |                  |               |                       |                  |                     |
| <b>Period of Rating</b>                 | 2001 to date                                                                             |                  |               |                       |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                        |                  |               |                       |                  |                     |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                             |                  |               |                       |                  |                     |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |                  |               |                       |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                  |               |                       |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 34 discharge measurements made in 2013 |                  |               |                       |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 90.54 | 90.54 | 90.54       | 90.60 | 91.24                             | 90.80 | 91.02             | 90.76 | 90.72 | 90.67 | 90.63 | 90.60 |        |
| 2                                | 90.54 | 90.54 | 90.55       | 90.60 | 91.14                             | 90.79 | 91.02             | 90.76 | 90.72 | 90.67 | 90.63 | 90.60 |        |
| 3                                | 90.54 | 90.54 | 90.57       | 90.60 | 91.08                             | 90.77 | 91.02             | 90.76 | 90.72 | 90.67 | 90.62 | 90.60 |        |
| 4                                | 90.54 | 90.54 | 90.57       | 90.60 | 90.99                             | 90.76 | 90.98             | 90.75 | 90.72 | 90.67 | 90.62 | 90.59 |        |
| 5                                | 90.54 | 90.53 | 90.57       | 90.60 | 90.96                             | 90.74 | 90.96             | 90.74 | 90.72 | 90.66 | 90.62 | 90.59 |        |
| 6                                | 90.54 | 90.53 | 90.63       | 90.62 | 90.83                             | 90.77 | 90.92             | 90.74 | 90.72 | 90.66 | 90.62 | 90.59 |        |
| 7                                | 90.54 | 90.53 | 90.61       | 90.62 | 90.80                             | 90.76 | 90.92             | 90.74 | 90.72 | 90.66 | 90.62 | 90.59 |        |
| 8                                | 90.54 | 90.53 | 90.61       | 90.64 | 90.77                             | 90.82 | 90.92             | 90.74 | 90.72 | 90.66 | 90.62 | 90.59 |        |
| 9                                | 90.54 | 90.52 | 90.64       | 90.62 | 90.76                             | 90.82 | 90.96             | 90.90 | 90.71 | 90.65 | 90.62 | 90.59 |        |
| 10                               | 90.54 | 90.52 | 90.62       | 90.64 | 90.77                             | 90.92 | 90.94             | 90.84 | 90.71 | 90.65 | 90.61 | 90.59 |        |
| 11                               | 90.54 | 90.52 | 90.66       | 90.66 | 90.76                             | 91.16 | 90.94             | 90.79 | 90.71 | 90.65 | 90.61 | 90.59 |        |
| 12                               | 90.54 | 90.52 | 90.67       | 90.65 | 90.75                             | 91.17 | 90.92             | 90.79 | 90.71 | 90.64 | 90.61 | 90.59 |        |
| 13                               | 90.53 | 90.52 | 90.64       | 90.64 | 90.74                             | 90.95 | 90.92             | 90.79 | 90.71 | 90.64 | 90.61 | 90.59 |        |
| 14                               | 90.53 | 90.52 | 90.62       | 90.64 | 90.97                             | 90.96 | 90.87             | 90.79 | 90.71 | 90.64 | 90.61 | 90.59 |        |
| 15                               | 90.56 | 90.52 | 90.58       | 90.65 | 90.90                             | 91.04 | 90.86             | 90.82 | 90.71 | 90.64 | 90.61 | 90.59 |        |
| 16                               | 90.57 | 90.52 | 90.56       | 90.64 | 90.87                             | 91.03 | 90.86             | 90.81 | 90.70 | 90.64 | 90.61 | 90.59 |        |
| 17                               | 90.57 | 90.52 | 90.56       | 90.64 | 90.85                             | 91.05 | 90.90             | 90.78 | 90.70 | 90.64 | 90.61 | 90.59 |        |
| 18                               | 90.56 | 90.52 | 90.60       | 90.63 | 90.81                             | 91.02 | 90.88             | 90.77 | 90.70 | 90.64 | 90.61 | 90.58 |        |
| 19                               | 90.56 | 90.54 | 90.58       | 90.63 | 90.78                             | 91.08 | 90.88             | 90.77 | 90.70 | 90.64 | 90.61 | 90.58 |        |
| 20                               | 90.58 | 90.54 | 90.60       | 90.63 | 90.74                             | 91.47 | 90.86             | 90.76 | 90.70 | 90.64 | 90.61 | 90.58 |        |
| 21                               | 90.56 | 90.54 | 90.64       | 90.64 | 90.88                             | 91.32 | 90.86             | 90.76 | 90.70 | 90.64 | 90.61 | 90.58 |        |
| 22                               | 90.54 | 90.54 | 90.66       | 90.68 | 90.81                             | 91.26 | 90.87             | 90.75 | 90.70 | 90.64 | 90.61 | 90.58 |        |
| 23                               | 90.54 | 90.54 | 90.67       | 90.78 | 91.14                             | 91.30 | 90.84             | 90.75 | 90.69 | 90.64 | 90.61 | 90.58 |        |
| 24                               | 90.54 | 90.54 | 90.77       | 90.89 | 91.12                             | 91.23 | 90.82             | 90.74 | 90.68 | 90.64 | 90.61 | 90.58 |        |
| 25                               | 90.57 | 90.54 | 90.69       | 90.90 | 91.01                             | 91.22 | 90.82             | 90.74 | 90.69 | 90.64 | 90.61 | 90.60 |        |
| 26                               | 90.57 | 90.54 | 90.63       | 90.81 | 90.96                             | 91.13 | 90.82             | 90.73 | 90.70 | 90.64 | 90.60 | 90.60 |        |
| 27                               | 90.56 | 90.54 | 90.61       | 90.95 | 90.96                             | 91.12 | 90.78             | 90.73 | 90.70 | 90.64 | 90.60 | 90.60 |        |
| 28                               | 90.56 | 90.54 | 90.61       | 91.06 | 90.89                             | 91.07 | 90.79             | 90.73 | 90.69 | 90.64 | 90.60 | 90.60 |        |
| 29                               | 90.55 | 90.54 | 90.61       | 91.40 | 90.86                             | 91.04 | 90.78             | 90.72 | 90.69 | 90.63 |       | 90.60 |        |
| 30                               | 90.54 | 90.54 | 90.61       | 92.16 | 90.83                             | 91.10 | 90.76             | 90.72 | 90.69 | 90.63 |       | 90.59 |        |
| 31                               |       | 90.54 |             | 91.61 | 90.81                             |       | 90.76             |       | 90.68 | 90.63 |       | 90.59 |        |
| Mean                             | 90.55 | 90.53 | 90.62       | 90.79 | 90.90                             | 91.02 | 90.89             | 90.77 | 90.70 | 90.65 | 90.61 | 90.59 |        |
| Max                              | 90.58 | 90.54 | 90.77       | 92.16 | 91.24                             | 91.47 | 91.02             | 90.90 | 90.72 | 90.67 | 90.63 | 90.60 | 92.16  |
| Min                              | 90.53 | 90.52 | 90.54       | 90.60 | 90.74                             | 90.74 | 90.76             | 90.72 | 90.68 | 90.63 | 90.60 | 90.58 | 90.52  |
| Annual Max Momentary Gage Height | 92.84 |       | m. (MSL.) , |       | at 18.00 Hours , on Jul 30 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 90.02 |       | m. (MSL.) , |       | River Bed                         | 90.32 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 95.41 |       | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 95.32 |       | m. (MSL.) , |       | Drainage Area                     | 122   | Square Kilometers |       |       |       |       |       |        |



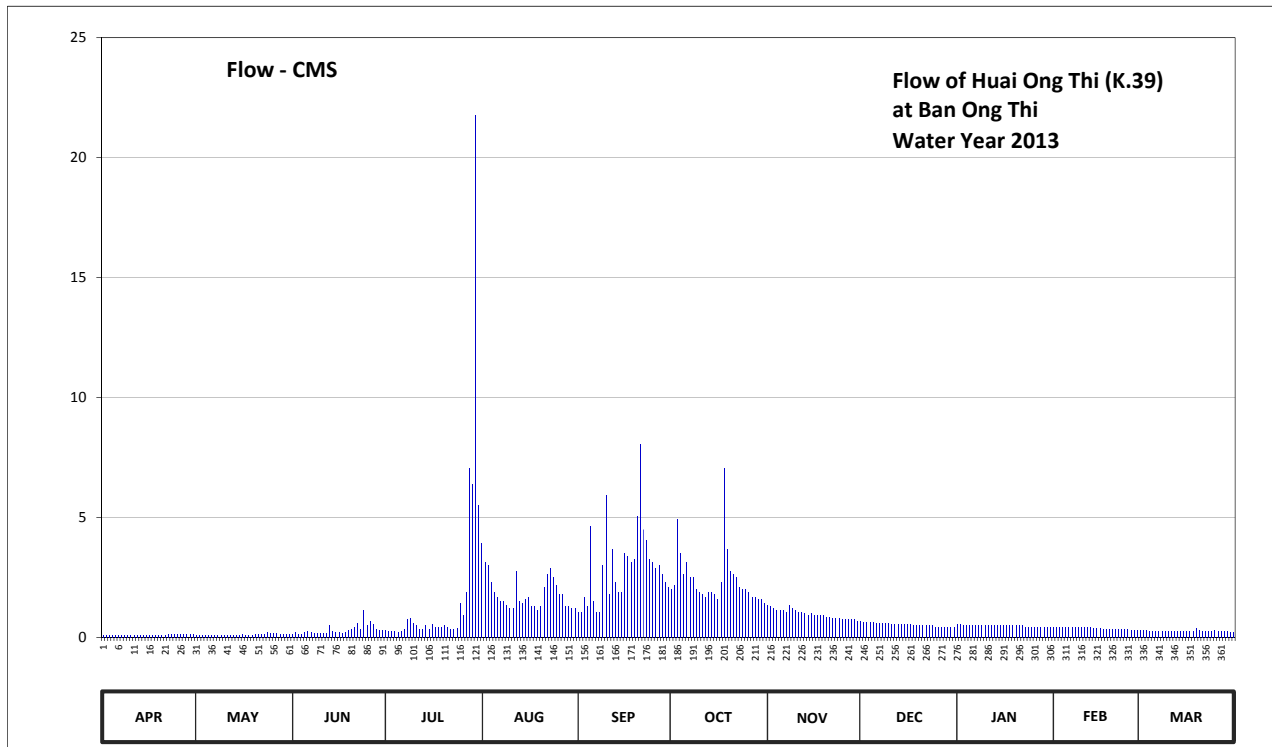
Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul   | Aug                  | Sep    | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------|-------|-----------------------------------------------------------|-------|-------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|--------|
| 1              | 0.24  | 0.24                                                      | 0.24  | 0.60  | 7.86                 | 2.40   | 4.86    | 2.04                     | 1.68  | 1.23  | 0.87  | 0.60  |        |
| 2              | 0.24  | 0.24                                                      | 0.30  | 0.60  | 6.46                 | 2.31   | 4.86    | 2.04                     | 1.68  | 1.23  | 0.87  | 0.60  |        |
| 3              | 0.24  | 0.24                                                      | 0.42  | 0.60  | 5.64                 | 2.13   | 4.86    | 2.04                     | 1.68  | 1.23  | 0.78  | 0.60  |        |
| 4              | 0.24  | 0.24                                                      | 0.42  | 0.60  | 4.49                 | 2.04   | 4.38    | 1.95                     | 1.68  | 1.23  | 0.78  | 0.54  |        |
| 5              | 0.24  | 0.18                                                      | 0.42  | 0.60  | 4.16                 | 1.86   | 4.16    | 1.86                     | 1.68  | 1.14  | 0.78  | 0.54  |        |
| 6              | 0.24  | 0.18                                                      | 0.87  | 0.78  | 2.73                 | 2.13   | 3.72    | 1.86                     | 1.68  | 1.14  | 0.78  | 0.54  |        |
| 7              | 0.24  | 0.18                                                      | 0.69  | 0.78  | 2.40                 | 2.04   | 3.72    | 1.86                     | 1.68  | 1.14  | 0.78  | 0.54  |        |
| 8              | 0.24  | 0.18                                                      | 0.69  | 0.96  | 2.13                 | 2.62   | 3.72    | 1.86                     | 1.68  | 1.14  | 0.78  | 0.54  |        |
| 9              | 0.24  | 0.12                                                      | 0.96  | 0.78  | 2.04                 | 2.62   | 4.16    | 3.50                     | 1.59  | 1.05  | 0.78  | 0.54  |        |
| 10             | 0.24  | 0.12                                                      | 0.78  | 0.96  | 2.13                 | 3.72   | 3.94    | 2.84                     | 1.59  | 1.05  | 0.69  | 0.54  |        |
| 11             | 0.24  | 0.12                                                      | 1.14  | 1.14  | 2.04                 | 6.74   | 3.94    | 2.31                     | 1.59  | 1.05  | 0.69  | 0.54  |        |
| 12             | 0.24  | 0.12                                                      | 1.23  | 1.05  | 1.95                 | 6.88   | 3.72    | 2.31                     | 1.59  | 0.96  | 0.69  | 0.54  |        |
| 13             | 0.18  | 0.12                                                      | 0.96  | 0.96  | 1.86                 | 4.05   | 3.72    | 2.31                     | 1.59  | 0.96  | 0.69  | 0.54  |        |
| 14             | 0.18  | 0.12                                                      | 0.78  | 0.96  | 4.27                 | 4.16   | 3.17    | 2.31                     | 1.59  | 0.96  | 0.69  | 0.54  |        |
| 15             | 0.36  | 0.12                                                      | 0.48  | 1.05  | 3.50                 | 5.12   | 3.06    | 2.62                     | 1.59  | 0.96  | 0.69  | 0.54  |        |
| 16             | 0.42  | 0.12                                                      | 0.36  | 0.96  | 3.17                 | 4.99   | 3.06    | 2.51                     | 1.50  | 0.96  | 0.69  | 0.54  |        |
| 17             | 0.42  | 0.12                                                      | 0.36  | 0.96  | 2.95                 | 5.25   | 3.50    | 2.22                     | 1.50  | 0.96  | 0.69  | 0.54  |        |
| 18             | 0.36  | 0.12                                                      | 0.60  | 0.87  | 2.51                 | 4.86   | 3.28    | 2.13                     | 1.50  | 0.96  | 0.69  | 0.48  |        |
| 19             | 0.36  | 0.24                                                      | 0.48  | 0.87  | 2.22                 | 5.64   | 3.28    | 2.13                     | 1.50  | 0.96  | 0.69  | 0.48  |        |
| 20             | 0.48  | 0.24                                                      | 0.60  | 0.87  | 1.86                 | 11.42  | 3.06    | 2.04                     | 1.50  | 0.96  | 0.69  | 0.48  |        |
| 21             | 0.36  | 0.24                                                      | 0.96  | 0.96  | 3.28                 | 9.02   | 3.06    | 2.04                     | 1.50  | 0.96  | 0.69  | 0.48  |        |
| 22             | 0.24  | 0.24                                                      | 1.14  | 1.32  | 2.51                 | 8.14   | 3.17    | 1.95                     | 1.50  | 0.96  | 0.69  | 0.48  |        |
| 23             | 0.24  | 0.24                                                      | 1.23  | 2.22  | 6.46                 | 8.70   | 2.84    | 1.95                     | 1.41  | 0.96  | 0.69  | 0.48  |        |
| 24             | 0.24  | 0.24                                                      | 2.13  | 3.39  | 6.18                 | 7.72   | 2.62    | 1.86                     | 1.32  | 0.96  | 0.69  | 0.48  |        |
| 25             | 0.42  | 0.24                                                      | 1.41  | 3.50  | 4.73                 | 7.58   | 2.62    | 1.86                     | 1.41  | 0.96  | 0.69  | 0.60  |        |
| 26             | 0.42  | 0.24                                                      | 0.87  | 2.51  | 4.16                 | 6.32   | 2.62    | 1.77                     | 1.50  | 0.96  | 0.60  | 0.60  |        |
| 27             | 0.36  | 0.24                                                      | 0.69  | 4.05  | 4.16                 | 6.18   | 2.22    | 1.77                     | 1.50  | 0.96  | 0.60  | 0.60  |        |
| 28             | 0.36  | 0.24                                                      | 0.69  | 5.38  | 3.39                 | 5.51   | 2.31    | 1.77                     | 1.41  | 0.96  | 0.60  | 0.60  |        |
| 29             | 0.30  | 0.24                                                      | 0.69  | 10.30 | 3.06                 | 5.12   | 2.22    | 1.68                     | 1.41  | 0.87  |       | 0.60  |        |
| 30             | 0.24  | 0.24                                                      | 0.69  | 26.84 | 2.73                 | 5.90   | 2.04    | 1.68                     | 1.41  | 0.87  |       | 0.54  |        |
| 31             |       | 0.24                                                      |       | 13.90 | 2.51                 |        | 2.04    |                          | 1.32  | 0.87  |       | 0.54  |        |
| Total          | 8.82  | 6.00                                                      | 23.28 | 91.32 | 109.54               | 153.17 | 103.93  | 63.07                    | 47.76 | 31.56 | 20.04 | 16.80 | 675.29 |
| Mean           | 0.29  | 0.19                                                      | 0.78  | 2.95  | 3.53                 | 5.11   | 3.35    | 2.10                     | 1.54  | 1.02  | 0.72  | 0.54  | 1.85   |
| Max            | 0.48  | 0.24                                                      | 2.13  | 26.84 | 7.86                 | 11.42  | 4.86    | 3.50                     | 1.68  | 1.23  | 0.87  | 0.60  | 26.84  |
| Min            | 0.18  | 0.12                                                      | 0.24  | 0.60  | 1.86                 | 1.86   | 2.04    | 1.68                     | 1.32  | 0.87  | 0.60  | 0.48  | 0.12   |
| Runoff         | 0.76  | 0.52                                                      | 2.01  | 7.89  | 9.46                 | 13.23  | 8.98    | 5.45                     | 4.13  | 2.73  | 1.73  | 1.45  | 58.35  |
| Momentary Peak | 49.52 | CMS. at 92.84 m. (MSL.) at 18.00 Hours , on Jul 30 , 2013 |       |       |                      |        |         |                          |       |       |       |       |        |
| Runoff Yield   | 15.12 | Liters/Second/Square KM.                                  |       |       | Momentary Peak Yield |        | 404.810 | Liters/Second/Square KM. |       |       |       |       |        |

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|                                         |                                                                                          |           |               |                |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Ong Thi   | <b>Amphoe</b> | Thong Pha Phum | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 51                                                                                       | sq.km.    |               |                |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                               |           |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +81.783                                                                                  | m. (MSL.) |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |                |                  |                   |
| <b>Location BM</b>                      | On right bank about 16 meters from the third staff gage.                                 |           |               |                | <b>Elevation</b> | +91.299 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |           |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                             |           |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |                |                  |                   |
| <b>Period of Rating</b>                 | 1985 - 1990 , 1996 to date                                                               |           |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 1985 - 1990 , 1996 to date                                                               |           |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |                |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 32 discharge measurements made in 2013 |           |               |                |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 82.01 | 82.01 | 82.02 | 82.10 | 82.51 | 82.24 | 82.35 | 82.28 | 82.18 | 82.15   | 82.13 | 82.10 |        |
| 2    | 82.01 | 82.01 | 82.06 | 82.09 | 82.45 | 82.24 | 82.37 | 82.27 | 82.17 | 82.15   | 82.13 | 82.10 |        |
| 3    | 82.01 | 82.00 | 82.03 | 82.09 | 82.44 | 82.32 | 82.58 | 82.26 | 82.17 | 82.14   | 82.13 | 82.10 |        |
| 4    | 82.01 | 82.00 | 82.03 | 82.08 | 82.38 | 82.27 | 82.48 | 82.25 | 82.17 | 82.14   | 82.13 | 82.09 |        |
| 5    | 82.00 | 82.01 | 82.07 | 82.07 | 82.34 | 82.56 | 82.41 | 82.25 | 82.17 | 82.14   | 82.13 | 82.09 |        |
| 6    | 81.99 | 82.01 | 82.09 | 82.08 | 82.32 | 82.30 | 82.45 | 82.25 | 82.16 | 82.14   | 82.13 | 82.09 |        |
| 7    | 81.99 | 82.01 | 82.06 | 82.11 | 82.30 | 82.24 | 82.40 | 82.24 | 82.16 | 82.14   | 82.13 | 82.09 |        |
| 8    | 82.00 | 82.01 | 82.05 | 82.19 | 82.30 | 82.24 | 82.40 | 82.28 | 82.16 | 82.14   | 82.13 | 82.09 |        |
| 9    | 82.00 | 82.01 | 82.05 | 82.20 | 82.28 | 82.44 | 82.35 | 82.26 | 82.16 | 82.14   | 82.13 | 82.08 |        |
| 10   | 82.00 | 82.01 | 82.05 | 82.16 | 82.26 | 82.65 | 82.34 | 82.25 | 82.16 | 82.14   | 82.13 | 82.08 |        |
| 11   | 82.00 | 82.00 | 82.05 | 82.14 | 82.26 | 82.33 | 82.33 | 82.24 | 82.15 | 82.14   | 82.13 | 82.08 |        |
| 12   | 82.00 | 81.99 | 82.05 | 82.11 | 82.42 | 82.49 | 82.32 | 82.24 | 82.15 | 82.14   | 82.13 | 82.08 |        |
| 13   | 82.00 | 82.00 | 82.14 | 82.11 | 82.30 | 82.38 | 82.34 | 82.23 | 82.15 | 82.14   | 82.13 | 82.08 |        |
| 14   | 82.00 | 82.00 | 82.08 | 82.14 | 82.29 | 82.34 | 82.34 | 82.22 | 82.15 | 82.14   | 82.12 | 82.08 |        |
| 15   | 82.00 | 82.00 | 82.06 | 82.11 | 82.31 | 82.34 | 82.33 | 82.23 | 82.15 | 82.14   | 82.12 | 82.08 |        |
| 16   | 82.00 | 82.02 | 82.06 | 82.15 | 82.32 | 82.48 | 82.31 | 82.22 | 82.15 | 82.14   | 82.12 | 82.08 |        |
| 17   | 82.01 | 82.01 | 82.05 | 82.13 | 82.27 | 82.47 | 82.38 | 82.22 | 82.15 | 82.14   | 82.11 | 82.08 |        |
| 18   | 82.01 | 82.01 | 82.06 | 82.13 | 82.27 | 82.45 | 82.72 | 82.22 | 82.14 | 82.14   | 82.11 | 82.08 |        |
| 19   | 82.01 | 82.01 | 82.10 | 82.13 | 82.25 | 82.46 | 82.49 | 82.22 | 82.14 | 82.14   | 82.11 | 82.12 |        |
| 20   | 82.01 | 82.03 | 82.11 | 82.14 | 82.27 | 82.59 | 82.42 | 82.21 | 82.14 | 82.14   | 82.11 | 82.10 |        |
| 21   | 82.01 | 82.03 | 82.13 | 82.13 | 82.36 | 82.78 | 82.41 | 82.21 | 82.14 | 82.14   | 82.11 | 82.08 |        |
| 22   | 82.02 | 82.02 | 82.16 | 82.11 | 82.41 | 82.55 | 82.40 | 82.20 | 82.14 | 82.14   | 82.11 | 82.08 |        |
| 23   | 82.02 | 82.02 | 82.11 | 82.11 | 82.43 | 82.52 | 82.36 | 82.20 | 82.14 | 82.13   | 82.11 | 82.08 |        |
| 24   | 82.02 | 82.06 | 82.25 | 82.12 | 82.40 | 82.46 | 82.35 | 82.20 | 82.14 | 82.13   | 82.11 | 82.08 |        |
| 25   | 82.02 | 82.04 | 82.14 | 82.29 | 82.37 | 82.45 | 82.35 | 82.19 | 82.13 | 82.13   | 82.11 | 82.10 |        |
| 26   | 82.02 | 82.04 | 82.18 | 82.22 | 82.33 | 82.43 | 82.34 | 82.19 | 82.13 | 82.13   | 82.10 | 82.09 |        |
| 27   | 82.02 | 82.04 | 82.15 | 82.34 | 82.33 | 82.44 | 82.32 | 82.19 | 82.13 | 82.13   | 82.10 | 82.09 |        |
| 28   | 82.02 | 82.03 | 82.11 | 82.72 | 82.27 | 82.41 | 82.32 | 82.19 | 82.13 | 82.13   | 82.10 | 82.09 |        |
| 29   | 82.02 | 82.02 | 82.10 | 82.68 | 82.27 | 82.38 | 82.31 | 82.19 | 82.13 | 82.13   |       | 82.09 |        |
| 30   | 82.02 | 82.02 | 82.10 | 83.33 | 82.26 | 82.36 | 82.31 | 82.18 | 82.13 | 82.13</ |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                       | Jun  | Jul   | Aug                  | Sep   | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar  | Annual |        |
|----------------|-------|-----------------------------------------------------------|------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|------|--------|--------|
| 1              | 0.12  | 0.12                                                      | 0.14 | 0.30  | 3.94                 | 1.08  | 2.00    | 1.36                     | 0.70  | 0.55  | 0.45  | 0.30 |        |        |
| 2              | 0.12  | 0.12                                                      | 0.22 | 0.28  | 3.15                 | 1.08  | 2.20    | 1.29                     | 0.65  | 0.55  | 0.45  | 0.30 |        |        |
| 3              | 0.12  | 0.10                                                      | 0.16 | 0.28  | 3.02                 | 1.70  | 4.92    | 1.22                     | 0.65  | 0.50  | 0.45  | 0.30 |        |        |
| 4              | 0.12  | 0.10                                                      | 0.16 | 0.26  | 2.30                 | 1.29  | 3.54    | 1.15                     | 0.65  | 0.50  | 0.45  | 0.28 |        |        |
| 5              | 0.10  | 0.12                                                      | 0.24 | 0.24  | 1.90                 | 4.64  | 2.63    | 1.15                     | 0.65  | 0.50  | 0.45  | 0.28 |        |        |
| 6              | 0.09  | 0.12                                                      | 0.28 | 0.26  | 1.70                 | 1.50  | 3.15    | 1.15                     | 0.60  | 0.50  | 0.45  | 0.28 |        |        |
| 7              | 0.09  | 0.12                                                      | 0.22 | 0.35  | 1.50                 | 1.08  | 2.50    | 1.08                     | 0.60  | 0.50  | 0.45  | 0.28 |        |        |
| 8              | 0.10  | 0.12                                                      | 0.20 | 0.75  | 1.50                 | 1.08  | 2.50    | 1.36                     | 0.60  | 0.50  | 0.45  | 0.28 |        |        |
| 9              | 0.10  | 0.12                                                      | 0.20 | 0.80  | 1.36                 | 3.02  | 2.00    | 1.22                     | 0.60  | 0.50  | 0.45  | 0.26 |        |        |
| 10             | 0.10  | 0.12                                                      | 0.20 | 0.60  | 1.22                 | 5.95  | 1.90    | 1.15                     | 0.60  | 0.50  | 0.45  | 0.26 |        |        |
| 11             | 0.10  | 0.10                                                      | 0.20 | 0.50  | 1.22                 | 1.80  | 1.80    | 1.08                     | 0.55  | 0.50  | 0.45  | 0.26 |        |        |
| 12             | 0.10  | 0.09                                                      | 0.20 | 0.35  | 2.76                 | 3.67  | 1.70    | 1.08                     | 0.55  | 0.50  | 0.45  | 0.26 |        |        |
| 13             | 0.10  | 0.10                                                      | 0.50 | 0.35  | 1.50                 | 2.30  | 1.90    | 1.01                     | 0.55  | 0.50  | 0.45  | 0.26 |        |        |
| 14             | 0.10  | 0.10                                                      | 0.26 | 0.50  | 1.43                 | 1.90  | 1.90    | 0.94                     | 0.55  | 0.50  | 0.40  | 0.26 |        |        |
| 15             | 0.10  | 0.10                                                      | 0.22 | 0.35  | 1.60                 | 1.90  | 1.80    | 1.01                     | 0.55  | 0.50  | 0.40  | 0.26 |        |        |
| 16             | 0.10  | 0.14                                                      | 0.22 | 0.55  | 1.70                 | 3.54  | 1.60    | 0.94                     | 0.55  | 0.50  | 0.40  | 0.26 |        |        |
| 17             | 0.12  | 0.12                                                      | 0.20 | 0.45  | 1.29                 | 3.41  | 2.30    | 0.94                     | 0.55  | 0.50  | 0.35  | 0.26 |        |        |
| 18             | 0.12  | 0.12                                                      | 0.22 | 0.45  | 1.29                 | 3.15  | 7.04    | 0.94                     | 0.50  | 0.50  | 0.35  | 0.26 |        |        |
| 19             | 0.12  | 0.12                                                      | 0.30 | 0.45  | 1.15                 | 3.28  | 3.67    | 0.94                     | 0.50  | 0.50  | 0.35  | 0.40 |        |        |
| 20             | 0.12  | 0.16                                                      | 0.35 | 0.50  | 1.29                 | 5.06  | 2.76    | 0.87                     | 0.50  | 0.50  | 0.35  | 0.30 |        |        |
| 21             | 0.12  | 0.16                                                      | 0.45 | 0.45  | 2.10                 | 8.06  | 2.63    | 0.87                     | 0.50  | 0.50  | 0.35  | 0.26 |        |        |
| 22             | 0.14  | 0.14                                                      | 0.60 | 0.35  | 2.63                 | 4.50  | 2.50    | 0.80                     | 0.50  | 0.50  | 0.35  | 0.26 |        |        |
| 23             | 0.14  | 0.14                                                      | 0.35 | 0.35  | 2.89                 | 4.08  | 2.10    | 0.80                     | 0.50  | 0.45  | 0.35  | 0.26 |        |        |
| 24             | 0.14  | 0.22                                                      | 1.15 | 0.40  | 2.50                 | 3.28  | 2.00    | 0.80                     | 0.50  | 0.45  | 0.35  | 0.26 |        |        |
| 25             | 0.14  | 0.18                                                      | 0.50 | 1.43  | 2.20                 | 3.15  | 2.00    | 0.75                     | 0.45  | 0.45  | 0.35  | 0.30 |        |        |
| 26             | 0.14  | 0.18                                                      | 0.70 | 0.94  | 1.80                 | 2.89  | 1.90    | 0.75                     | 0.45  | 0.45  | 0.30  | 0.28 |        |        |
| 27             | 0.14  | 0.18                                                      | 0.55 | 1.90  | 1.80                 | 3.02  | 1.70    | 0.75                     | 0.45  | 0.45  | 0.30  | 0.28 |        |        |
| 28             | 0.14  | 0.16                                                      | 0.35 | 7.04  | 1.29                 | 2.63  | 1.70    | 0.75                     | 0.45  | 0.45  | 0.30  | 0.28 |        |        |
| 29             | 0.14  | 0.14                                                      | 0.30 | 6.40  | 1.29                 | 2.30  | 1.60    | 0.75                     | 0.45  | 0.45  |       | 0.28 |        |        |
| 30             | 0.14  | 0.14                                                      | 0.30 | 21.75 | 1.22                 | 2.10  | 1.60    | 0.70                     | 0.45  | 0.45  |       | 0.24 |        |        |
| 31             |       | 0.14                                                      |      | 5.50  | 1.22                 |       | 1.43    |                          | 0.45  | 0.45  |       | 0.24 |        |        |
| Total          | 3.52  | 4.09                                                      | 9.94 | 55.08 | 57.76                | 88.44 | 74.97   | 29.60                    | 16.80 | 15.15 | 11.10 | 8.54 | 374.99 | CMSDAY |
| Mean           | 0.12  | 0.13                                                      | 0.33 | 1.78  | 1.86                 | 2.95  | 2.42    | 0.99                     | 0.54  | 0.49  | 0.40  | 0.28 | 1.03   | CMS    |
| Max            | 0.14  | 0.22                                                      | 1.15 | 21.75 | 3.94                 | 8.06  | 7.04    | 1.36                     | 0.70  | 0.55  | 0.45  | 0.40 | 21.75  | CMS    |
| Min            | 0.09  | 0.09                                                      | 0.14 | 0.24  | 1.15                 | 1.08  | 1.43    | 0.70                     | 0.45  | 0.45  | 0.30  | 0.24 | 0.09   | CMS    |
| Runoff         | 0.30  | 0.35                                                      | 0.86 | 4.76  | 4.99                 | 7.64  | 6.48    | 2.56                     | 1.45  | 1.31  | 0.96  | 0.74 | 32.40  | MCM    |
| Momentary Peak | 34.17 | CMS. at 83.63 m. (MSL.) at 16.00 Hours , on Jul 30 , 2013 |      |       |                      |       |         |                          |       |       |       |      |        |        |
| Runoff Yield   | 20.11 | Liters/Second/Square KM.                                  |      |       | Momentary Peak Yield |       | 668.689 | Liters/Second/Square KM. |       |       |       |      |        |        |

**WATER YEAR : 2013**

## MAE KLONG RIVER BASIN

**Huai Diso at Ban Hin Laem , Kanchanaburi (K.50)**

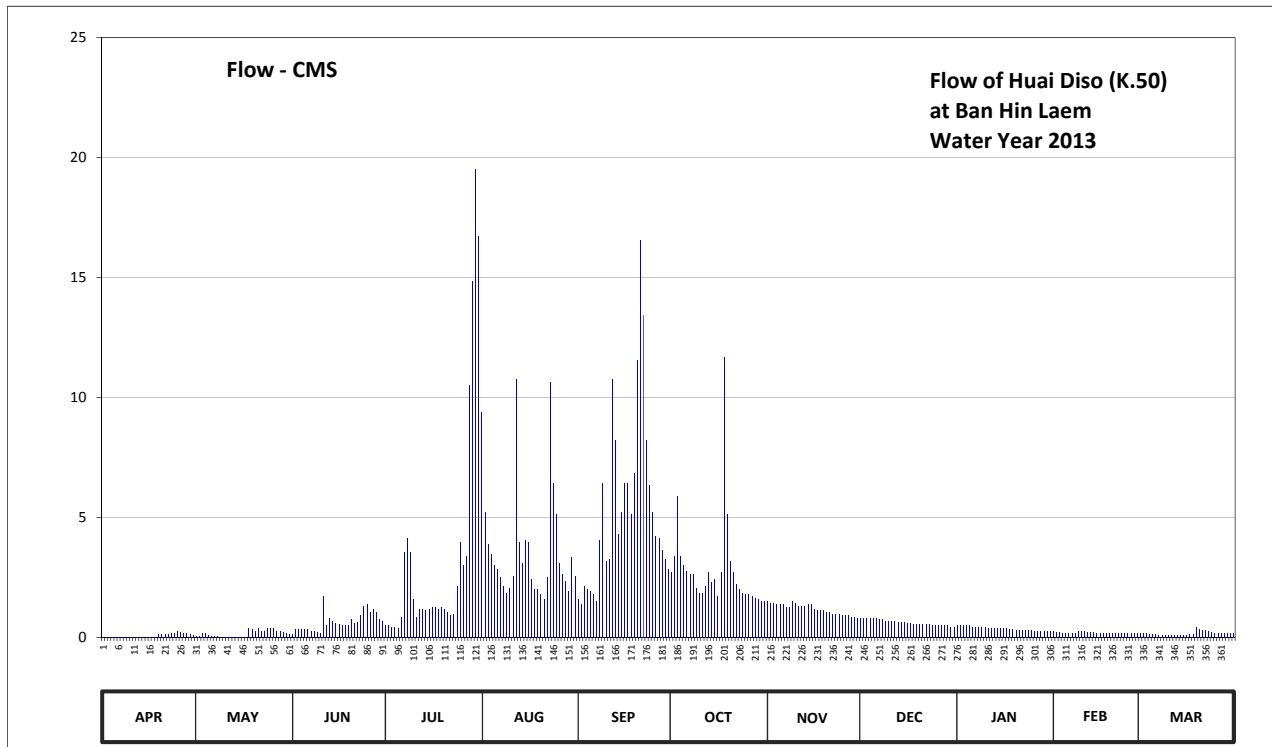
Lat 14 - 38 - 39 N    Long 98 - 42 - 04 E

**Location : on right bank at the bridge on Kanchanaburi - Thong Pha Phum Highway from Tambon Tha Khanun.**

|                                         |                                                                                          |           |               |                |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Hin Laem  | <b>Amphoe</b> | Thong Pha Phum | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 123                                                                                      | sq.km.    |               |                |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                               |           |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +79.811                                                                                  | m. (MSL.) |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |                |                  |                   |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                              |           |               |                | <b>Elevation</b> | +85.827 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |           |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 1986 to date                                                                             |           |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |                |                  |                   |
| <b>Period of Rating</b>                 | 1987 , 1996 to date                                                                      |           |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 1987, 1996 to date                                                                       |           |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |                |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 32 discharge measurements made in 2013 |           |               |                |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 80.37 | 80.40 | 80.44                                           | 80.54 | 81.57 | 80.72 | 80.88 | 80.71 | 80.60 | 80.54 | 80.48 | 80.45 |        |
|                                  | 2  | 80.37 | 80.40 | 80.51                                           | 80.54 | 81.18 | 80.69 | 80.97 | 80.70 | 80.60 | 80.54 | 80.47 | 80.45 |        |
|                                  | 3  | 80.37 | 80.45 | 80.51                                           | 80.53 | 81.03 | 80.80 | 81.25 | 80.70 | 80.60 | 80.54 | 80.47 | 80.45 |        |
|                                  | 4  | 80.37 | 80.45 | 80.51                                           | 80.53 | 80.98 | 80.78 | 80.97 | 80.69 | 80.60 | 80.54 | 80.46 | 80.44 |        |
|                                  | 5  | 80.37 | 80.42 | 80.51                                           | 80.52 | 80.92 | 80.77 | 80.92 | 80.69 | 80.60 | 80.54 | 80.46 | 80.44 |        |
|                                  | 6  | 80.37 | 80.41 | 80.51                                           | 80.61 | 80.90 | 80.75 | 80.89 | 80.69 | 80.60 | 80.53 | 80.46 | 80.44 |        |
|                                  | 7  | 80.36 | 80.41 | 80.49                                           | 80.99 | 80.85 | 80.71 | 80.87 | 80.67 | 80.59 | 80.53 | 80.46 | 80.43 |        |
|                                  | 8  | 80.36 | 80.40 | 80.48                                           | 81.06 | 80.80 | 81.05 | 80.87 | 80.67 | 80.59 | 80.53 | 80.46 | 80.43 |        |
|                                  | 9  | 80.35 | 80.39 | 80.47                                           | 80.99 | 80.76 | 81.31 | 80.79 | 80.71 | 80.58 | 80.53 | 80.48 | 80.43 |        |
|                                  | 10 | 80.35 | 80.39 | 80.46                                           | 80.72 | 80.79 | 80.94 | 80.76 | 80.70 | 80.58 | 80.53 | 80.48 | 80.43 |        |
|                                  | 11 | 80.34 | 80.38 | 80.74                                           | 80.61 | 80.86 | 80.95 | 80.76 | 80.68 | 80.58 | 80.52 | 80.48 | 80.43 |        |
|                                  | 12 | 80.34 | 80.38 | 80.54                                           | 80.66 | 81.68 | 81.68 | 80.80 | 80.68 | 80.58 | 80.52 | 80.47 | 80.43 |        |
|                                  | 13 | 80.34 | 80.37 | 80.60                                           | 80.66 | 81.04 | 81.47 | 80.88 | 80.68 | 80.57 | 80.52 | 80.47 | 80.43 |        |
|                                  | 14 | 80.34 | 80.37 | 80.58                                           | 80.65 | 80.93 | 81.08 | 80.82 | 80.69 | 80.57 | 80.52 | 80.47 | 80.43 |        |
|                                  | 15 | 80.33 | 80.37 | 80.56                                           | 80.66 | 81.05 | 81.18 | 80.84 | 80.69 | 80.57 | 80.52 | 80.46 | 80.43 |        |
|                                  | 16 | 80.33 | 80.37 | 80.55                                           | 80.67 | 81.04 | 81.31 | 80.74 | 80.66 | 80.56 | 80.52 | 80.46 | 80.43 |        |
|                                  | 17 | 80.33 | 80.37 | 80.54                                           | 80.67 | 80.84 | 81.31 | 80.88 | 80.65 | 80.56 | 80.52 | 80.46 | 80.44 |        |
|                                  | 18 | 80.37 | 80.52 | 80.54                                           | 80.66 | 80.78 | 81.17 | 81.75 | 80.65 | 80.55 | 80.51 | 80.46 | 80.44 |        |
|                                  | 19 | 80.44 | 80.51 | 80.54                                           | 80.67 | 80.78 | 81.35 | 81.17 | 80.65 | 80.55 | 80.51 | 80.46 | 80.53 |        |
|                                  | 20 | 80.44 | 80.48 | 80.59                                           | 80.66 | 80.75 | 81.74 | 80.94 | 80.64 | 80.55 | 80.50 | 80.46 | 80.51 |        |
|                                  | 21 | 80.44 | 80.52 | 80.56                                           | 80.64 | 80.72 | 82.09 | 80.88 | 80.64 | 80.55 | 80.50 | 80.46 | 80.50 |        |
|                                  | 22 | 80.44 | 80.49 | 80.57                                           | 80.62 | 80.85 | 81.88 | 80.81 | 80.63 | 80.55 | 80.50 | 80.46 | 80.50 |        |
|                                  | 23 | 80.46 | 80.48 | 80.62                                           | 80.63 | 81.67 | 81.47 | 80.78 | 80.63 | 80.55 | 80.50 | 80.46 | 80.49 |        |
|                                  | 24 | 80.46 | 80.52 | 80.68                                           | 80.80 | 81.31 | 81.30 | 80.76 | 80.63 | 80.54 | 80.50 | 80.46 | 80.47 |        |
|                                  | 25 | 80.48 | 80.52 | 80.69                                           | 81.04 | 81.17 | 81.18 | 80.75 | 80.62 | 80.54 | 80.50 | 80.46 | 80.46 |        |
|                                  | 26 | 80.47 | 80.52 | 80.64                                           | 80.92 | 80.93 | 81.07 | 80.75 | 80.62 | 80.54 | 80.49 | 80.46 | 80.46 |        |
|                                  | 27 | 80.46 | 80.49 | 80.66                                           | 80.97 | 80.87 | 81.06 | 80.74 | 80.62 | 80.54 | 80.49 | 80.46 | 80.46 |        |
|                                  | 28 | 80.46 | 80.48 | 80.64                                           | 81.66 | 80.83 | 81.00 | 80.73 | 80.61 | 80.54 | 80.49 | 80.46 | 80.46 |        |
|                                  | 29 | 80.44 | 80.47 | 80.59                                           | 81.98 | 80.77 | 80.95 | 80.72 | 80.61 | 80.54 | 80.49 |       | 80.46 |        |
|                                  | 30 | 80.42 | 80.45 | 80.58                                           | 82.28 | 80.96 | 80.90 | 80.71 | 80.60 | 80.53 | 80.49 |       | 80.46 |        |
|                                  | 31 |       | 80.44 |                                                 | 82.10 | 80.86 |       | 80.71 |       | 80.53 | 80.49 |       | 80.46 |        |
| Mean                             |    | 80.39 | 80.44 | 80.56                                           | 80.88 | 80.98 | 81.16 | 80.87 | 80.66 | 80.57 | 80.51 | 80.46 | 80.45 |        |
| Max                              |    | 80.48 | 80.52 | 80.74                                           | 82.28 | 81.68 | 82.09 | 81.75 | 80.71 | 80.60 | 80.54 | 80.48 | 80.53 | 82.28  |
| Min                              |    | 80.33 | 80.37 | 80.44                                           | 80.52 | 80.72 | 80.69 | 80.71 | 80.60 | 80.53 | 80.49 | 80.46 | 80.43 | 80.33  |
| Annual Max Momentary Gage Height |    |       | 82.46 | m. (MSL.) , at 18.00 Hours , on Jul 30 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 79.81 | m. (MSL.) , River Bed 79.98 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 84.85 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 84.93 | m. (MSL.) , Drainage Area 123 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul    | Aug                  | Sep    | Oct     | Nov                      | Dec   | Jan   | Feb  | Mar  | Annual |        |
|----------------|-------|-----------------------------------------------------------|-------|--------|----------------------|--------|---------|--------------------------|-------|-------|------|------|--------|--------|
| 1              | 0.04  | 0.05                                                      | 0.15  | 0.50   | 9.40                 | 1.59   | 2.71    | 1.52                     | 0.80  | 0.50  | 0.25 | 0.17 |        |        |
| 2              | 0.04  | 0.05                                                      | 0.35  | 0.50   | 5.22                 | 1.39   | 3.41    | 1.45                     | 0.80  | 0.50  | 0.23 | 0.17 |        |        |
| 3              | 0.04  | 0.17                                                      | 0.35  | 0.45   | 3.90                 | 2.15   | 5.88    | 1.45                     | 0.80  | 0.50  | 0.23 | 0.17 |        |        |
| 4              | 0.04  | 0.17                                                      | 0.35  | 0.45   | 3.49                 | 2.01   | 3.41    | 1.39                     | 0.80  | 0.50  | 0.20 | 0.15 |        |        |
| 5              | 0.04  | 0.10                                                      | 0.35  | 0.40   | 3.01                 | 1.94   | 3.01    | 1.39                     | 0.80  | 0.50  | 0.20 | 0.15 |        |        |
| 6              | 0.04  | 0.08                                                      | 0.35  | 0.87   | 2.85                 | 1.80   | 2.78    | 1.39                     | 0.80  | 0.45  | 0.20 | 0.15 |        |        |
| 7              | 0.03  | 0.08                                                      | 0.27  | 3.57   | 2.50                 | 1.52   | 2.64    | 1.26                     | 0.75  | 0.45  | 0.20 | 0.12 |        |        |
| 8              | 0.03  | 0.05                                                      | 0.25  | 4.16   | 2.15                 | 4.08   | 2.64    | 1.26                     | 0.75  | 0.45  | 0.20 | 0.12 |        |        |
| 9              | 0.02  | 0.04                                                      | 0.23  | 3.57   | 1.87                 | 6.45   | 2.08    | 1.52                     | 0.70  | 0.45  | 0.25 | 0.12 |        |        |
| 10             | 0.02  | 0.04                                                      | 0.20  | 1.59   | 2.08                 | 3.17   | 1.87    | 1.45                     | 0.70  | 0.45  | 0.25 | 0.12 |        |        |
| 11             | 0.02  | 0.04                                                      | 1.73  | 0.87   | 2.57                 | 3.25   | 1.87    | 1.32                     | 0.70  | 0.40  | 0.25 | 0.12 |        |        |
| 12             | 0.02  | 0.04                                                      | 0.50  | 1.19   | 10.75                | 10.75  | 2.15    | 1.32                     | 0.70  | 0.40  | 0.23 | 0.12 |        |        |
| 13             | 0.02  | 0.04                                                      | 0.80  | 1.19   | 3.99                 | 8.22   | 2.71    | 1.32                     | 0.65  | 0.40  | 0.23 | 0.12 |        |        |
| 14             | 0.02  | 0.04                                                      | 0.70  | 1.13   | 3.09                 | 4.33   | 2.29    | 1.39                     | 0.65  | 0.40  | 0.23 | 0.12 |        |        |
| 15             | 0.01  | 0.04                                                      | 0.60  | 1.19   | 4.08                 | 5.22   | 2.43    | 1.39                     | 0.65  | 0.40  | 0.20 | 0.12 |        |        |
| 16             | 0.01  | 0.04                                                      | 0.55  | 1.26   | 3.99                 | 6.45   | 1.73    | 1.19                     | 0.60  | 0.40  | 0.20 | 0.12 |        |        |
| 17             | 0.01  | 0.04                                                      | 0.50  | 1.26   | 2.43                 | 6.45   | 2.71    | 1.13                     | 0.60  | 0.40  | 0.20 | 0.15 |        |        |
| 18             | 0.04  | 0.40                                                      | 0.50  | 1.19   | 2.01                 | 5.13   | 11.68   | 1.13                     | 0.55  | 0.35  | 0.20 | 0.15 |        |        |
| 19             | 0.15  | 0.35                                                      | 0.50  | 1.26   | 2.01                 | 6.87   | 5.13    | 1.13                     | 0.55  | 0.35  | 0.20 | 0.45 |        |        |
| 20             | 0.15  | 0.25                                                      | 0.75  | 1.19   | 1.80                 | 11.54  | 3.17    | 1.06                     | 0.55  | 0.30  | 0.20 | 0.35 |        |        |
| 21             | 0.15  | 0.40                                                      | 0.60  | 1.06   | 1.59                 | 16.54  | 2.71    | 1.06                     | 0.55  | 0.30  | 0.20 | 0.30 |        |        |
| 22             | 0.15  | 0.27                                                      | 0.65  | 0.93   | 2.50                 | 13.43  | 2.22    | 0.99                     | 0.55  | 0.30  | 0.20 | 0.30 |        |        |
| 23             | 0.20  | 0.25                                                      | 0.93  | 0.99   | 10.63                | 8.22   | 2.01    | 0.99                     | 0.55  | 0.30  | 0.20 | 0.27 |        |        |
| 24             | 0.20  | 0.40                                                      | 1.32  | 2.15   | 6.45                 | 6.35   | 1.87    | 0.99                     | 0.50  | 0.30  | 0.20 | 0.23 |        |        |
| 25             | 0.25  | 0.40                                                      | 1.39  | 3.99   | 5.13                 | 5.22   | 1.80    | 0.93                     | 0.50  | 0.30  | 0.20 | 0.20 |        |        |
| 26             | 0.23  | 0.40                                                      | 1.06  | 3.01   | 3.09                 | 4.25   | 1.80    | 0.93                     | 0.50  | 0.27  | 0.20 | 0.20 |        |        |
| 27             | 0.20  | 0.27                                                      | 1.19  | 3.41   | 2.64                 | 4.16   | 1.73    | 0.93                     | 0.50  | 0.27  | 0.20 | 0.20 |        |        |
| 28             | 0.20  | 0.25                                                      | 1.06  | 10.50  | 2.36                 | 3.65   | 1.66    | 0.87                     | 0.50  | 0.27  | 0.20 | 0.20 |        |        |
| 29             | 0.15  | 0.23                                                      | 0.75  | 14.86  | 1.94                 | 3.25   | 1.59    | 0.87                     | 0.50  | 0.27  |      | 0.20 |        |        |
| 30             | 0.10  | 0.17                                                      | 0.70  | 19.49  | 3.33                 | 2.85   | 1.52    | 0.80                     | 0.45  | 0.27  |      | 0.20 |        |        |
| 31             |       | 0.15                                                      |       | 16.70  | 2.57                 |        | 1.52    |                          | 0.45  | 0.27  |      | 0.20 |        |        |
| Total          | 2.62  | 5.30                                                      | 19.63 | 104.88 | 115.42               | 162.23 | 86.73   | 35.82                    | 19.45 | 11.67 | 5.95 | 5.76 | 575.46 | CMSDAY |
| Mean           | 0.09  | 0.17                                                      | 0.65  | 3.38   | 3.72                 | 5.41   | 2.80    | 1.19                     | 0.63  | 0.38  | 0.21 | 0.19 | 1.58   | CMS    |
| Max            | 0.25  | 0.40                                                      | 1.73  | 19.49  | 10.75                | 16.54  | 11.68   | 1.52                     | 0.80  | 0.50  | 0.25 | 0.45 | 19.49  | CMS    |
| Min            | 0.01  | 0.04                                                      | 0.15  | 0.40   | 1.59                 | 1.39   | 1.52    | 0.80                     | 0.45  | 0.27  | 0.20 | 0.12 | 0.01   | CMS    |
| Runoff         | 0.23  | 0.46                                                      | 1.70  | 9.06   | 9.97                 | 14.02  | 7.49    | 3.10                     | 1.68  | 1.01  | 0.51 | 0.50 | 49.72  | MCM    |
| Momentary Peak | 22.55 | CMS. at 82.46 m. (MSL.) at 18.00 Hours , on Jul 30 , 2013 |       |        |                      |        |         |                          |       |       |      |      |        |        |
| Runoff Yield   | 12.82 | Liters/Second/Square KM.                                  |       |        | Momentary Peak Yield |        | 183.333 | Liters/Second/Square KM. |       |       |      |      |        |        |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Mae Kraban at Ban Si Mong Khon , Kanchanaburi (K.53)**

Lat 14 - 01 - 38 N Long 99 - 13 - 23 E

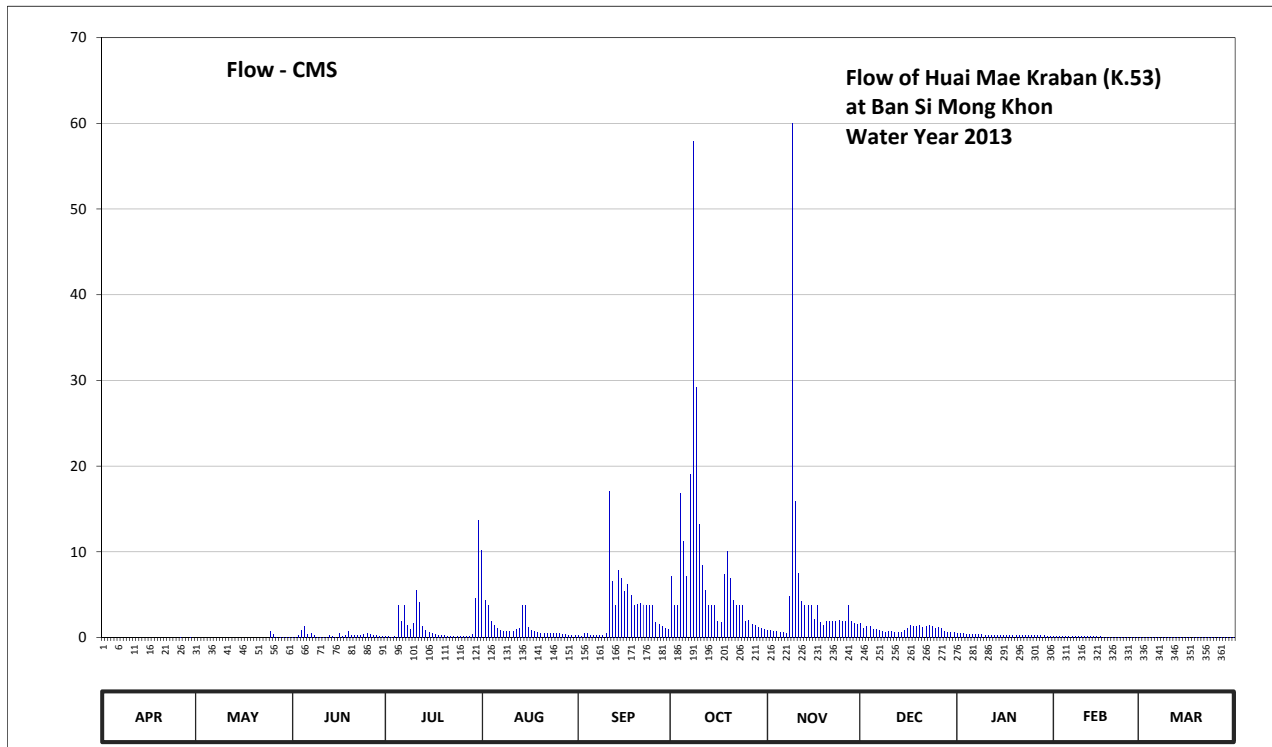
Location : on right bank at the bridge on road.

|                                         |                                                                                          |              |               |         |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|--------------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Si Mong Khon | <b>Amphoe</b> | Sai Yok | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 308                                                                                      | sq.km.       |               |         |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                               |              |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +34.625                                                                                  | m. (MSL.)    |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |              |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank about 20 meters from the top staff gage.                                   |              |               |         | <b>Elevation</b> | +40.952 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 16-time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.                   |              |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 16 readings                                                           |              |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1992 to date                                                                             |              |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |              |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1992 to date                                                                             |              |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |              |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1992 to date                                                                             |              |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |              |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +40.040 m.(MSL.), records are channel flow only.       |              |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 25 discharge measurements made in 2013 |              |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep           | Oct                              | Nov   | Dec               | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|---------------|----------------------------------|-------|-------------------|-------|-------|-------|--------|
| 1                                | 35.90 | 35.90 | 35.92       | 36.02 | 37.13 | 36.05         | 36.95                            | 36.26 | 36.43             | 36.14 | 36.03 | 35.99 |        |
| 2                                | 35.90 | 35.90 | 35.93       | 36.01 | 36.75 | 36.04         | 36.64                            | 36.24 | 36.33             | 36.13 | 36.03 | 35.99 |        |
| 3                                | 35.89 | 35.90 | 36.05       | 35.99 | 36.60 | 36.13         | 36.56                            | 36.22 | 36.36             | 36.12 | 36.03 | 35.99 |        |
| 4                                | 35.90 | 35.90 | 36.25       | 36.03 | 36.47 | 36.12         | 37.47                            | 36.20 | 36.36             | 36.11 | 36.03 | 35.99 |        |
| 5                                | 35.90 | 35.90 | 36.36       | 36.64 | 36.39 | 36.07         | 37.19                            | 36.19 | 36.31             | 36.11 | 36.03 | 35.99 |        |
| 6                                | 35.89 | 35.90 | 36.11       | 36.47 | 36.33 | 36.05         | 36.95                            | 36.17 | 36.28             | 36.10 | 36.02 | 35.99 |        |
| 7                                | 35.90 | 35.90 | 36.15       | 36.67 | 36.26 | 36.05         | 37.57                            | 36.15 | 36.25             | 36.09 | 36.02 | 35.99 |        |
| 8                                | 35.90 | 35.90 | 36.05       | 36.38 | 36.22 | 36.06         | 38.81                            | 36.79 | 36.23             | 36.09 | 36.02 | 35.99 |        |
| 9                                | 35.90 | 35.90 | 36.00       | 36.28 | 36.20 | 36.08         | 37.97                            | 38.86 | 36.19             | 36.09 | 36.02 | 35.99 |        |
| 10                               | 35.90 | 35.90 | 35.95       | 36.44 | 36.20 | 36.12         | 37.30                            | 37.43 | 36.20             | 36.08 | 36.02 | 35.99 |        |
| 11                               | 35.90 | 35.90 | 35.93       | 36.84 | 36.23 | 37.48         | 37.03                            | 36.97 | 36.20             | 36.08 | 36.01 | 35.99 |        |
| 12                               | 35.90 | 35.90 | 35.93       | 36.73 | 36.29 | 36.91         | 36.84                            | 36.74 | 36.19             | 36.08 | 36.01 | 35.99 |        |
| 13                               | 35.90 | 35.90 | 36.07       | 36.37 | 36.32 | 36.65         | 36.69                            | 36.61 | 36.19             | 36.08 | 36.01 | 35.98 |        |
| 14                               | 35.90 | 35.89 | 36.02       | 36.25 | 36.51 | 36.99         | 36.59                            | 36.54 | 36.19             | 36.07 | 36.01 | 35.98 |        |
| 15                               | 35.90 | 35.90 | 35.99       | 36.18 | 36.53 | 36.93         | 36.53                            | 36.54 | 36.25             | 36.07 | 36.01 | 35.98 |        |
| 16                               | 35.90 | 35.89 | 36.14       | 36.14 | 36.35 | 36.83         | 36.47                            | 36.50 | 36.33             | 36.07 | 36.01 | 35.98 |        |
| 17                               | 35.90 | 35.90 | 36.02       | 36.11 | 36.27 | 36.89         | 36.45                            | 36.51 | 36.38             | 36.07 | 36.00 | 35.98 |        |
| 18                               | 35.90 | 35.90 | 36.05       | 36.08 | 36.21 | 36.80         | 36.96                            | 36.45 | 36.36             | 36.07 | 36.00 | 35.98 |        |
| 19                               | 35.90 | 35.90 | 36.20       | 36.06 | 36.18 | 36.66         | 37.12                            | 36.40 | 36.37             | 36.06 | 36.00 | 35.98 |        |
| 20                               | 35.90 | 35.90 | 36.08       | 36.05 | 36.15 | 36.71         | 36.93                            | 36.46 | 36.38             | 36.06 | 36.00 | 35.98 |        |
| 21                               | 35.90 | 35.90 | 36.05       | 36.03 | 36.13 | 36.72         | 36.75                            | 36.46 | 36.34             | 36.06 | 36.00 | 35.99 |        |
| 22                               | 35.90 | 35.90 | 36.07       | 36.02 | 36.12 | 36.65         | 36.65                            | 36.48 | 36.36             | 36.06 | 36.00 | 35.99 |        |
| 23                               | 35.90 | 35.90 | 36.07       | 36.01 | 36.15 | 36.66         | 36.58                            | 36.48 | 36.40             | 36.05 | 36.00 | 35.97 |        |
| 24                               | 35.89 | 35.90 | 36.10       | 36.02 | 36.16 | 36.60         | 36.51                            | 36.49 | 36.36             | 36.05 | 36.00 | 35.96 |        |
| 25                               | 35.89 | 36.21 | 36.13       | 36.02 | 36.14 | 36.51         | 36.47                            | 36.46 | 36.32             | 36.05 | 35.99 | 35.96 |        |
| 26                               | 35.91 | 36.11 | 36.09       | 36.02 | 36.13 | 36.45         | 36.49                            | 36.46 | 36.35             | 36.05 | 35.99 | 35.97 |        |
| 27                               | 35.90 | 35.95 | 36.07       | 36.01 | 36.11 | 36.41         | 36.41                            | 36.56 | 36.32             | 36.05 | 35.99 | 35.96 |        |
| 28                               | 35.90 | 35.93 | 36.05       | 36.01 | 36.09 | 36.36         | 36.38                            | 36.46 | 36.23             | 36.05 | 35.99 | 35.96 |        |
| 29                               | 35.91 | 35.92 | 36.03       | 36.10 | 36.07 | 36.33         | 36.35                            | 36.44 | 36.19             | 36.05 |       | 35.96 |        |
| 30                               | 35.90 | 35.92 | 36.01       | 36.77 | 36.06 | 36.30         | 36.32                            | 36.42 | 36.17             | 36.04 |       | 35.96 |        |
| 31                               |       | 35.92 |             | 37.32 | 36.05 |               | 36.29                            |       | 36.19             | 36.04 |       | 35.96 |        |
| Mean                             | 35.90 | 35.92 | 36.06       | 36.26 | 36.28 | 36.49         | 36.85                            | 36.56 | 36.29             | 36.07 | 36.01 | 35.98 |        |
| Max                              | 35.91 | 36.21 | 36.36       | 37.32 | 37.13 | 37.48         | 38.81                            | 38.86 | 36.43             | 36.14 | 36.03 | 35.99 | 38.86  |
| Min                              | 35.89 | 35.89 | 35.92       | 35.99 | 36.05 | 36.04         | 36.29                            | 36.15 | 36.17             | 36.04 | 35.99 | 35.96 | 35.89  |
| Annual Max Momentary Gage Height | 40.31 |       | m. (MSL.) , |       |       |               | at 03.00 Hours , on Nov 9 , 2013 |       |                   |       |       |       |        |
| Zero Gage at Bottom Elevation    | 34.63 |       | m. (MSL.) , |       |       | River Bed     | 35.85                            |       | m. (MSL.)         |       |       |       |        |
| Left Bank Elevation              | 40.15 |       | m. (MSL.) , |       |       |               |                                  |       |                   |       |       |       |        |
| Right Bank Elevation             | 40.04 |       | m. (MSL.) , |       |       | Drainage Area | 308                              |       | Square Kilometers |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|------|----------------------|-------|---------|--------------------------|--------|-------|-------|------|------|---------------|
| 1              | 0.00                                                            | 0.00                     | 0.02 | 0.16                 | 10.21 | 0.25    | 7.20                     | 0.88   | 1.68  | 0.52  | 0.19 | 0.09 |               |
| 2              | 0.00                                                            | 0.00                     | 0.03 | 0.13                 | 4.40  | 0.22    | 3.79                     | 0.82   | 1.15  | 0.49  | 0.19 | 0.09 |               |
| 3              | 0.00                                                            | 0.00                     | 0.25 | 0.09                 | 3.79  | 0.49    | 3.79                     | 0.76   | 1.30  | 0.46  | 0.19 | 0.09 |               |
| 4              | 0.00                                                            | 0.00                     | 0.85 | 0.19                 | 1.92  | 0.46    | 16.84                    | 0.70   | 1.30  | 0.43  | 0.19 | 0.09 |               |
| 5              | 0.00                                                            | 0.00                     | 1.30 | 3.79                 | 1.45  | 0.31    | 11.23                    | 0.67   | 1.05  | 0.43  | 0.19 | 0.09 |               |
| 6              | 0.00                                                            | 0.00                     | 0.43 | 1.92                 | 1.15  | 0.25    | 7.20                     | 0.61   | 0.94  | 0.40  | 0.16 | 0.09 |               |
| 7              | 0.00                                                            | 0.00                     | 0.55 | 3.80                 | 0.88  | 0.25    | 19.11                    | 0.55   | 0.85  | 0.37  | 0.16 | 0.09 |               |
| 8              | 0.00                                                            | 0.00                     | 0.25 | 1.40                 | 0.76  | 0.28    | 57.92                    | 4.88   | 0.79  | 0.37  | 0.16 | 0.09 |               |
| 9              | 0.00                                                            | 0.00                     | 0.10 | 0.94                 | 0.70  | 0.34    | 29.16                    | 60.02  | 0.67  | 0.37  | 0.16 | 0.09 |               |
| 10             | 0.00                                                            | 0.00                     | 0.05 | 1.74                 | 0.70  | 0.46    | 13.30                    | 15.96  | 0.70  | 0.34  | 0.16 | 0.09 |               |
| 11             | 0.00                                                            | 0.00                     | 0.03 | 5.56                 | 0.79  | 17.06   | 8.51                     | 7.52   | 0.70  | 0.34  | 0.13 | 0.09 |               |
| 12             | 0.00                                                            | 0.00                     | 0.03 | 4.16                 | 0.97  | 6.56    | 5.56                     | 4.28   | 0.67  | 0.34  | 0.13 | 0.09 |               |
| 13             | 0.00                                                            | 0.00                     | 0.31 | 1.35                 | 1.10  | 3.80    | 3.80                     | 3.79   | 0.67  | 0.34  | 0.13 | 0.08 |               |
| 14             | 0.00                                                            | 0.00                     | 0.16 | 0.85                 | 3.78  | 7.84    | 3.79                     | 3.78   | 0.67  | 0.31  | 0.13 | 0.08 |               |
| 15             | 0.00                                                            | 0.00                     | 0.09 | 0.64                 | 3.78  | 6.88    | 3.78                     | 3.78   | 0.85  | 0.31  | 0.13 | 0.08 |               |
| 16             | 0.00                                                            | 0.00                     | 0.52 | 0.52                 | 1.25  | 5.42    | 1.92                     | 2.10   | 1.15  | 0.31  | 0.13 | 0.08 |               |
| 17             | 0.00                                                            | 0.00                     | 0.16 | 0.43                 | 0.91  | 6.26    | 1.80                     | 3.78   | 1.40  | 0.31  | 0.10 | 0.08 |               |
| 18             | 0.00                                                            | 0.00                     | 0.25 | 0.34                 | 0.73  | 5.00    | 7.36                     | 1.80   | 1.30  | 0.31  | 0.10 | 0.08 |               |
| 19             | 0.00                                                            | 0.00                     | 0.70 | 0.28                 | 0.64  | 3.80    | 10.04                    | 1.50   | 1.35  | 0.28  | 0.10 | 0.08 |               |
| 20             | 0.00                                                            | 0.00                     | 0.34 | 0.25                 | 0.55  | 3.92    | 6.88                     | 1.86   | 1.40  | 0.28  | 0.10 | 0.08 |               |
| 21             | 0.00                                                            | 0.00                     | 0.25 | 0.19                 | 0.49  | 4.04    | 4.40                     | 1.86   | 1.20  | 0.28  | 0.10 | 0.09 |               |
| 22             | 0.00                                                            | 0.00                     | 0.31 | 0.16                 | 0.46  | 3.80    | 3.80                     | 1.98   | 1.30  | 0.28  | 0.10 | 0.09 |               |
| 23             | 0.00                                                            | 0.00                     | 0.31 | 0.13                 | 0.55  | 3.80    | 3.79                     | 1.98   | 1.50  | 0.25  | 0.10 | 0.07 |               |
| 24             | 0.00                                                            | 0.00                     | 0.40 | 0.16                 | 0.58  | 3.79    | 3.78                     | 2.04   | 1.30  | 0.25  | 0.10 | 0.06 |               |
| 25             | 0.00                                                            | 0.73                     | 0.49 | 0.16                 | 0.52  | 3.78    | 1.92                     | 1.86   | 1.10  | 0.25  | 0.09 | 0.06 |               |
| 26             | 0.01                                                            | 0.43                     | 0.37 | 0.16                 | 0.49  | 1.80    | 2.04                     | 1.86   | 1.25  | 0.25  | 0.09 | 0.07 |               |
| 27             | 0.00                                                            | 0.05                     | 0.31 | 0.13                 | 0.43  | 1.56    | 1.56                     | 3.79   | 1.10  | 0.25  | 0.09 | 0.06 |               |
| 28             | 0.00                                                            | 0.03                     | 0.25 | 0.13                 | 0.37  | 1.30    | 1.40                     | 1.86   | 0.79  | 0.25  | 0.09 | 0.06 |               |
| 29             | 0.01                                                            | 0.02                     | 0.19 | 0.40                 | 0.31  | 1.15    | 1.25                     | 1.74   | 0.67  | 0.25  |      | 0.06 |               |
| 30             | 0.00                                                            | 0.02                     | 0.13 | 4.64                 | 0.28  | 1.00    | 1.10                     | 1.62   | 0.61  | 0.22  |      | 0.06 |               |
| 31             |                                                                 | 0.02                     |      | 13.70                | 0.25  |         | 0.97                     |        | 0.67  | 0.22  |      | 0.06 |               |
| Total          | 0.02                                                            | 1.30                     | 9.43 | 48.50                | 45.19 | 95.87   | 248.99                   | 140.63 | 32.08 | 10.06 | 3.69 | 2.46 | 638.22 CMSDAY |
| Mean           | 0.00                                                            | 0.04                     | 0.31 | 1.56                 | 1.46  | 3.20    | 8.03                     | 4.69   | 1.03  | 0.32  | 0.13 | 0.08 | 1.75 CMS      |
| Max            | 0.01                                                            | 0.73                     | 1.30 | 13.70                | 10.21 | 17.06   | 57.92                    | 60.02  | 1.68  | 0.52  | 0.19 | 0.09 | 60.02 CMS     |
| Min            | 0.00                                                            | 0.00                     | 0.02 | 0.09                 | 0.25  | 0.22    | 0.97                     | 0.55   | 0.61  | 0.22  | 0.09 | 0.06 | 0.00 CMS      |
| Runoff         | 0.00                                                            | 0.11                     | 0.82 | 4.19                 | 3.90  | 8.28    | 21.51                    | 12.15  | 2.77  | 0.87  | 0.32 | 0.21 | 55.14 MCM     |
| Momentary Peak | 132.06 CMS. at 40.31 m. (MSL.) at 03.00 Hours , on Nov 9 , 2013 |                          |      |                      |       |         |                          |        |       |       |      |      |               |
| Runoff Yield   | 5.68                                                            | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 428.766 | Liters/Second/Square KM. |        |       |       |      |      |               |

**WATER YEAR : 2013**

## MAE KLONG RIVER BASIN

### Khwaee Noi River at Ban Lin Thin , Kanchanaburi (K.54)

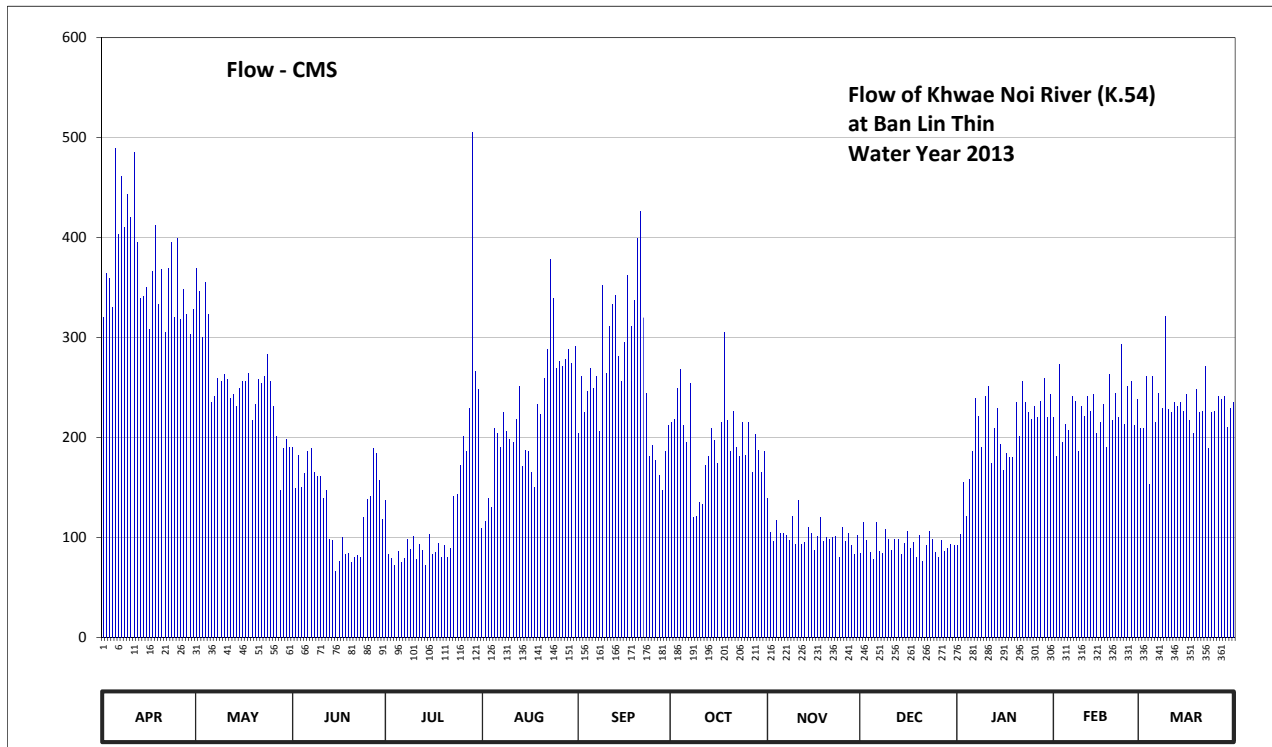
Lat 14 - 32 - 04 N    Long 98 - 47 - 30 E

**Location :** on right bank at the bridge on road

|                                         |                                                                            |           |               |                |                  |                   |
|-----------------------------------------|----------------------------------------------------------------------------|-----------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                 | Lin Thin  | <b>Amphoe</b> | Thong Pha Phum | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 4,774                                                                      | sq.km.    |               |                |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                     |           |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +60.540                                                                    | m. (MSL.) |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M. -H.D.                                                                 |           |               |                |                  |                   |
| <b>Location BM</b>                      | On right bank about 40 meters from the gage observer's house.              |           |               |                | <b>Elevation</b> | +75.155 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                  |           |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                             |           |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 1996 to date                                                               |           |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                            |           |               |                |                  |                   |
| <b>Period of Rating</b>                 | 1996 to date                                                               |           |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                          |           |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 1996 to date                                                               |           |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                    |           |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                          |           |               |                |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by Khao Laem Dam.                             |           |               |                |                  |                   |
|                                         | Stage-discharge relation defined by 30 discharge measurements made in 1913 |           |               |                |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 64.14 | 64.42 | 63.35                                            | 62.97 | 62.75 | 63.44 | 63.51 | 62.99 | 62.53 | 62.60 | 63.54 | 63.47 |        |
| 2                                | 64.39 | 64.29 | 63.06                                            | 62.52 | 62.81 | 63.79 | 63.53 | 62.72 | 62.80 | 62.70 | 63.29 | 63.47 |        |
| 3                                | 64.36 | 64.02 | 63.30                                            | 62.48 | 62.99 | 63.57 | 63.72 | 62.64 | 62.65 | 63.11 | 63.86 | 63.79 |        |
| 4                                | 64.20 | 64.34 | 63.07                                            | 62.41 | 62.92 | 63.70 | 63.83 | 62.82 | 62.54 | 62.85 | 63.38 | 63.09 |        |
| 5                                | 65.04 | 64.16 | 63.17                                            | 62.55 | 63.47 | 63.84 | 63.49 | 62.71 | 62.47 | 63.13 | 63.50 | 63.79 |        |
| 6                                | 64.60 | 63.63 | 63.32                                            | 62.44 | 63.44 | 63.72 | 63.38 | 62.71 | 62.80 | 63.32 | 63.46 | 63.51 |        |
| 7                                | 64.90 | 63.67 | 63.34                                            | 62.48 | 63.35 | 63.79 | 63.75 | 62.69 | 62.55 | 63.66 | 63.67 | 63.69 |        |
| 8                                | 64.64 | 63.78 | 63.18                                            | 62.66 | 63.57 | 63.45 | 62.84 | 62.65 | 62.53 | 63.55 | 63.64 | 63.60 |        |
| 9                                | 64.81 | 63.76 | 63.15                                            | 62.57 | 63.45 | 64.32 | 62.85 | 62.85 | 62.74 | 63.35 | 63.32 | 64.15 |        |
| 10                               | 64.69 | 63.80 | 63.15                                            | 62.68 | 63.40 | 63.81 | 62.96 | 62.61 | 62.66 | 63.67 | 63.61 | 63.59 |        |
| 11                               | 65.02 | 63.77 | 62.99                                            | 62.47 | 63.38 | 64.09 | 62.94 | 62.97 | 62.56 | 63.73 | 63.55 | 63.57 |        |
| 12                               | 64.56 | 63.66 | 63.05                                            | 62.61 | 63.53 | 64.22 | 63.23 | 62.61 | 62.66 | 63.24 | 63.67 | 63.63 |        |
| 13                               | 64.25 | 63.68 | 62.66                                            | 62.56 | 63.73 | 64.27 | 63.29 | 62.63 | 62.66 | 63.47 | 63.58 | 63.61 |        |
| 14                               | 64.26 | 63.61 | 62.65                                            | 62.42 | 63.22 | 63.91 | 63.47 | 62.76 | 62.52 | 63.60 | 63.68 | 63.63 |        |
| 15                               | 64.31 | 63.72 | 62.35                                            | 62.70 | 63.33 | 63.76 | 63.39 | 62.71 | 62.62 | 63.37 | 63.44 | 63.58 |        |
| 16                               | 64.07 | 63.76 | 62.46                                            | 62.52 | 63.32 | 63.99 | 63.24 | 62.56 | 62.73 | 63.19 | 63.51 | 63.68 |        |
| 17                               | 64.40 | 63.76 | 62.67                                            | 62.54 | 63.18 | 64.38 | 63.51 | 62.68 | 62.58 | 63.31 | 63.62 | 63.52 |        |
| 18                               | 64.65 | 63.81 | 62.52                                            | 62.62 | 63.07 | 64.09 | 64.05 | 62.84 | 62.63 | 63.28 | 63.35 | 63.44 |        |
| 19                               | 64.22 | 63.52 | 62.53                                            | 62.49 | 63.62 | 64.24 | 63.52 | 62.64 | 62.50 | 63.28 | 63.80 | 63.71 |        |
| 20                               | 64.41 | 63.62 | 62.44                                            | 62.60 | 63.56 | 64.58 | 63.32 | 62.67 | 62.69 | 63.63 | 63.52 | 63.57 |        |
| 21                               | 64.05 | 63.77 | 62.49                                            | 62.49 | 63.78 | 64.72 | 63.58 | 62.66 | 62.45 | 63.42 | 63.69 | 63.58 |        |
| 22                               | 64.42 | 63.75 | 62.51                                            | 62.58 | 63.95 | 64.14 | 63.35 | 62.67 | 62.60 | 63.76 | 63.54 | 63.85 |        |
| 23                               | 64.56 | 63.79 | 62.50                                            | 63.00 | 64.47 | 63.69 | 63.29 | 62.68 | 62.73 | 63.63 | 63.98 | 63.34 |        |
| 24                               | 64.14 | 63.92 | 62.84                                            | 63.02 | 64.25 | 63.29 | 63.51 | 62.50 | 62.66 | 63.57 | 63.50 | 63.57 |        |
| 25                               | 64.58 | 63.76 | 62.98                                            | 63.23 | 63.84 | 63.36 | 63.30 | 62.76 | 62.54 | 63.53 | 63.73 | 63.58 |        |
| 26                               | 64.13 | 63.61 | 63.00                                            | 63.42 | 63.88 | 63.26 | 63.51 | 62.64 | 62.50 | 63.61 | 63.76 | 63.67 |        |
| 27                               | 64.30 | 63.42 | 63.34                                            | 63.32 | 63.85 | 63.16 | 63.18 | 62.71 | 62.65 | 63.54 | 63.49 | 63.65 |        |
| 28                               | 64.16 | 63.05 | 63.31                                            | 63.60 | 63.89 | 63.05 | 63.43 | 62.60 | 62.55 | 63.64 | 63.65 | 63.67 |        |
| 29                               | 64.04 | 63.34 | 63.12                                            | 65.12 | 63.95 | 63.32 | 63.33 | 62.52 | 62.58 | 63.78 |       | 63.48 |        |
| 30                               | 64.19 | 63.40 | 62.83                                            | 63.82 | 63.87 | 63.49 | 63.18 | 62.69 | 62.61 | 63.54 |       | 63.60 |        |
| 31                               |       | 63.35 |                                                  | 63.71 | 63.97 |       | 63.32 |       | 62.60 | 63.68 |       | 63.63 |        |
| Mean                             | 64.42 | 63.74 | 62.91                                            | 62.86 | 63.54 | 63.81 | 63.38 | 62.70 | 62.61 | 63.41 | 63.58 | 63.60 |        |
| Max                              | 65.04 | 64.42 | 63.35                                            | 65.12 | 64.47 | 64.72 | 64.05 | 62.99 | 62.80 | 63.78 | 63.98 | 64.15 | 65.12  |
| Min                              | 64.04 | 63.05 | 62.35                                            | 62.41 | 62.75 | 63.05 | 62.84 | 62.50 | 62.45 | 62.60 | 63.29 | 63.09 | 62.35  |
| Annual Max Momentary Gage Height |       | 66.35 | m. (MSL.) , at 05.00 Hours , on Jul 29 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 60.54 | m. (MSL.) , River Bed 59.55 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 72.09 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 73.15 | m. (MSL.) , Drainage Area 4774 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|---------|--------------------------|---------|---------|---------|----------|--------|
| 1              | 319.92                                                           | 369.60                   | 190.75  | 137.10  | 109.25               | 204.70  | 215.60  | 139.70  | 84.30                    | 92.00   | 220.40  | 209.35  |          |        |
| 2              | 364.20                                                           | 346.20                   | 149.10  | 83.20   | 116.30               | 261.12  | 218.80  | 105.80  | 115.00                   | 103.50  | 181.55  | 209.35  |          |        |
| 3              | 358.80                                                           | 299.76                   | 183.00  | 79.00   | 139.70               | 225.20  | 249.36  | 96.60   | 97.75                    | 155.90  | 272.88  | 261.12  |          |        |
| 4              | 330.00                                                           | 355.20                   | 150.45  | 72.00   | 130.60               | 246.00  | 267.84  | 117.60  | 85.40                    | 121.50  | 195.40  | 153.15  |          |        |
| 5              | 489.00                                                           | 323.28                   | 164.30  | 86.50   | 209.35               | 269.52  | 212.45  | 104.65  | 78.00                    | 158.70  | 214.00  | 261.12  |          |        |
| 6              | 403.00                                                           | 234.80                   | 186.10  | 75.00   | 204.70               | 249.36  | 195.40  | 104.65  | 115.00                   | 186.10  | 207.80  | 215.60  |          |        |
| 7              | 461.00                                                           | 241.20                   | 189.20  | 79.00   | 190.75               | 261.12  | 254.40  | 102.35  | 86.50                    | 239.60  | 241.20  | 244.40  |          |        |
| 8              | 410.60                                                           | 259.44                   | 165.70  | 98.90   | 225.20               | 206.25  | 120.20  | 97.75   | 84.30                    | 222.00  | 236.40  | 230.00  |          |        |
| 9              | 443.00                                                           | 256.08                   | 161.50  | 88.70   | 206.25               | 351.60  | 121.50  | 121.50  | 108.10                   | 190.75  | 186.10  | 321.60  |          |        |
| 10             | 420.10                                                           | 262.80                   | 161.50  | 101.20  | 198.50               | 264.48  | 135.80  | 93.15   | 98.90                    | 241.20  | 231.60  | 228.40  |          |        |
| 11             | 485.00                                                           | 257.76                   | 139.70  | 78.00   | 195.40               | 311.52  | 133.20  | 137.10  | 87.60                    | 251.04  | 222.00  | 225.20  |          |        |
| 12             | 395.40                                                           | 239.60                   | 147.75  | 93.15   | 218.80               | 333.60  | 172.85  | 93.15   | 98.90                    | 174.30  | 241.20  | 234.80  |          |        |
| 13             | 339.00                                                           | 242.80                   | 98.90   | 87.60   | 251.04               | 342.60  | 181.55  | 95.45   | 98.90                    | 209.35  | 226.80  | 231.60  |          |        |
| 14             | 340.80                                                           | 231.60                   | 97.75   | 73.00   | 171.40               | 281.28  | 209.35  | 110.40  | 83.20                    | 230.00  | 242.80  | 234.80  |          |        |
| 15             | 349.80                                                           | 249.36                   | 66.00   | 103.50  | 187.65               | 256.08  | 196.95  | 104.65  | 94.30                    | 193.85  | 204.70  | 226.80  |          |        |
| 16             | 308.16                                                           | 256.08                   | 77.00   | 83.20   | 186.10               | 294.72  | 174.30  | 87.60   | 106.95                   | 167.10  | 215.60  | 242.80  |          |        |
| 17             | 366.00                                                           | 256.08                   | 100.05  | 85.40   | 165.70               | 362.40  | 215.60  | 101.20  | 89.80                    | 184.55  | 233.20  | 217.20  |          |        |
| 18             | 412.50                                                           | 264.48                   | 83.20   | 94.30   | 150.45               | 311.52  | 304.80  | 120.20  | 95.45                    | 180.10  | 190.75  | 204.70  |          |        |
| 19             | 333.60                                                           | 217.20                   | 84.30   | 80.00   | 233.20               | 337.20  | 217.20  | 96.60   | 81.00                    | 180.10  | 262.80  | 247.68  |          |        |
| 20             | 367.80                                                           | 233.20                   | 75.00   | 92.00   | 223.60               | 399.20  | 186.10  | 100.05  | 102.35                   | 234.80  | 217.20  | 225.20  |          |        |
| 21             | 304.80                                                           | 257.76                   | 80.00   | 80.00   | 259.44               | 425.80  | 226.80  | 98.90   | 76.00                    | 201.60  | 244.40  | 226.80  |          |        |
| 22             | 369.60                                                           | 254.40                   | 82.10   | 89.80   | 288.00               | 319.92  | 190.75  | 100.05  | 92.00                    | 256.08  | 220.40  | 271.20  |          |        |
| 23             | 395.40                                                           | 261.12                   | 81.00   | 141.00  | 378.60               | 244.40  | 181.55  | 101.20  | 106.95                   | 234.80  | 293.04  | 189.20  |          |        |
| 24             | 319.92                                                           | 282.96                   | 120.20  | 143.70  | 339.00               | 181.55  | 215.60  | 81.00   | 98.90                    | 225.20  | 214.00  | 225.20  |          |        |
| 25             | 399.20                                                           | 256.08                   | 138.40  | 172.85  | 269.52               | 192.30  | 183.00  | 110.40  | 85.40                    | 218.80  | 251.04  | 226.80  |          |        |
| 26             | 318.24                                                           | 231.60                   | 141.00  | 201.60  | 276.24               | 177.20  | 215.60  | 96.60   | 81.00                    | 231.60  | 256.08  | 241.20  |          |        |
| 27             | 348.00                                                           | 201.60                   | 189.20  | 186.10  | 271.20               | 162.90  | 165.70  | 104.65  | 97.75                    | 220.40  | 212.45  | 238.00  |          |        |
| 28             | 323.28                                                           | 147.75                   | 184.55  | 230.00  | 277.92               | 147.75  | 203.15  | 92.00   | 86.50                    | 236.40  | 238.00  | 241.20  |          |        |
| 29             | 303.12                                                           | 189.20                   | 157.30  | 505.00  | 288.00               | 186.10  | 187.65  | 83.20   | 89.80                    | 259.44  |         | 210.90  |          |        |
| 30             | 328.32                                                           | 198.50                   | 118.90  | 266.16  | 274.56               | 212.45  | 165.70  | 102.35  | 93.15                    | 220.40  |         | 230.00  |          |        |
| 31             |                                                                  | 190.75                   |         | 247.68  | 291.36               |         | 186.10  |         | 92.00                    | 242.80  |         | 234.80  |          |        |
| Total          | 11107.56                                                         | 7868.24                  | 3963.90 | 4034.64 | 6927.78              | 8019.84 | 6104.85 | 3100.50 | 2891.15                  | 6263.96 | 6373.79 | 7160.17 | 73816.39 | CMSDAY |
| Mean           | 370.25                                                           | 253.81                   | 132.13  | 130.15  | 223.48               | 267.33  | 196.93  | 103.35  | 93.26                    | 202.06  | 227.64  | 230.97  | 202.24   | CMS    |
| Max            | 489.00                                                           | 369.60                   | 190.75  | 505.00  | 378.60               | 425.80  | 304.80  | 139.70  | 115.00                   | 259.44  | 293.04  | 321.60  | 505.00   | CMS    |
| Min            | 303.12                                                           | 147.75                   | 66.00   | 72.00   | 109.25               | 147.75  | 120.20  | 81.00   | 76.00                    | 92.00   | 181.55  | 153.15  | 66.00    | CMS    |
| Runoff         | 959.69                                                           | 679.82                   | 342.48  | 348.59  | 598.56               | 692.91  | 527.46  | 267.88  | 249.80                   | 541.21  | 550.70  | 618.64  | 6377.74  | MCM    |
| Momentary Peak | 757.50 CMS. at 66.35 m. (MSL.) at 05.00 Hours , on Jul 29 , 2013 |                          |         |         |                      |         |         |         |                          |         |         |         |          |        |
| Runoff Yield   | 42.36                                                            | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | 158.672 | Liters/Second/Square KM. |         |         |         |          |        |

## WATER YEAR : 2013

## MAE KLONG RIVER BASIN

### Khwaeng Noi River at Ban Pak Saeng , Kanchanaburi (K.58)

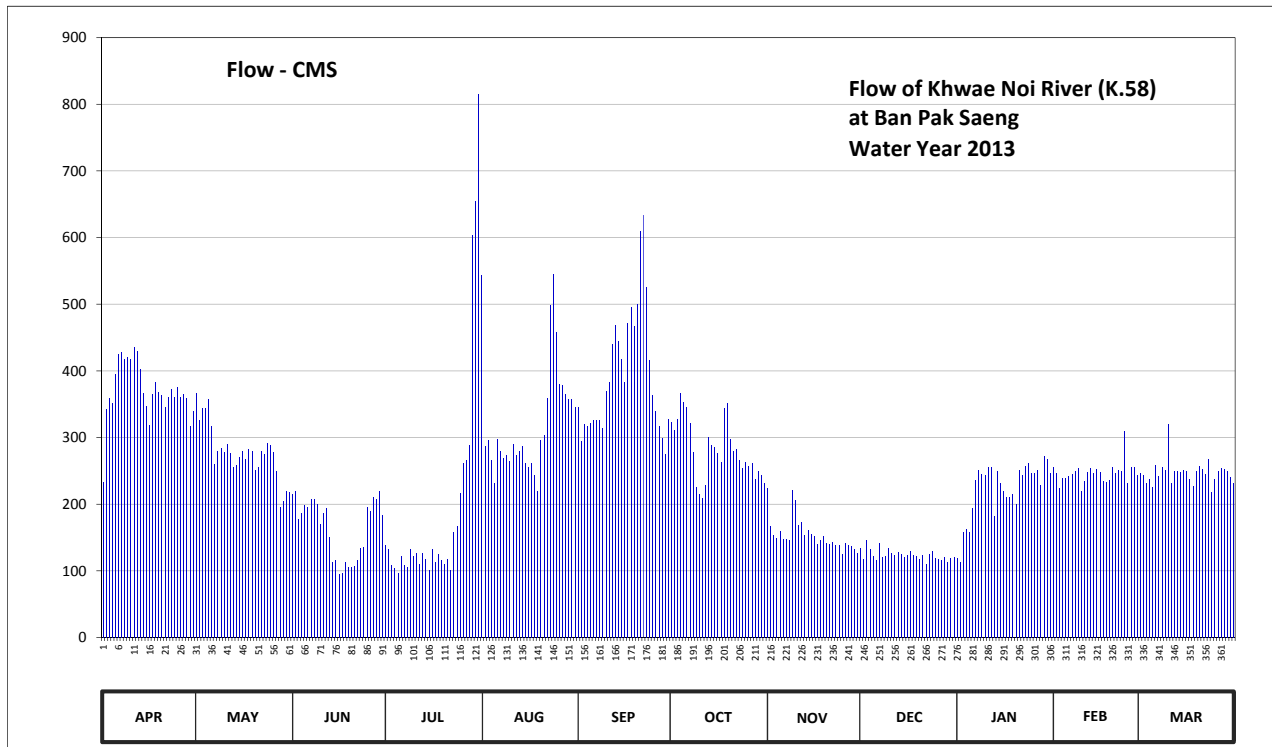
Lat 14 - 12 - 46 N      Long 99 - 03 - 39 E

**Location : on left bank at Ban Pak Saeng**

|                                         |                                                                    |                                     |               |         |                  |                   |
|-----------------------------------------|--------------------------------------------------------------------|-------------------------------------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                         | Pak Saeng                           | <b>Amphoe</b> | Sai Yok | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 6,725                                                              | sq.km.                              |               |         |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                         |                                     |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +39.567                                                            | m. (MSL.)                           |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                          |                                     |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank about 40 meters from the gage observer's house.      |                                     |               |         | <b>Elevation</b> | +49.053 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours |                                     |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                      |                                     |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1998 to date                                                       |                                     |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                    |                                     |               |         |                  |                   |
| <b>Period of Rating</b>                 | 2006 to date                                                       |                                     |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                  |                                     |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 2006 to date                                                       |                                     |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                            |                                     |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                  |                                     |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 30               | discharge measurements made in 2013 |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 42.63 | 43.70 | 42.48                                            | 41.80 | 45.02 | 43.55 | 43.37 | 42.55 | 41.76 | 41.63 | 42.81 | 42.74 |        |
|                                  | 2  | 43.52 | 43.39 | 42.51                                            | 41.75 | 43.08 | 43.14 | 43.28 | 42.06 | 41.62 | 41.58 | 42.74 | 42.72 |        |
|                                  | 3  | 43.64 | 43.53 | 42.16                                            | 41.54 | 43.15 | 43.35 | 43.41 | 41.94 | 41.87 | 41.99 | 42.55 | 42.61 |        |
|                                  | 4  | 43.58 | 43.53 | 42.24                                            | 41.49 | 42.90 | 43.33 | 43.70 | 41.90 | 41.75 | 42.02 | 42.68 | 42.67 |        |
|                                  | 5  | 43.92 | 43.63 | 42.34                                            | 41.42 | 42.62 | 43.36 | 43.60 | 42.00 | 41.66 | 41.99 | 42.68 | 42.57 |        |
|                                  | 6  | 44.15 | 43.32 | 42.32                                            | 41.66 | 43.16 | 43.40 | 43.54 | 41.89 | 41.60 | 42.30 | 42.70 | 42.84 |        |
|                                  | 7  | 44.17 | 42.85 | 42.41                                            | 41.54 | 43.02 | 43.40 | 43.36 | 41.89 | 41.84 | 42.65 | 42.73 | 42.70 |        |
|                                  | 8  | 44.09 | 43.02 | 42.41                                            | 41.50 | 42.93 | 43.39 | 43.00 | 41.88 | 41.64 | 42.78 | 42.76 | 42.82 |        |
|                                  | 9  | 44.12 | 43.05 | 42.35                                            | 41.75 | 42.96 | 43.30 | 42.57 | 42.53 | 41.66 | 42.73 | 42.80 | 42.78 |        |
|                                  | 10 | 44.09 | 43.00 | 42.10                                            | 41.66 | 42.89 | 43.72 | 42.48 | 42.40 | 41.77 | 42.72 | 42.52 | 43.35 |        |
|                                  | 11 | 44.23 | 43.10 | 42.24                                            | 41.70 | 43.10 | 43.83 | 42.43 | 42.08 | 41.70 | 42.81 | 42.64 | 42.62 |        |
|                                  | 12 | 44.19 | 42.99 | 42.30                                            | 41.55 | 42.97 | 44.27 | 42.59 | 42.12 | 41.67 | 42.82 | 42.75 | 42.76 |        |
|                                  | 13 | 43.98 | 42.82 | 41.92                                            | 41.69 | 43.02 | 44.49 | 43.19 | 41.94 | 41.71 | 42.20 | 42.80 | 42.76 |        |
|                                  | 14 | 43.70 | 42.84 | 41.58                                            | 41.61 | 43.08 | 44.30 | 43.09 | 42.01 | 41.68 | 42.77 | 42.74 | 42.75 |        |
|                                  | 15 | 43.56 | 42.94 | 41.60                                            | 41.46 | 42.86 | 44.09 | 43.07 | 41.96 | 41.64 | 42.61 | 42.79 | 42.78 |        |
|                                  | 16 | 43.34 | 43.01 | 41.41                                            | 41.75 | 42.81 | 43.83 | 42.99 | 41.93 | 41.67 | 42.51 | 42.75 | 42.76 |        |
|                                  | 17 | 43.69 | 42.92 | 41.42                                            | 41.57 | 42.86 | 44.51 | 42.88 | 41.82 | 41.73 | 42.44 | 42.64 | 42.66 |        |
|                                  | 18 | 43.83 | 43.04 | 41.58                                            | 41.68 | 42.72 | 44.68 | 43.53 | 41.88 | 41.67 | 42.44 | 42.63 | 42.58 |        |
|                                  | 19 | 43.71 | 43.01 | 41.50                                            | 41.60 | 42.51 | 44.47 | 43.59 | 41.93 | 41.66 | 42.48 | 42.65 | 42.76 |        |
|                                  | 20 | 43.68 | 42.78 | 41.51                                            | 41.55 | 43.15 | 44.71 | 43.17 | 41.83 | 41.61 | 42.35 | 42.81 | 42.83 |        |
|                                  | 21 | 43.55 | 42.82 | 41.52                                            | 41.62 | 43.22 | 45.49 | 43.02 | 41.82 | 41.67 | 42.78 | 42.74 | 42.79 |        |
|                                  | 22 | 43.66 | 43.02 | 41.60                                            | 41.46 | 43.65 | 45.67 | 43.04 | 41.85 | 41.55 | 42.72 | 42.78 | 42.73 |        |
|                                  | 23 | 43.75 | 42.98 | 41.77                                            | 41.98 | 44.70 | 44.89 | 42.90 | 41.81 | 41.68 | 42.83 | 42.76 | 42.92 |        |
|                                  | 24 | 43.66 | 43.11 | 41.78                                            | 42.06 | 45.03 | 44.08 | 42.80 | 41.81 | 41.73 | 42.86 | 43.27 | 42.50 |        |
|                                  | 25 | 43.77 | 43.09 | 42.32                                            | 42.49 | 44.41 | 43.68 | 42.88 | 41.68 | 41.63 | 42.74 | 42.62 | 42.66 |        |
|                                  | 26 | 43.66 | 43.00 | 42.27                                            | 42.87 | 43.80 | 43.50 | 42.83 | 41.84 | 41.61 | 42.74 | 42.82 | 42.76 |        |
|                                  | 27 | 43.69 | 42.76 | 42.44                                            | 42.90 | 43.79 | 43.33 | 42.87 | 41.81 | 41.60 | 42.78 | 42.81 | 42.80 |        |
|                                  | 28 | 43.65 | 42.31 | 42.41                                            | 43.09 | 43.69 | 43.18 | 42.67 | 41.79 | 41.65 | 42.59 | 42.71 | 42.79 |        |
|                                  | 29 | 43.32 | 42.39 | 42.51                                            | 45.45 | 43.63 | 42.98 | 42.77 | 41.75 | 41.57 | 42.95 |       | 42.76 |        |
|                                  | 30 | 43.50 | 42.51 | 42.21                                            | 45.82 | 43.63 | 43.41 | 42.71 | 41.69 | 41.63 | 42.91 |       | 42.69 |        |
|                                  | 31 |       | 42.50 |                                                  | 46.95 | 43.55 |       | 42.62 |       | 41.65 | 42.74 |       | 42.61 |        |
| Mean                             |    | 43.73 | 43.00 | 42.04                                            | 42.22 | 43.35 | 43.91 | 43.03 | 41.95 | 41.67 | 42.53 | 42.74 | 42.74 |        |
| Max                              |    | 44.23 | 43.70 | 42.51                                            | 46.95 | 45.03 | 45.67 | 43.70 | 42.55 | 41.87 | 42.95 | 43.27 | 43.35 | 46.95  |
| Min                              |    | 42.63 | 42.31 | 41.41                                            | 41.42 | 42.51 | 42.98 | 42.43 | 41.68 | 41.55 | 41.58 | 42.52 | 42.50 | 41.41  |
| Annual Max Momentary Gage Height |    |       | 47.38 | m. (MSL.) , at 09.00 Hours , on Jul 31 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 39.57 | m. (MSL.) , River Bed 40.27 m. (MSL)             |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 49.04 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 49.07 | m. (MSL.) , Drainage Area 6725 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug      | Sep      | Oct                      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|----------|----------|--------------------------|---------|---------|---------|---------|---------|----------|--------|
| 1              | 233.60                                                           | 366.00                   | 215.60  | 138.00               | 542.80   | 346.50   | 323.10                   | 224.00  | 133.60  | 119.30  | 255.20  | 246.80  |          |        |
| 2              | 342.60                                                           | 325.70                   | 219.20  | 132.50               | 287.60   | 294.80   | 311.60                   | 166.60  | 118.20  | 113.80  | 246.80  | 244.40  |          |        |
| 3              | 358.20                                                           | 343.90                   | 177.60  | 109.40               | 296.00   | 320.50   | 328.30                   | 153.40  | 145.70  | 158.90  | 224.00  | 231.20  |          |        |
| 4              | 350.40                                                           | 343.90                   | 186.80  | 103.90               | 266.00   | 317.90   | 366.00                   | 149.00  | 132.50  | 162.20  | 239.60  | 238.40  |          |        |
| 5              | 394.60                                                           | 356.90                   | 198.80  | 96.20                | 232.40   | 321.80   | 353.00                   | 160.00  | 122.60  | 158.90  | 239.60  | 226.40  |          |        |
| 6              | 424.50                                                           | 316.60                   | 196.40  | 122.60               | 297.20   | 327.00   | 345.20                   | 147.90  | 116.00  | 194.00  | 242.00  | 258.80  |          |        |
| 7              | 427.10                                                           | 260.00                   | 207.20  | 109.40               | 280.40   | 327.00   | 321.80                   | 147.90  | 142.40  | 236.00  | 245.60  | 242.00  |          |        |
| 8              | 416.70                                                           | 280.40                   | 207.20  | 105.00               | 269.60   | 325.70   | 278.00                   | 146.80  | 120.40  | 251.60  | 249.20  | 256.40  |          |        |
| 9              | 420.60                                                           | 284.00                   | 200.00  | 132.50               | 273.20   | 314.00   | 226.40                   | 221.60  | 122.60  | 245.60  | 254.00  | 251.60  |          |        |
| 10             | 416.70                                                           | 278.00                   | 171.00  | 122.60               | 264.80   | 368.60   | 215.60                   | 206.00  | 134.70  | 244.40  | 220.40  | 320.50  |          |        |
| 11             | 434.90                                                           | 290.00                   | 186.80  | 127.00               | 290.00   | 382.90   | 209.60                   | 168.80  | 127.00  | 255.20  | 234.80  | 232.40  |          |        |
| 12             | 429.70                                                           | 276.80                   | 194.00  | 110.50               | 274.40   | 440.10   | 228.80                   | 173.20  | 123.70  | 256.40  | 248.00  | 249.20  |          |        |
| 13             | 402.40                                                           | 256.40                   | 151.20  | 125.90               | 280.40   | 468.70   | 300.80                   | 153.40  | 128.10  | 182.00  | 254.00  | 249.20  |          |        |
| 14             | 366.00                                                           | 258.80                   | 113.80  | 117.10               | 287.60   | 444.00   | 288.80                   | 161.10  | 124.80  | 250.40  | 246.80  | 248.00  |          |        |
| 15             | 347.80                                                           | 270.80                   | 116.00  | 100.60               | 261.20   | 416.70   | 286.40                   | 155.60  | 120.40  | 231.20  | 252.80  | 251.60  |          |        |
| 16             | 319.20                                                           | 279.20                   | 95.10   | 132.50               | 255.20   | 382.90   | 276.80                   | 152.30  | 123.70  | 219.20  | 248.00  | 249.20  |          |        |
| 17             | 364.70                                                           | 268.40                   | 96.20   | 112.70               | 261.20   | 471.40   | 263.60                   | 140.20  | 130.30  | 210.80  | 234.80  | 237.20  |          |        |
| 18             | 382.90                                                           | 282.80                   | 113.80  | 124.80               | 244.40   | 495.20   | 343.90                   | 146.80  | 123.70  | 210.80  | 233.60  | 227.60  |          |        |
| 19             | 367.30                                                           | 279.20                   | 105.00  | 116.00               | 219.20   | 466.10   | 351.70                   | 152.30  | 122.60  | 215.60  | 236.00  | 249.20  |          |        |
| 20             | 363.40                                                           | 251.60                   | 106.10  | 110.50               | 296.00   | 499.40   | 298.40                   | 141.30  | 117.10  | 200.00  | 255.20  | 257.60  |          |        |
| 21             | 346.50                                                           | 256.40                   | 107.20  | 118.20               | 304.40   | 608.60   | 280.40                   | 140.20  | 123.70  | 251.60  | 246.80  | 252.80  |          |        |
| 22             | 360.80                                                           | 280.40                   | 116.00  | 100.60               | 359.50   | 633.80   | 282.80                   | 143.50  | 110.50  | 244.40  | 251.60  | 245.60  |          |        |
| 23             | 372.50                                                           | 275.60                   | 134.70  | 157.80               | 498.00   | 524.60   | 266.00                   | 139.10  | 124.80  | 257.60  | 249.20  | 268.40  |          |        |
| 24             | 360.80                                                           | 291.20                   | 135.80  | 166.60               | 544.20   | 415.40   | 254.00                   | 139.10  | 130.30  | 261.20  | 310.40  | 218.00  |          |        |
| 25             | 375.10                                                           | 288.80                   | 196.40  | 216.80               | 458.30   | 363.40   | 263.60                   | 124.80  | 119.30  | 246.80  | 232.40  | 237.20  |          |        |
| 26             | 360.80                                                           | 278.00                   | 190.40  | 262.40               | 379.00   | 340.00   | 257.60                   | 142.40  | 117.10  | 246.80  | 256.40  | 249.20  |          |        |
| 27             | 364.70                                                           | 249.20                   | 210.80  | 266.00               | 377.70   | 317.90   | 262.40                   | 139.10  | 116.00  | 251.60  | 255.20  | 254.00  |          |        |
| 28             | 359.50                                                           | 195.20                   | 207.20  | 288.80               | 364.70   | 299.60   | 238.40                   | 136.90  | 121.50  | 228.80  | 243.20  | 252.80  |          |        |
| 29             | 316.60                                                           | 204.80                   | 219.20  | 603.00               | 356.90   | 275.60   | 250.40                   | 132.50  | 112.70  | 272.00  |         | 249.20  |          |        |
| 30             | 340.00                                                           | 219.20                   | 183.20  | 654.80               | 356.90   | 328.30   | 243.20                   | 125.90  | 119.30  | 267.20  |         | 240.80  |          |        |
| 31             |                                                                  | 218.00                   |         | 815.50               | 346.50   |          | 232.40                   |         | 121.50  | 246.80  |         | 231.20  |          |        |
| Total          | 11120.60                                                         | 8626.20                  | 4958.70 | 6000.20              | 10025.70 | 11838.40 | 8749.00                  | 4631.70 | 3846.80 | 6891.10 | 6905.60 | 7666.90 | 91260.91 | CMSDAY |
| Mean           | 370.69                                                           | 278.26                   | 165.29  | 193.55               | 323.41   | 394.61   | 282.23                   | 154.39  | 124.09  | 222.29  | 246.63  | 247.32  | 250.03   | CMS    |
| Max            | 434.90                                                           | 366.00                   | 219.20  | 815.50               | 544.20   | 633.80   | 366.00                   | 224.00  | 145.70  | 272.00  | 310.40  | 320.50  | 815.50   | CMS    |
| Min            | 233.60                                                           | 195.20                   | 95.10   | 96.20                | 219.20   | 275.60   | 209.60                   | 124.80  | 110.50  | 113.80  | 220.40  | 218.00  | 95.10    | CMS    |
| Runoff         | 960.82                                                           | 745.30                   | 428.43  | 518.42               | 866.22   | 1022.84  | 755.91                   | 400.18  | 332.36  | 595.39  | 596.64  | 662.42  | 7884.94  | MCM    |
| Momentary Peak | 880.00 CMS. at 47.38 m. (MSL.) at 09.00 Hours , on Jul 31 , 2013 |                          |         |                      |          |          |                          |         |         |         |         |         |          |        |
| Runoff Yield   | 37.18                                                            | Liters/Second/Square KM. |         | Momentary Peak Yield |          | 130.855  | Liters/Second/Square KM. |         |         |         |         |         |          |        |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Kui Mang at Ban Kui Mang , Kanchanaburi (K.60)**

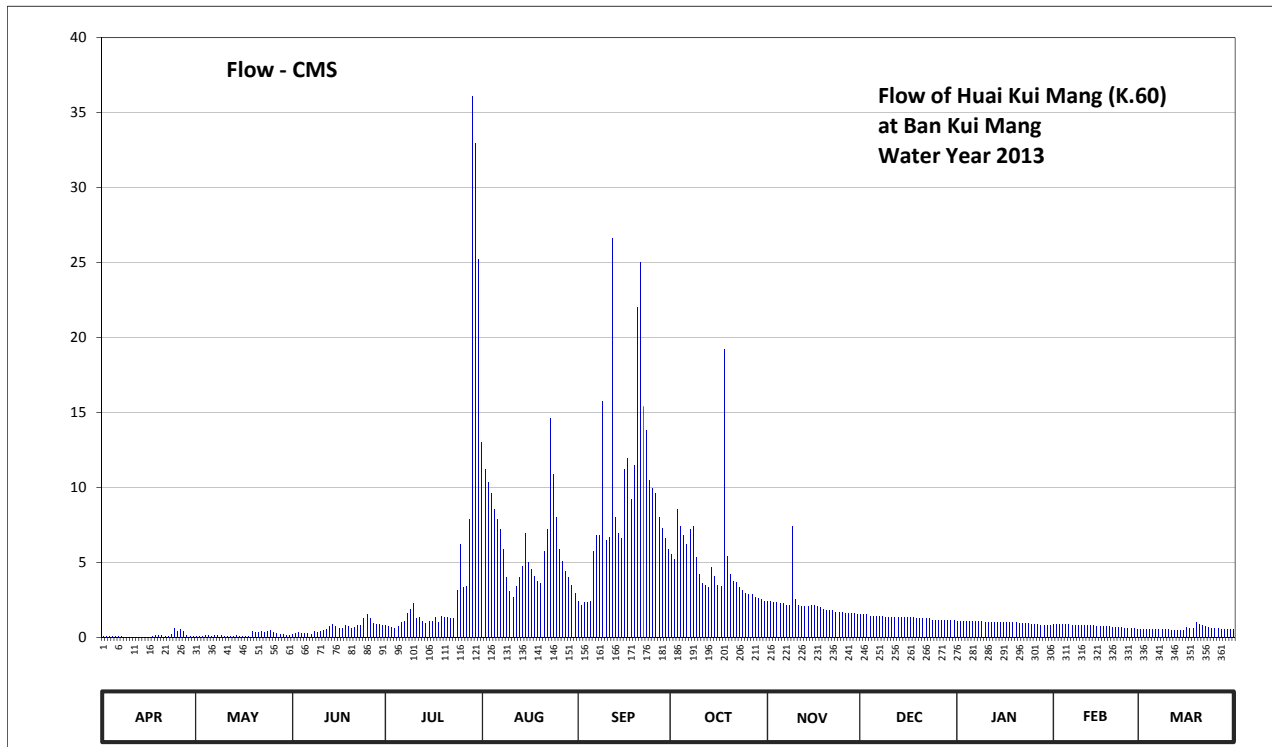
Lat 14 - 37 - 32 N Long 98 - 43 - 50 E

Location : on right bank at the bridge on road.

|                                         |                                                                                          |           |               |                |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Kui Mang  | <b>Amphoe</b> | Thong Pha Phum | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 128                                                                                      | sq.km.    |               |                |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                               |           |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +73.675                                                                                  | m. (MSL.) |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |                |                  |                   |
| <b>Location BM</b>                      | On right bank about 15 meters from the top staff gage.                                   |           |               |                | <b>Elevation</b> | +82.022 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours                       |           |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |           |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 2000 to date                                                                             |           |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |                |                  |                   |
| <b>Period of Rating</b>                 | 2000 to date                                                                             |           |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 2000 to date                                                                             |           |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |                |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 33 discharge measurements made in 2013 |           |               |                |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep           | Oct                               | Nov   | Dec               | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|---------------|-----------------------------------|-------|-------------------|-------|-------|-------|--------|
| 1                                | 74.36 | 74.35 | 74.40       | 74.55 | 75.62 | 74.75         | 75.06                             | 74.75 | 74.65             | 74.60 | 74.57 | 74.51 |        |
| 2                                | 74.35 | 74.35 | 74.43       | 74.54 | 75.50 | 74.72         | 75.03                             | 74.75 | 74.65             | 74.60 | 74.57 | 74.51 |        |
| 3                                | 74.35 | 74.35 | 74.45       | 74.53 | 75.44 | 74.74         | 75.31                             | 74.74 | 74.65             | 74.60 | 74.57 | 74.51 |        |
| 4                                | 74.35 | 74.39 | 74.44       | 74.52 | 75.39 | 74.74         | 75.22                             | 74.74 | 74.64             | 74.60 | 74.57 | 74.51 |        |
| 5                                | 74.34 | 74.37 | 74.42       | 74.54 | 75.31 | 74.75         | 75.17                             | 74.73 | 74.64             | 74.60 | 74.57 | 74.51 |        |
| 6                                | 74.34 | 74.36 | 74.43       | 74.59 | 75.26 | 75.08         | 75.12                             | 74.73 | 74.64             | 74.60 | 74.57 | 74.51 |        |
| 7                                | 74.34 | 74.38 | 74.41       | 74.60 | 75.20 | 75.17         | 75.20                             | 74.72 | 74.64             | 74.60 | 74.56 | 74.51 |        |
| 8                                | 74.33 | 74.37 | 74.48       | 74.66 | 75.09 | 75.17         | 75.22                             | 74.72 | 74.64             | 74.60 | 74.56 | 74.51 |        |
| 9                                | 74.33 | 74.37 | 74.46       | 74.69 | 74.92 | 75.79         | 75.04                             | 75.22 | 74.63             | 74.60 | 74.56 | 74.51 |        |
| 10                               | 74.33 | 74.36 | 74.48       | 74.73 | 74.82 | 75.14         | 74.94                             | 74.76 | 74.63             | 74.59 | 74.56 | 74.51 |        |
| 11                               | 74.33 | 74.35 | 74.50       | 74.62 | 74.78 | 75.16         | 74.88                             | 74.72 | 74.63             | 74.59 | 74.56 | 74.50 |        |
| 12                               | 74.33 | 74.35 | 74.51       | 74.63 | 74.86 | 76.33         | 74.87                             | 74.71 | 74.63             | 74.59 | 74.55 | 74.50 |        |
| 13                               | 74.33 | 74.35 | 74.54       | 74.60 | 74.92 | 75.27         | 74.85                             | 74.71 | 74.63             | 74.59 | 74.55 | 74.50 |        |
| 14                               | 74.33 | 74.37 | 74.57       | 74.58 | 74.99 | 75.18         | 74.98                             | 74.71 | 74.63             | 74.59 | 74.55 | 74.50 |        |
| 15                               | 74.32 | 74.36 | 74.54       | 74.60 | 75.18 | 75.15         | 74.93                             | 74.72 | 74.63             | 74.59 | 74.54 | 74.50 |        |
| 16                               | 74.32 | 74.36 | 74.52       | 74.60 | 75.01 | 75.50         | 74.87                             | 74.72 | 74.63             | 74.59 | 74.54 | 74.53 |        |
| 17                               | 74.35 | 74.35 | 74.52       | 74.63 | 74.97 | 75.55         | 74.86                             | 74.71 | 74.63             | 74.59 | 74.54 | 74.52 |        |
| 18                               | 74.38 | 74.35 | 74.55       | 74.59 | 74.93 | 75.36         | 75.98                             | 74.70 | 74.63             | 74.59 | 74.54 | 74.52 |        |
| 19                               | 74.38 | 74.47 | 74.54       | 74.64 | 74.90 | 75.52         | 75.05                             | 74.69 | 74.62             | 74.59 | 74.54 | 74.59 |        |
| 20                               | 74.37 | 74.45 | 74.52       | 74.63 | 74.88 | 76.12         | 74.94                             | 74.68 | 74.62             | 74.59 | 74.53 | 74.57 |        |
| 21                               | 74.36 | 74.45 | 74.53       | 74.63 | 75.08 | 76.26         | 74.90                             | 74.68 | 74.62             | 74.58 | 74.53 | 74.56 |        |
| 22                               | 74.36 | 74.47 | 74.55       | 74.62 | 75.20 | 75.77         | 74.89                             | 74.68 | 74.62             | 74.58 | 74.53 | 74.54 |        |
| 23                               | 74.41 | 74.46 | 74.55       | 74.62 | 75.72 | 75.67         | 74.85                             | 74.67 | 74.62             | 74.58 | 74.53 | 74.53 |        |
| 24                               | 74.52 | 74.48 | 74.62       | 74.83 | 75.48 | 75.45         | 74.83                             | 74.67 | 74.61             | 74.58 | 74.52 | 74.52 |        |
| 25                               | 74.48 | 74.50 | 74.65       | 75.12 | 75.27 | 75.41         | 74.81                             | 74.67 | 74.61             | 74.57 | 74.52 | 74.52 |        |
| 26                               | 74.51 | 74.45 | 74.62       | 74.85 | 75.09 | 75.39         | 74.80                             | 74.66 | 74.61             | 74.57 | 74.52 | 74.52 |        |
| 27                               | 74.47 | 74.43 | 74.58       | 74.86 | 75.02 | 75.27         | 74.80                             | 74.66 | 74.61             | 74.57 | 74.52 | 74.51 |        |
| 28                               | 74.37 | 74.41 | 74.57       | 75.26 | 74.96 | 75.21         | 74.78                             | 74.66 | 74.61             | 74.56 | 74.51 | 74.51 |        |
| 29                               | 74.36 | 74.40 | 74.57       | 76.71 | 74.92 | 75.15         | 74.77                             | 74.66 | 74.61             | 74.56 |       | 74.51 |        |
| 30                               | 74.36 | 74.39 | 74.56       | 76.59 | 74.87 | 75.09         | 74.76                             | 74.65 | 74.61             | 74.56 |       | 74.51 |        |
| 31                               |       | 74.38 |             | 76.27 | 74.81 |               | 74.75                             |       | 74.61             | 74.55 |       | 74.51 |        |
| Mean                             | 74.37 | 74.39 | 74.52       | 74.85 | 75.11 | 75.33         | 74.98                             | 74.72 | 74.63             | 74.59 | 74.55 | 74.52 |        |
| Max                              | 74.52 | 74.50 | 74.65       | 76.71 | 75.72 | 76.33         | 75.98                             | 75.22 | 74.65             | 74.60 | 74.57 | 74.59 | 76.71  |
| Min                              | 74.32 | 74.35 | 74.40       | 74.52 | 74.78 | 74.72         | 74.75                             | 74.65 | 74.61             | 74.55 | 74.51 | 74.50 | 74.32  |
| Annual Max Momentary Gage Height | 77.09 |       | m. (MSL.) , |       |       |               | at 06.00 Hours , on Jul 29 , 2013 |       |                   |       |       |       |        |
| Zero Gage at Bottom Elevation    | 73.68 |       | m. (MSL.) , |       |       | River Bed     | 73.51                             |       | m. (MSL.)         |       |       |       |        |
| Left Bank Elevation              | 82.03 |       | m. (MSL.) , |       |       |               |                                   |       |                   |       |       |       |        |
| Right Bank Elevation             | 82.03 |       | m. (MSL.) , |       |       | Drainage Area | 128                               |       | Square Kilometers |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

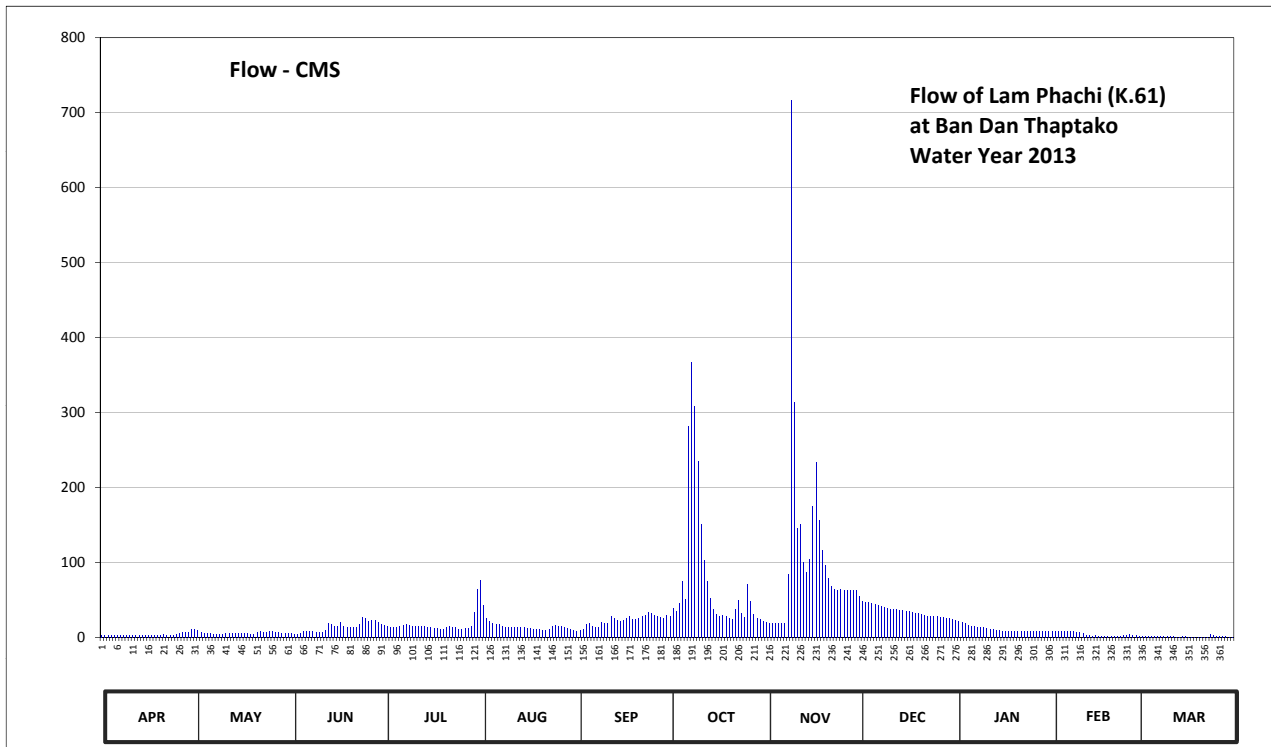
| Date           | Apr   | May                                                       | Jun   | Jul    | Aug    | Sep                  | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual |        |
|----------------|-------|-----------------------------------------------------------|-------|--------|--------|----------------------|--------|---------|--------------------------|-------|-------|-------|--------|--------|
| 1              | 0.12  | 0.10                                                      | 0.20  | 0.80   | 13.02  | 2.45                 | 5.56   | 2.45    | 1.55                     | 1.10  | 0.92  | 0.56  |        |        |
| 2              | 0.10  | 0.10                                                      | 0.29  | 0.74   | 11.20  | 2.18                 | 5.23   | 2.45    | 1.55                     | 1.10  | 0.92  | 0.56  |        |        |
| 3              | 0.10  | 0.10                                                      | 0.35  | 0.68   | 10.36  | 2.36                 | 8.54   | 2.36    | 1.55                     | 1.10  | 0.92  | 0.56  |        |        |
| 4              | 0.10  | 0.18                                                      | 0.32  | 0.62   | 9.66   | 2.36                 | 7.44   | 2.36    | 1.46                     | 1.10  | 0.92  | 0.56  |        |        |
| 5              | 0.08  | 0.14                                                      | 0.26  | 0.74   | 8.54   | 2.45                 | 6.84   | 2.27    | 1.46                     | 1.10  | 0.92  | 0.56  |        |        |
| 6              | 0.08  | 0.12                                                      | 0.29  | 1.04   | 7.92   | 5.78                 | 6.24   | 2.27    | 1.46                     | 1.10  | 0.92  | 0.56  |        |        |
| 7              | 0.08  | 0.16                                                      | 0.23  | 1.10   | 7.20   | 6.84                 | 7.20   | 2.18    | 1.46                     | 1.10  | 0.86  | 0.56  |        |        |
| 8              | 0.06  | 0.14                                                      | 0.44  | 1.64   | 5.89   | 6.84                 | 7.44   | 2.18    | 1.46                     | 1.10  | 0.86  | 0.56  |        |        |
| 9              | 0.06  | 0.14                                                      | 0.38  | 1.91   | 4.02   | 15.74                | 5.34   | 7.44    | 1.37                     | 1.10  | 0.86  | 0.56  |        |        |
| 10             | 0.06  | 0.12                                                      | 0.44  | 2.27   | 3.08   | 6.48                 | 4.24   | 2.54    | 1.37                     | 1.04  | 0.86  | 0.56  |        |        |
| 11             | 0.06  | 0.10                                                      | 0.50  | 1.28   | 2.72   | 6.72                 | 3.62   | 2.18    | 1.37                     | 1.04  | 0.86  | 0.50  |        |        |
| 12             | 0.06  | 0.10                                                      | 0.56  | 1.37   | 3.44   | 26.62                | 3.53   | 2.09    | 1.37                     | 1.04  | 0.80  | 0.50  |        |        |
| 13             | 0.06  | 0.10                                                      | 0.74  | 1.10   | 4.02   | 8.04                 | 3.35   | 2.09    | 1.37                     | 1.04  | 0.80  | 0.50  |        |        |
| 14             | 0.06  | 0.14                                                      | 0.92  | 0.98   | 4.79   | 6.96                 | 4.68   | 2.09    | 1.37                     | 1.04  | 0.80  | 0.50  |        |        |
| 15             | 0.04  | 0.12                                                      | 0.74  | 1.10   | 6.96   | 6.60                 | 4.13   | 2.18    | 1.37                     | 1.04  | 0.74  | 0.50  |        |        |
| 16             | 0.04  | 0.12                                                      | 0.62  | 1.10   | 5.01   | 11.20                | 3.53   | 2.18    | 1.37                     | 1.04  | 0.74  | 0.68  |        |        |
| 17             | 0.10  | 0.10                                                      | 0.62  | 1.37   | 4.57   | 11.95                | 3.44   | 2.09    | 1.37                     | 1.04  | 0.74  | 0.62  |        |        |
| 18             | 0.16  | 0.10                                                      | 0.80  | 1.04   | 4.13   | 9.24                 | 19.22  | 2.00    | 1.37                     | 1.04  | 0.74  | 0.62  |        |        |
| 19             | 0.16  | 0.41                                                      | 0.74  | 1.46   | 3.80   | 11.50                | 5.45   | 1.91    | 1.28                     | 1.04  | 0.74  | 1.04  |        |        |
| 20             | 0.14  | 0.35                                                      | 0.62  | 1.37   | 3.62   | 22.02                | 4.24   | 1.82    | 1.28                     | 1.04  | 0.68  | 0.92  |        |        |
| 21             | 0.12  | 0.35                                                      | 0.68  | 1.37   | 5.78   | 25.02                | 3.80   | 1.82    | 1.28                     | 0.98  | 0.68  | 0.86  |        |        |
| 22             | 0.12  | 0.41                                                      | 0.80  | 1.28   | 7.20   | 15.42                | 3.71   | 1.82    | 1.28                     | 0.98  | 0.68  | 0.74  |        |        |
| 23             | 0.23  | 0.38                                                      | 0.80  | 1.28   | 14.62  | 13.82                | 3.35   | 1.73    | 1.28                     | 0.98  | 0.68  | 0.68  |        |        |
| 24             | 0.62  | 0.44                                                      | 1.28  | 3.17   | 10.92  | 10.50                | 3.17   | 1.73    | 1.19                     | 0.98  | 0.62  | 0.62  |        |        |
| 25             | 0.44  | 0.50                                                      | 1.55  | 6.24   | 8.04   | 9.94                 | 2.99   | 1.73    | 1.19                     | 0.92  | 0.62  | 0.62  |        |        |
| 26             | 0.56  | 0.35                                                      | 1.28  | 3.35   | 5.89   | 9.66                 | 2.90   | 1.64    | 1.19                     | 0.92  | 0.62  | 0.62  |        |        |
| 27             | 0.41  | 0.29                                                      | 0.98  | 3.44   | 5.12   | 8.04                 | 2.90   | 1.64    | 1.19                     | 0.92  | 0.62  | 0.56  |        |        |
| 28             | 0.14  | 0.23                                                      | 0.92  | 7.92   | 4.46   | 7.32                 | 2.72   | 1.64    | 1.19                     | 0.86  | 0.56  | 0.56  |        |        |
| 29             | 0.12  | 0.20                                                      | 0.92  | 36.06  | 4.02   | 6.60                 | 2.63   | 1.64    | 1.19                     | 0.86  |       | 0.56  |        |        |
| 30             | 0.12  | 0.18                                                      | 0.86  | 32.95  | 3.53   | 5.89                 | 2.54   | 1.55    | 1.19                     | 0.86  |       | 0.56  |        |        |
| 31             |       | 0.16                                                      |       | 25.24  | 2.99   |                      | 2.45   |         | 1.19                     | 0.80  |       | 0.56  |        |        |
| Total          | 4.60  | 6.43                                                      | 20.13 | 146.01 | 196.52 | 286.54               | 152.42 | 66.07   | 41.57                    | 31.40 | 21.68 | 18.92 | 992.29 | CMSDAY |
| Mean           | 0.15  | 0.21                                                      | 0.67  | 4.71   | 6.34   | 9.55                 | 4.92   | 2.20    | 1.34                     | 1.01  | 0.77  | 0.61  | 2.72   | CMS    |
| Max            | 0.62  | 0.50                                                      | 1.55  | 36.06  | 14.62  | 26.62                | 19.22  | 7.44    | 1.55                     | 1.10  | 0.92  | 1.04  | 36.06  | CMS    |
| Min            | 0.04  | 0.10                                                      | 0.20  | 0.62   | 2.72   | 2.18                 | 2.45   | 1.55    | 1.19                     | 0.80  | 0.56  | 0.50  | 0.04   | CMS    |
| Runoff         | 0.40  | 0.56                                                      | 1.74  | 12.62  | 16.98  | 24.76                | 13.17  | 5.71    | 3.59                     | 2.71  | 1.87  | 1.64  | 85.73  | MCM    |
| Momentary Peak | 46.42 | CMS. at 77.09 m. (MSL.) at 06.00 Hours , on Jul 29 , 2013 |       |        |        |                      |        |         |                          |       |       |       |        |        |
| Runoff Yield   | 21.24 | Liters/Second/Square KM.                                  |       |        |        | Momentary Peak Yield |        | 362.656 | Liters/Second/Square KM. |       |       |       |        |        |

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|                                         |                                                                                          |              |               |           |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|--------------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Dan Thaptako | <b>Amphoe</b> | Chom Bung | <b>Changwat</b>  | Ratchaburi        |
| <b>Drainage Area</b>                    | 1,844                                                                                    | sq.km.       |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |              |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +64.630                                                                                  | m. (MSL.)    |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |              |               |           |                  |                   |
| <b>Location BM</b>                      | Near the automatic gage building.                                                        |              |               |           | <b>Elevation</b> | +71.913 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |              |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |              |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                             |              |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |              |               |           |                  |                   |
| <b>Period of Rating</b>                 | 2004 to date                                                                             |              |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |              |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                             |              |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |              |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |              |               |           |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 47 discharge measurements made in 2013 |              |               |           |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 65.69 | 65.83 | 65.74 | 65.90 | 66.43 | 65.80 | 66.04 | 65.95 | 65.94 | 65.70   | 65.52 | 65.38 |        |
| 2    | 65.69 | 65.81 | 65.72 | 65.88 | 66.17 | 65.81 | 66.13 | 65.94 | 65.90 | 65.69   | 65.52 | 65.33 |        |
| 3    | 65.69 | 65.78 | 65.72 | 65.87 | 66.01 | 65.84 | 66.10 | 65.93 | 65.89 | 65.67   | 65.52 | 65.32 |        |
| 4    | 65.69 | 65.76 | 65.74 | 65.86 | 65.97 | 65.91 | 66.19 | 65.93 | 65.89 | 65.66   | 65.52 | 65.34 |        |
| 5    | 65.69 | 65.75 | 65.79 | 65.86 | 65.94 | 65.93 | 66.42 | 65.93 | 65.88 | 65.63   | 65.52 | 65.35 |        |
| 6    | 65.69 | 65.74 | 65.80 | 65.88 | 65.92 | 65.89 | 66.23 | 65.93 | 65.87 | 65.62   | 65.52 | 65.30 |        |
| 7    | 65.69 | 65.73 | 65.80 | 65.90 | 65.91 | 65.86 | 67.58 | 65.93 | 65.86 | 65.61   | 65.52 | 65.30 |        |
| 8    | 65.70 | 65.73 | 65.80 | 65.92 | 65.89 | 65.87 | 67.97 | 66.48 | 65.85 | 65.60   | 65.52 | 65.30 |        |
| 9    | 65.70 | 65.73 | 65.78 | 65.90 | 65.87 | 65.95 | 67.71 | 69.39 | 65.84 | 65.60   | 65.51 | 65.28 |        |
| 10   | 65.70 | 65.73 | 65.78 | 65.88 | 65.87 | 65.94 | 67.35 | 67.73 | 65.83 | 65.59   | 65.50 | 65.30 |        |
| 11   | 65.69 | 65.75 | 65.77 | 65.88 | 65.86 | 65.94 | 66.91 | 66.88 | 65.82 | 65.58   | 65.48 | 65.30 |        |
| 12   | 65.70 | 65.75 | 65.81 | 65.89 | 65.87 | 66.03 | 66.61 | 66.38 | 65.82 | 65.57   | 65.42 | 65.29 |        |
| 13   | 65.69 | 65.74 | 65.93 | 65.89 | 65.87 | 66.01 | 66.42 | 66.17 | 65.82 | 65.56   | 65.41 | 65.27 |        |
| 14   | 65.69 | 65.74 | 65.91 | 65.88 | 65.86 | 65.98 | 66.24 | 66.11 | 65.81 | 65.55   | 65.39 | 65.18 |        |
| 15   | 65.69 | 65.74 | 65.89 | 65.86 | 65.86 | 65.97 | 66.12 | 66.19 | 65.81 | 65.54   | 65.43 | 65.30 |        |
| 16   | 65.69 | 65.74 | 65.89 | 65.86 | 65.85 | 65.98 | 66.06 | 66.46 | 65.80 | 65.53   | 65.39 | 65.28 |        |
| 17   | 65.69 | 65.76 | 65.95 | 65.85 | 65.85 | 66.01 | 66.03 | 66.65 | 65.80 | 65.53   | 65.38 | 65.25 |        |
| 18   | 65.69 | 65.75 | 65.88 | 65.85 | 65.84 | 66.03 | 66.05 | 66.40 | 65.79 | 65.52   | 65.39 | 65.24 |        |
| 19   | 65.70 | 65.73 | 65.87 | 65.84 | 65.84 | 66.00 | 66.04 | 66.24 | 65.78 | 65.52   | 65.37 | 65.23 |        |
| 20   | 65.71 | 65.73 | 65.86 | 65.84 | 65.83 | 65.99 | 66.01 | 66.15 | 65.78 | 65.52   | 65.37 | 65.22 |        |
| 21   | 65.72 | 65.77 | 65.86 | 65.86 | 65.82 | 66.01 | 66.00 | 66.07 | 65.77 | 65.52   | 65.37 | 65.24 |        |
| 22   | 65.71 | 65.80 | 65.87 | 65.88 | 65.82 | 66.03 | 66.12 | 66.02 | 65.76 | 65.53   | 65.39 | 65.24 |        |
| 23   | 65.71 | 65.78 | 65.92 | 65.87 | 65.84 | 66.05 | 66.22 | 66.00 | 65.75 | 65.53   | 65.40 | 65.23 |        |
| 24   | 65.70 | 65.77 | 66.02 | 65.86 | 65.88 | 66.09 | 66.07 | 65.99 | 65.75 | 65.53   | 65.43 | 65.44 |        |
| 25   | 65.72 | 65.80 | 66.01 | 65.84 | 65.90 | 66.07 | 66.02 | 66.00 | 65.75 | 65.52   | 65.43 | 65.42 |        |
| 26   | 65.75 | 65.79 | 65.97 | 65.84 | 65.89 | 66.05 | 66.39 | 65.99 | 65.75 | 65.52   | 65.45 | 65.38 |        |
| 27   | 65.78 | 65.77 | 65.98 | 65.85 | 65.88 | 66.03 | 66.21 | 65.99 | 65.74 | 65.52   | 65.43 | 65.36 |        |
| 28   | 65.77 | 65.77 | 65.98 | 65.85 | 65.86 | 66.02 | 66.06 | 65.99 | 65.73 | 65.52   | 65.43 | 65.30 |        |
| 29   | 65.78 | 65.76 | 65.95 | 65.88 | 65.85 | 66.01 | 66.01 | 65.99 | 65.72 | 65.52   |       | 65.29 |        |
| 30   | 65.83 | 65.76 | 65.92 | 66.08 | 65.83 | 66.05 | 65.99 | 65.99 | 65.72 | 65.52</ |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov     | Dec     | Jan    | Feb    | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|---------|---------|--------|--------|-------|----------------|
| 1              | 2.70                                                            | 11.25                    | 5.40   | 16.50                | 77.20  | 9.00    | 29.20                    | 20.75   | 54.80   | 23.00  | 8.40   | 2.30  |                |
| 2              | 2.70                                                            | 9.75                     | 4.20   | 15.00                | 43.55  | 9.75    | 38.95                    | 19.90   | 48.00   | 22.10  | 8.40   | 1.80  |                |
| 3              | 2.70                                                            | 7.80                     | 4.20   | 14.25                | 26.05  | 12.00   | 35.50                    | 19.05   | 46.70   | 20.30  | 8.40   | 1.70  |                |
| 4              | 2.70                                                            | 6.60                     | 5.40   | 13.50                | 22.45  | 17.35   | 45.85                    | 19.05   | 46.70   | 19.40  | 8.40   | 1.90  |                |
| 5              | 2.70                                                            | 6.00                     | 8.40   | 13.50                | 19.90  | 19.05   | 75.80                    | 19.05   | 45.40   | 16.70  | 8.40   | 2.00  |                |
| 6              | 2.70                                                            | 5.40                     | 9.00   | 15.00                | 18.20  | 15.75   | 50.90                    | 19.05   | 44.10   | 15.80  | 8.40   | 1.50  |                |
| 7              | 2.70                                                            | 4.80                     | 9.00   | 16.50                | 17.35  | 13.50   | 281.80                   | 19.05   | 42.80   | 14.90  | 8.40   | 1.50  |                |
| 8              | 3.00                                                            | 4.80                     | 9.00   | 18.20                | 15.75  | 14.25   | 367.10                   | 84.20   | 41.50   | 14.00  | 8.40   | 1.50  |                |
| 9              | 3.00                                                            | 4.80                     | 7.80   | 16.50                | 14.25  | 20.75   | 309.20                   | 716.40  | 40.20   | 14.00  | 7.70   | 1.35  |                |
| 10             | 3.00                                                            | 4.80                     | 7.80   | 15.00                | 14.25  | 19.90   | 235.25                   | 313.60  | 38.90   | 13.30  | 7.00   | 1.50  |                |
| 11             | 2.70                                                            | 6.00                     | 7.20   | 15.00                | 13.50  | 19.90   | 150.80                   | 145.80  | 37.60   | 12.60  | 6.10   | 1.50  |                |
| 12             | 3.00                                                            | 6.00                     | 9.75   | 15.75                | 14.25  | 28.15   | 103.50                   | 151.60  | 37.60   | 11.90  | 3.40   | 1.42  |                |
| 13             | 2.70                                                            | 5.40                     | 19.05  | 15.75                | 14.25  | 26.05   | 75.80                    | 100.40  | 37.60   | 11.20  | 2.95   | 1.27  |                |
| 14             | 2.70                                                            | 5.40                     | 17.35  | 15.00                | 13.50  | 23.30   | 52.20                    | 87.20   | 36.30   | 10.50  | 2.40   | 0.60  |                |
| 15             | 2.70                                                            | 5.40                     | 15.75  | 13.50                | 13.50  | 22.45   | 37.80                    | 104.80  | 36.30   | 9.80   | 3.85   | 1.50  |                |
| 16             | 2.70                                                            | 5.40                     | 15.75  | 13.50                | 12.75  | 23.30   | 31.30                    | 175.00  | 35.00   | 9.10   | 2.40   | 1.35  |                |
| 17             | 2.70                                                            | 6.60                     | 20.75  | 12.75                | 12.75  | 26.05   | 28.15                    | 233.50  | 35.00   | 9.10   | 2.30   | 1.12  |                |
| 18             | 2.70                                                            | 6.00                     | 15.00  | 12.75                | 12.00  | 28.15   | 30.25                    | 157.00  | 33.80   | 8.40   | 2.40   | 1.05  |                |
| 19             | 3.00                                                            | 4.80                     | 14.25  | 12.00                | 12.00  | 25.00   | 29.20                    | 116.20  | 32.60   | 8.40   | 2.20   | 0.98  |                |
| 20             | 3.60                                                            | 4.80                     | 13.50  | 12.00                | 11.25  | 24.15   | 26.05                    | 96.00   | 32.60   | 8.40   | 2.20   | 0.90  |                |
| 21             | 4.20                                                            | 7.20                     | 13.50  | 13.50                | 10.50  | 26.05   | 25.00                    | 79.00   | 31.40   | 8.40   | 2.20   | 1.05  |                |
| 22             | 3.60                                                            | 9.00                     | 14.25  | 15.00                | 10.50  | 28.15   | 37.80                    | 69.00   | 30.20   | 9.10   | 2.40   | 1.05  |                |
| 23             | 3.60                                                            | 7.80                     | 18.20  | 14.25                | 12.00  | 30.25   | 49.60                    | 65.00   | 29.00   | 9.10   | 2.50   | 0.98  |                |
| 24             | 3.00                                                            | 7.20                     | 27.10  | 13.50                | 15.00  | 34.45   | 32.35                    | 63.30   | 29.00   | 9.10   | 3.85   | 4.30  |                |
| 25             | 4.20                                                            | 9.00                     | 26.05  | 12.00                | 16.50  | 32.35   | 27.10                    | 65.00   | 29.00   | 8.40   | 3.85   | 3.40  |                |
| 26             | 6.00                                                            | 8.40                     | 22.45  | 12.00                | 15.75  | 30.25   | 71.70                    | 63.30   | 29.00   | 8.40   | 4.75   | 2.30  |                |
| 27             | 7.80                                                            | 7.20                     | 23.30  | 12.75                | 15.00  | 28.15   | 48.30                    | 63.30   | 27.80   | 8.40   | 3.85   | 2.10  |                |
| 28             | 7.20                                                            | 7.20                     | 23.30  | 12.75                | 13.50  | 27.10   | 31.30                    | 63.30   | 26.60   | 8.40   | 3.85   | 1.50  |                |
| 29             | 7.80                                                            | 6.60                     | 20.75  | 15.00                | 12.75  | 26.05   | 26.05                    | 63.30   | 25.40   | 8.40   |        | 1.42  |                |
| 30             | 11.25                                                           | 6.60                     | 18.20  | 33.40                | 11.25  | 30.25   | 24.15                    | 63.30   | 25.40   | 8.40   |        | 1.20  |                |
| 31             |                                                                 | 6.60                     |        | 63.90                | 9.75   |         | 22.45                    |         | 24.20   | 8.40   |        | 1.05  |                |
| Total          | 115.05                                                          | 204.60                   | 425.65 | 510.00               | 541.20 | 690.85  | 2430.40                  | 3275.40 | 1110.50 | 367.40 | 139.35 | 49.09 | 9859.49 CMSDAY |
| Mean           | 3.84                                                            | 6.60                     | 14.19  | 16.45                | 17.46  | 23.03   | 78.40                    | 109.18  | 35.82   | 11.85  | 4.98   | 1.58  | 27.01 CMS      |
| Max            | 11.25                                                           | 11.25                    | 27.10  | 63.90                | 77.20  | 34.45   | 367.10                   | 716.40  | 54.80   | 23.00  | 8.40   | 4.30  | 716.40 CMS     |
| Min            | 2.70                                                            | 4.80                     | 4.20   | 12.00                | 9.75   | 9.00    | 22.45                    | 19.05   | 24.20   | 8.40   | 2.20   | 0.60  | 0.60 CMS       |
| Runoff         | 9.94                                                            | 17.68                    | 36.78  | 44.06                | 46.76  | 59.69   | 209.99                   | 283.00  | 95.95   | 31.74  | 12.04  | 4.24  | 851.86 MCM     |
| Momentary Peak | 867.20 CMS. at 69.96 m. (MSL.) at 08.00 Hours , on Nov 9 , 2013 |                          |        |                      |        |         |                          |         |         |        |        |       |                |
| Runoff Yield   | 14.65                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 470.282 | Liters/Second/Square KM. |         |         |        |        |       |                |

## WATER YEAR : 2013

## MAE KLONG RIVER BASIN

**Lam Phachi at Ban Nong Phai , Kanchanaburi (K.62**

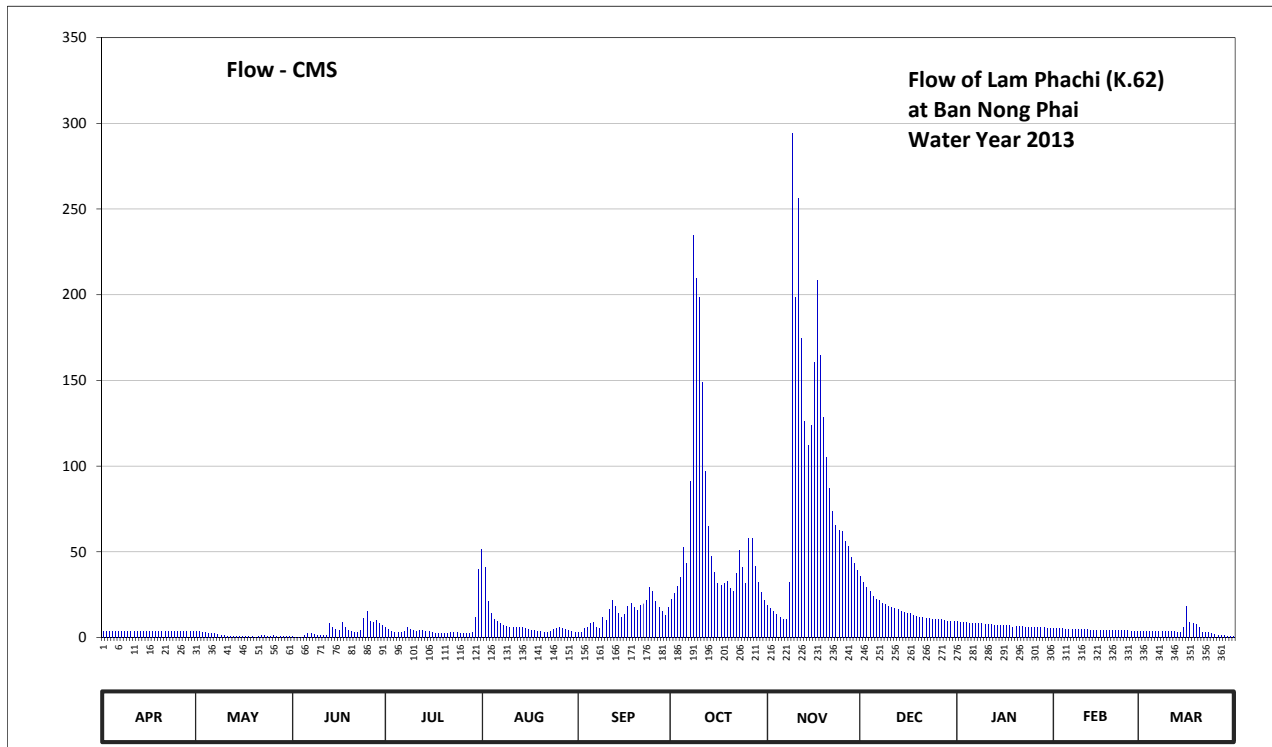
Lat 13 - 46 - 52 N    Long 99 - 25 - 15 W

**Location : on left bank at Ban Nong Pha**

|                                         |                                                                                          |           |               |                |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Nong Phai | <b>Amphoe</b> | Dan Makham Tia | <b>Changwat</b>  | Kanchanaburi      |
| <b>Drainage Area</b>                    | 1,725                                                                                    | sq.km.    |               |                |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                               |           |               |                |                  |                   |
| <b>Zero Gage at Bottom</b>              | +49.000                                                                                  | m. (MSL.) |               |                |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |                |                  |                   |
| <b>Location BM</b>                      | On left bank near the gage site.                                                         |           |               |                | <b>Elevation</b> | +56.000 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours                       |           |               |                |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |           |               |                |                  |                   |
| <b>Period of Available Gage Records</b> | 2006 to date                                                                             |           |               |                |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |           |               |                |                  |                   |
| <b>Period of Rating</b>                 | 2006 to date                                                                             |           |               |                |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |                |                  |                   |
| <b>Rated by Current Meter</b>           | 2006 to date                                                                             |           |               |                |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable with variable water surface slope.                                         |           |               |                |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +53.230 m.(MSL.) and is including overbank flow.       |           |               |                |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 45 discharge measurements made in 2013 |           |               |                |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 49.63 | 49.62 | 49.22                                            | 49.79 | 51.37 | 49.55 | 50.54 | 50.41 | 50.79 | 49.99 | 49.73 | 49.63 |        |
| 2                                | 49.63 | 49.61 | 49.17                                            | 49.69 | 51.12 | 49.57 | 50.65 | 50.33 | 50.72 | 49.98 | 49.73 | 49.62 |        |
| 3                                | 49.63 | 49.58 | 49.15                                            | 49.62 | 50.49 | 49.74 | 50.78 | 50.25 | 50.65 | 49.97 | 49.72 | 49.61 |        |
| 4                                | 49.63 | 49.57 | 49.14                                            | 49.59 | 50.20 | 49.78 | 50.96 | 50.19 | 50.59 | 49.96 | 49.72 | 49.61 |        |
| 5                                | 49.63 | 49.54 | 49.39                                            | 49.58 | 50.05 | 49.92 | 51.40 | 50.11 | 50.52 | 49.94 | 49.71 | 49.61 |        |
| 6                                | 49.62 | 49.51 | 49.53                                            | 49.59 | 49.99 | 49.97 | 51.17 | 50.07 | 50.48 | 49.93 | 49.70 | 49.61 |        |
| 7                                | 49.63 | 49.49 | 49.52                                            | 49.62 | 49.93 | 49.78 | 52.13 | 50.05 | 50.45 | 49.92 | 49.70 | 49.61 |        |
| 8                                | 49.63 | 49.46 | 49.46                                            | 49.77 | 49.86 | 49.74 | 53.73 | 50.86 | 50.41 | 49.92 | 49.70 | 49.60 |        |
| 9                                | 49.62 | 49.42 | 49.40                                            | 49.71 | 49.82 | 50.12 | 53.50 | 54.25 | 50.38 | 49.91 | 49.69 | 49.60 |        |
| 10                               | 49.63 | 49.35 | 49.42                                            | 49.67 | 49.78 | 50.03 | 53.39 | 53.39 | 50.35 | 49.90 | 49.69 | 49.60 |        |
| 11                               | 49.63 | 49.32 | 49.36                                            | 49.62 | 49.76 | 50.30 | 52.87 | 52.81 | 50.33 | 49.89 | 49.68 | 49.61 |        |
| 12                               | 49.63 | 49.29 | 49.35                                            | 49.64 | 49.76 | 50.51 | 52.22 | 52.37 | 50.31 | 49.88 | 49.68 | 49.60 |        |
| 13                               | 49.63 | 49.26 | 49.94                                            | 49.64 | 49.76 | 50.37 | 51.66 | 52.02 | 50.29 | 49.87 | 49.67 | 49.59 |        |
| 14                               | 49.62 | 49.24 | 49.79                                            | 49.61 | 49.79 | 50.22 | 51.27 | 51.89 | 50.25 | 49.85 | 49.66 | 49.56 |        |
| 15                               | 49.63 | 49.22 | 49.71                                            | 49.60 | 49.74 | 50.13 | 51.03 | 52.00 | 50.23 | 49.85 | 49.67 | 49.76 |        |
| 16                               | 49.63 | 49.23 | 49.66                                            | 49.57 | 49.70 | 50.19 | 50.85 | 52.28 | 50.21 | 49.84 | 49.66 | 50.34 |        |
| 17                               | 49.63 | 49.24 | 49.98                                            | 49.54 | 49.67 | 50.37 | 50.80 | 52.57 | 50.20 | 49.83 | 49.65 | 49.97 |        |
| 18                               | 49.62 | 49.24 | 49.78                                            | 49.53 | 49.65 | 50.44 | 50.84 | 52.31 | 50.17 | 49.83 | 49.65 | 49.92 |        |
| 19                               | 49.62 | 49.23 | 49.66                                            | 49.51 | 49.63 | 50.35 | 50.88 | 52.04 | 50.15 | 49.78 | 49.65 | 49.88 |        |
| 20                               | 49.62 | 49.20 | 49.60                                            | 49.50 | 49.60 | 50.29 | 50.75 | 51.82 | 50.13 | 49.81 | 49.64 | 49.77 |        |
| 21                               | 49.62 | 49.23 | 49.56                                            | 49.51 | 49.58 | 50.40 | 50.68 | 51.62 | 50.12 | 49.80 | 49.64 | 49.57 |        |
| 22                               | 49.62 | 49.33 | 49.55                                            | 49.55 | 49.57 | 50.43 | 51.01 | 51.45 | 50.10 | 49.80 | 49.65 | 49.58 |        |
| 23                               | 49.62 | 49.34 | 49.67                                            | 49.58 | 49.61 | 50.52 | 51.36 | 51.33 | 50.08 | 49.79 | 49.65 | 49.59 |        |
| 24                               | 49.62 | 49.30 | 50.09                                            | 49.55 | 49.71 | 50.77 | 51.11 | 51.29 | 50.07 | 49.79 | 49.66 | 49.54 |        |
| 25                               | 49.62 | 49.31 | 50.25                                            | 49.52 | 49.75 | 50.68 | 50.85 | 51.28 | 50.06 | 49.78 | 49.64 | 49.45 |        |
| 26                               | 49.62 | 49.37 | 50.01                                            | 49.48 | 49.76 | 50.48 | 51.52 | 51.18 | 50.05 | 49.78 | 49.63 | 49.42 |        |
| 27                               | 49.62 | 49.31 | 49.98                                            | 49.51 | 49.74 | 50.35 | 51.52 | 51.13 | 50.05 | 49.77 | 49.63 | 49.37 |        |
| 28                               | 49.62 | 49.27 | 50.03                                            | 49.51 | 49.71 | 50.26 | 51.13 | 51.02 | 50.03 | 49.76 | 49.63 | 49.33 |        |
| 29                               | 49.62 | 49.24 | 49.91                                            | 49.55 | 49.67 | 50.17 | 50.86 | 50.95 | 50.02 | 49.76 |       | 49.31 |        |
| 30                               | 49.62 | 49.23 | 49.87                                            | 50.13 | 49.62 | 50.34 | 50.67 | 50.87 | 50.01 | 49.75 |       | 49.27 |        |
| 31                               |       | 49.23 |                                                  | 51.09 | 49.58 |       | 50.52 |       | 50.01 | 49.75 |       | 49.25 |        |
| Mean                             | 49.62 | 49.35 | 49.64                                            | 49.66 | 49.87 | 50.19 | 51.38 | 51.47 | 50.26 | 49.85 | 49.67 | 49.61 |        |
| Max                              | 49.63 | 49.62 | 50.25                                            | 51.09 | 51.37 | 50.77 | 53.73 | 54.25 | 50.79 | 49.99 | 49.73 | 50.34 | 54.25  |
| Min                              | 49.62 | 49.20 | 49.14                                            | 49.48 | 49.57 | 49.55 | 50.52 | 50.05 | 50.01 | 49.75 | 49.63 | 49.25 | 49.14  |
| Annual Max Momentary Gage Height |       | 54.49 | m. (MSL.) , at 13.00 Hours , on Nov 9 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 49.00 | m. (MSL.) , River Bed 48.85 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 55.22 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 53.22 | m. (MSL.) , Drainage Area 1725 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                      | Jun    | Jul    | Aug                  | Sep    | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual  |        |
|----------------|--------|----------------------------------------------------------|--------|--------|----------------------|--------|---------|---------|--------------------------|--------|--------|--------|---------|--------|
| 1              | 3.95   | 3.80                                                     | 0.60   | 6.35   | 51.44                | 3.00   | 22.70   | 19.25   | 35.83                    | 9.35   | 5.45   | 3.95   |         |        |
| 2              | 3.95   | 3.65                                                     | 0.35   | 4.85   | 41.30                | 3.20   | 26.00   | 17.25   | 32.54                    | 9.20   | 5.45   | 3.80   |         |        |
| 3              | 3.95   | 3.30                                                     | 0.25   | 3.80   | 21.25                | 5.60   | 29.90   | 15.25   | 29.45                    | 9.05   | 5.30   | 3.65   |         |        |
| 4              | 3.95   | 3.20                                                     | 0.20   | 3.40   | 14.00                | 6.20   | 35.60   | 13.75   | 26.90                    | 8.90   | 5.30   | 3.65   |         |        |
| 5              | 3.95   | 2.90                                                     | 1.45   | 3.30   | 10.50                | 8.30   | 52.70   | 11.75   | 24.10                    | 8.60   | 5.15   | 3.65   |         |        |
| 6              | 3.80   | 2.60                                                     | 2.80   | 3.40   | 9.35                 | 9.05   | 43.30   | 10.90   | 22.64                    | 8.45   | 5.00   | 3.65   |         |        |
| 7              | 3.95   | 2.40                                                     | 2.70   | 3.80   | 8.45                 | 6.20   | 91.45   | 10.50   | 21.65                    | 8.30   | 5.00   | 3.65   |         |        |
| 8              | 3.95   | 2.10                                                     | 2.10   | 6.05   | 7.40                 | 5.60   | 234.80  | 32.30   | 20.33                    | 8.30   | 5.00   | 3.50   |         |        |
| 9              | 3.80   | 1.70                                                     | 1.50   | 5.15   | 6.80                 | 12.00  | 209.50  | 294.00  | 19.40                    | 8.15   | 4.85   | 3.50   |         |        |
| 10             | 3.95   | 1.25                                                     | 1.70   | 4.55   | 6.20                 | 10.10  | 198.50  | 198.50  | 18.50                    | 8.00   | 4.85   | 3.50   |         |        |
| 11             | 3.95   | 1.10                                                     | 1.30   | 3.80   | 5.90                 | 16.50  | 148.60  | 256.20  | 17.90                    | 7.85   | 4.70   | 3.65   |         |        |
| 12             | 3.95   | 0.95                                                     | 1.25   | 4.10   | 5.90                 | 21.80  | 97.40   | 174.20  | 17.30                    | 7.70   | 4.70   | 3.50   |         |        |
| 13             | 3.95   | 0.80                                                     | 8.60   | 4.10   | 5.90                 | 18.25  | 65.00   | 126.20  | 16.70                    | 7.55   | 4.55   | 3.40   |         |        |
| 14             | 3.80   | 0.70                                                     | 6.35   | 3.65   | 6.35                 | 14.50  | 47.30   | 112.00  | 15.50                    | 7.25   | 4.40   | 3.10   |         |        |
| 15             | 3.95   | 0.60                                                     | 5.15   | 3.50   | 5.60                 | 12.25  | 38.05   | 124.00  | 14.90                    | 7.25   | 4.55   | 5.90   |         |        |
| 16             | 3.95   | 0.65                                                     | 4.40   | 3.20   | 5.00                 | 13.75  | 32.00   | 160.20  | 14.30                    | 7.10   | 4.40   | 18.20  |         |        |
| 17             | 3.95   | 0.70                                                     | 9.20   | 2.90   | 4.55                 | 18.25  | 30.50   | 208.60  | 14.00                    | 6.95   | 4.25   | 9.05   |         |        |
| 18             | 3.80   | 0.70                                                     | 6.20   | 2.80   | 4.25                 | 20.00  | 31.70   | 164.60  | 13.25                    | 6.95   | 4.25   | 8.30   |         |        |
| 19             | 3.80   | 0.65                                                     | 4.40   | 2.60   | 3.95                 | 17.75  | 32.90   | 128.40  | 12.75                    | 6.20   | 4.25   | 7.70   |         |        |
| 20             | 3.80   | 0.50                                                     | 3.50   | 2.50   | 3.50                 | 16.25  | 29.00   | 105.00  | 12.25                    | 6.65   | 4.10   | 6.05   |         |        |
| 21             | 3.80   | 0.65                                                     | 3.10   | 2.60   | 3.30                 | 19.00  | 26.90   | 87.20   | 12.00                    | 6.50   | 4.10   | 3.20   |         |        |
| 22             | 3.80   | 1.15                                                     | 3.00   | 3.00   | 3.20                 | 19.75  | 37.35   | 74.00   | 11.50                    | 6.50   | 4.25   | 3.30   |         |        |
| 23             | 3.80   | 1.20                                                     | 4.55   | 3.30   | 3.65                 | 22.10  | 51.02   | 65.60   | 11.10                    | 6.35   | 4.25   | 3.40   |         |        |
| 24             | 3.80   | 1.00                                                     | 11.30  | 3.00   | 5.15                 | 29.60  | 40.90   | 62.90   | 10.90                    | 6.35   | 4.40   | 2.90   |         |        |
| 25             | 3.80   | 1.05                                                     | 15.25  | 2.70   | 5.75                 | 26.90  | 32.00   | 62.30   | 10.70                    | 6.20   | 4.10   | 2.00   |         |        |
| 26             | 3.80   | 1.35                                                     | 9.70   | 2.30   | 5.90                 | 21.00  | 58.16   | 56.30   | 10.50                    | 6.20   | 3.95   | 1.70   |         |        |
| 27             | 3.80   | 1.05                                                     | 9.20   | 2.60   | 5.60                 | 17.75  | 58.16   | 53.30   | 10.50                    | 6.05   | 3.95   | 1.35   |         |        |
| 28             | 3.80   | 0.85                                                     | 10.10  | 2.60   | 5.15                 | 15.50  | 41.70   | 47.10   | 10.10                    | 5.90   | 3.95   | 1.15   |         |        |
| 29             | 3.80   | 0.70                                                     | 8.15   | 3.00   | 4.55                 | 13.25  | 32.30   | 43.50   | 9.90                     | 5.90   |        | 1.05   |         |        |
| 30             | 3.80   | 0.65                                                     | 7.55   | 12.25  | 3.80                 | 17.50  | 26.60   | 39.59   | 9.70                     | 5.75   |        | 0.85   |         |        |
| 31             |        | 0.65                                                     |        | 40.15  | 3.30                 |        | 22.10   |         | 9.70                     | 5.75   |        | 0.75   |         |        |
| Total          | 116.10 | 44.55                                                    | 145.90 | 155.30 | 276.94               | 440.90 | 1924.09 | 2774.64 | 516.79                   | 225.20 | 128.45 | 127.00 | 6875.86 | CMSDAY |
| Mean           | 3.87   | 1.44                                                     | 4.86   | 5.01   | 8.93                 | 14.70  | 62.07   | 92.49   | 16.67                    | 7.26   | 4.59   | 4.10   | 18.84   | CMS    |
| Max            | 3.95   | 3.80                                                     | 15.25  | 40.15  | 51.44                | 29.60  | 234.80  | 294.00  | 35.83                    | 9.35   | 5.45   | 18.20  | 294.00  | CMS    |
| Min            | 3.80   | 0.50                                                     | 0.20   | 2.30   | 3.20                 | 3.00   | 22.10   | 10.50   | 9.70                     | 5.75   | 3.95   | 0.75   | 0.20    | CMS    |
| Runoff         | 10.03  | 3.85                                                     | 12.61  | 13.42  | 23.93                | 38.09  | 166.24  | 239.73  | 44.65                    | 19.46  | 11.10  | 10.97  | 594.07  | MCM    |
| Momentary Peak | 322.80 | CMS. at 54.49 m. (MSL.) at 13.00 Hours , on Nov 9 , 2013 |        |        |                      |        |         |         |                          |        |        |        |         |        |
| Runoff Yield   | 10.92  | Liters/Second/Square KM.                                 |        |        | Momentary Peak Yield |        |         | 187.130 | Liters/Second/Square KM. |        |        |        |         |        |

**WATER YEAR : 2013**  
**PRACHIN BURI RIVER BASIN**

**Prachin Buri River at Ban Kabin Buri , Prachin Buri (Kgt.3)**

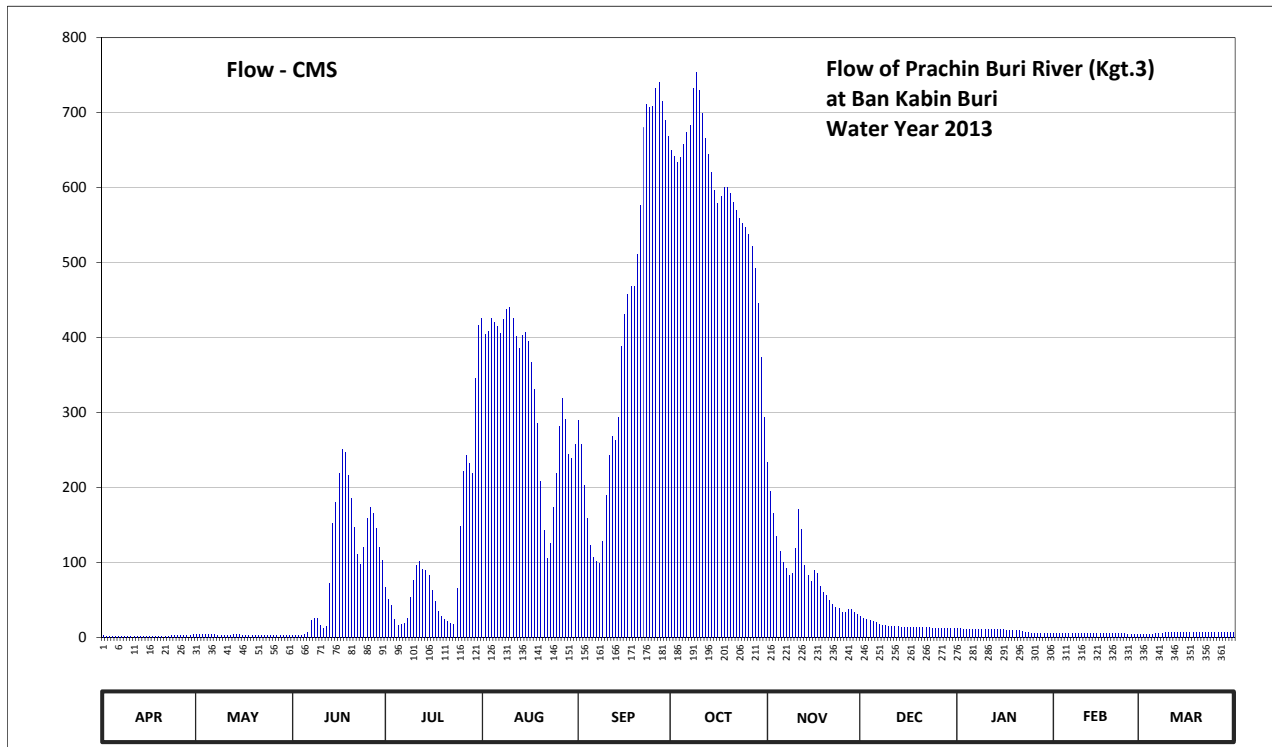
Lat 13 - 59 - 00 N    Long 101 - 42 - 26 E

**Location :** on left bank in front of Amphoe Kabin Buri Office and about 500 meters downstream from the confluence of Lam Phra Prong.

|                                         |                                                                                           |            |               |            |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Kabin Buri | <b>Amphoe</b> | Kabin Buri | <b>Changwat</b>  | Prachin Buri      |
| <b>Drainage Area</b>                    | 7,425                                                                                     | sq.km.     |               |            |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)  |               |            |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |            |                  |                   |
| <b>Location BM</b>                      | On left bank about 5 meters from the top staff gage.                                      |            |               |            | <b>Elevation</b> | +11.410 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |            |               |            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |            |               |            |                  |                   |
| <b>Period of Available Gage Records</b> | 1941 to date                                                                              |            |               |            |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |            |                  |                   |
| <b>Period of Rating</b>                 | 1941 - 1943 , 1945, 1964 to date                                                          |            |               |            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |            |                  |                   |
| <b>Rated by Current Meter</b>           | 1941 - 1943 , 1945, 1964 to date                                                          |            |               |            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |            |               |            |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +10.950 m.(MSL.) and is including overbank flow.        |            |               |            |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 18 discharge measurements made in 2013. |            |               |            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun   | Jul                                              | Aug  | Sep   | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|-------|--------------------------------------------------|------|-------|-------|------|------|------|------|------|--------|
| 1                                | 0.18 | 0.26 | 0.22  | 2.74                                             | 8.13 | 6.49  | 10.78 | 5.78 | 1.48 | 0.72 | 0.39 | 0.34 |        |
| 2                                | 0.17 | 0.29 | 0.23  | 2.23                                             | 7.87 | 6.10  | 10.69 | 5.23 | 1.40 | 0.71 | 0.38 | 0.34 |        |
| 3                                | 0.17 | 0.31 | 0.23  | 1.96                                             | 7.92 | 5.35  | 10.61 | 4.76 | 1.32 | 0.69 | 0.38 | 0.34 |        |
| 4                                | 0.16 | 0.30 | 0.23  | 1.30                                             | 8.14 | 4.64  | 10.68 | 4.24 | 1.24 | 0.69 | 0.38 | 0.34 |        |
| 5                                | 0.15 | 0.31 | 0.30  | 0.94                                             | 8.08 | 4.03  | 10.88 | 3.87 | 1.17 | 0.68 | 0.37 | 0.34 |        |
| 6                                | 0.15 | 0.30 | 0.45  | 0.97                                             | 8.00 | 3.71  | 11.06 | 3.58 | 1.12 | 0.67 | 0.37 | 0.36 |        |
| 7                                | 0.15 | 0.27 | 1.26  | 1.09                                             | 7.90 | 3.61  | 11.16 | 3.36 | 0.97 | 0.66 | 0.37 | 0.41 |        |
| 8                                | 0.15 | 0.25 | 1.39  | 1.40                                             | 8.12 | 3.52  | 11.70 | 3.14 | 0.94 | 0.66 | 0.36 | 0.43 |        |
| 9                                | 0.15 | 0.23 | 1.40  | 2.33                                             | 8.28 | 4.12  | 11.95 | 3.21 | 0.91 | 0.66 | 0.36 | 0.44 |        |
| 10                               | 0.14 | 0.19 | 0.92  | 2.97                                             | 8.31 | 5.15  | 11.67 | 3.95 | 0.87 | 0.65 | 0.36 | 0.45 |        |
| 11                               | 0.15 | 0.19 | 0.74  | 3.47                                             | 8.13 | 5.92  | 11.33 | 4.84 | 0.86 | 0.65 | 0.35 | 0.45 |        |
| 12                               | 0.15 | 0.18 | 0.84  | 3.61                                             | 7.85 | 6.22  | 10.96 | 4.40 | 0.86 | 0.65 | 0.35 | 0.45 |        |
| 13                               | 0.15 | 0.32 | 2.88  | 3.33                                             | 7.65 | 6.16  | 10.72 | 3.47 | 0.84 | 0.64 | 0.35 | 0.47 |        |
| 14                               | 0.15 | 0.34 | 4.53  | 3.30                                             | 7.86 | 6.53  | 10.46 | 3.12 | 0.82 | 0.64 | 0.35 | 0.47 |        |
| 15                               | 0.15 | 0.33 | 4.99  | 3.12                                             | 7.91 | 7.68  | 10.19 | 2.94 | 0.81 | 0.63 | 0.35 | 0.47 |        |
| 16                               | 0.15 | 0.25 | 5.58  | 2.64                                             | 7.76 | 8.20  | 10.00 | 3.30 | 0.80 | 0.63 | 0.35 | 0.46 |        |
| 17                               | 0.15 | 0.21 | 6.02  | 2.13                                             | 7.43 | 8.53  | 10.10 | 3.21 | 0.80 | 0.62 | 0.35 | 0.46 |        |
| 18                               | 0.16 | 0.19 | 5.96  | 1.73                                             | 6.99 | 8.66  | 10.24 | 2.75 | 0.80 | 0.62 | 0.35 | 0.46 |        |
| 19                               | 0.16 | 0.19 | 5.54  | 1.47                                             | 6.43 | 8.66  | 10.23 | 2.54 | 0.79 | 0.62 | 0.35 | 0.46 |        |
| 20                               | 0.15 | 0.20 | 5.09  | 1.30                                             | 5.43 | 9.18  | 10.15 | 2.43 | 0.79 | 0.61 | 0.35 | 0.46 |        |
| 21                               | 0.15 | 0.20 | 4.44  | 1.16                                             | 4.38 | 9.97  | 10.02 | 2.21 | 0.79 | 0.60 | 0.35 | 0.46 |        |
| 22                               | 0.17 | 0.18 | 3.79  | 1.05                                             | 3.67 | 11.13 | 9.89  | 2.03 | 0.78 | 0.55 | 0.35 | 0.46 |        |
| 23                               | 0.19 | 0.19 | 3.49  | 1.02                                             | 4.09 | 11.46 | 9.76  | 1.89 | 0.77 | 0.49 | 0.35 | 0.46 |        |
| 24                               | 0.20 | 0.19 | 3.98  | 2.69                                             | 4.88 | 11.42 | 9.69  | 1.84 | 0.76 | 0.44 | 0.35 | 0.46 |        |
| 25                               | 0.22 | 0.19 | 4.64  | 4.47                                             | 5.57 | 11.44 | 9.62  | 1.68 | 0.76 | 0.43 | 0.34 | 0.46 |        |
| 26                               | 0.21 | 0.21 | 4.88  | 5.61                                             | 6.39 | 11.71 | 9.50  | 1.67 | 0.75 | 0.42 | 0.34 | 0.46 |        |
| 27                               | 0.21 | 0.22 | 4.76  | 5.92                                             | 6.83 | 11.79 | 9.31  | 1.79 | 0.75 | 0.41 | 0.34 | 0.46 |        |
| 28                               | 0.20 | 0.21 | 4.41  | 5.76                                             | 6.51 | 11.51 | 8.95  | 1.79 | 0.74 | 0.40 | 0.34 | 0.46 |        |
| 29                               | 0.23 | 0.20 | 3.97  | 5.57                                             | 5.94 | 11.23 | 8.38  | 1.67 | 0.74 | 0.40 |      | 0.46 |        |
| 30                               | 0.30 | 0.19 | 3.62  | 7.16                                             | 5.86 | 11.00 | 7.50  | 1.58 | 0.73 | 0.39 |      | 0.45 |        |
| 31                               |      | 0.19 |       | 8.03                                             | 6.09 |       | 6.53  |      | 0.73 | 0.39 |      | 0.45 |        |
| Mean                             | 0.17 | 0.23 | 3.03  | 2.98                                             | 6.92 | 7.84  | 10.15 | 3.08 | 0.90 | 0.58 | 0.36 | 0.43 |        |
| Max                              | 0.30 | 0.34 | 6.02  | 8.03                                             | 8.31 | 11.79 | 11.95 | 5.78 | 1.48 | 0.72 | 0.39 | 0.47 | 11.95  |
| Min                              | 0.14 | 0.18 | 0.22  | 0.94                                             | 3.67 | 3.52  | 6.53  | 1.58 | 0.73 | 0.39 | 0.34 | 0.34 | 0.14   |
| Annual Max Momentary Gage Height |      |      | 11.99 | m. (MSL.) , at 09.00 Hours, on Oct 9, 2013       |      |       |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    |      |      | 0.00  | m. (MSL.) , River Bed -1.14 m. (MSL.)            |      |       |       |      |      |      |      |      |        |
| Left Bank Elevation              |      |      | 11.24 | m. (MSL.) ,                                      |      |       |       |      |      |      |      |      |        |
| Right Bank Elevation             |      |      | 10.94 | m. (MSL.) , Drainage Area 7425 Square Kilometers |      |       |       |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun     | Jul     | Aug                  | Sep      | Oct      | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|---------------------------------------------------------|---------|---------|----------------------|----------|----------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 2.70   | 3.90                                                    | 3.30    | 67.60   | 424.86               | 290.38   | 649.20   | 233.60  | 28.40                    | 12.40  | 5.85   | 5.10   |          |        |
| 2              | 2.55   | 4.35                                                    | 3.45    | 50.90   | 403.54               | 258.40   | 641.10   | 195.10  | 26.00                    | 12.20  | 5.70   | 5.10   |          |        |
| 3              | 2.55   | 4.65                                                    | 3.45    | 42.80   | 407.64               | 203.50   | 633.90   | 166.60  | 24.40                    | 11.80  | 5.70   | 5.10   |          |        |
| 4              | 2.40   | 4.50                                                    | 3.45    | 24.00   | 425.68               | 159.40   | 640.20   | 135.40  | 22.80                    | 11.80  | 5.70   | 5.10   |          |        |
| 5              | 2.25   | 4.65                                                    | 4.50    | 16.80   | 420.76               | 123.50   | 658.20   | 115.50  | 21.40                    | 11.60  | 5.55   | 5.10   |          |        |
| 6              | 2.25   | 4.50                                                    | 7.00    | 17.40   | 414.20               | 107.50   | 674.40   | 101.20  | 20.40                    | 11.40  | 5.55   | 5.40   |          |        |
| 7              | 2.25   | 4.05                                                    | 23.20   | 19.80   | 406.00               | 102.50   | 683.40   | 92.40   | 17.40                    | 11.20  | 5.55   | 6.20   |          |        |
| 8              | 2.25   | 3.75                                                    | 25.80   | 26.00   | 424.04               | 98.80    | 732.00   | 83.60   | 16.80                    | 11.20  | 5.40   | 6.60   |          |        |
| 9              | 2.25   | 3.45                                                    | 26.00   | 53.90   | 437.16               | 128.20   | 754.50   | 86.40   | 16.20                    | 11.20  | 5.40   | 6.80   |          |        |
| 10             | 2.10   | 2.85                                                    | 16.40   | 76.80   | 439.62               | 190.00   | 729.30   | 119.50  | 15.40                    | 11.00  | 5.40   | 7.00   |          |        |
| 11             | 2.25   | 2.85                                                    | 12.80   | 96.80   | 424.86               | 243.64   | 698.70   | 171.40  | 15.20                    | 11.00  | 5.25   | 7.00   |          |        |
| 12             | 2.25   | 2.70                                                    | 14.80   | 102.50  | 401.90               | 268.24   | 665.40   | 145.00  | 15.20                    | 11.00  | 5.25   | 7.00   |          |        |
| 13             | 2.25   | 4.80                                                    | 73.20   | 91.20   | 385.50               | 263.32   | 643.80   | 96.80   | 14.80                    | 10.80  | 5.25   | 7.40   |          |        |
| 14             | 2.25   | 5.10                                                    | 152.80  | 90.00   | 402.72               | 293.66   | 620.40   | 82.80   | 14.40                    | 10.80  | 5.25   | 7.40   |          |        |
| 15             | 2.25   | 4.95                                                    | 180.40  | 82.80   | 406.82               | 387.96   | 596.10   | 75.60   | 14.20                    | 10.60  | 5.25   | 7.40   |          |        |
| 16             | 2.25   | 3.75                                                    | 219.60  | 63.60   | 394.52               | 430.60   | 579.00   | 90.00   | 14.00                    | 10.60  | 5.25   | 7.20   |          |        |
| 17             | 2.25   | 3.15                                                    | 251.84  | 47.90   | 367.46               | 457.66   | 588.00   | 86.40   | 14.00                    | 10.40  | 5.25   | 7.20   |          |        |
| 18             | 2.40   | 2.85                                                    | 246.92  | 35.90   | 331.38               | 468.32   | 600.60   | 68.00   | 14.00                    | 10.40  | 5.25   | 7.20   |          |        |
| 19             | 2.40   | 2.85                                                    | 216.80  | 28.10   | 285.46               | 468.32   | 599.70   | 60.20   | 13.80                    | 10.40  | 5.25   | 7.20   |          |        |
| 20             | 2.25   | 3.00                                                    | 186.40  | 24.00   | 209.10               | 510.96   | 592.50   | 56.90   | 13.80                    | 10.20  | 5.25   | 7.20   |          |        |
| 21             | 2.25   | 3.00                                                    | 147.40  | 21.20   | 143.80               | 576.30   | 580.80   | 50.30   | 13.80                    | 10.00  | 5.25   | 7.20   |          |        |
| 22             | 2.55   | 2.70                                                    | 111.50  | 19.00   | 105.50               | 680.70   | 569.18   | 44.90   | 13.60                    | 9.00   | 5.25   | 7.20   |          |        |
| 23             | 2.85   | 2.85                                                    | 97.60   | 18.40   | 126.50               | 710.40   | 558.52   | 40.70   | 13.40                    | 7.80   | 5.25   | 7.20   |          |        |
| 24             | 3.00   | 2.85                                                    | 121.00  | 65.60   | 173.80               | 706.80   | 552.78   | 39.20   | 13.20                    | 6.80   | 5.25   | 7.20   |          |        |
| 25             | 3.30   | 2.85                                                    | 159.40  | 149.20  | 218.90               | 708.60   | 547.04   | 34.40   | 13.20                    | 6.60   | 5.10   | 7.20   |          |        |
| 26             | 3.15   | 3.15                                                    | 173.80  | 221.70  | 282.18               | 732.90   | 537.20   | 34.10   | 13.00                    | 6.40   | 5.10   | 7.20   |          |        |
| 27             | 3.15   | 3.30                                                    | 166.60  | 243.64  | 318.26               | 740.10   | 521.62   | 37.70   | 13.00                    | 6.20   | 5.10   | 7.20   |          |        |
| 28             | 3.00   | 3.15                                                    | 145.60  | 232.20  | 292.02               | 714.90   | 492.10   | 37.70   | 12.80                    | 6.00   | 5.10   | 7.20   |          |        |
| 29             | 3.45   | 3.00                                                    | 120.50  | 218.90  | 245.28               | 689.70   | 445.36   | 34.10   | 12.80                    | 6.00   |        | 7.20   |          |        |
| 30             | 4.50   | 2.85                                                    | 103.00  | 345.32  | 239.20               | 669.00   | 373.20   | 31.40   | 12.60                    | 5.85   |        | 7.00   |          |        |
| 31             |        | 2.85                                                    |         | 416.66  | 257.58               |          | 293.66   |         | 12.60                    | 5.85   |        | 7.00   |          |        |
| Total          | 77.55  | 109.20                                                  | 3018.51 | 3010.62 | 10216.24             | 12384.26 | 18451.86 | 2646.90 | 496.60                   | 298.50 | 149.70 | 208.50 | 51068.44 | CMSDAY |
| Mean           | 2.59   | 3.52                                                    | 100.62  | 97.12   | 329.56               | 412.81   | 595.22   | 88.23   | 16.02                    | 9.63   | 5.35   | 6.73   | 139.91   | CMS    |
| Max            | 4.50   | 5.10                                                    | 251.84  | 416.66  | 439.62               | 740.10   | 754.50   | 233.60  | 28.40                    | 12.40  | 5.85   | 7.40   | 754.50   | CMS    |
| Min            | 2.10   | 2.70                                                    | 3.30    | 16.80   | 105.50               | 98.80    | 293.66   | 31.40   | 12.60                    | 5.85   | 5.10   | 5.10   | 2.10     | CMS    |
| Runoff         | 6.70   | 9.44                                                    | 260.80  | 260.12  | 882.68               | 1070.00  | 1594.24  | 228.69  | 42.91                    | 25.79  | 12.93  | 18.01  | 4412.31  | MCM    |
| Momentary Peak | 758.10 | CMS, at 11.99 m. (MSL.), at 09.00 Hours, on Oct 9, 2013 |         |         |                      |          |          |         |                          |        |        |        |          |        |
| Runoff Yield   | 18.84  | Liters/Second/Square KM.                                |         |         | Momentary Peak Yield |          |          | 102.101 | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**

## PRACHIN BURI RIVER BASIN

### Khlong Phra Sathung at Ban Khao Chakan , Sa Kaeo (Kgt.9)

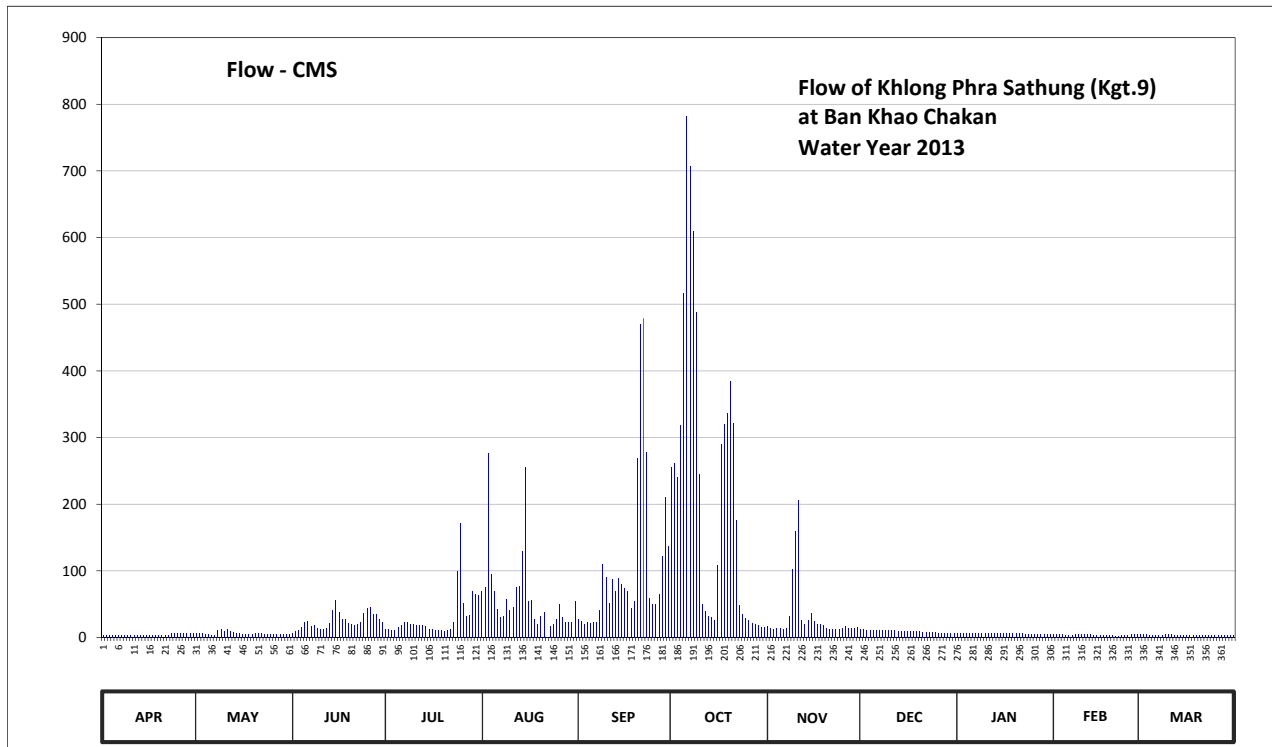
Lat 13 - 40 - 11 N      Long 102 - 04 - 38 E

**Location : on right bank near Wat Khao Chakan.**

|                                         |                                                                                           |             |               |             |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khao Chakan | <b>Amphoe</b> | Khao Chakan | <b>Changwat</b>  | Sa Kaeo           |
| <b>Drainage Area</b>                    | 2,264                                                                                     | sq.km.      |               |             |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |             |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +39.566                                                                                   | m. (MSL.)   |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |             |                  |                   |
| <b>Location BM</b>                      | On right bank about 10 meters from the automatic gage building.                           |             |               |             | <b>Elevation</b> | +48.586 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |             |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |             |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 1972 to date                                                                              |             |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |             |               |             |                  |                   |
| <b>Period of Rating</b>                 | 1972 - 1987 , 1989 to date                                                                |             |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 1972 - 1987 , 1989 to date                                                                |             |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |             |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +49.210 m.(MSL.) and is including overbank flow.        |             |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 17 discharge measurements made in 2013. |             |               |             |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 43.16 | 43.22 | 43.23                                            | 43.42 | 44.52 | 43.74 | 47.05 | 43.51 | 43.42 | 43.24 | 43.17 | 43.17 |        |
|                                  | 2  | 43.16 | 43.22 | 43.32                                            | 43.41 | 44.61 | 43.68 | 47.15 | 43.45 | 43.40 | 43.24 | 43.17 | 43.17 |        |
|                                  | 3  | 43.16 | 43.22 | 43.35                                            | 43.37 | 47.46 | 43.57 | 46.65 | 43.42 | 43.37 | 43.24 | 43.17 | 43.17 |        |
|                                  | 4  | 43.16 | 43.17 | 43.48                                            | 43.38 | 44.88 | 43.63 | 48.18 | 43.43 | 43.35 | 43.24 | 43.17 | 43.16 |        |
|                                  | 5  | 43.16 | 43.17 | 43.64                                            | 43.47 | 44.51 | 43.61 | 50.09 | 43.44 | 43.35 | 43.24 | 43.15 | 43.16 |        |
|                                  | 6  | 43.16 | 43.15 | 43.66                                            | 43.52 | 44.07 | 43.63 | 51.24 | 43.41 | 43.35 | 43.23 | 43.15 | 43.16 |        |
|                                  | 7  | 43.16 | 43.15 | 43.50                                            | 43.63 | 43.82 | 43.63 | 50.98 | 43.44 | 43.35 | 43.23 | 43.15 | 43.16 |        |
|                                  | 8  | 43.16 | 43.37 | 43.54                                            | 43.64 | 43.84 | 44.03 | 50.57 | 43.85 | 43.35 | 43.23 | 43.17 | 43.16 |        |
|                                  | 9  | 43.16 | 43.42 | 43.45                                            | 43.57 | 44.30 | 45.10 | 49.91 | 44.99 | 43.35 | 43.23 | 43.17 | 43.17 |        |
|                                  | 10 | 43.16 | 43.32 | 43.39                                            | 43.57 | 44.02 | 44.83 | 46.78 | 45.71 | 43.35 | 43.23 | 43.17 | 43.17 |        |
|                                  | 11 | 43.15 | 43.42 | 43.42                                            | 43.55 | 44.11 | 44.20 | 44.18 | 46.19 | 43.34 | 43.23 | 43.17 | 43.17 |        |
|                                  | 12 | 43.15 | 43.32 | 43.45                                            | 43.55 | 44.60 | 44.79 | 43.98 | 43.72 | 43.34 | 43.23 | 43.17 | 43.16 |        |
|                                  | 13 | 43.15 | 43.27 | 43.60                                            | 43.55 | 44.63 | 44.50 | 43.85 | 43.57 | 43.33 | 43.23 | 43.17 | 43.16 |        |
|                                  | 14 | 43.15 | 43.22 | 44.03                                            | 43.51 | 45.34 | 44.81 | 43.79 | 43.70 | 43.33 | 43.23 | 43.15 | 43.16 |        |
|                                  | 15 | 43.15 | 43.22 | 44.29                                            | 43.42 | 47.05 | 44.67 | 43.70 | 43.94 | 43.32 | 43.23 | 43.15 | 43.16 |        |
|                                  | 16 | 43.15 | 43.17 | 43.97                                            | 43.40 | 44.26 | 44.58 | 45.09 | 43.66 | 43.32 | 43.22 | 43.15 | 43.16 |        |
|                                  | 17 | 43.15 | 43.17 | 43.74                                            | 43.36 | 44.29 | 44.51 | 47.69 | 43.57 | 43.32 | 43.22 | 43.15 | 43.16 |        |
|                                  | 18 | 43.15 | 43.17 | 43.74                                            | 43.36 | 43.73 | 44.08 | 48.21 | 43.57 | 43.32 | 43.22 | 43.14 | 43.16 |        |
|                                  | 19 | 43.15 | 43.17 | 43.61                                            | 43.34 | 43.58 | 44.25 | 48.46 | 43.54 | 43.31 | 43.22 | 43.14 | 43.15 |        |
|                                  | 20 | 43.15 | 43.22 | 43.56                                            | 43.32 | 43.85 | 47.31 | 49.04 | 43.45 | 43.30 | 43.22 | 43.14 | 43.15 |        |
|                                  | 21 | 43.15 | 43.22 | 43.54                                            | 43.34 | 43.97 | 49.78 | 48.22 | 43.42 | 43.29 | 43.22 | 43.12 | 43.15 |        |
|                                  | 22 | 43.16 | 43.22 | 43.57                                            | 43.42 | 43.06 | 49.85 | 45.89 | 43.42 | 43.27 | 43.22 | 43.12 | 43.15 |        |
|                                  | 23 | 43.22 | 43.19 | 43.64                                            | 43.62 | 43.51 | 47.49 | 44.16 | 43.42 | 43.27 | 43.20 | 43.14 | 43.15 |        |
|                                  | 24 | 43.22 | 43.17 | 43.93                                            | 44.96 | 43.57 | 44.33 | 43.90 | 43.40 | 43.26 | 43.20 | 43.14 | 43.15 |        |
|                                  | 25 | 43.22 | 43.17 | 44.08                                            | 45.84 | 43.75 | 44.18 | 43.77 | 43.44 | 43.26 | 43.20 | 43.15 | 43.15 |        |
|                                  | 26 | 43.22 | 43.19 | 44.10                                            | 44.22 | 44.18 | 44.19 | 43.72 | 43.49 | 43.25 | 43.17 | 43.17 | 43.15 |        |
|                                  | 27 | 43.22 | 43.19 | 43.91                                            | 43.84 | 43.82 | 44.43 | 43.60 | 43.45 | 43.25 | 43.17 | 43.18 | 43.15 |        |
|                                  | 28 | 43.22 | 43.17 | 43.91                                            | 43.88 | 43.63 | 45.25 | 43.57 | 43.44 | 43.25 | 43.17 | 43.19 | 43.14 |        |
|                                  | 29 | 43.22 | 43.17 | 43.75                                            | 44.52 | 43.63 | 46.23 | 43.54 | 43.43 | 43.24 | 43.17 |       | 43.14 |        |
|                                  | 30 | 43.22 | 43.17 | 43.65                                            | 44.43 | 43.62 | 45.44 | 43.47 | 43.46 | 43.24 | 43.17 |       | 43.14 |        |
|                                  | 31 |       | 43.17 |                                                  | 44.42 | 44.26 |       | 43.47 |       | 43.23 | 43.17 |       | 43.14 |        |
| Mean                             |    | 43.17 | 43.22 | 43.67                                            | 43.74 | 44.27 | 44.94 | 46.25 | 43.73 | 43.31 | 43.21 | 43.16 | 43.16 |        |
| Max                              |    | 43.22 | 43.42 | 44.29                                            | 45.84 | 47.46 | 49.85 | 51.24 | 46.19 | 43.42 | 43.24 | 43.19 | 43.17 | 51.24  |
| Min                              |    | 43.15 | 43.15 | 43.23                                            | 43.32 | 43.06 | 43.57 | 43.47 | 43.40 | 43.23 | 43.17 | 43.12 | 43.14 | 43.06  |
| Annual Max Momentary Gage Height |    |       | 51.38 | m. (MSL.) , at 12.00 Hours, on Oct 6, 2013       |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 39.57 | m. (MSL.) , River Bed 38.95 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 49.20 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 50.77 | m. (MSL.) , Drainage Area 2264 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|---------------------------------------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 4.10   | 6.20                                                    | 6.55   | 13.40  | 70.30                | 27.80   | 256.50  | 17.45   | 13.40                    | 6.90   | 4.45   | 4.45   |          |        |
| 2              | 4.10   | 6.20                                                    | 9.70   | 12.95  | 76.15                | 25.10   | 261.50  | 14.75   | 12.50                    | 6.90   | 4.45   | 4.45   |          |        |
| 3              | 4.10   | 6.20                                                    | 10.75  | 11.45  | 277.00               | 20.15   | 240.00  | 13.40   | 11.45                    | 6.90   | 4.45   | 4.45   |          |        |
| 4              | 4.10   | 4.45                                                    | 16.10  | 11.80  | 94.60                | 22.85   | 318.80  | 13.85   | 10.75                    | 6.90   | 4.45   | 4.10   |          |        |
| 5              | 4.10   | 4.45                                                    | 23.30  | 15.65  | 69.65                | 21.95   | 516.20  | 14.30   | 10.75                    | 6.90   | 3.75   | 4.10   |          |        |
| 6              | 4.10   | 3.75                                                    | 24.20  | 17.90  | 43.50                | 22.85   | 782.00  | 12.95   | 10.75                    | 6.55   | 3.75   | 4.10   |          |        |
| 7              | 4.10   | 3.75                                                    | 17.00  | 22.85  | 31.40                | 22.85   | 706.80  | 14.30   | 10.75                    | 6.55   | 3.75   | 4.10   |          |        |
| 8              | 4.10   | 11.45                                                   | 18.80  | 23.30  | 32.30                | 41.50   | 609.40  | 32.75   | 10.75                    | 6.55   | 4.45   | 4.10   |          |        |
| 9              | 4.10   | 13.40                                                   | 14.75  | 20.15  | 57.00                | 110.00  | 487.40  | 102.30  | 10.75                    | 6.55   | 4.45   | 4.45   |          |        |
| 10             | 4.10   | 9.70                                                    | 12.15  | 20.15  | 41.00                | 91.10   | 245.20  | 159.90  | 10.75                    | 6.55   | 4.45   | 4.45   |          |        |
| 11             | 3.75   | 13.40                                                   | 13.40  | 19.25  | 45.60                | 51.00   | 49.80   | 207.00  | 10.40                    | 6.55   | 4.45   | 4.45   |          |        |
| 12             | 3.75   | 9.70                                                    | 14.75  | 19.25  | 75.50                | 88.30   | 39.00   | 26.90   | 10.40                    | 6.55   | 4.45   | 4.10   |          |        |
| 13             | 3.75   | 7.95                                                    | 21.50  | 19.25  | 77.45                | 69.00   | 32.75   | 20.15   | 10.05                    | 6.55   | 4.45   | 4.10   |          |        |
| 14             | 3.75   | 6.20                                                    | 41.50  | 17.45  | 129.20               | 89.70   | 30.05   | 26.00   | 10.05                    | 6.55   | 3.75   | 4.10   |          |        |
| 15             | 3.75   | 6.20                                                    | 56.40  | 13.40  | 256.50               | 80.05   | 26.00   | 37.00   | 9.70                     | 6.55   | 3.75   | 4.10   |          |        |
| 16             | 3.75   | 4.45                                                    | 38.50  | 12.50  | 54.60                | 74.20   | 109.30  | 24.20   | 9.70                     | 6.20   | 3.75   | 4.10   |          |        |
| 17             | 3.75   | 4.45                                                    | 27.80  | 11.10  | 56.40                | 69.65   | 289.40  | 20.15   | 9.70                     | 6.20   | 3.75   | 4.10   |          |        |
| 18             | 3.75   | 4.45                                                    | 27.80  | 11.10  | 27.35                | 44.00   | 320.60  | 20.15   | 9.70                     | 6.20   | 3.40   | 4.10   |          |        |
| 19             | 3.75   | 4.45                                                    | 21.95  | 10.40  | 20.60                | 54.00   | 337.20  | 18.80   | 9.35                     | 6.20   | 3.40   | 3.75   |          |        |
| 20             | 3.75   | 6.20                                                    | 19.70  | 9.70   | 32.75                | 269.50  | 384.30  | 14.75   | 9.00                     | 6.20   | 3.40   | 3.75   |          |        |
| 21             | 3.75   | 6.20                                                    | 18.80  | 10.40  | 38.50                | 469.60  | 321.20  | 13.40   | 8.65                     | 6.20   | 2.70   | 3.75   |          |        |
| 22             | 4.10   | 6.20                                                    | 20.15  | 13.40  | 1.20                 | 479.00  | 177.00  | 13.40   | 7.95                     | 6.20   | 2.70   | 3.75   |          |        |
| 23             | 6.20   | 5.15                                                    | 23.30  | 22.40  | 17.45                | 278.50  | 48.60   | 13.40   | 7.95                     | 5.50   | 3.40   | 3.75   |          |        |
| 24             | 6.20   | 4.45                                                    | 36.50  | 100.20 | 20.15                | 58.80   | 35.00   | 12.50   | 7.60                     | 5.50   | 3.40   | 3.75   |          |        |
| 25             | 6.20   | 4.45                                                    | 44.00  | 172.00 | 28.25                | 49.80   | 29.15   | 14.30   | 7.60                     | 5.50   | 3.75   | 3.75   |          |        |
| 26             | 6.20   | 5.15                                                    | 45.00  | 52.20  | 49.80                | 50.40   | 26.90   | 16.55   | 7.25                     | 4.45   | 4.45   | 3.75   |          |        |
| 27             | 6.20   | 5.15                                                    | 35.50  | 32.30  | 31.40                | 64.80   | 21.50   | 14.75   | 7.25                     | 4.45   | 4.80   | 3.75   |          |        |
| 28             | 6.20   | 4.45                                                    | 35.50  | 34.10  | 22.85                | 122.00  | 20.15   | 14.30   | 7.25                     | 4.45   | 5.15   | 3.40   |          |        |
| 29             | 6.20   | 4.45                                                    | 28.25  | 70.30  | 22.85                | 211.30  | 18.80   | 13.85   | 6.90                     | 4.45   |        | 3.40   |          |        |
| 30             | 6.20   | 4.45                                                    | 23.75  | 64.80  | 22.40                | 137.20  | 15.65   | 15.20   | 6.90                     | 4.45   |        | 3.40   |          |        |
| 31             |        | 4.45                                                    |        | 64.20  | 54.60                |         | 15.65   |         | 6.55                     | 4.45   |        | 3.40   |          |        |
| Total          | 135.95 | 191.55                                                  | 747.35 | 949.30 | 1878.30              | 3216.95 | 6771.80 | 952.70  | 292.50                   | 186.60 | 111.30 | 123.25 | 15557.55 | CMSDAY |
| Mean           | 4.53   | 6.18                                                    | 24.91  | 30.62  | 60.59                | 107.23  | 218.45  | 31.76   | 9.44                     | 6.02   | 3.98   | 3.98   | 42.62    | CMS    |
| Max            | 6.20   | 13.40                                                   | 56.40  | 172.00 | 277.00               | 479.00  | 782.00  | 207.00  | 13.40                    | 6.90   | 5.15   | 4.45   | 782.00   | CMS    |
| Min            | 3.75   | 3.75                                                    | 6.55   | 9.70   | 1.20                 | 20.15   | 15.65   | 12.50   | 6.55                     | 4.45   | 2.70   | 3.40   | 1.20     | CMS    |
| Runoff         | 11.75  | 16.55                                                   | 64.57  | 82.02  | 162.29               | 277.95  | 585.08  | 82.31   | 25.27                    | 16.12  | 9.62   | 10.65  | 1344.17  | MCM    |
| Momentary Peak | 824.00 | CMS, at 51.38 m. (MSL.), at 12.00 Hours, on Oct 6, 2013 |        |        |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 18.83  | Liters/Second/Square KM.                                |        |        | Momentary Peak Yield |         |         | 363.958 | Liters/Second/Square KM. |        |        |        |          |        |

## WATER YEAR : 2013

## PRACHIN BURI RIVER BASIN

### Khlong Phra Prong at Ban Kaeng , Sa Kaeo (Kgt.12

Lat 13 - 56 - 10 N      Long 101 - 58 - 27 E

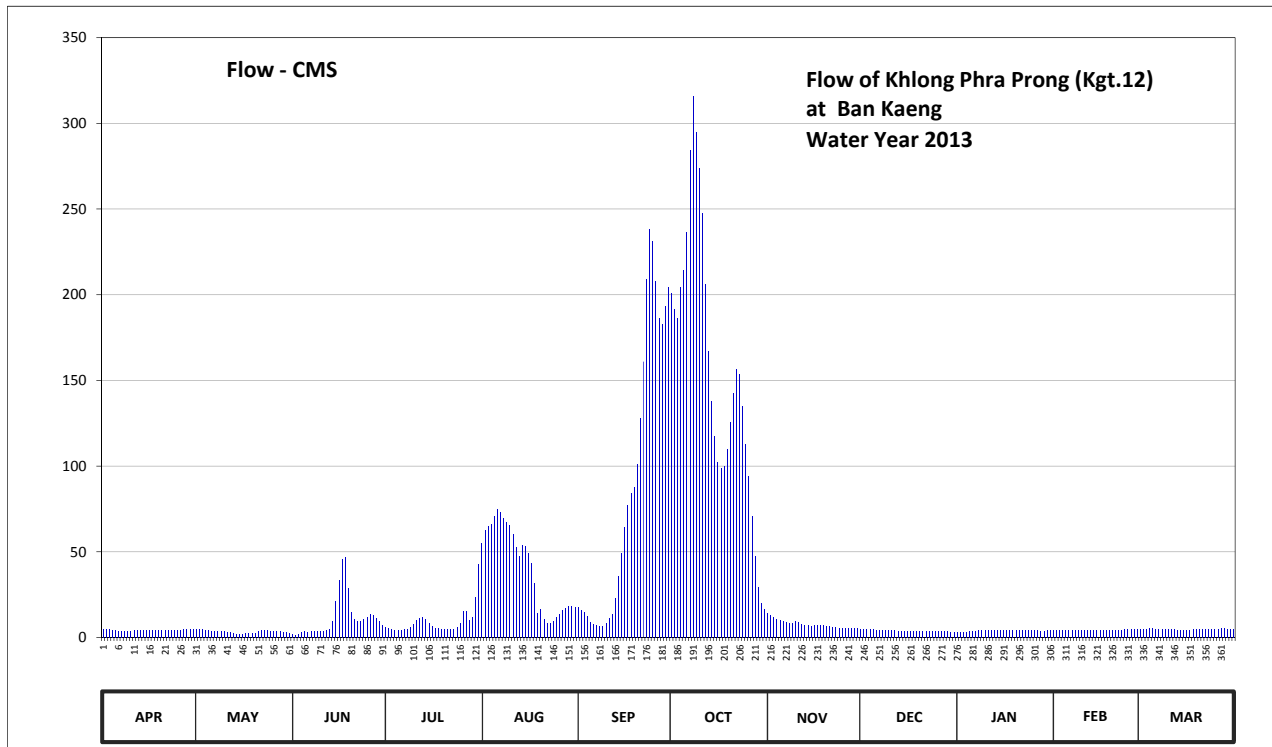
**Location :** on left bank near the railway station at Ban Kaeng at about 200 meters upstream from Thot Saphon Sawmill

|                                         |                                                                                                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                                                                                                | Kaeng     | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Sa Kaeo           |
| <b>Drainage Area</b>                    | 1,478                                                                                                                                                                     | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                                                                                    |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +13.835                                                                                                                                                                   | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank in front of the gage observer's house.                                                                                                                       |           |               |        | <b>Elevation</b> | +23.522 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                                                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1966 to date                                                                                                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1966 to date                                                                                                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1966 to date                                                                                                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                                                                                            |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +22.050 m.(MSL.) and is including overbank flow.                                                                                        |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. The concrete weir situated about 7 kilometers downstream from the gage site.<br>Stage-discharge relation defined by 27 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                        | Jul   | Aug   | Sep           | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|--------------------------------------------|-------|-------|---------------|-------|-------------------|-------|-------|-------|-------|--------|
|                                  | 1  | 16.29 | 16.29 | 16.01                                      | 16.42 | 19.24 | 17.21         | 23.00 | 17.03             | 16.31 | 16.13 | 16.23 | 16.27 |        |
|                                  | 2  | 16.27 | 16.27 | 15.97                                      | 16.34 | 19.60 | 17.12         | 22.89 | 16.95             | 16.31 | 16.14 | 16.23 | 16.28 |        |
|                                  | 3  | 16.26 | 16.26 | 16.00                                      | 16.28 | 19.72 | 17.04         | 22.83 | 16.86             | 16.30 | 16.14 | 16.22 | 16.30 |        |
|                                  | 4  | 16.25 | 16.25 | 16.14                                      | 16.24 | 19.79 | 16.92         | 23.03 | 16.80             | 16.28 | 16.14 | 16.22 | 16.33 |        |
|                                  | 5  | 16.23 | 16.23 | 16.15                                      | 16.22 | 20.01 | 16.67         | 23.13 | 16.75             | 16.27 | 16.15 | 16.22 | 16.33 |        |
|                                  | 6  | 16.20 | 16.20 | 16.14                                      | 16.23 | 20.18 | 16.56         | 23.33 | 16.69             | 16.25 | 16.19 | 16.23 | 16.32 |        |
|                                  | 7  | 16.17 | 16.17 | 16.15                                      | 16.26 | 20.12 | 16.50         | 23.68 | 16.65             | 16.23 | 16.20 | 16.23 | 16.31 |        |
|                                  | 8  | 16.17 | 16.17 | 16.15                                      | 16.30 | 19.95 | 16.48         | 23.87 | 16.63             | 16.23 | 16.21 | 16.23 | 16.30 |        |
|                                  | 9  | 16.17 | 16.17 | 16.17                                      | 16.41 | 19.85 | 16.47         | 23.75 | 16.63             | 16.22 | 16.21 | 16.24 | 16.28 |        |
|                                  | 10 | 16.16 | 16.16 | 16.18                                      | 16.59 | 19.74 | 16.64         | 23.61 | 16.71             | 16.22 | 16.22 | 16.25 | 16.26 |        |
|                                  | 11 | 16.22 | 16.14 | 16.17                                      | 16.76 | 19.50 | 16.81         | 23.42 | 16.68             | 16.21 | 16.22 | 16.24 | 16.26 |        |
|                                  | 12 | 16.23 | 16.11 | 16.22                                      | 16.82 | 19.12 | 16.99         | 23.05 | 16.57             | 16.21 | 16.22 | 16.24 | 16.26 |        |
|                                  | 13 | 16.23 | 16.06 | 16.31                                      | 16.86 | 18.81 | 17.47         | 22.55 | 16.53             | 16.20 | 16.22 | 16.23 | 16.25 |        |
|                                  | 14 | 16.23 | 16.01 | 16.70                                      | 16.80 | 19.17 | 18.13         | 22.04 | 16.50             | 16.20 | 16.22 | 16.23 | 16.24 |        |
|                                  | 15 | 16.24 | 15.98 | 17.39                                      | 16.61 | 19.13 | 18.92         | 21.59 | 16.49             | 16.20 | 16.22 | 16.24 | 16.24 |        |
|                                  | 16 | 16.24 | 15.98 | 18.01                                      | 16.46 | 18.93 | 19.69         | 21.17 | 16.50             | 16.19 | 16.23 | 16.24 | 16.25 |        |
|                                  | 17 | 16.24 | 16.05 | 18.68                                      | 16.38 | 18.54 | 20.28         | 21.04 | 16.51             | 16.19 | 16.23 | 16.24 | 16.25 |        |
|                                  | 18 | 16.24 | 16.07 | 18.77                                      | 16.33 | 17.90 | 20.54         | 21.08 | 16.52             | 16.19 | 16.23 | 16.24 | 16.26 |        |
|                                  | 19 | 16.24 | 16.05 | 17.78                                      | 16.31 | 17.01 | 20.67         | 21.38 | 16.50             | 16.19 | 16.24 | 16.24 | 16.26 |        |
|                                  | 20 | 16.24 | 16.06 | 17.07                                      | 16.27 | 17.16 | 21.12         | 21.79 | 16.48             | 16.19 | 16.24 | 16.25 | 16.26 |        |
|                                  | 21 | 16.24 | 16.16 | 16.78                                      | 16.26 | 16.78 | 21.84         | 22.13 | 16.45             | 16.19 | 16.24 | 16.25 | 16.26 |        |
|                                  | 22 | 16.24 | 16.22 | 16.70                                      | 16.26 | 16.62 | 22.45         | 22.37 | 16.42             | 16.19 | 16.25 | 16.25 | 16.27 |        |
|                                  | 23 | 16.24 | 16.25 | 16.71                                      | 16.29 | 16.62 | 23.08         | 22.32 | 16.40             | 16.19 | 16.25 | 16.25 | 16.28 |        |
|                                  | 24 | 16.24 | 16.22 | 16.79                                      | 16.40 | 16.70 | 23.34         | 21.98 | 16.38             | 16.18 | 16.25 | 16.26 | 16.29 |        |
|                                  | 25 | 16.24 | 16.20 | 16.87                                      | 16.63 | 16.85 | 23.28         | 21.47 | 16.37             | 16.18 | 16.25 | 16.26 | 16.29 |        |
|                                  | 26 | 16.24 | 16.19 | 16.96                                      | 17.10 | 16.99 | 23.07         | 20.90 | 16.35             | 16.17 | 16.24 | 16.27 | 16.31 |        |
|                                  | 27 | 16.26 | 16.19 | 16.94                                      | 17.10 | 17.12 | 22.83         | 20.01 | 16.34             | 16.16 | 16.21 | 16.27 | 16.33 |        |
|                                  | 28 | 16.28 | 16.16 | 16.83                                      | 16.75 | 17.19 | 22.78         | 18.82 | 16.34             | 16.15 | 16.19 | 16.27 | 16.33 |        |
|                                  | 29 | 16.29 | 16.13 | 16.69                                      | 16.86 | 17.23 | 22.91         | 17.79 | 16.34             | 16.15 | 16.20 |       | 16.32 |        |
|                                  | 30 | 16.30 | 16.10 | 16.53                                      | 17.50 | 17.25 | 23.03         | 17.34 | 16.33             | 16.14 | 16.23 |       | 16.30 |        |
|                                  | 31 |       | 16.05 |                                            | 18.51 | 17.22 |               | 17.15 |                   | 16.14 | 16.24 |       | 16.29 |        |
| Mean                             |    | 16.24 | 16.15 | 16.73                                      | 16.60 | 18.39 | 19.56         | 21.76 | 16.56             | 16.21 | 16.21 | 16.24 | 16.28 |        |
| Max                              |    | 16.30 | 16.29 | 18.77                                      | 18.51 | 20.18 | 23.34         | 23.87 | 17.03             | 16.31 | 16.25 | 16.27 | 16.33 | 23.87  |
| Min                              |    | 16.16 | 15.98 | 15.97                                      | 16.22 | 16.62 | 16.47         | 17.15 | 16.33             | 16.14 | 16.13 | 16.22 | 16.24 | 15.97  |
| Annual Max Momentary Gage Height |    |       | 23.90 | m. (MSL.) , at 18.00 Hours, on Oct 8, 2013 |       |       |               |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 13.84 | m. (MSL.) ,                                |       |       | River Bed     | 12.54 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              |    |       | 23.48 | m. (MSL.) ,                                |       |       |               |       |                   |       |       |       |       |        |
| Right Bank Elevation             |    |       | 22.04 | m. (MSL.) ,                                |       |       | Drainage Area | 1478  | Square Kilometers |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar    | Annual          |
|----------------|--------|---------------------------------------------------------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|--------|--------|-----------------|
| 1              | 4.90   | 4.90                                                    | 2.10   | 6.20                 | 55.30   | 17.70   | 201.00                   | 14.45  | 5.10   | 3.30   | 4.30   | 4.70   |                 |
| 2              | 4.70   | 4.70                                                    | 1.70   | 5.40                 | 62.50   | 15.90   | 191.20                   | 13.25  | 5.10   | 3.40   | 4.30   | 4.80   |                 |
| 3              | 4.60   | 4.60                                                    | 2.00   | 4.80                 | 64.90   | 14.60   | 186.40                   | 11.90  | 5.00   | 3.40   | 4.20   | 5.00   |                 |
| 4              | 4.50   | 4.50                                                    | 3.40   | 4.40                 | 66.30   | 12.80   | 204.00                   | 11.00  | 4.80   | 3.40   | 4.20   | 5.30   |                 |
| 5              | 4.30   | 4.30                                                    | 3.50   | 4.20                 | 70.75   | 9.05    | 214.30                   | 10.25  | 4.70   | 3.50   | 4.20   | 5.30   |                 |
| 6              | 4.00   | 4.00                                                    | 3.40   | 4.30                 | 75.00   | 7.60    | 236.60                   | 9.35   | 4.50   | 3.90   | 4.30   | 5.20   |                 |
| 7              | 3.70   | 3.70                                                    | 3.50   | 4.60                 | 73.50   | 7.00    | 284.00                   | 8.75   | 4.30   | 4.00   | 4.30   | 5.10   |                 |
| 8              | 3.70   | 3.70                                                    | 3.50   | 5.00                 | 69.50   | 6.80    | 315.60                   | 8.45   | 4.30   | 4.10   | 4.30   | 5.00   |                 |
| 9              | 3.70   | 3.70                                                    | 3.70   | 6.10                 | 67.50   | 6.70    | 295.00                   | 8.45   | 4.20   | 4.10   | 4.40   | 4.80   |                 |
| 10             | 3.60   | 3.60                                                    | 3.80   | 7.90                 | 65.30   | 8.60    | 273.50                   | 9.65   | 4.20   | 4.20   | 4.50   | 4.60   |                 |
| 11             | 4.20   | 3.40                                                    | 3.70   | 10.40                | 60.50   | 11.15   | 247.60                   | 9.20   | 4.10   | 4.20   | 4.40   | 4.60   |                 |
| 12             | 4.30   | 3.10                                                    | 4.20   | 11.30                | 52.90   | 13.85   | 206.00                   | 7.70   | 4.10   | 4.20   | 4.40   | 4.60   |                 |
| 13             | 4.30   | 2.60                                                    | 5.10   | 11.90                | 47.65   | 22.90   | 167.00                   | 7.30   | 4.00   | 4.20   | 4.30   | 4.50   |                 |
| 14             | 4.30   | 2.10                                                    | 9.50   | 11.00                | 53.90   | 36.10   | 138.00                   | 7.00   | 4.00   | 4.20   | 4.30   | 4.40   |                 |
| 15             | 4.40   | 1.80                                                    | 21.30  | 8.15                 | 53.10   | 49.30   | 117.60                   | 6.90   | 4.00   | 4.20   | 4.40   | 4.40   |                 |
| 16             | 4.40   | 1.80                                                    | 33.70  | 6.60                 | 49.45   | 64.30   | 102.60                   | 7.00   | 3.90   | 4.30   | 4.40   | 4.50   |                 |
| 17             | 4.40   | 2.50                                                    | 45.70  | 5.80                 | 43.60   | 77.50   | 98.70                    | 7.10   | 3.90   | 4.30   | 4.40   | 4.50   |                 |
| 18             | 4.40   | 2.70                                                    | 47.05  | 5.30                 | 31.50   | 84.00   | 99.90                    | 7.20   | 3.90   | 4.30   | 4.40   | 4.60   |                 |
| 19             | 4.40   | 2.50                                                    | 29.10  | 5.10                 | 14.15   | 87.60   | 109.80                   | 7.00   | 3.90   | 4.40   | 4.40   | 4.60   |                 |
| 20             | 4.40   | 2.60                                                    | 15.05  | 4.70                 | 16.70   | 101.10  | 125.60                   | 6.80   | 3.90   | 4.40   | 4.50   | 4.60   |                 |
| 21             | 4.40   | 3.60                                                    | 10.70  | 4.60                 | 10.70   | 128.00  | 142.50                   | 6.50   | 3.90   | 4.40   | 4.50   | 4.60   |                 |
| 22             | 4.40   | 4.20                                                    | 9.50   | 4.60                 | 8.30    | 161.00  | 156.20                   | 6.20   | 3.90   | 4.50   | 4.50   | 4.70   |                 |
| 23             | 4.40   | 4.50                                                    | 9.65   | 4.90                 | 8.30    | 209.00  | 153.20                   | 6.00   | 3.90   | 4.50   | 4.50   | 4.80   |                 |
| 24             | 4.40   | 4.20                                                    | 10.85  | 6.00                 | 9.50    | 237.80  | 135.00                   | 5.80   | 3.80   | 4.50   | 4.60   | 4.90   |                 |
| 25             | 4.40   | 4.00                                                    | 12.05  | 8.45                 | 11.75   | 230.80  | 112.95                   | 5.70   | 3.80   | 4.50   | 4.60   | 4.90   |                 |
| 26             | 4.40   | 3.90                                                    | 13.40  | 15.50                | 13.85   | 208.00  | 94.50                    | 5.50   | 3.70   | 4.40   | 4.70   | 5.10   |                 |
| 27             | 4.60   | 3.90                                                    | 13.10  | 15.50                | 15.90   | 186.40  | 70.75                    | 5.40   | 3.60   | 4.10   | 4.70   | 5.30   |                 |
| 28             | 4.80   | 3.60                                                    | 11.45  | 10.25                | 17.30   | 182.60  | 47.80                    | 5.40   | 3.50   | 3.90   | 4.70   | 5.30   |                 |
| 29             | 4.90   | 3.30                                                    | 9.35   | 11.90                | 18.10   | 192.90  | 29.30                    | 5.40   | 3.50   | 4.00   |        | 5.20   |                 |
| 30             | 5.00   | 3.00                                                    | 7.30   | 23.50                | 18.50   | 204.00  | 20.30                    | 5.30   | 3.40   | 4.30   |        | 5.00   |                 |
| 31             |        | 2.50                                                    |        | 43.15                | 17.90   |         | 16.50                    |        | 3.40   | 4.40   |        | 4.90   |                 |
| Total          | 130.90 | 107.50                                                  | 352.35 | 281.50               | 1244.10 | 2595.05 | 4793.40                  | 235.90 | 126.30 | 127.50 | 123.70 | 149.80 | 10268.00 CMSDAY |
| Mean           | 4.36   | 3.47                                                    | 11.74  | 9.08                 | 40.13   | 86.50   | 154.63                   | 7.86   | 4.07   | 4.11   | 4.42   | 4.83   | 28.13 CMS       |
| Max            | 5.00   | 4.90                                                    | 47.05  | 43.15                | 75.00   | 237.80  | 315.60                   | 14.45  | 5.10   | 4.50   | 4.70   | 5.30   | 315.60 CMS      |
| Min            | 3.60   | 1.80                                                    | 1.70   | 4.20                 | 8.30    | 6.70    | 16.50                    | 5.30   | 3.40   | 3.30   | 4.20   | 4.40   | 1.70 CMS        |
| Runoff         | 11.31  | 9.29                                                    | 30.44  | 24.32                | 107.49  | 224.21  | 414.15                   | 20.38  | 10.91  | 11.02  | 10.69  | 12.94  | 887.16 MCM      |
| Momentary Peak | 321.00 | CMS, at 23.90 m. (MSL.), at 18.00 Hours, on Oct 8, 2013 |        |                      |         |         |                          |        |        |        |        |        |                 |
| Runoff Yield   | 19.03  | Liters/Second/Square KM.                                |        | Momentary Peak Yield |         | 217.127 | Liters/Second/Square KM. |        |        |        |        |        |                 |

**WATER YEAR : 2013**

## PRACHIN BURI RIVER BASIN

**Khlong Phra Prong at Ban Non Suk Phum , Prachin Buri (Kgt.13A)**

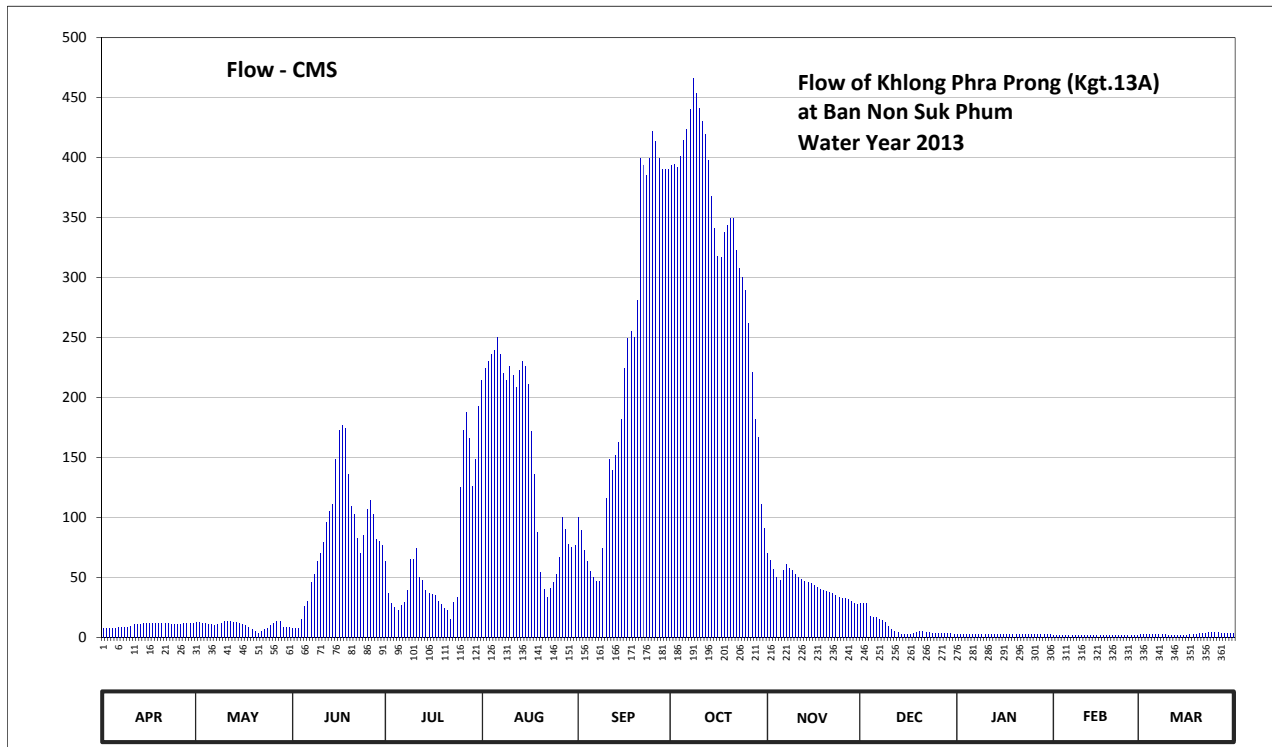
Lat 13 - 54 - 29 N    Long 101 - 50 - 32 E

**Location :** on left bank about 21 kilometers upstream from station Kgt.13

|                                         |                                                                                           |              |               |            |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Non Suk Phum | <b>Amphoe</b> | Kabin Buri | <b>Changwat</b>  | Prachin Buri      |
| <b>Drainage Area</b>                    | 4,906                                                                                     | sq.km.       |               |            |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |              |               |            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)    |               |            |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |            |                  |                   |
| <b>Location BM</b>                      | On left bank at the top staff gage.                                                       |              |               |            | <b>Elevation</b> | +16.168 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |              |               |            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 3 readings                                                            |              |               |            |                  |                   |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                              |              |               |            |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |              |               |            |                  |                   |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |              |               |            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |            |                  |                   |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |              |               |            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |              |               |            |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |            |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 20 discharge measurements made in 2013. |              |               |            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|-------|--------------------------------------------------|-------|-------|-------|-------|------|------|------|------|------|--------|
| 1                                | 5.80 | 6.30  | 5.80                                             | 9.12  | 13.37 | 10.41 | 16.36 | 9.38 | 7.47 | 5.32 | 5.23 | 5.26 |        |
| 2                                | 5.80 | 6.27  | 5.80                                             | 7.90  | 13.58 | 10.06 | 16.37 | 9.15 | 7.49 | 5.32 | 5.17 | 5.27 |        |
| 3                                | 5.80 | 6.24  | 5.83                                             | 7.48  | 13.70 | 9.48  | 16.34 | 8.86 | 7.50 | 5.32 | 5.16 | 5.28 |        |
| 4                                | 5.81 | 6.20  | 6.50                                             | 7.30  | 13.80 | 9.11  | 16.47 | 8.56 | 6.81 | 5.32 | 5.15 | 5.29 |        |
| 5                                | 5.82 | 6.15  | 7.37                                             | 7.16  | 13.88 | 8.79  | 16.67 | 8.45 | 6.73 | 5.32 | 5.15 | 5.30 |        |
| 6                                | 5.84 | 6.09  | 7.59                                             | 7.38  | 14.10 | 8.56  | 16.79 | 8.82 | 6.70 | 5.32 | 5.15 | 5.30 |        |
| 7                                | 5.86 | 6.05  | 8.36                                             | 7.51  | 13.80 | 8.41  | 17.02 | 9.00 | 6.56 | 5.31 | 5.14 | 5.30 |        |
| 8                                | 5.88 | 6.12  | 8.66                                             | 8.02  | 13.50 | 8.40  | 17.34 | 8.88 | 6.45 | 5.31 | 5.14 | 5.28 |        |
| 9                                | 5.90 | 6.20  | 9.10                                             | 9.17  | 13.36 | 9.54  | 17.18 | 8.81 | 6.31 | 5.31 | 5.14 | 5.26 |        |
| 10                               | 5.97 | 6.36  | 9.37                                             | 9.19  | 13.60 | 10.87 | 17.03 | 8.68 | 5.98 | 5.31 | 5.14 | 5.24 |        |
| 11                               | 6.09 | 6.37  | 9.73                                             | 9.55  | 13.45 | 11.76 | 16.89 | 8.57 | 5.67 | 5.30 | 5.13 | 5.24 |        |
| 12                               | 6.12 | 6.35  | 10.27                                            | 8.58  | 13.24 | 11.53 | 16.73 | 8.48 | 5.54 | 5.30 | 5.13 | 5.22 |        |
| 13                               | 6.15 | 6.30  | 10.55                                            | 8.44  | 13.55 | 11.85 | 16.42 | 8.42 | 5.43 | 5.30 | 5.13 | 5.20 |        |
| 14                               | 6.18 | 6.27  | 10.72                                            | 8.01  | 13.70 | 12.13 | 16.00 | 8.36 | 5.32 | 5.30 | 5.17 | 5.20 |        |
| 15                               | 6.20 | 6.22  | 11.76                                            | 7.91  | 13.60 | 12.60 | 15.61 | 8.30 | 5.29 | 5.30 | 5.17 | 5.20 |        |
| 16                               | 6.20 | 6.16  | 12.38                                            | 7.85  | 13.28 | 13.58 | 15.28 | 8.24 | 5.28 | 5.30 | 5.19 | 5.24 |        |
| 17                               | 6.20 | 6.08  | 12.47                                            | 7.81  | 12.36 | 14.07 | 15.27 | 8.17 | 5.26 | 5.29 | 5.20 | 5.30 |        |
| 18                               | 6.20 | 5.86  | 12.41                                            | 7.59  | 11.44 | 14.19 | 15.57 | 8.08 | 5.37 | 5.29 | 5.19 | 5.31 |        |
| 19                               | 6.20 | 5.70  | 11.44                                            | 7.44  | 10.00 | 14.09 | 15.65 | 8.01 | 5.48 | 5.29 | 5.20 | 5.32 |        |
| 20                               | 6.19 | 5.55  | 10.68                                            | 7.28  | 8.73  | 14.66 | 15.73 | 7.99 | 5.55 | 5.29 | 5.20 | 5.34 |        |
| 21                               | 6.19 | 5.41  | 10.49                                            | 7.15  | 8.05  | 16.45 | 15.73 | 7.95 | 5.51 | 5.29 | 5.20 | 5.35 |        |
| 22                               | 6.17 | 5.53  | 9.82                                             | 6.50  | 7.72  | 16.37 | 15.35 | 7.90 | 5.47 | 5.29 | 5.20 | 5.37 |        |
| 23                               | 6.16 | 5.70  | 9.36                                             | 7.53  | 8.10  | 16.25 | 15.13 | 7.83 | 5.43 | 5.29 | 5.20 | 5.42 |        |
| 24                               | 6.16 | 5.82  | 9.92                                             | 7.72  | 8.34  | 16.45 | 15.00 | 7.73 | 5.40 | 5.28 | 5.20 | 5.45 |        |
| 25                               | 6.15 | 6.01  | 10.61                                            | 11.13 | 8.69  | 16.77 | 14.80 | 7.70 | 5.40 | 5.28 | 5.20 | 5.45 |        |
| 26                               | 6.15 | 6.24  | 10.82                                            | 12.38 | 9.25  | 16.65 | 14.30 | 7.68 | 5.40 | 5.28 | 5.20 | 5.43 |        |
| 27                               | 6.19 | 6.37  | 10.48                                            | 12.75 | 10.42 | 16.45 | 13.51 | 7.64 | 5.39 | 5.28 | 5.20 | 5.41 |        |
| 28                               | 6.20 | 6.34  | 9.79                                             | 12.20 | 10.09 | 16.31 | 12.60 | 7.57 | 5.39 | 5.28 | 5.20 | 5.40 |        |
| 29                               | 6.20 | 5.91  | 9.76                                             | 11.15 | 9.67  | 16.32 | 12.22 | 7.48 | 5.37 | 5.28 |      | 5.40 |        |
| 30                               | 6.20 | 5.90  | 9.63                                             | 11.77 | 9.58  | 16.32 | 10.73 | 7.45 | 5.35 | 5.28 |      | 5.40 |        |
| 31                               |      | 5.84  |                                                  | 12.87 | 9.65  |       | 10.12 |      | 5.32 | 5.27 |      | 5.39 |        |
| Mean                             | 6.07 | 6.06  | 9.58                                             | 8.83  | 11.60 | 12.95 | 15.36 | 8.27 | 5.86 | 5.30 | 5.17 | 5.32 |        |
| Max                              | 6.20 | 6.37  | 12.47                                            | 12.87 | 14.10 | 16.77 | 17.34 | 9.38 | 7.50 | 5.32 | 5.23 | 5.45 | 17.34  |
| Min                              | 5.80 | 5.41  | 5.80                                             | 6.50  | 7.72  | 8.40  | 10.12 | 7.45 | 5.26 | 5.27 | 5.13 | 5.20 | 5.13   |
| Annual Max Momentary Gage Height |      | 17.36 | m. (MSL.) , at 06.00 Hours, on Oct 8, 2013       |       |       |       |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    |      | 0.00  | m. (MSL.) , River Bed 4.84 m. (MSL.)             |       |       |       |       |      |      |      |      |      |        |
| Left Bank Elevation              |      | 18.48 | m. (MSL.) ,                                      |       |       |       |       |      |      |      |      |      |        |
| Right Bank Elevation             |      | 19.16 | m. (MSL.) , Drainage Area 4906 Square Kilometers |       |       |       |       |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun     | Jul     | Aug                  | Sep     | Oct      | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual   |        |
|----------------|--------|---------------------------------------------------------|---------|---------|----------------------|---------|----------|---------|--------------------------|-------|-------|-------|----------|--------|
| 1              | 8.00   | 13.00                                                   | 8.00    | 64.00   | 214.65               | 100.35  | 393.20   | 70.50   | 28.40                    | 3.20  | 2.30  | 2.60  |          |        |
| 2              | 8.00   | 12.70                                                   | 8.00    | 37.00   | 224.50               | 89.80   | 393.90   | 64.75   | 28.80                    | 3.20  | 1.95  | 2.70  |          |        |
| 3              | 8.00   | 12.40                                                   | 8.30    | 28.60   | 230.50               | 73.00   | 391.80   | 57.50   | 29.00                    | 3.20  | 1.93  | 2.80  |          |        |
| 4              | 8.10   | 12.00                                                   | 15.00   | 25.00   | 235.50               | 63.75   | 400.90   | 50.20   | 18.10                    | 3.20  | 1.92  | 2.90  |          |        |
| 5              | 8.20   | 11.50                                                   | 26.40   | 22.90   | 239.50               | 55.75   | 414.90   | 48.00   | 17.30                    | 3.20  | 1.92  | 3.00  |          |        |
| 6              | 8.40   | 10.90                                                   | 30.80   | 26.60   | 250.50               | 50.20   | 423.30   | 56.50   | 17.00                    | 3.20  | 1.92  | 3.00  |          |        |
| 7              | 8.60   | 10.50                                                   | 46.20   | 29.20   | 235.50               | 47.20   | 440.60   | 61.00   | 15.60                    | 3.10  | 1.90  | 3.00  |          |        |
| 8              | 8.80   | 11.20                                                   | 52.50   | 39.40   | 220.50               | 47.00   | 466.20   | 58.00   | 14.50                    | 3.10  | 1.90  | 2.80  |          |        |
| 9              | 9.00   | 12.00                                                   | 63.50   | 65.25   | 214.20               | 74.50   | 453.40   | 56.25   | 13.10                    | 3.10  | 1.90  | 2.60  |          |        |
| 10             | 9.70   | 13.60                                                   | 70.25   | 65.75   | 225.50               | 116.45  | 441.40   | 53.00   | 9.80                     | 3.10  | 1.90  | 2.40  |          |        |
| 11             | 10.90  | 13.70                                                   | 79.90   | 74.75   | 218.25               | 148.40  | 430.30   | 50.40   | 6.70                     | 3.00  | 1.88  | 2.40  |          |        |
| 12             | 11.20  | 13.50                                                   | 96.10   | 50.60   | 208.80               | 139.55  | 419.10   | 48.60   | 5.40                     | 3.00  | 1.88  | 2.20  |          |        |
| 13             | 11.50  | 13.00                                                   | 105.25  | 47.80   | 223.00               | 152.00  | 397.40   | 47.40   | 4.30                     | 3.00  | 1.88  | 2.00  |          |        |
| 14             | 11.80  | 12.70                                                   | 111.20  | 39.20   | 230.50               | 163.20  | 368.00   | 46.20   | 3.20                     | 3.00  | 1.95  | 2.00  |          |        |
| 15             | 12.00  | 12.20                                                   | 148.40  | 37.20   | 225.50               | 182.00  | 340.70   | 45.00   | 2.90                     | 3.00  | 1.95  | 2.00  |          |        |
| 16             | 12.00  | 11.60                                                   | 173.20  | 36.00   | 210.60               | 224.50  | 317.60   | 43.80   | 2.80                     | 3.00  | 1.98  | 2.40  |          |        |
| 17             | 12.00  | 10.80                                                   | 176.80  | 35.20   | 172.40               | 249.00  | 316.90   | 42.40   | 2.60                     | 2.90  | 2.00  | 3.00  |          |        |
| 18             | 12.00  | 8.60                                                    | 174.40  | 30.80   | 136.40               | 255.45  | 337.90   | 40.60   | 3.70                     | 2.90  | 1.98  | 3.10  |          |        |
| 19             | 12.00  | 7.00                                                    | 136.40  | 27.80   | 88.00                | 250.00  | 343.50   | 39.20   | 4.80                     | 2.90  | 2.00  | 3.20  |          |        |
| 20             | 11.90  | 5.50                                                    | 109.80  | 24.70   | 54.25                | 281.30  | 349.10   | 38.80   | 5.50                     | 2.90  | 2.00  | 3.40  |          |        |
| 21             | 11.90  | 4.10                                                    | 103.15  | 22.75   | 40.00                | 399.50  | 349.10   | 38.00   | 5.10                     | 2.90  | 2.00  | 3.50  |          |        |
| 22             | 11.70  | 5.30                                                    | 82.60   | 15.00   | 33.40                | 393.90  | 322.50   | 37.00   | 4.70                     | 2.90  | 2.00  | 3.70  |          |        |
| 23             | 11.60  | 7.00                                                    | 70.00   | 29.60   | 41.00                | 385.50  | 307.80   | 35.60   | 4.30                     | 2.90  | 2.00  | 4.20  |          |        |
| 24             | 11.60  | 8.20                                                    | 85.60   | 33.40   | 45.80                | 399.50  | 300.00   | 33.60   | 4.00                     | 2.80  | 2.00  | 4.50  |          |        |
| 25             | 11.50  | 10.10                                                   | 107.35  | 125.55  | 53.25                | 421.90  | 289.00   | 33.00   | 4.00                     | 2.80  | 2.00  | 4.50  |          |        |
| 26             | 11.50  | 12.40                                                   | 114.70  | 173.20  | 67.25                | 413.50  | 261.50   | 32.60   | 4.00                     | 2.80  | 2.00  | 4.30  |          |        |
| 27             | 11.90  | 13.70                                                   | 102.80  | 188.00  | 100.70               | 399.50  | 221.00   | 31.80   | 3.90                     | 2.80  | 2.00  | 4.10  |          |        |
| 28             | 12.00  | 13.40                                                   | 81.70   | 166.00  | 90.70                | 389.70  | 182.00   | 30.40   | 3.90                     | 2.80  | 2.00  | 4.00  |          |        |
| 29             | 12.00  | 9.10                                                    | 80.80   | 126.25  | 78.10                | 390.40  | 166.80   | 28.60   | 3.70                     | 2.80  |       | 4.00  |          |        |
| 30             | 12.00  | 9.00                                                    | 76.90   | 148.80  | 75.50                | 390.40  | 111.55   | 28.00   | 3.50                     | 2.80  |       | 4.00  |          |        |
| 31             |        | 8.40                                                    |         | 192.80  | 77.50                |         | 91.60    |         | 3.20                     | 2.70  |       | 3.90  |          |        |
| Total          | 319.80 | 329.10                                                  | 2546.00 | 2029.10 | 4761.75              | 6747.20 | 10442.95 | 1346.70 | 277.80                   | 92.20 | 55.04 | 98.20 | 29045.84 | CMSDAY |
| Mean           | 10.66  | 10.62                                                   | 84.87   | 65.45   | 153.60               | 224.91  | 336.87   | 44.89   | 8.96                     | 2.97  | 1.97  | 3.17  | 79.58    | CMS    |
| Max            | 12.00  | 13.70                                                   | 176.80  | 192.80  | 250.50               | 421.90  | 466.20   | 70.50   | 29.00                    | 3.20  | 2.30  | 4.50  | 466.20   | CMS    |
| Min            | 8.00   | 4.10                                                    | 8.00    | 15.00   | 33.40                | 47.00   | 91.60    | 28.00   | 2.60                     | 2.70  | 1.88  | 2.00  | 1.88     | CMS    |
| Runoff         | 27.63  | 28.43                                                   | 219.97  | 175.31  | 411.42               | 582.96  | 902.27   | 116.36  | 24.00                    | 7.97  | 4.76  | 8.48  | 2509.56  | MCM    |
| Momentary Peak | 467.80 | CMS, at 17.36 m. (MSL.), at 06.00 Hours, on Oct 8, 2013 |         |         |                      |         |          |         |                          |       |       |       |          |        |
| Runoff Yield   | 16.22  | Liters/Second/Square KM.                                |         |         | Momentary Peak Yield |         |          | 95.353  | Liters/Second/Square KM. |       |       |       |          |        |

## WATER YEAR : 2013

## PRACHIN BURI RIVER BASIN

### Khlong Yang at Ban Thung Faek , Prachin Buri (Kgt.14

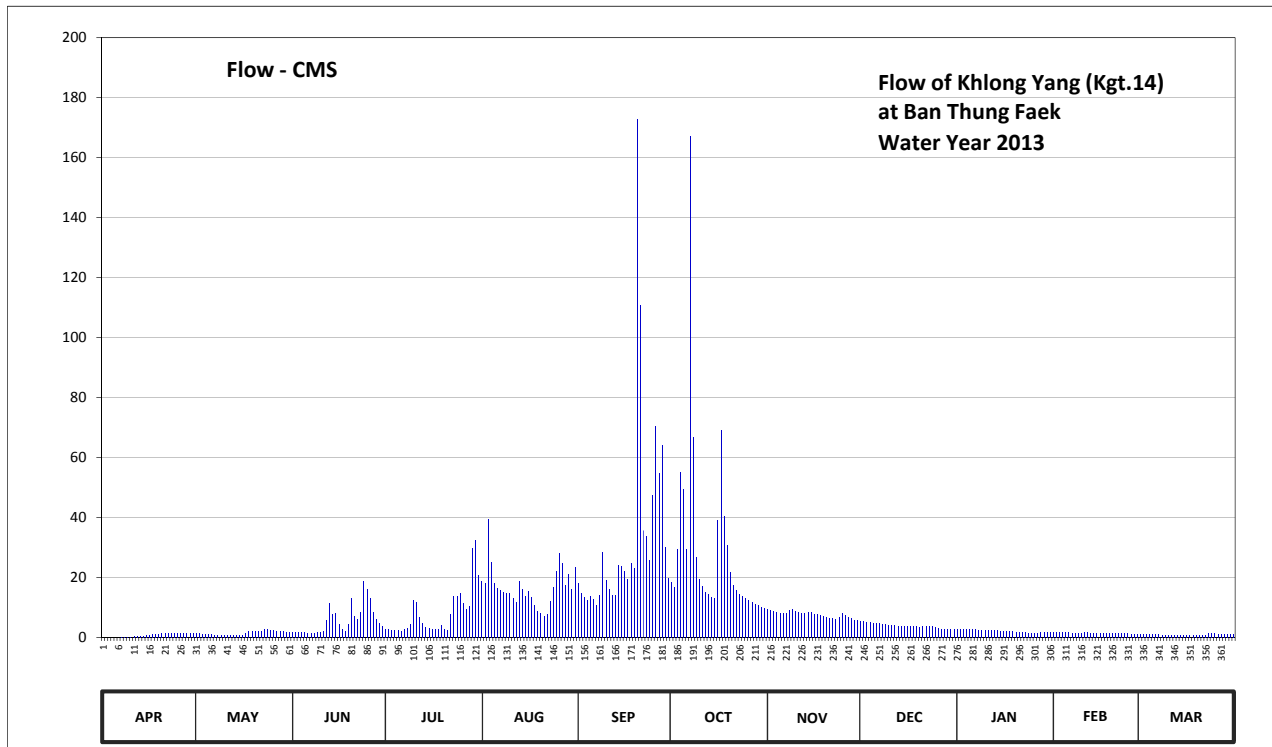
Lat 14 - 09 - 29 N Long 101 - 52 - 50 E

**Location : on left bank about 2 kilometers from Kabin Buri - Nakhon Ratchasima Highway**

|                                         |                                                                                           |            |               |       |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Thung Faek | <b>Amphoe</b> | Na Di | <b>Changwat</b>  | Prachin Buri      |
| <b>Drainage Area</b>                    | 354                                                                                       | sq.km.     |               |       |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |               |       |                  |                   |
| <b>Zero Gage at Bottom</b>              | +34.600                                                                                   | m. (MSL.)  |               |       |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |       |                  |                   |
| <b>Location BM</b>                      | Near the automatic gage building.                                                         |            |               |       | <b>Elevation</b> | +42.429 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |               |       |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |               |       |                  |                   |
| <b>Period of Available Gage Records</b> | 1966 to date                                                                              |            |               |       |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |       |                  |                   |
| <b>Period of Rating</b>                 | 1966 - 1981 , 1986 to date                                                                |            |               |       |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |       |                  |                   |
| <b>Rated by Current Meter</b>           | 1966 - 1981 , 1986 to date                                                                |            |               |       |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable by some scouring.                                                           |            |               |       |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |       |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 19 discharge measurements made in 2013. |            |               |       |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 34.85 | 35.27 | 35.38                                           | 35.58 | 36.85 | 36.81 | 36.82 | 36.25 | 35.85 | 35.56 | 35.36 | 35.25 |        |
|                                  | 2  | 34.90 | 35.26 | 35.36                                           | 35.53 | 36.81 | 36.63 | 36.74 | 36.21 | 35.83 | 35.55 | 35.37 | 35.24 |        |
|                                  | 3  | 34.91 | 35.25 | 35.35                                           | 35.50 | 37.53 | 36.54 | 37.24 | 36.18 | 35.81 | 35.54 | 35.36 | 35.23 |        |
|                                  | 4  | 34.93 | 35.24 | 35.35                                           | 35.50 | 37.10 | 36.47 | 37.93 | 36.15 | 35.80 | 35.53 | 35.35 | 35.23 |        |
|                                  | 5  | 34.96 | 35.22 | 35.34                                           | 35.48 | 36.80 | 36.55 | 37.79 | 36.13 | 35.79 | 35.53 | 35.36 | 35.22 |        |
|                                  | 6  | 34.99 | 35.21 | 35.33                                           | 35.45 | 36.72 | 36.48 | 37.24 | 36.11 | 35.78 | 35.53 | 35.35 | 35.21 |        |
|                                  | 7  | 35.01 | 35.19 | 35.32                                           | 35.56 | 36.68 | 36.36 | 39.96 | 36.11 | 35.77 | 35.54 | 35.33 | 35.20 |        |
|                                  | 8  | 35.01 | 35.18 | 35.33                                           | 35.62 | 36.65 | 36.57 | 38.22 | 36.22 | 35.75 | 35.52 | 35.31 | 35.19 |        |
|                                  | 9  | 35.04 | 35.17 | 35.35                                           | 35.76 | 36.63 | 37.21 | 37.16 | 36.25 | 35.74 | 35.51 | 35.32 | 35.19 |        |
|                                  | 10 | 35.05 | 35.17 | 35.37                                           | 36.47 | 36.61 | 36.86 | 36.88 | 36.19 | 35.73 | 35.51 | 35.33 | 35.18 |        |
|                                  | 11 | 35.07 | 35.16 | 35.43                                           | 36.41 | 36.51 | 36.71 | 36.76 | 36.14 | 35.72 | 35.50 | 35.34 | 35.18 |        |
|                                  | 12 | 35.08 | 35.16 | 35.89                                           | 36.00 | 36.41 | 36.58 | 36.65 | 36.11 | 35.70 | 35.50 | 35.34 | 35.17 |        |
|                                  | 13 | 35.10 | 35.16 | 36.39                                           | 35.79 | 36.85 | 36.57 | 36.59 | 36.11 | 35.69 | 35.49 | 35.33 | 35.17 |        |
|                                  | 14 | 35.13 | 35.15 | 36.07                                           | 35.65 | 36.70 | 37.07 | 36.54 | 36.15 | 35.68 | 35.47 | 35.32 | 35.16 |        |
|                                  | 15 | 35.14 | 35.14 | 36.11                                           | 35.62 | 36.55 | 37.05 | 36.51 | 36.14 | 35.68 | 35.46 | 35.32 | 35.15 |        |
|                                  | 16 | 35.16 | 35.14 | 35.76                                           | 35.56 | 36.66 | 36.99 | 37.52 | 36.07 | 35.67 | 35.45 | 35.33 | 35.15 |        |
|                                  | 17 | 35.20 | 35.26 | 35.53                                           | 35.54 | 36.52 | 36.88 | 38.27 | 36.08 | 35.67 | 35.44 | 35.28 | 35.15 |        |
|                                  | 18 | 35.23 | 35.40 | 35.46                                           | 35.57 | 36.36 | 37.09 | 37.56 | 36.05 | 35.67 | 35.41 | 35.28 | 35.14 |        |
|                                  | 19 | 35.25 | 35.43 | 35.75                                           | 35.72 | 36.18 | 37.03 | 37.28 | 36.03 | 35.67 | 35.40 | 35.29 | 35.14 |        |
|                                  | 20 | 35.26 | 35.46 | 36.50                                           | 35.60 | 36.10 | 40.04 | 36.97 | 35.99 | 35.66 | 35.39 | 35.30 | 35.14 |        |
|                                  | 21 | 35.27 | 35.45 | 36.02                                           | 35.52 | 36.03 | 39.06 | 36.77 | 35.96 | 35.67 | 35.37 | 35.29 | 35.14 |        |
|                                  | 22 | 35.27 | 35.45 | 35.92                                           | 36.07 | 36.09 | 37.42 | 36.68 | 35.95 | 35.68 | 35.36 | 35.29 | 35.16 |        |
|                                  | 23 | 35.27 | 35.54 | 36.14                                           | 36.56 | 36.44 | 37.37 | 36.59 | 35.93 | 35.68 | 35.34 | 35.29 | 35.32 |        |
|                                  | 24 | 35.28 | 35.54 | 36.84                                           | 36.56 | 36.74 | 37.13 | 36.55 | 36.00 | 35.67 | 35.32 | 35.28 | 35.30 |        |
|                                  | 25 | 35.29 | 35.50 | 36.70                                           | 36.62 | 36.99 | 37.74 | 36.51 | 36.12 | 35.65 | 35.31 | 35.27 | 35.27 |        |
|                                  | 26 | 35.29 | 35.47 | 36.50                                           | 36.40 | 37.20 | 38.30 | 36.46 | 36.04 | 35.62 | 35.32 | 35.25 | 35.25 |        |
|                                  | 27 | 35.29 | 35.44 | 36.16                                           | 36.24 | 37.09 | 37.92 | 36.42 | 35.98 | 35.60 | 35.33 | 35.25 | 35.25 |        |
|                                  | 28 | 35.29 | 35.42 | 35.93                                           | 36.34 | 36.77 | 38.15 | 36.38 | 35.94 | 35.59 | 35.35 | 35.25 | 35.24 |        |
|                                  | 29 | 35.29 | 35.40 | 35.78                                           | 37.25 | 36.94 | 37.26 | 36.35 | 35.89 | 35.57 | 35.34 |       | 35.23 |        |
|                                  | 30 | 35.29 | 35.37 | 35.69                                           | 37.33 | 36.70 | 36.89 | 36.32 | 35.87 | 35.57 | 35.35 |       | 35.22 |        |
|                                  | 31 |       | 35.38 |                                                 | 36.93 | 37.04 |       | 36.29 |       | 35.56 | 35.35 |       | 35.21 |        |
| Mean                             |    | 35.14 | 35.31 | 35.80                                           | 35.99 | 36.69 | 37.19 | 37.03 | 36.08 | 35.69 | 35.44 | 35.31 | 35.20 |        |
| Max                              |    | 35.29 | 35.54 | 36.84                                           | 37.33 | 37.53 | 40.04 | 39.96 | 36.25 | 35.85 | 35.56 | 35.37 | 35.32 | 40.04  |
| Min                              |    | 34.85 | 35.14 | 35.32                                           | 35.45 | 36.03 | 36.36 | 36.29 | 35.87 | 35.56 | 35.31 | 35.25 | 35.14 | 34.85  |
| Annual Max Momentary Gage Height |    |       | 41.20 | m. (MSL.) , at 18.00 Hours, on Sep 20, 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 34.60 | m. (MSL.) , River Bed 32.64 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 41.67 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 41.96 | m. (MSL.) , Drainage Area 354 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

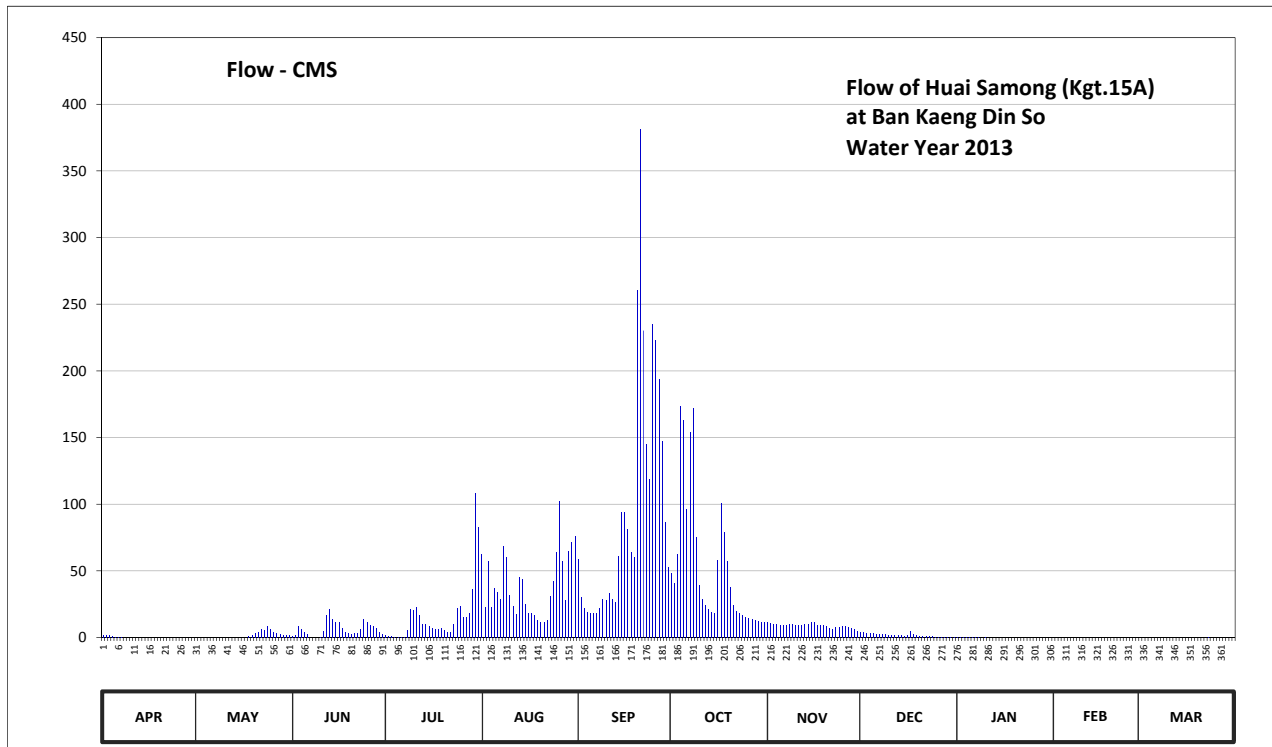
| Date           | Apr                                                             | May   | Jun                      | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|-------|--------------------------|--------|----------------------|---------|---------|--------|--------------------------|-------|-------|-------|----------------|
| 1              | 0.00                                                            | 1.35  | 1.90                     | 2.90   | 19.00                | 18.20   | 18.40   | 9.50   | 5.50                     | 2.80  | 1.80  | 1.25  |                |
| 2              | 0.00                                                            | 1.30  | 1.80                     | 2.65   | 18.20                | 14.95   | 16.80   | 9.10   | 5.30                     | 2.75  | 1.85  | 1.20  |                |
| 3              | 0.00                                                            | 1.25  | 1.75                     | 2.50   | 39.55                | 13.60   | 29.40   | 8.80   | 5.10                     | 2.70  | 1.80  | 1.15  |                |
| 4              | 0.00                                                            | 1.20  | 1.75                     | 2.50   | 25.00                | 12.55   | 55.20   | 8.50   | 5.00                     | 2.65  | 1.75  | 1.15  |                |
| 5              | 0.00                                                            | 1.10  | 1.70                     | 2.40   | 18.00                | 13.75   | 49.60   | 8.30   | 4.90                     | 2.65  | 1.80  | 1.10  |                |
| 6              | 0.00                                                            | 1.05  | 1.65                     | 2.25   | 16.40                | 12.70   | 29.40   | 8.10   | 4.80                     | 2.65  | 1.75  | 1.05  |                |
| 7              | 0.05                                                            | 0.95  | 1.60                     | 2.80   | 15.70                | 10.90   | 167.20  | 8.10   | 4.70                     | 2.70  | 1.65  | 1.00  |                |
| 8              | 0.05                                                            | 0.90  | 1.65                     | 3.20   | 15.25                | 14.05   | 66.90   | 9.20   | 4.50                     | 2.60  | 1.55  | 0.95  |                |
| 9              | 0.20                                                            | 0.85  | 1.75                     | 4.60   | 14.95                | 28.35   | 26.80   | 9.50   | 4.40                     | 2.55  | 1.60  | 0.95  |                |
| 10             | 0.25                                                            | 0.85  | 1.85                     | 12.55  | 14.65                | 19.20   | 19.60   | 8.90   | 4.30                     | 2.55  | 1.65  | 0.90  |                |
| 11             | 0.35                                                            | 0.80  | 2.15                     | 11.65  | 13.15                | 16.20   | 17.20   | 8.40   | 4.20                     | 2.50  | 1.70  | 0.90  |                |
| 12             | 0.40                                                            | 0.80  | 5.90                     | 7.00   | 11.65                | 14.20   | 15.25   | 8.10   | 4.00                     | 2.50  | 1.70  | 0.85  |                |
| 13             | 0.50                                                            | 0.80  | 11.35                    | 4.90   | 19.00                | 14.05   | 14.35   | 8.10   | 3.90                     | 2.45  | 1.65  | 0.85  |                |
| 14             | 0.65                                                            | 0.75  | 7.70                     | 3.50   | 16.00                | 24.25   | 13.60   | 8.50   | 3.80                     | 2.35  | 1.60  | 0.80  |                |
| 15             | 0.70                                                            | 0.70  | 8.10                     | 3.20   | 13.75                | 23.75   | 13.15   | 8.40   | 3.80                     | 2.30  | 1.60  | 0.75  |                |
| 16             | 0.80                                                            | 0.70  | 4.60                     | 2.80   | 15.40                | 22.25   | 39.20   | 7.70   | 3.70                     | 2.25  | 1.65  | 0.75  |                |
| 17             | 1.00                                                            | 1.30  | 2.65                     | 2.70   | 13.30                | 19.60   | 69.15   | 7.80   | 3.70                     | 2.20  | 1.40  | 0.75  |                |
| 18             | 1.15                                                            | 2.00  | 2.30                     | 2.85   | 10.90                | 24.75   | 40.60   | 7.50   | 3.70                     | 2.05  | 1.40  | 0.70  |                |
| 19             | 1.25                                                            | 2.15  | 4.50                     | 4.20   | 8.80                 | 23.25   | 30.80   | 7.30   | 3.70                     | 2.00  | 1.45  | 0.70  |                |
| 20             | 1.30                                                            | 2.30  | 13.00                    | 3.00   | 8.00                 | 172.80  | 21.75   | 6.90   | 3.60                     | 1.95  | 1.50  | 0.70  |                |
| 21             | 1.35                                                            | 2.25  | 7.20                     | 2.60   | 7.30                 | 110.60  | 17.40   | 6.60   | 3.70                     | 1.85  | 1.45  | 0.70  |                |
| 22             | 1.35                                                            | 2.25  | 6.20                     | 7.70   | 7.90                 | 35.70   | 15.70   | 6.50   | 3.80                     | 1.80  | 1.45  | 0.80  |                |
| 23             | 1.35                                                            | 2.70  | 8.40                     | 13.90  | 12.10                | 33.95   | 14.35   | 6.30   | 3.80                     | 1.70  | 1.45  | 1.60  |                |
| 24             | 1.40                                                            | 2.70  | 18.80                    | 13.90  | 16.80                | 25.90   | 13.75   | 7.00   | 3.70                     | 1.60  | 1.40  | 1.50  |                |
| 25             | 1.45                                                            | 2.50  | 16.00                    | 14.80  | 22.25                | 47.60   | 13.15   | 8.20   | 3.50                     | 1.55  | 1.35  | 1.35  |                |
| 26             | 1.45                                                            | 2.35  | 13.00                    | 11.50  | 28.00                | 70.50   | 12.40   | 7.40   | 3.20                     | 1.60  | 1.25  | 1.25  |                |
| 27             | 1.45                                                            | 2.20  | 8.60                     | 9.40   | 24.75                | 54.80   | 11.80   | 6.80   | 3.00                     | 1.65  | 1.25  | 1.25  |                |
| 28             | 1.45                                                            | 2.10  | 6.30                     | 10.60  | 17.40                | 64.00   | 11.20   | 6.40   | 2.95                     | 1.75  | 1.25  | 1.20  |                |
| 29             | 1.45                                                            | 2.00  | 4.80                     | 29.75  | 21.00                | 30.10   | 10.75   | 5.90   | 2.85                     | 1.70  |       | 1.15  |                |
| 30             | 1.45                                                            | 1.85  | 3.90                     | 32.55  | 16.00                | 19.80   | 10.30   | 5.70   | 2.85                     | 1.75  |       | 1.10  |                |
| 31             |                                                                 | 1.90  |                          | 20.75  | 23.50                |         | 9.90    |        | 2.80                     | 1.75  |       | 1.05  |                |
| Total          | 22.80                                                           | 47.90 | 172.85                   | 251.60 | 523.65               | 1006.30 | 895.05  | 233.50 | 122.75                   | 67.85 | 43.70 | 31.40 | 3419.35 CMSDAY |
| Mean           | 0.76                                                            | 1.55  | 5.76                     | 8.12   | 16.89                | 33.54   | 28.87   | 7.78   | 3.96                     | 2.19  | 1.56  | 1.01  | 9.37 CMS       |
| Max            | 1.45                                                            | 2.70  | 18.80                    | 32.55  | 39.55                | 172.80  | 167.20  | 9.50   | 5.50                     | 2.80  | 1.85  | 1.60  | 172.80 CMS     |
| Min            | 0.00                                                            | 0.70  | 1.60                     | 2.25   | 7.30                 | 10.90   | 9.90    | 5.70   | 2.80                     | 1.55  | 1.25  | 0.70  | 0.00 CMS       |
| Runoff         | 1.97                                                            | 4.14  | 14.93                    | 21.74  | 45.24                | 86.94   | 77.33   | 20.17  | 10.61                    | 5.86  | 3.78  | 2.71  | 295.43 MCM     |
| Momentary Peak | 260.00 CMS, at 41.20 m. (MSL.), at 18.00 Hours, on Sep 20, 2013 |       |                          |        |                      |         |         |        |                          |       |       |       |                |
| Runoff Yield   | 26.46                                                           |       | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 734.256 |        | Liters/Second/Square KM. |       |       |       |                |

Lat 14 - 03 - 47 N    Long 101 - 55 - 39 E

**Location : on right bank at Ban Kaeng Din So about 1 kilometer upstream from the Kgt.15 Station.**

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                             | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|---------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 15.06 | 14.48 | 15.04       | 15.07 | 16.66                           | 16.59 | 16.48             | 15.66 | 15.32 | 14.88 | 14.69 | 14.57 |        |
| 2                                | 15.09 | 14.46 | 15.07       | 15.01 | 16.05                           | 16.20 | 16.38             | 15.64 | 15.29 | 14.88 | 14.70 | 14.56 |        |
| 3                                | 15.06 | 14.44 | 15.53       | 14.99 | 16.57                           | 16.02 | 16.66             | 15.61 | 15.23 | 14.87 | 14.69 | 14.55 |        |
| 4                                | 14.96 | 14.42 | 15.40       | 14.93 | 16.04                           | 15.94 | 18.78             | 15.59 | 15.20 | 14.86 | 14.67 | 14.55 |        |
| 5                                | 14.94 | 14.43 | 15.29       | 14.89 | 16.32                           | 15.91 | 18.63             | 15.57 | 15.20 | 14.85 | 14.68 | 14.54 |        |
| 6                                | 14.88 | 14.44 | 15.17       | 14.88 | 16.27                           | 15.91 | 17.45             | 15.55 | 15.19 | 14.84 | 14.71 | 14.53 |        |
| 7                                | 14.82 | 14.45 | 14.63       | 14.94 | 16.18                           | 15.92 | 18.48             | 15.57 | 15.17 | 14.84 | 14.79 | 14.53 |        |
| 8                                | 14.76 | 14.47 | 14.57       | 15.37 | 16.82                           | 16.02 | 18.76             | 15.59 | 15.15 | 14.82 | 14.78 | 14.52 |        |
| 9                                | 14.69 | 14.49 | 14.63       | 16.00 | 16.60                           | 16.18 | 16.99             | 15.59 | 15.13 | 14.80 | 14.74 | 14.51 |        |
| 10                               | 14.62 | 14.50 | 14.94       | 15.99 | 16.23                           | 16.16 | 16.35             | 15.58 | 15.11 | 14.81 | 14.70 | 14.51 |        |
| 11                               | 14.62 | 14.50 | 15.35       | 16.05 | 16.06                           | 16.25 | 16.18             | 15.57 | 15.09 | 14.80 | 14.68 | 14.50 |        |
| 12                               | 14.59 | 14.50 | 15.85       | 15.85 | 15.88                           | 16.18 | 16.09             | 15.55 | 15.08 | 14.78 | 14.67 | 14.50 |        |
| 13                               | 14.56 | 14.50 | 16.00       | 15.59 | 16.44                           | 16.13 | 16.01             | 15.62 | 15.07 | 14.79 | 14.67 | 14.49 |        |
| 14                               | 14.54 | 14.49 | 15.76       | 15.59 | 16.42                           | 16.63 | 15.94             | 15.62 | 15.05 | 14.79 | 14.67 | 14.49 |        |
| 15                               | 14.53 | 14.48 | 15.68       | 15.52 | 16.10                           | 17.40 | 15.90             | 15.69 | 15.04 | 14.79 | 14.67 | 14.48 |        |
| 16                               | 14.53 | 14.50 | 15.68       | 15.45 | 15.91                           | 17.40 | 16.58             | 15.67 | 15.07 | 14.79 | 14.67 | 14.49 |        |
| 17                               | 14.60 | 14.69 | 15.46       | 15.40 | 15.91                           | 17.13 | 17.54             | 15.58 | 15.34 | 14.77 | 14.68 | 14.51 |        |
| 18                               | 14.63 | 14.98 | 15.31       | 15.43 | 15.87                           | 16.70 | 17.08             | 15.56 | 15.16 | 14.70 | 14.66 | 14.56 |        |
| 19                               | 14.65 | 15.08 | 15.24       | 15.44 | 15.73                           | 16.60 | 16.57             | 15.55 | 15.06 | 14.69 | 14.64 | 14.55 |        |
| 20                               | 14.66 | 15.20 | 15.17       | 15.38 | 15.69                           | 19.88 | 16.33             | 15.53 | 15.02 | 14.69 | 14.62 | 14.56 |        |
| 21                               | 14.67 | 15.32 | 15.20       | 15.28 | 15.67                           | 21.13 | 16.08             | 15.47 | 15.00 | 14.67 | 14.60 | 14.56 |        |
| 22                               | 14.66 | 15.42 | 15.20       | 15.29 | 15.73                           | 19.54 | 15.97             | 15.43 | 14.98 | 14.66 | 14.60 | 14.61 |        |
| 23                               | 14.64 | 15.38 | 15.43       | 15.62 | 16.22                           | 18.33 | 15.92             | 15.48 | 14.96 | 14.63 | 14.62 | 14.92 |        |
| 24                               | 14.63 | 15.51 | 15.76       | 16.03 | 16.40                           | 17.90 | 15.85             | 15.49 | 14.95 | 14.61 | 14.62 | 14.79 |        |
| 25                               | 14.61 | 15.40 | 15.66       | 16.06 | 16.70                           | 19.60 | 15.81             | 15.54 | 14.93 | 14.59 | 14.61 | 14.72 |        |
| 26                               | 14.58 | 15.29 | 15.56       | 15.80 | 17.57                           | 19.45 | 15.79             | 15.52 | 14.92 | 14.59 | 14.60 | 14.70 |        |
| 27                               | 14.56 | 15.20 | 15.51       | 15.80 | 16.57                           | 19.07 | 15.76             | 15.49 | 14.92 | 14.63 | 14.58 | 14.68 |        |
| 28                               | 14.54 | 15.15 | 15.45       | 15.91 | 16.16                           | 18.37 | 15.74             | 15.46 | 14.91 | 14.63 | 14.58 | 14.65 |        |
| 29                               | 14.52 | 15.11 | 15.30       | 16.30 | 16.73                           | 17.25 | 15.72             | 15.41 | 14.89 | 14.64 |       | 14.63 |        |
| 30                               | 14.50 | 15.07 | 15.17       | 17.69 | 16.89                           | 16.53 | 15.69             | 15.35 | 14.88 | 14.71 |       | 14.64 |        |
| 31                               |       | 15.05 |             | 17.17 | 17.01                           |       | 15.67             |       | 14.88 | 14.71 |       | 14.62 |        |
| Mean                             | 14.69 | 14.82 | 15.33       | 15.64 | 16.30                           | 17.28 | 16.55             | 15.55 | 15.07 | 14.75 | 14.66 | 14.58 |        |
| Max                              | 15.09 | 15.51 | 16.00       | 17.69 | 17.57                           | 21.13 | 18.78             | 15.69 | 15.34 | 14.88 | 14.79 | 14.92 | 21.13  |
| Min                              | 14.50 | 14.42 | 14.57       | 14.88 | 15.67                           | 15.91 | 15.67             | 15.35 | 14.88 | 14.59 | 14.58 | 14.48 | 14.42  |
| Annual Max Momentary Gage Height | 21.41 |       | m. (MSL.) , |       | at 06.00 Hours, on Sep 21, 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 12.80 |       | m. (MSL.) , |       | River Bed                       | 12.26 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 24.36 |       | m. (MSL.) , |       |                                 |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 22.25 |       | m. (MSL.) , |       | Drainage Area                   | 548   | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov                      | Dec   | Jan  | Feb  | Mar  | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|--------------------------|-------|------|------|------|----------------|
| 1              | 1.60                                                            | 0.00                     | 1.40   | 1.70   | 62.40                | 59.00   | 48.40   | 11.20                    | 4.40  | 0.40 | 0.00 | 0.00 |                |
| 2              | 1.90                                                            | 0.00                     | 1.70   | 1.10   | 23.00                | 30.00   | 40.80   | 10.80                    | 3.90  | 0.40 | 0.00 | 0.00 |                |
| 3              | 1.60                                                            | 0.00                     | 8.60   | 0.95   | 57.00                | 21.80   | 62.40   | 10.20                    | 3.30  | 0.35 | 0.00 | 0.00 |                |
| 4              | 0.80                                                            | 0.00                     | 6.00   | 0.65   | 22.60                | 19.20   | 173.60  | 9.80                     | 3.00  | 0.30 | 0.00 | 0.00 |                |
| 5              | 0.70                                                            | 0.00                     | 3.90   | 0.45   | 37.20                | 18.30   | 163.10  | 9.40                     | 3.00  | 0.25 | 0.00 | 0.00 |                |
| 6              | 0.40                                                            | 0.00                     | 2.70   | 0.40   | 34.20                | 18.30   | 96.50   | 9.00                     | 2.90  | 0.20 | 0.00 | 0.00 |                |
| 7              | 0.10                                                            | 0.00                     | 0.00   | 0.70   | 29.00                | 18.60   | 153.80  | 9.40                     | 2.70  | 0.20 | 0.00 | 0.00 |                |
| 8              | 0.00                                                            | 0.00                     | 0.00   | 5.40   | 68.80                | 21.80   | 172.20  | 9.80                     | 2.50  | 0.10 | 0.00 | 0.00 |                |
| 9              | 0.00                                                            | 0.00                     | 0.00   | 21.00  | 60.00                | 29.00   | 75.60   | 9.80                     | 2.30  | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                            | 0.00                     | 0.70   | 20.70  | 31.80                | 28.00   | 39.00   | 9.60                     | 2.10  | 0.05 | 0.00 | 0.00 |                |
| 11             | 0.00                                                            | 0.00                     | 5.00   | 23.00  | 23.40                | 33.00   | 29.00   | 9.40                     | 1.90  | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                            | 0.00                     | 16.50  | 16.50  | 17.40                | 29.00   | 24.60   | 9.00                     | 1.80  | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                            | 0.00                     | 21.00  | 9.80   | 45.20                | 26.50   | 21.40   | 10.40                    | 1.70  | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                            | 0.00                     | 13.80  | 9.80   | 43.60                | 61.20   | 19.20   | 10.40                    | 1.50  | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                            | 0.00                     | 11.60  | 8.40   | 25.00                | 94.00   | 18.00   | 11.80                    | 1.40  | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                            | 0.00                     | 11.60  | 7.00   | 18.30                | 94.00   | 58.00   | 11.40                    | 1.70  | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                            | 0.00                     | 7.20   | 6.00   | 18.30                | 81.20   | 101.00  | 9.60                     | 4.80  | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                            | 0.90                     | 4.20   | 6.60   | 17.10                | 64.00   | 79.20   | 9.20                     | 2.60  | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                            | 1.80                     | 3.40   | 6.80   | 12.90                | 60.00   | 57.00   | 9.00                     | 1.60  | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                            | 3.00                     | 2.70   | 5.60   | 11.80                | 260.20  | 37.80   | 8.60                     | 1.20  | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                            | 4.40                     | 3.00   | 3.80   | 11.40                | 381.30  | 24.20   | 7.40                     | 1.00  | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                            | 6.40                     | 3.00   | 3.90   | 12.90                | 230.20  | 20.10   | 6.60                     | 0.90  | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                            | 5.60                     | 6.60   | 10.40  | 31.20                | 144.80  | 18.60   | 7.60                     | 0.80  | 0.00 | 0.00 | 0.60 |                |
| 24             | 0.00                                                            | 8.20                     | 13.80  | 22.20  | 42.00                | 119.00  | 16.50   | 7.80                     | 0.75  | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                            | 6.00                     | 11.20  | 23.40  | 64.00                | 235.00  | 15.30   | 8.80                     | 0.65  | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                            | 3.90                     | 9.20   | 15.00  | 102.50               | 223.00  | 14.70   | 8.40                     | 0.60  | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                            | 3.00                     | 8.20   | 15.00  | 57.00                | 193.90  | 13.80   | 7.80                     | 0.60  | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                            | 2.50                     | 7.00   | 18.30  | 28.00                | 147.20  | 13.20   | 7.20                     | 0.55  | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                            | 2.10                     | 4.00   | 36.00  | 65.20                | 86.50   | 12.60   | 6.20                     | 0.45  | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                            | 1.70                     | 2.70   | 108.50 | 71.60                | 53.00   | 11.80   | 5.00                     | 0.40  | 0.00 |      | 0.00 |                |
| 31             |                                                                 | 1.50                     |        | 82.80  | 76.40                |         | 11.40   |                          | 0.40  | 0.00 |      | 0.00 |                |
| Total          | 7.10                                                            | 51.00                    | 190.70 | 491.85 | 1221.20              | 2881.00 | 1642.80 | 270.60                   | 57.40 | 2.25 | 0.00 | 0.60 | 6816.50 CMSDAY |
| Mean           | 0.24                                                            | 1.65                     | 6.36   | 15.87  | 39.39                | 96.03   | 52.99   | 9.02                     | 1.85  | 0.07 | 0.00 | 0.02 | 18.68 CMS      |
| Max            | 1.90                                                            | 8.20                     | 21.00  | 108.50 | 102.50               | 381.30  | 173.60  | 11.80                    | 4.80  | 0.40 | 0.00 | 0.60 | 381.30 CMS     |
| Min            | 0.00                                                            | 0.00                     | 0.00   | 0.40   | 11.40                | 18.30   | 11.40   | 5.00                     | 0.40  | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.61                                                            | 4.41                     | 16.48  | 42.50  | 105.51               | 248.92  | 141.94  | 23.38                    | 4.96  | 0.19 | 0.00 | 0.05 | 588.95 MCM     |
| Momentary Peak | 412.10 CMS, at 21.41 m. (MSL.), at 06.00 Hours, on Sep 21, 2013 |                          |        |        |                      |         |         |                          |       |      |      |      |                |
| Runoff Yield   | 34.08                                                           | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         | 752.007 | Liters/Second/Square KM. |       |      |      |      |                |

**WATER YEAR : 2013****PRACHIN BURI RIVER BASIN****Khwaeng Nam Sai at Ban Saphan Hin , Prachin Buri (Kgt.33)**

Lat 14 - 07 - 55 N Long 101 - 43 - 52 E

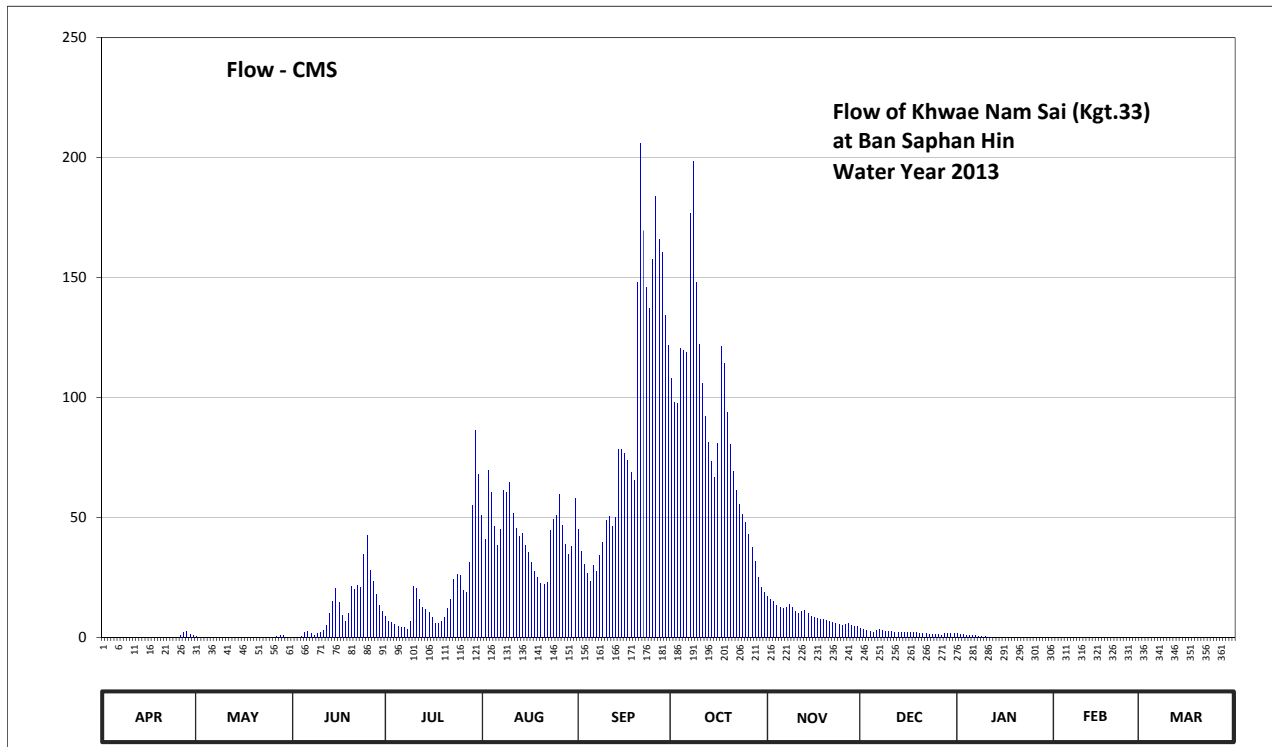
**Location : on left bank at Ban Saphan Hin.**

|                                         |                                                                                           |            |               |       |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Saphan Hin | <b>Amphoe</b> | Na Di | <b>Changwat</b>  | Prachin Buri      |
| <b>Drainage Area</b>                    | 617                                                                                       | sq.km.     |               |       |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |               |       |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (A.D.)  |               |       |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |       |                  |                   |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |            |               |       | <b>Elevation</b> | +10.598 m. (A.D.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |               |       |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |               |       |                  |                   |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                              |            |               |       |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |       |                  |                   |
| <b>Period of Rating</b>                 | 2001 to date                                                                              |            |               |       |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |       |                  |                   |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                              |            |               |       |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable by some silting.                                                            |            |               |       |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |       |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 18 discharge measurements made in 2013. |            |               |       |                  |                   |

**Gage Height in Meter (A.D.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun        | Jul  | Aug                             | Sep  | Oct   | Nov  | Dec               | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|------------|------|---------------------------------|------|-------|------|-------------------|------|------|------|--------|
| 1                                | 0.68  | 0.94 | 0.84       | 1.42 | 3.36                            | 3.13 | 5.32  | 1.87 | 1.15              | 1.01 | 1.25 | 1.04 |        |
| 2                                | 0.66  | 0.90 | 0.85       | 1.32 | 2.96                            | 2.75 | 4.99  | 1.81 | 1.13              | 1.00 | 1.26 | 1.02 |        |
| 3                                | 0.63  | 0.86 | 0.89       | 1.28 | 4.04                            | 2.52 | 4.98  | 1.76 | 1.11              | 0.99 | 1.25 | 0.94 |        |
| 4                                | 0.63  | 0.79 | 0.95       | 1.24 | 3.72                            | 2.34 | 5.74  | 1.68 | 1.08              | 0.98 | 1.24 | 0.89 |        |
| 5                                | 0.66  | 0.76 | 1.06       | 1.19 | 3.18                            | 2.17 | 5.71  | 1.63 | 1.05              | 0.98 | 1.25 | 0.87 |        |
| 6                                | 0.67  | 0.74 | 1.07       | 1.18 | 2.86                            | 2.50 | 5.68  | 1.60 | 1.10              | 0.97 | 1.24 | 0.85 |        |
| 7                                | 0.67  | 0.74 | 1.01       | 1.18 | 3.12                            | 2.38 | 7.40  | 1.62 | 1.12              | 0.96 | 1.22 | 0.86 |        |
| 8                                | 0.65  | 0.71 | 0.98       | 1.13 | 3.75                            | 2.68 | 8.02  | 1.70 | 1.10              | 0.95 | 1.20 | 0.87 |        |
| 9                                | 0.67  | 0.69 | 1.01       | 1.32 | 3.71                            | 2.91 | 6.57  | 1.63 | 1.09              | 0.95 | 1.19 | 0.86 |        |
| 10                               | 0.68  | 0.70 | 1.06       | 2.07 | 3.87                            | 3.28 | 5.79  | 1.54 | 1.08              | 0.93 | 1.18 | 0.83 |        |
| 11                               | 0.69  | 0.71 | 1.11       | 2.04 | 3.39                            | 3.35 | 5.25  | 1.50 | 1.08              | 0.92 | 1.17 | 0.82 |        |
| 12                               | 0.66  | 0.74 | 1.22       | 1.81 | 3.15                            | 3.17 | 4.81  | 1.54 | 1.06              | 0.91 | 1.19 | 0.81 |        |
| 13                               | 0.64  | 0.75 | 1.48       | 1.63 | 3.02                            | 3.33 | 4.44  | 1.56 | 1.06              | 0.90 | 1.19 | 0.80 |        |
| 14                               | 0.66  | 0.76 | 1.77       | 1.58 | 3.07                            | 4.35 | 4.17  | 1.48 | 1.05              | 0.89 | 1.17 | 0.80 |        |
| 15                               | 0.67  | 0.72 | 2.03       | 1.52 | 2.85                            | 4.35 | 3.94  | 1.42 | 1.05              | 0.87 | 1.16 | 0.79 |        |
| 16                               | 0.67  | 0.71 | 1.74       | 1.39 | 2.74                            | 4.29 | 4.43  | 1.39 | 1.04              | 0.86 | 1.15 | 0.79 |        |
| 17                               | 0.67  | 0.73 | 1.45       | 1.27 | 2.55                            | 4.19 | 5.77  | 1.37 | 1.05              | 0.85 | 1.14 | 0.78 |        |
| 18                               | 0.70  | 0.75 | 1.30       | 1.27 | 2.38                            | 4.01 | 5.54  | 1.36 | 1.06              | 0.84 | 1.10 | 0.78 |        |
| 19                               | 0.68  | 0.72 | 1.49       | 1.32 | 2.27                            | 3.90 | 4.86  | 1.35 | 1.04              | 0.83 | 1.07 | 0.77 |        |
| 20                               | 0.67  | 0.70 | 2.08       | 1.40 | 2.14                            | 6.57 | 4.41  | 1.33 | 1.03              | 0.82 | 1.05 | 0.77 |        |
| 21                               | 0.67  | 0.72 | 2.02       | 1.61 | 2.12                            | 8.24 | 4.03  | 1.30 | 1.02              | 0.82 | 0.99 | 0.76 |        |
| 22                               | 0.68  | 0.75 | 2.09       | 1.80 | 2.16                            | 7.20 | 3.75  | 1.28 | 1.01              | 0.85 | 0.94 | 0.76 |        |
| 23                               | 0.69  | 0.79 | 2.05       | 2.21 | 3.11                            | 6.51 | 3.54  | 1.26 | 1.00              | 0.88 | 0.86 | 0.75 |        |
| 24                               | 0.79  | 0.84 | 2.70       | 2.33 | 3.29                            | 6.25 | 3.38  | 1.24 | 1.00              | 0.92 | 0.83 | 0.75 |        |
| 25                               | 0.86  | 0.87 | 3.03       | 2.31 | 3.36                            | 6.86 | 3.24  | 1.21 | 0.99              | 0.97 | 0.86 | 0.74 |        |
| 26                               | 0.97  | 0.90 | 2.41       | 1.99 | 3.69                            | 7.61 | 3.05  | 1.25 | 0.99              | 1.04 | 0.88 | 0.73 |        |
| 27                               | 1.06  | 0.94 | 2.17       | 1.95 | 3.20                            | 7.09 | 2.82  | 1.26 | 0.98              | 1.11 | 0.91 | 0.72 |        |
| 28                               | 1.07  | 0.97 | 1.91       | 2.55 | 2.88                            | 6.94 | 2.57  | 1.21 | 1.02              | 1.14 | 0.98 | 0.72 |        |
| 29                               | 1.00  | 0.96 | 1.67       | 3.53 | 2.69                            | 6.16 | 2.27  | 1.20 | 1.02              | 1.16 |      | 0.71 |        |
| 30                               | 0.97  | 0.90 | 1.54       | 4.61 | 2.84                            | 5.78 | 2.05  | 1.19 | 1.01              | 1.19 |      | 0.70 |        |
| 31                               |       | 0.84 |            | 3.98 | 3.63                            |      | 1.94  |      | 1.01              | 1.21 |      | 0.72 |        |
| Mean                             | 0.74  | 0.79 | 1.57       | 1.85 | 3.07                            | 4.56 | 4.53  | 1.45 | 1.05              | 0.96 | 1.10 | 0.81 |        |
| Max                              | 1.07  | 0.97 | 3.03       | 4.61 | 4.04                            | 8.24 | 8.02  | 1.87 | 1.15              | 1.21 | 1.26 | 1.04 | 8.24   |
| Min                              | 0.63  | 0.69 | 0.84       | 1.13 | 2.12                            | 2.17 | 1.94  | 1.19 | 0.98              | 0.82 | 0.83 | 0.70 | 0.63   |
| Annual Max Momentary Gage Height | 8.42  |      | m. (A.D.), |      | at 12.00 Hours, on Sep 21, 2013 |      |       |      |                   |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (A.D.), |      | River Bed                       |      | -0.55 |      | m. (A.D.)         |      |      |      |        |
| Left Bank Elevation              | 10.58 |      | m. (A.D.), |      |                                 |      |       |      |                   |      |      |      |        |
| Right Bank Elevation             | 10.84 |      | m. (A.D.), |      | Drainage Area                   |      | 617   |      | Square Kilometers |      |      |      |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual         |
|----------------|----------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|-------|-------|------|------|----------------|
| 1              | 0.00                                                           | 0.60                     | 0.00   | 8.87                 | 51.00   | 45.25   | 107.78                   | 17.40  | 3.92  | 1.65  | 0.00 | 0.00 |                |
| 2              | 0.00                                                           | 0.00                     | 0.00   | 7.03                 | 41.00   | 36.05   | 97.85                    | 16.20  | 3.55  | 1.50  | 0.00 | 0.00 |                |
| 3              | 0.00                                                           | 0.00                     | 0.00   | 6.30                 | 69.75   | 30.76   | 97.55                    | 15.20  | 3.18  | 1.35  | 0.00 | 0.00 |                |
| 4              | 0.00                                                           | 0.00                     | 0.75   | 5.57                 | 60.72   | 26.80   | 120.54                   | 13.63  | 2.70  | 1.20  | 0.00 | 0.00 |                |
| 5              | 0.00                                                           | 0.00                     | 2.40   | 4.65                 | 46.50   | 23.40   | 119.61                   | 12.72  | 2.25  | 1.20  | 0.00 | 0.00 |                |
| 6              | 0.00                                                           | 0.00                     | 2.55   | 4.47                 | 38.58   | 30.30   | 118.68                   | 12.17  | 3.00  | 1.05  | 0.00 | 0.00 |                |
| 7              | 0.00                                                           | 0.00                     | 1.65   | 4.47                 | 45.00   | 27.60   | 176.60                   | 12.53  | 3.37  | 0.90  | 0.00 | 0.00 |                |
| 8              | 0.00                                                           | 0.00                     | 1.20   | 3.55                 | 61.56   | 34.44   | 198.30                   | 14.00  | 3.00  | 0.75  | 0.00 | 0.00 |                |
| 9              | 0.00                                                           | 0.00                     | 1.65   | 7.03                 | 60.43   | 39.75   | 147.81                   | 12.72  | 2.85  | 0.75  | 0.00 | 0.00 |                |
| 10             | 0.00                                                           | 0.00                     | 2.40   | 21.40                | 64.95   | 49.00   | 122.09                   | 11.07  | 2.70  | 0.45  | 0.00 | 0.00 |                |
| 11             | 0.00                                                           | 0.00                     | 3.18   | 20.80                | 51.75   | 50.75   | 105.67                   | 10.33  | 2.70  | 0.30  | 0.00 | 0.00 |                |
| 12             | 0.00                                                           | 0.00                     | 5.20   | 16.20                | 45.75   | 46.25   | 92.44                    | 11.07  | 2.40  | 0.15  | 0.00 | 0.00 |                |
| 13             | 0.00                                                           | 0.00                     | 9.97   | 12.72                | 42.50   | 50.25   | 81.31                    | 11.43  | 2.40  | 0.00  | 0.00 | 0.00 |                |
| 14             | 0.00                                                           | 0.00                     | 15.40  | 11.80                | 43.75   | 78.60   | 73.43                    | 9.97   | 2.25  | 0.00  | 0.00 | 0.00 |                |
| 15             | 0.00                                                           | 0.00                     | 20.60  | 10.70                | 38.35   | 78.60   | 66.93                    | 8.87   | 2.25  | 0.00  | 0.00 | 0.00 |                |
| 16             | 0.00                                                           | 0.00                     | 14.80  | 8.32                 | 35.82   | 76.82   | 81.01                    | 8.32   | 2.10  | 0.00  | 0.00 | 0.00 |                |
| 17             | 0.00                                                           | 0.00                     | 9.42   | 6.12                 | 31.45   | 73.99   | 121.47                   | 7.95   | 2.25  | 0.00  | 0.00 | 0.00 |                |
| 18             | 0.00                                                           | 0.00                     | 6.67   | 6.12                 | 27.60   | 68.91   | 114.40                   | 7.77   | 2.40  | 0.00  | 0.00 | 0.00 |                |
| 19             | 0.00                                                           | 0.00                     | 10.15  | 7.03                 | 25.40   | 65.80   | 93.94                    | 7.58   | 2.10  | 0.00  | 0.00 | 0.00 |                |
| 20             | 0.00                                                           | 0.00                     | 21.60  | 8.50                 | 22.80   | 147.81  | 80.41                    | 7.22   | 1.95  | 0.00  | 0.00 | 0.00 |                |
| 21             | 0.00                                                           | 0.00                     | 20.40  | 12.35                | 22.40   | 206.14  | 69.47                    | 6.67   | 1.80  | 0.00  | 0.00 | 0.00 |                |
| 22             | 0.00                                                           | 0.00                     | 21.80  | 16.00                | 23.20   | 169.60  | 61.56                    | 6.30   | 1.65  | 0.00  | 0.00 | 0.00 |                |
| 23             | 0.00                                                           | 0.00                     | 21.00  | 24.20                | 44.75   | 145.83  | 55.63                    | 5.93   | 1.50  | 0.00  | 0.00 | 0.00 |                |
| 24             | 0.00                                                           | 0.00                     | 34.90  | 26.60                | 49.25   | 137.25  | 51.50                    | 5.57   | 1.50  | 0.00  | 0.00 | 0.00 |                |
| 25             | 0.00                                                           | 0.00                     | 42.75  | 26.20                | 51.00   | 157.70  | 48.00                    | 5.02   | 1.35  | 0.00  | 0.00 | 0.00 |                |
| 26             | 1.05                                                           | 0.00                     | 28.23  | 19.80                | 59.87   | 183.95  | 43.25                    | 5.75   | 1.35  | 0.00  | 0.00 | 0.00 |                |
| 27             | 2.40                                                           | 0.60                     | 23.40  | 19.00                | 47.00   | 165.75  | 37.66                    | 5.93   | 1.20  | 0.00  | 0.00 | 0.00 |                |
| 28             | 2.55                                                           | 1.05                     | 18.20  | 31.45                | 39.04   | 160.50  | 31.91                    | 5.02   | 1.80  | 0.00  | 0.00 | 0.00 |                |
| 29             | 1.50                                                           | 0.90                     | 13.45  | 55.35                | 34.67   | 134.28  | 25.40                    | 4.83   | 1.80  | 0.00  |      | 0.00 |                |
| 30             | 1.05                                                           | 0.00                     | 11.07  | 86.42                | 38.12   | 121.78  | 21.00                    | 4.65   | 1.65  | 0.00  |      | 0.00 |                |
| 31             |                                                                | 0.00                     |        | 68.06                | 58.17   |         | 18.80                    |        | 1.65  | 0.00  |      | 0.00 |                |
| Total          | 8.55                                                           | 3.15                     | 364.79 | 567.08               | 1372.13 | 2663.91 | 2682.00                  | 283.82 | 70.57 | 11.25 | 0.00 | 0.00 | 8027.25 CMSDAY |
| Mean           | 0.28                                                           | 0.10                     | 12.16  | 18.29                | 44.26   | 88.80   | 86.52                    | 9.46   | 2.28  | 0.36  | 0.00 | 0.00 | 21.99 CMS      |
| Max            | 2.55                                                           | 1.05                     | 42.75  | 86.42                | 69.75   | 206.14  | 198.30                   | 17.40  | 3.92  | 1.65  | 0.00 | 0.00 | 206.14 CMS     |
| Min            | 0.00                                                           | 0.00                     | 0.00   | 3.55                 | 22.40   | 23.40   | 18.80                    | 4.65   | 1.20  | 0.00  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.74                                                           | 0.27                     | 31.52  | 49.00                | 118.55  | 230.16  | 231.73                   | 24.52  | 6.10  | 0.97  | 0.00 | 0.00 | 693.55 MCM     |
| Momentary Peak | 212.62 CMS, at 8.42 m. (A.D.), at 12.00 Hours, on Sep 21, 2013 |                          |        |                      |         |         |                          |        |       |       |      |      |                |
| Runoff Yield   | 35.64                                                          | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 344.603 | Liters/Second/Square KM. |        |       |       |      |      |                |

## WATER YEAR : 2013

## PRACHIN BURI RIVER BASIN

**Khwaee Hanuman at Ban Wang Man , Prachin Buri (Kgt.34)**

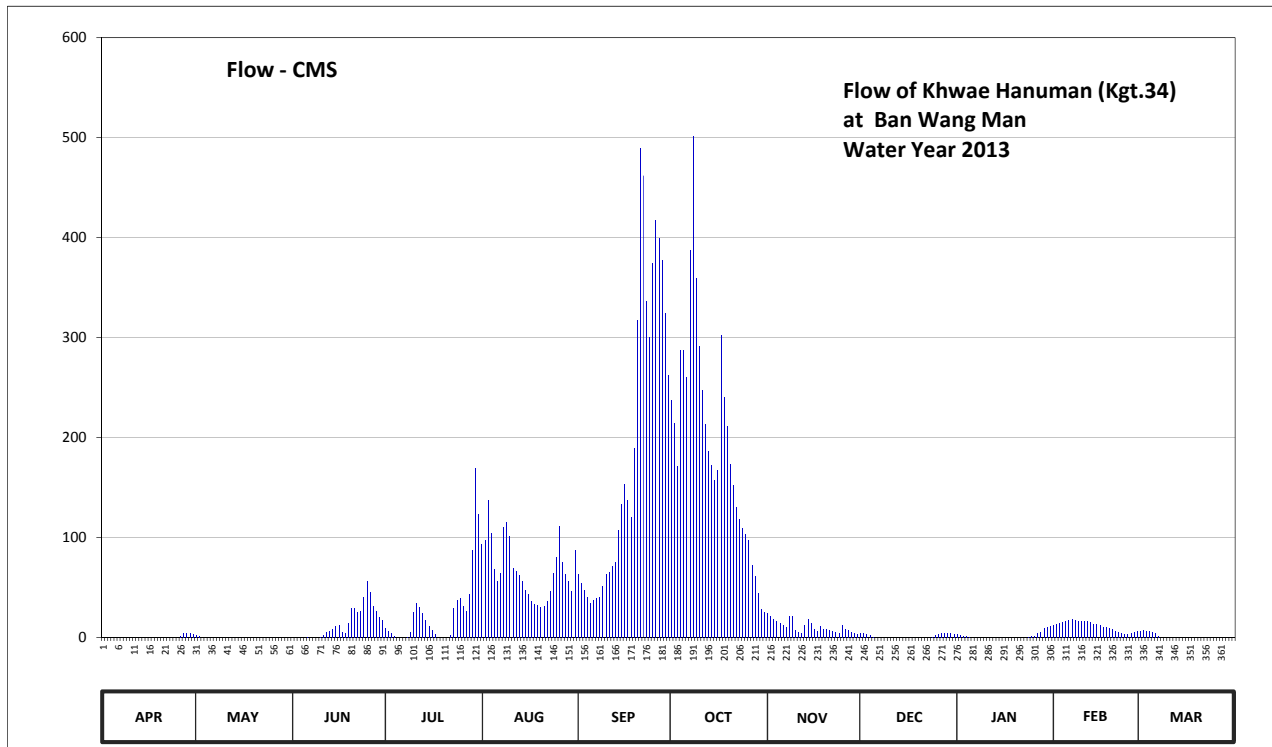
Lat 13 - 28 - 29 N Long 101 - 44 - 55 E

**Location : on left bank at the bridge.**

|                                         |                                                                                           |           |               |       |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Wang Man  | <b>Amphoe</b> | Na Di | <b>Changwat</b>  | Prachin Buri     |
| <b>Drainage Area</b>                    | 1,210                                                                                     | sq.km.    |               |       |                  |                  |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |       |                  |                  |
| <b>Zero Gage at Bottom</b>              | +3.560                                                                                    | m. (MSL.) |               |       |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |       |                  |                  |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |           |               |       | <b>Elevation</b> | +9.822 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |       |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |       |                  |                  |
| <b>Period of Available Gage Records</b> | 2006 to date                                                                              |           |               |       |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |       |                  |                  |
| <b>Period of Rating</b>                 | 2006 to date                                                                              |           |               |       |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |       |                  |                  |
| <b>Rated by Current Meter</b>           | 2006 to date                                                                              |           |               |       |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |       |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |       |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 18 discharge measurements made in 2013. |           |               |       |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2012 to March 31, 2013**

| Date                             | Apr   | May  | Jun                                              | Jul  | Aug  | Sep   | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|--------------------------------------------------|------|------|-------|-------|------|------|------|------|------|--------|
| 1                                | 4.53  | 4.87 | 4.77                                             | 5.03 | 6.75 | 6.19  | 8.83  | 5.36 | 4.92 | 4.88 | 5.11 | 4.97 |        |
| 2                                | 4.51  | 4.84 | 4.77                                             | 4.96 | 6.81 | 6.01  | 8.54  | 5.30 | 4.90 | 4.86 | 5.12 | 4.98 |        |
| 3                                | 4.49  | 4.75 | 4.75                                             | 4.91 | 7.47 | 5.86  | 7.99  | 5.24 | 4.88 | 4.83 | 5.14 | 4.96 |        |
| 4                                | 4.47  | 4.65 | 4.74                                             | 4.84 | 6.94 | 5.71  | 9.39  | 5.20 | 4.85 | 4.83 | 5.17 | 4.95 |        |
| 5                                | 4.45  | 4.63 | 4.80                                             | 4.78 | 6.29 | 5.59  | 9.39  | 5.15 | 4.82 | 4.82 | 5.20 | 4.93 |        |
| 6                                | 4.43  | 4.61 | 4.81                                             | 4.74 | 6.06 | 5.66  | 9.09  | 5.10 | 4.78 | 4.80 | 5.22 | 4.90 |        |
| 7                                | 4.41  | 4.62 | 4.77                                             | 4.77 | 6.21 | 5.70  | 10.41 | 5.06 | 4.74 | 4.79 | 5.23 | 4.84 |        |
| 8                                | 4.39  | 4.65 | 4.75                                             | 4.81 | 7.03 | 5.73  | 11.44 | 5.31 | 4.70 | 4.78 | 5.21 | 4.80 |        |
| 9                                | 4.37  | 4.68 | 4.79                                             | 4.93 | 7.11 | 5.95  | 10.15 | 5.30 | 4.68 | 4.77 | 5.20 | 4.78 |        |
| 10                               | 4.34  | 4.69 | 4.81                                             | 5.39 | 6.89 | 6.19  | 9.44  | 4.99 | 4.66 | 4.76 | 5.19 | 4.77 |        |
| 11                               | 4.32  | 4.68 | 4.86                                             | 5.59 | 6.31 | 6.23  | 8.95  | 4.94 | 4.64 | 4.75 | 5.18 | 4.76 |        |
| 12                               | 4.30  | 4.67 | 4.93                                             | 5.49 | 6.24 | 6.34  | 8.53  | 4.91 | 4.63 | 4.73 | 5.18 | 4.75 |        |
| 13                               | 4.29  | 4.65 | 4.97                                             | 5.36 | 6.16 | 6.43  | 8.20  | 5.09 | 4.60 | 4.71 | 5.16 | 4.74 |        |
| 14                               | 4.28  | 4.64 | 5.01                                             | 5.21 | 6.05 | 6.99  | 8.01  | 5.24 | 4.55 | 4.69 | 5.13 | 4.73 |        |
| 15                               | 4.26  | 4.65 | 5.07                                             | 5.07 | 5.86 | 7.42  | 7.78  | 5.14 | 4.53 | 4.72 | 5.12 | 4.72 |        |
| 16                               | 4.25  | 4.67 | 5.09                                             | 4.98 | 5.78 | 7.72  | 7.93  | 5.01 | 4.52 | 4.70 | 5.10 | 4.70 |        |
| 17                               | 4.23  | 4.69 | 4.94                                             | 4.88 | 5.64 | 7.48  | 9.56  | 4.97 | 4.51 | 4.71 | 5.06 | 4.68 |        |
| 18                               | 4.22  | 4.68 | 4.92                                             | 4.80 | 5.57 | 7.20  | 8.86  | 5.07 | 4.50 | 4.70 | 5.05 | 4.66 |        |
| 19                               | 4.24  | 4.65 | 5.15                                             | 4.78 | 5.54 | 8.23  | 8.51  | 5.02 | 4.49 | 4.69 | 5.03 | 4.65 |        |
| 20                               | 4.31  | 4.63 | 5.48                                             | 4.76 | 5.49 | 9.72  | 8.02  | 5.00 | 4.48 | 4.69 | 5.01 | 4.63 |        |
| 21                               | 4.51  | 4.58 | 5.47                                             | 4.78 | 5.51 | 11.34 | 7.70  | 4.98 | 4.47 | 4.70 | 4.97 | 4.58 |        |
| 22                               | 4.54  | 4.64 | 5.39                                             | 4.87 | 5.63 | 11.09 | 7.36  | 4.96 | 4.49 | 4.72 | 4.94 | 4.55 |        |
| 23                               | 4.61  | 4.70 | 5.42                                             | 5.48 | 5.84 | 9.92  | 7.16  | 4.94 | 4.73 | 4.74 | 4.91 | 4.53 |        |
| 24                               | 4.68  | 4.73 | 5.73                                             | 5.66 | 6.21 | 9.54  | 7.02  | 4.92 | 4.81 | 4.81 | 4.89 | 4.52 |        |
| 25                               | 4.76  | 4.74 | 6.06                                             | 5.69 | 6.52 | 10.29 | 6.91  | 5.09 | 4.85 | 4.83 | 4.89 | 4.51 |        |
| 26                               | 4.83  | 4.75 | 5.83                                             | 5.53 | 7.05 | 10.68 | 6.81  | 5.00 | 4.89 | 4.84 | 4.92 | 4.50 |        |
| 27                               | 4.92  | 4.79 | 5.52                                             | 5.40 | 6.42 | 10.52 | 6.38  | 4.98 | 4.92 | 4.90 | 4.94 | 4.48 |        |
| 28                               | 4.92  | 4.80 | 5.40                                             | 5.79 | 6.18 | 10.32 | 6.15  | 4.93 | 4.91 | 4.93 | 4.95 | 4.45 |        |
| 29                               | 4.90  | 4.78 | 5.27                                             | 6.64 | 6.06 | 9.80  | 5.82  | 4.90 | 4.90 | 5.03 |      | 4.46 |        |
| 30                               | 4.89  | 4.77 | 5.21                                             | 7.96 | 5.85 | 9.11  | 5.46  | 4.89 | 4.90 | 5.05 |      | 4.47 |        |
| 31                               |       | 4.74 |                                                  | 7.25 | 6.65 |       | 5.38  |      | 4.88 | 5.08 |      | 4.48 |        |
| Mean                             | 4.49  | 4.70 | 5.12                                             | 5.33 | 6.26 | 7.83  | 8.10  | 5.07 | 4.71 | 4.80 | 5.08 | 4.69 |        |
| Max                              | 4.92  | 4.87 | 6.06                                             | 7.96 | 7.47 | 11.34 | 11.44 | 5.36 | 4.92 | 5.08 | 5.23 | 4.98 | 11.44  |
| Min                              | 4.22  | 4.58 | 4.74                                             | 4.74 | 5.49 | 5.59  | 5.38  | 4.89 | 4.47 | 4.69 | 4.89 | 4.45 | 4.22   |
| Annual Max Momentary Gage Height | 11.56 |      | m. (MSL.) , at 06.00 Hours, on Oct 8, 2013       |      |      |       |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 3.56  |      | m. (MSL.) , River Bed 1.18 m. (MSL.)             |      |      |       |       |      |      |      |      |      |        |
| Left Bank Elevation              | 12.43 |      | m. (MSL.) ,                                      |      |      |       |       |      |      |      |      |      |        |
| Right Bank Elevation             | 12.44 |      | m. (MSL.) , Drainage Area 1210 Square Kilometers |      |      |       |       |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb    | Mar   | Annual          |
|----------------|----------------------------------------------------------------|--------------------------|--------|----------------------|---------|---------|--------------------------|--------|-------|-------|--------|-------|-----------------|
| 1              | 0.00                                                           | 2.80                     | 0.00   | 9.35                 | 93.50   | 63.50   | 237.40                   | 24.20  | 4.80  | 3.20  | 12.95  | 6.80  |                 |
| 2              | 0.00                                                           | 1.60                     | 0.00   | 6.40                 | 97.10   | 54.50   | 214.20                   | 21.50  | 4.00  | 2.40  | 13.40  | 7.20  |                 |
| 3              | 0.00                                                           | 0.00                     | 0.00   | 4.40                 | 137.05  | 47.00   | 171.30                   | 18.80  | 3.20  | 1.20  | 14.30  | 6.40  |                 |
| 4              | 0.00                                                           | 0.00                     | 0.00   | 1.60                 | 104.90  | 39.95   | 287.10                   | 17.00  | 2.00  | 1.20  | 15.65  | 6.00  |                 |
| 5              | 0.00                                                           | 0.00                     | 0.00   | 0.00                 | 68.50   | 34.55   | 287.10                   | 14.75  | 0.80  | 0.80  | 17.00  | 5.20  |                 |
| 6              | 0.00                                                           | 0.00                     | 0.40   | 0.00                 | 57.00   | 37.70   | 260.10                   | 12.50  | 0.00  | 0.00  | 17.90  | 4.00  |                 |
| 7              | 0.00                                                           | 0.00                     | 0.00   | 0.00                 | 64.50   | 39.50   | 387.10                   | 10.70  | 0.00  | 0.00  | 18.35  | 1.60  |                 |
| 8              | 0.00                                                           | 0.00                     | 0.00   | 0.40                 | 110.30  | 40.85   | 500.80                   | 21.95  | 0.00  | 0.00  | 17.45  | 0.00  |                 |
| 9              | 0.00                                                           | 0.00                     | 0.00   | 5.20                 | 115.10  | 51.50   | 359.00                   | 21.50  | 0.00  | 0.00  | 17.00  | 0.00  |                 |
| 10             | 0.00                                                           | 0.00                     | 0.40   | 25.55                | 101.90  | 63.50   | 291.60                   | 7.60   | 0.00  | 0.00  | 16.55  | 0.00  |                 |
| 11             | 0.00                                                           | 0.00                     | 2.40   | 34.55                | 69.50   | 65.50   | 247.50                   | 5.60   | 0.00  | 0.00  | 16.10  | 0.00  |                 |
| 12             | 0.00                                                           | 0.00                     | 5.20   | 30.05                | 66.00   | 71.00   | 213.40                   | 4.40   | 0.00  | 0.00  | 16.10  | 0.00  |                 |
| 13             | 0.00                                                           | 0.00                     | 6.80   | 24.20                | 62.00   | 75.65   | 187.00                   | 12.05  | 0.00  | 0.00  | 15.20  | 0.00  |                 |
| 14             | 0.00                                                           | 0.00                     | 8.45   | 17.45                | 56.50   | 107.90  | 172.70                   | 18.80  | 0.00  | 0.00  | 13.85  | 0.00  |                 |
| 15             | 0.00                                                           | 0.00                     | 11.15  | 11.15                | 47.00   | 133.80  | 157.20                   | 14.30  | 0.00  | 0.00  | 13.40  | 0.00  |                 |
| 16             | 0.00                                                           | 0.00                     | 12.05  | 7.20                 | 43.10   | 153.30  | 167.10                   | 8.45   | 0.00  | 0.00  | 12.50  | 0.00  |                 |
| 17             | 0.00                                                           | 0.00                     | 5.60   | 3.20                 | 36.80   | 137.70  | 302.40                   | 6.80   | 0.00  | 0.00  | 10.70  | 0.00  |                 |
| 18             | 0.00                                                           | 0.00                     | 4.80   | 0.00                 | 33.65   | 120.50  | 239.80                   | 11.15  | 0.00  | 0.00  | 10.25  | 0.00  |                 |
| 19             | 0.00                                                           | 0.00                     | 14.75  | 0.00                 | 32.30   | 189.40  | 211.80                   | 8.90   | 0.00  | 0.00  | 9.35   | 0.00  |                 |
| 20             | 0.00                                                           | 0.00                     | 29.60  | 0.00                 | 30.05   | 316.80  | 173.40                   | 8.00   | 0.00  | 0.00  | 8.45   | 0.00  |                 |
| 21             | 0.00                                                           | 0.00                     | 29.15  | 0.00                 | 30.95   | 489.40  | 152.00                   | 7.20   | 0.00  | 0.00  | 6.80   | 0.00  |                 |
| 22             | 0.00                                                           | 0.00                     | 25.55  | 2.80                 | 36.35   | 461.90  | 130.10                   | 6.40   | 0.00  | 0.00  | 5.60   | 0.00  |                 |
| 23             | 0.00                                                           | 0.00                     | 26.90  | 29.60                | 46.00   | 336.00  | 118.10                   | 5.60   | 0.00  | 0.00  | 4.40   | 0.00  |                 |
| 24             | 0.00                                                           | 0.00                     | 40.85  | 37.70                | 64.50   | 300.60  | 109.70                   | 4.80   | 0.40  | 0.40  | 3.60   | 0.00  |                 |
| 25             | 0.00                                                           | 0.00                     | 57.00  | 39.05                | 80.60   | 373.90  | 103.10                   | 12.05  | 2.00  | 1.20  | 3.60   | 0.00  |                 |
| 26             | 1.20                                                           | 0.00                     | 45.50  | 31.85                | 111.50  | 416.80  | 97.10                    | 8.00   | 3.60  | 1.60  | 4.80   | 0.00  |                 |
| 27             | 4.80                                                           | 0.00                     | 31.40  | 26.00                | 75.10   | 399.20  | 73.00                    | 7.20   | 4.80  | 4.00  | 5.60   | 0.00  |                 |
| 28             | 4.80                                                           | 0.00                     | 26.00  | 43.55                | 63.00   | 377.20  | 61.50                    | 5.20   | 4.40  | 5.20  | 6.00   | 0.00  |                 |
| 29             | 4.00                                                           | 0.00                     | 20.15  | 87.20                | 57.00   | 324.00  | 45.00                    | 4.00   | 4.00  | 9.35  |        | 0.00  |                 |
| 30             | 3.60                                                           | 0.00                     | 17.45  | 169.20               | 46.50   | 261.90  | 28.70                    | 3.60   | 4.00  | 10.25 |        | 0.00  |                 |
| 31             |                                                                | 0.00                     |        | 123.50               | 87.75   |         | 25.10                    |        | 3.20  | 11.60 |        | 0.00  |                 |
| Total          | 18.40                                                          | 4.40                     | 421.55 | 771.15               | 2126.00 | 5585.00 | 6011.40                  | 333.00 | 41.20 | 52.40 | 326.85 | 37.20 | 15728.55 CMSDAY |
| Mean           | 0.61                                                           | 0.14                     | 14.05  | 24.88                | 68.58   | 186.17  | 193.92                   | 11.10  | 1.33  | 1.69  | 11.67  | 1.20  | 43.09 CMS       |
| Max            | 4.80                                                           | 2.80                     | 57.00  | 169.20               | 137.05  | 489.40  | 500.80                   | 24.20  | 4.80  | 11.60 | 18.35  | 7.20  | 500.80 CMS      |
| Min            | 0.00                                                           | 0.00                     | 0.00   | 0.00                 | 30.05   | 34.55   | 25.10                    | 3.60   | 0.00  | 0.00  | 3.60   | 0.00  | 0.00 CMS        |
| Runoff         | 1.59                                                           | 0.38                     | 36.42  | 66.63                | 183.69  | 482.54  | 519.39                   | 28.77  | 3.56  | 4.53  | 28.24  | 3.21  | 1358.95 MCM     |
| Momentary Peak | 515.20 CMS, at 11.56 m. (MSL.), at 06.00 Hours, on Oct 8, 2013 |                          |        |                      |         |         |                          |        |       |       |        |       |                 |
| Runoff Yield   | 35.61                                                          | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 425.785 | Liters/Second/Square KM. |        |       |       |        |       |                 |

**WATER YEAR : 2013****PRACHIN BURI RIVER BASIN****Khlong Phra Phloeng Yai at Ban Phu Ngoen , Sa Kao (Kgt.38)**

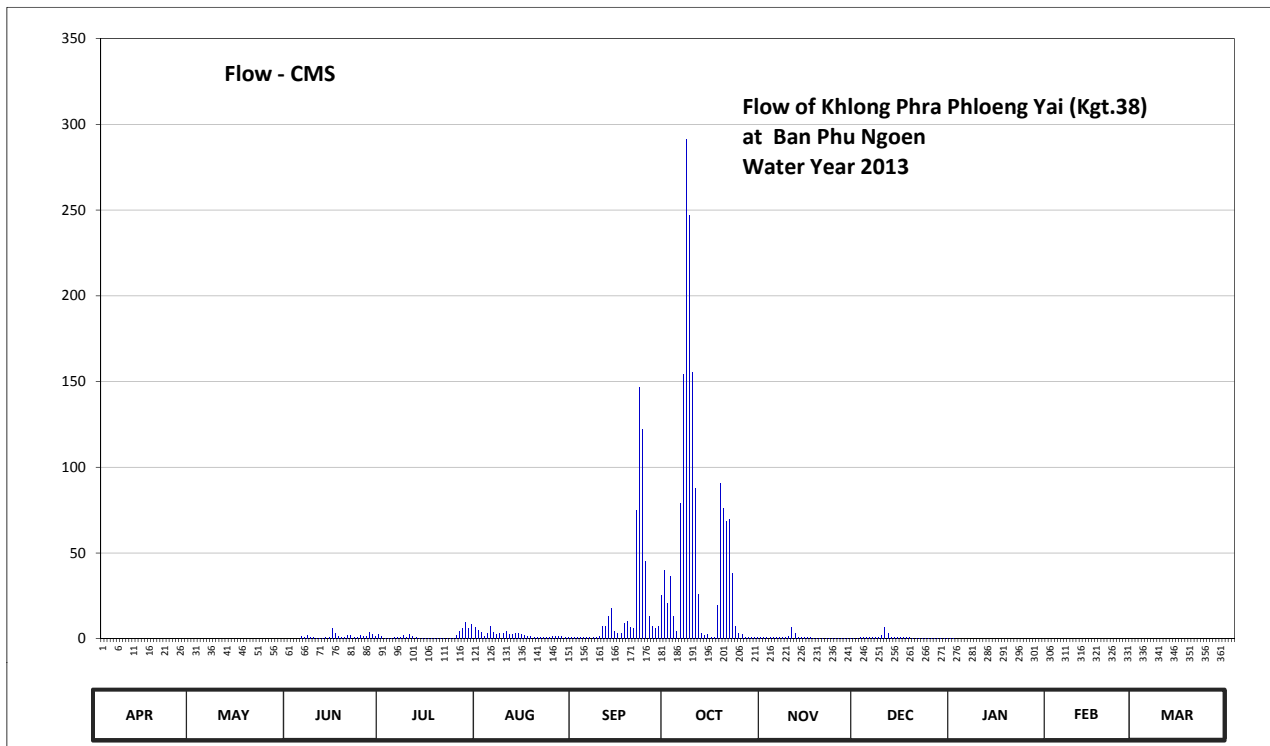
Lat 13 - 36 - 03 N Long 102 - 02 - 07 E

Location : on left bank at the bridge.

|                                         |                                                                                           |           |               |             |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Phu Ngoen | <b>Amphoe</b> | Khao Chakan | <b>Changwat</b>  | Sa Kao           |
| <b>Drainage Area</b>                    | 289                                                                                       | sq.km.    |               |             |                  |                  |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage      |               |             |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (A.D.) |               |             |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |             |                  |                  |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |           |               |             | <b>Elevation</b> | +9.483 m. (A.D.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |             |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 3 readings                                                            |           |               |             |                  |                  |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                              |           |               |             |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |             |                  |                  |
| <b>Period of Rating</b>                 | 2008 to date                                                                              |           |               |             |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |             |                  |                  |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                              |           |               |             |                  |                  |
| <b>Stability of Channel Regimes</b>     | Rather unstable with variable water surface slope.                                        |           |               |             |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |             |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 11 discharge measurements made in 2013. |           |               |             |                  |                  |

**Gage Height in Meter (A.D.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun         | Jul  | Aug  | Sep                            | Oct  | Nov               | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|-------------|------|------|--------------------------------|------|-------------------|------|------|------|------|--------|
| 1                                | 1.20 | 1.50 | 1.25        | 1.70 | 2.15 | 1.75                           | 3.48 | 1.75              | 1.75 | 1.60 | 1.45 | 1.00 |        |
| 2                                | 1.20 | 1.50 | 1.25        | 1.70 | 1.85 | 1.75                           | 2.67 | 1.75              | 1.75 | 1.60 | 1.45 | 1.00 |        |
| 3                                | 1.15 | 1.50 | 1.45        | 1.70 | 2.10 | 1.75                           | 2.20 | 1.75              | 1.75 | 1.58 | 1.45 | 1.00 |        |
| 4                                | 1.15 | 1.50 | 1.88        | 1.80 | 2.40 | 1.75                           | 4.37 | 1.75              | 1.75 | 1.58 | 1.44 | 1.00 |        |
| 5                                | 1.10 | 1.50 | 1.80        | 1.80 | 2.15 | 1.75                           | 5.45 | 1.75              | 1.75 | 1.56 | 1.44 | 0.98 |        |
| 6                                | 1.10 | 1.48 | 1.93        | 1.80 | 2.00 | 1.75                           | 6.92 | 1.75              | 1.76 | 1.56 | 1.43 | 0.98 |        |
| 7                                | 1.10 | 1.48 | 1.80        | 1.95 | 2.05 | 1.76                           | 6.50 | 1.75              | 1.78 | 1.54 | 1.43 | 0.96 |        |
| 8                                | 1.10 | 1.47 | 1.80        | 1.80 | 2.10 | 1.90                           | 5.47 | 1.90              | 1.95 | 1.54 | 1.42 | 0.96 |        |
| 9                                | 1.05 | 1.47 | 1.72        | 2.00 | 2.17 | 2.40                           | 4.53 | 2.35              | 2.35 | 1.52 | 1.41 | 0.96 |        |
| 10                               | 1.05 | 1.46 | 1.70        | 1.87 | 2.00 | 2.40                           | 3.18 | 2.10              | 2.10 | 1.52 | 1.40 | 0.96 |        |
| 11                               | 1.05 | 1.46 | 1.70        | 1.73 | 2.00 | 2.67                           | 2.05 | 1.80              | 1.80 | 1.50 | 1.39 | 0.96 |        |
| 12                               | 1.05 | 1.45 | 1.80        | 1.70 | 2.05 | 2.90                           | 1.95 | 1.80              | 1.80 | 1.50 | 1.38 | 0.96 |        |
| 13                               | 1.05 | 1.45 | 1.75        | 1.70 | 2.05 | 2.17                           | 2.00 | 1.75              | 1.79 | 1.49 | 1.37 | 0.95 |        |
| 14                               | 1.05 | 1.43 | 2.30        | 1.70 | 2.00 | 2.10                           | 1.80 | 1.75              | 1.77 | 1.49 | 1.36 | 0.95 |        |
| 15                               | 1.10 | 1.43 | 2.05        | 1.70 | 1.95 | 2.10                           | 1.80 | 1.75              | 1.75 | 1.48 | 1.36 | 0.93 |        |
| 16                               | 1.10 | 1.42 | 1.85        | 1.70 | 1.90 | 2.47                           | 2.97 | 1.70              | 1.74 | 1.48 | 1.35 | 0.90 |        |
| 17                               | 1.25 | 1.42 | 1.80        | 1.70 | 1.85 | 2.55                           | 4.58 | 1.70              | 1.73 | 1.47 | 1.33 | 0.88 |        |
| 18                               | 1.25 | 1.41 | 1.80        | 1.70 | 1.80 | 2.35                           | 4.32 | 1.70              | 1.72 | 1.47 | 1.30 | 0.86 |        |
| 19                               | 1.25 | 1.40 | 1.95        | 1.70 | 1.80 | 2.30                           | 4.18 | 1.70              | 1.70 | 1.46 | 1.27 | 0.83 |        |
| 20                               | 1.25 | 1.38 | 1.95        | 1.70 | 1.75 | 4.30                           | 4.20 | 1.65              | 1.69 | 1.46 | 1.25 | 0.80 |        |
| 21                               | 1.25 | 1.36 | 1.80        | 1.70 | 1.75 | 5.35                           | 3.53 | 1.65              | 1.68 | 1.45 | 1.22 | 0.77 |        |
| 22                               | 1.25 | 1.34 | 1.80        | 1.70 | 1.80 | 5.03                           | 2.37 | 1.65              | 1.67 | 1.45 | 1.18 | 0.74 |        |
| 23                               | 1.30 | 1.32 | 1.93        | 1.70 | 1.80 | 3.70                           | 2.10 | 1.65              | 1.66 | 1.45 | 1.14 | 0.70 |        |
| 24                               | 1.30 | 1.30 | 1.85        | 1.97 | 1.85 | 2.67                           | 2.03 | 1.65              | 1.65 | 1.45 | 1.10 | 0.67 |        |
| 25                               | 1.45 | 1.27 | 1.90        | 2.20 | 1.85 | 2.37                           | 1.80 | 1.65              | 1.65 | 1.45 | 1.06 | 0.57 |        |
| 26                               | 1.50 | 1.27 | 2.15        | 2.32 | 1.90 | 2.30                           | 1.80 | 1.65              | 1.65 | 1.44 | 1.04 | 0.53 |        |
| 27                               | 1.50 | 1.29 | 2.00        | 2.50 | 1.85 | 2.37                           | 1.80 | 1.65              | 1.65 | 1.44 | 1.02 | 0.50 |        |
| 28                               | 1.50 | 1.29 | 1.90        | 2.30 | 1.80 | 3.17                           | 1.75 | 1.65              | 1.65 | 1.44 | 1.00 | 0.47 |        |
| 29                               | 1.50 | 1.30 | 2.00        | 2.45 | 1.80 | 3.57                           | 1.75 | 1.65              | 1.65 | 1.44 |      | 0.45 |        |
| 30                               | 1.50 | 1.30 | 1.90        | 2.35 | 1.75 | 3.00                           | 1.75 | 1.65              | 1.65 | 1.44 |      | 0.43 |        |
| 31                               |      | 1.30 |             | 2.25 | 1.80 |                                | 1.75 |                   | 1.65 | 1.44 |      | 0.42 |        |
| Mean                             | 1.22 | 1.40 | 1.83        | 1.89 | 1.94 | 2.61                           | 3.13 | 1.75              | 1.75 | 1.49 | 1.30 | 0.81 |        |
| Max                              | 1.50 | 1.50 | 2.30        | 2.50 | 2.40 | 5.35                           | 6.92 | 2.35              | 2.35 | 1.60 | 1.45 | 1.00 | 6.92   |
| Min                              | 1.05 | 1.27 | 1.25        | 1.70 | 1.75 | 1.75                           | 1.75 | 1.65              | 1.65 | 1.44 | 1.00 | 0.42 | 0.42   |
| Annual Max Momentary Gage Height | 7.00 |      | m. (A.D.) , |      |      | at 06.00 Hours, on Oct 6, 2013 |      |                   |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (A.D.) , |      |      | River Bed                      | 0.19 | m. (A.D.)         |      |      |      |      |        |
| Left Bank Elevation              | 9.70 |      | m. (A.D.) , |      |      |                                |      |                   |      |      |      |      |        |
| Right Bank Elevation             | 9.82 |      | m. (A.D.) , |      |      | Drainage Area                  | 289  | Square Kilometers |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                    | Jun   | Jul   | Aug                  | Sep    | Oct      | Nov                      | Dec   | Jan  | Feb  | Mar  | Annual  |
|----------------|--------|--------------------------------------------------------|-------|-------|----------------------|--------|----------|--------------------------|-------|------|------|------|---------|
| 1              | 0.00   | 0.00                                                   | 0.00  | 0.50  | 4.00                 | 0.75   | 36.30    | 0.75                     | 0.75  | 0.00 | 0.00 | 0.00 |         |
| 2              | 0.00   | 0.00                                                   | 0.00  | 0.50  | 1.25                 | 0.75   | 12.90    | 0.75                     | 0.75  | 0.00 | 0.00 | 0.00 |         |
| 3              | 0.00   | 0.00                                                   | 0.00  | 0.50  | 3.50                 | 0.75   | 4.50     | 0.75                     | 0.75  | 0.00 | 0.00 | 0.00 |         |
| 4              | 0.00   | 0.00                                                   | 1.40  | 1.00  | 7.50                 | 0.75   | 78.85    | 0.75                     | 0.75  | 0.00 | 0.00 | 0.00 |         |
| 5              | 0.00   | 0.00                                                   | 1.00  | 1.00  | 4.00                 | 0.75   | 154.00   | 0.75                     | 0.75  | 0.00 | 0.00 | 0.00 |         |
| 6              | 0.00   | 0.00                                                   | 1.80  | 1.00  | 2.50                 | 0.75   | 291.20   | 0.75                     | 0.80  | 0.00 | 0.00 | 0.00 |         |
| 7              | 0.00   | 0.00                                                   | 1.00  | 2.00  | 3.00                 | 0.80   | 247.00   | 0.75                     | 0.90  | 0.00 | 0.00 | 0.00 |         |
| 8              | 0.00   | 0.00                                                   | 1.00  | 1.00  | 3.50                 | 1.50   | 155.60   | 1.50                     | 2.00  | 0.00 | 0.00 | 0.00 |         |
| 9              | 0.00   | 0.00                                                   | 0.60  | 2.50  | 4.20                 | 7.50   | 87.80    | 6.75                     | 6.75  | 0.00 | 0.00 | 0.00 |         |
| 10             | 0.00   | 0.00                                                   | 0.50  | 1.35  | 2.50                 | 7.50   | 25.90    | 3.50                     | 3.50  | 0.00 | 0.00 | 0.00 |         |
| 11             | 0.00   | 0.00                                                   | 0.50  | 0.65  | 2.50                 | 12.90  | 3.00     | 1.00                     | 1.00  | 0.00 | 0.00 | 0.00 |         |
| 12             | 0.00   | 0.00                                                   | 1.00  | 0.50  | 3.00                 | 18.00  | 2.00     | 1.00                     | 1.00  | 0.00 | 0.00 | 0.00 |         |
| 13             | 0.00   | 0.00                                                   | 0.75  | 0.50  | 3.00                 | 4.20   | 2.50     | 0.75                     | 0.95  | 0.00 | 0.00 | 0.00 |         |
| 14             | 0.00   | 0.00                                                   | 6.00  | 0.50  | 2.50                 | 3.50   | 1.00     | 0.75                     | 0.85  | 0.00 | 0.00 | 0.00 |         |
| 15             | 0.00   | 0.00                                                   | 3.00  | 0.50  | 2.00                 | 3.50   | 1.00     | 0.75                     | 0.75  | 0.00 | 0.00 | 0.00 |         |
| 16             | 0.00   | 0.00                                                   | 1.25  | 0.50  | 1.50                 | 8.90   | 19.75    | 0.50                     | 0.70  | 0.00 | 0.00 | 0.00 |         |
| 17             | 0.00   | 0.00                                                   | 1.00  | 0.50  | 1.25                 | 10.50  | 90.80    | 0.50                     | 0.65  | 0.00 | 0.00 | 0.00 |         |
| 18             | 0.00   | 0.00                                                   | 1.00  | 0.50  | 1.00                 | 6.75   | 76.10    | 0.50                     | 0.60  | 0.00 | 0.00 | 0.00 |         |
| 19             | 0.00   | 0.00                                                   | 2.00  | 0.50  | 1.00                 | 6.00   | 68.40    | 0.50                     | 0.50  | 0.00 | 0.00 | 0.00 |         |
| 20             | 0.00   | 0.00                                                   | 2.00  | 0.50  | 0.75                 | 75.00  | 69.50    | 0.25                     | 0.45  | 0.00 | 0.00 | 0.00 |         |
| 21             | 0.00   | 0.00                                                   | 1.00  | 0.50  | 0.75                 | 146.29 | 38.20    | 0.25                     | 0.40  | 0.00 | 0.00 | 0.00 |         |
| 22             | 0.00   | 0.00                                                   | 1.00  | 0.50  | 1.00                 | 122.51 | 7.05     | 0.25                     | 0.35  | 0.00 | 0.00 | 0.00 |         |
| 23             | 0.00   | 0.00                                                   | 1.80  | 0.50  | 1.00                 | 45.00  | 3.50     | 0.25                     | 0.30  | 0.00 | 0.00 | 0.00 |         |
| 24             | 0.00   | 0.00                                                   | 1.25  | 2.20  | 1.25                 | 12.90  | 2.80     | 0.25                     | 0.25  | 0.00 | 0.00 | 0.00 |         |
| 25             | 0.00   | 0.00                                                   | 1.50  | 4.50  | 1.25                 | 7.05   | 1.00     | 0.25                     | 0.25  | 0.00 | 0.00 | 0.00 |         |
| 26             | 0.00   | 0.00                                                   | 4.00  | 6.30  | 1.50                 | 6.00   | 1.00     | 0.25                     | 0.25  | 0.00 | 0.00 | 0.00 |         |
| 27             | 0.00   | 0.00                                                   | 2.50  | 9.50  | 1.25                 | 7.05   | 1.00     | 0.25                     | 0.25  | 0.00 | 0.00 | 0.00 |         |
| 28             | 0.00   | 0.00                                                   | 1.50  | 6.00  | 1.00                 | 25.60  | 0.75     | 0.25                     | 0.25  | 0.00 | 0.00 | 0.00 |         |
| 29             | 0.00   | 0.00                                                   | 2.50  | 8.50  | 1.00                 | 39.80  | 0.75     | 0.25                     | 0.25  | 0.00 |      | 0.00 |         |
| 30             | 0.00   | 0.00                                                   | 1.50  | 6.75  | 0.75                 | 20.50  | 0.75     | 0.25                     | 0.25  | 0.00 |      | 0.00 |         |
| 31             |        | 0.00                                                   |       | 5.25  | 1.00                 |        | 0.75     |                          | 0.25  | 0.00 |      | 0.00 |         |
| Total          | 0.00   | 0.00                                                   | 44.35 | 67.00 | 66.20                | 603.75 | 1485.65  | 26.00                    | 28.20 | 0.00 | 0.00 | 0.00 | 2321.15 |
| Mean           | 0.00   | 0.00                                                   | 1.48  | 2.16  | 2.14                 | 20.12  | 47.92    | 0.87                     | 0.91  | 0.00 | 0.00 | 0.00 | 6.36    |
| Max            | 0.00   | 0.00                                                   | 6.00  | 9.50  | 7.50                 | 146.29 | 291.20   | 6.75                     | 6.75  | 0.00 | 0.00 | 0.00 | 291.20  |
| Min            | 0.00   | 0.00                                                   | 0.00  | 0.50  | 0.75                 | 0.75   | 0.75     | 0.25                     | 0.25  | 0.00 | 0.00 | 0.00 | 0.00    |
| Runoff         | 0.00   | 0.00                                                   | 3.83  | 5.79  | 5.72                 | 52.16  | 128.36   | 2.25                     | 2.44  | 0.00 | 0.00 | 0.00 | 200.55  |
| Momentary Peak | 300.00 | CMS, at 7.00 m. (A.D.), at 06.00 Hours, on Oct 6, 2013 |       |       |                      |        |          |                          |       |      |      |      |         |
| Runoff Yield   | 22.00  | Liters/Second/Square KM.                               |       |       | Momentary Peak Yield |        | 1038.062 | Liters/Second/Square KM. |       |      |      |      |         |

## WATER YEAR : 2013

## PRACHIN BURI RIVER BASIN

### Upper Khlong Phra Sathung at Ban Thung Kabin , Sa Kaeo (Kgt.40

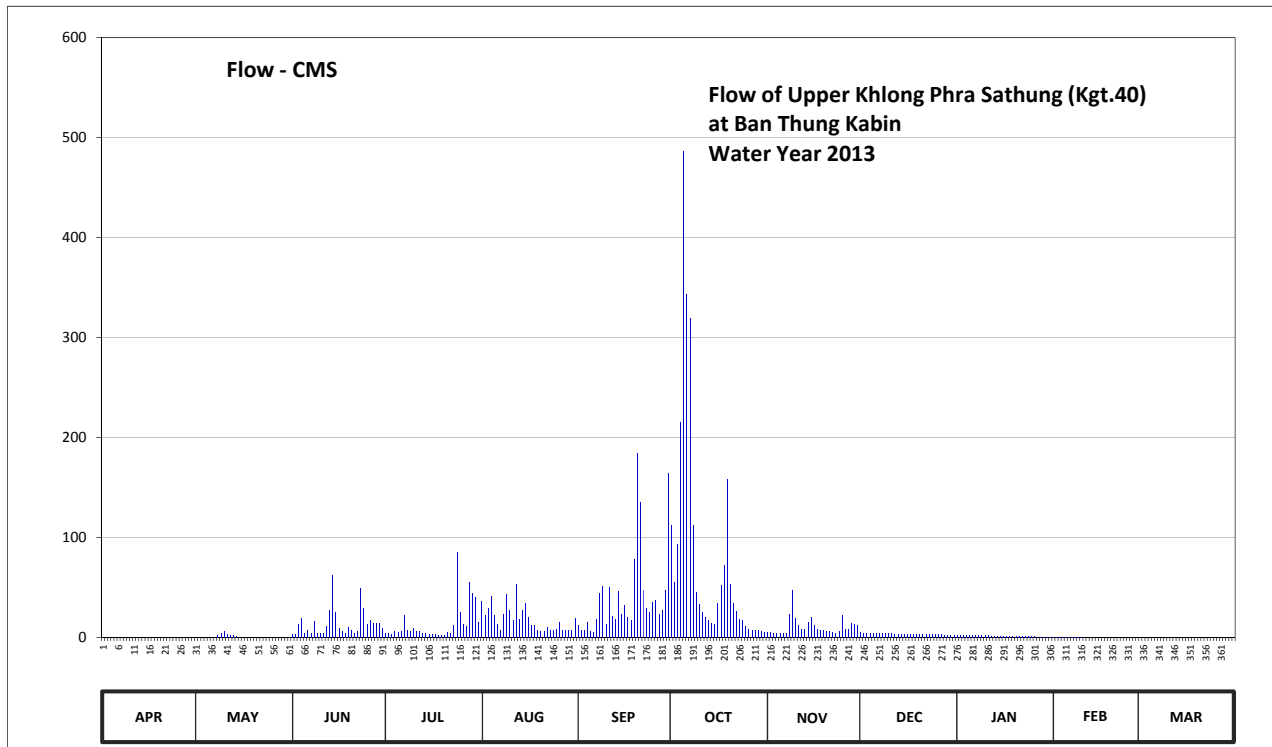
Lat 13 - 25 - 45 N Long 102 - 05 - 00 E

**Location : on left bank at the bridge on highway**

|                                         |                                                                                           |             |               |             |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Thung Kabin | <b>Amphoe</b> | Wang Sombun | <b>Changwat</b>  | Sa Kaeo           |
| <b>Drainage Area</b>                    | 574                                                                                       | sq.km.      |               |             |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |             |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +77.000                                                                                   | m. (MSL.)   |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |             |                  |                   |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |             |               |             | <b>Elevation</b> | +87.423 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |             |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |             |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |             |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |             |               |             |                  |                   |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |             |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |             |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |             |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +78.690 m.(MSL.) and is including overbank flow.        |             |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |             |               |             |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                        | Jul         | Aug           | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |  |
|----------------------------------|-------|-------|--------------------------------------------|-------------|---------------|-------|-------------------|-------|-------|-------|-------|-------|--------|--|
| 1                                | 77.20 | 77.18 | 77.65                                      | 77.80       | 79.08         | 78.16 | 81.20             | 77.85 | 77.81 | 77.52 | 77.37 | 77.25 |        |  |
| 2                                | 77.18 | 77.20 | 77.64                                      | 77.71       | 78.53         | 77.97 | 79.84             | 77.83 | 77.76 | 77.55 | 77.36 | 77.24 |        |  |
| 3                                | 77.18 | 77.18 | 78.21                                      | 77.68       | 78.83         | 77.96 | 80.82             | 77.80 | 77.75 | 77.55 | 77.35 | 77.23 |        |  |
| 4                                | 77.18 | 77.14 | 78.42                                      | 77.91       | 79.28         | 78.26 | 82.83             | 77.79 | 77.74 | 77.55 | 77.35 | 77.21 |        |  |
| 5                                | 77.15 | 77.10 | 77.74                                      | 77.85       | 78.54         | 77.87 | 85.43             | 77.75 | 77.74 | 77.55 | 77.35 | 77.20 |        |  |
| 6                                | 77.11 | 77.23 | 77.97                                      | 77.92       | 78.19         | 77.81 | 84.19             | 77.75 | 77.72 | 77.54 | 77.33 | 77.20 |        |  |
| 7                                | 77.10 | 77.30 | 77.74                                      | 78.53       | 77.95         | 78.39 | 83.97             | 77.75 | 77.70 | 77.54 | 77.33 | 77.20 |        |  |
| 8                                | 77.08 | 77.56 | 78.32                                      | 77.93       | 78.57         | 79.40 | 81.20             | 78.57 | 77.70 | 77.52 | 77.32 | 77.20 |        |  |
| 9                                | 77.05 | 77.77 | 77.74                                      | 77.91       | 79.36         | 79.65 | 79.43             | 79.50 | 77.70 | 77.50 | 77.32 | 77.20 |        |  |
| 10                               | 77.00 | 77.89 | 77.75                                      | 78.06       | 78.73         | 78.22 | 78.96             | 78.44 | 77.70 | 77.50 | 77.32 | 77.20 |        |  |
| 11                               | 77.00 | 77.66 | 77.79                                      | 77.87       | 78.35         | 79.63 | 78.64             | 78.18 | 77.69 | 77.50 | 77.30 | 77.20 |        |  |
| 12                               | 77.00 | 77.55 | 78.13                                      | 77.92       | 79.74         | 78.52 | 78.46             | 78.00 | 77.67 | 77.49 | 77.30 | 77.20 |        |  |
| 13                               | 77.00 | 77.52 | 78.75                                      | 77.80       | 78.39         | 78.38 | 78.34             | 78.01 | 77.65 | 77.49 | 77.28 | 77.20 |        |  |
| 14                               | 77.00 | 77.43 | 80.06                                      | 77.71       | 78.72         | 79.46 | 78.25             | 78.28 | 77.63 | 77.49 | 77.28 | 77.20 |        |  |
| 15                               | 77.00 | 77.30 | 78.66                                      | 77.66       | 78.99         | 78.57 | 78.22             | 78.46 | 77.60 | 77.48 | 77.27 | 77.20 |        |  |
| 16                               | 77.00 | 77.23 | 78.07                                      | 77.64       | 78.47         | 78.93 | 79.00             | 78.18 | 77.62 | 77.48 | 77.27 | 77.21 |        |  |
| 17                               | 77.00 | 77.19 | 77.88                                      | 77.61       | 78.18         | 78.48 | 79.72             | 78.00 | 77.68 | 77.48 | 77.26 | 77.22 |        |  |
| 18                               | 77.00 | 77.15 | 77.79                                      | 77.59       | 78.18         | 78.36 | 80.32             | 77.99 | 77.65 | 77.47 | 77.26 | 77.22 |        |  |
| 19                               | 77.00 | 77.12 | 78.09                                      | 77.55       | 77.99         | 80.45 | 82.03             | 77.97 | 77.64 | 77.47 | 77.25 | 77.21 |        |  |
| 20                               | 77.00 | 77.14 | 77.95                                      | 77.57       | 77.88         | 82.41 | 79.73             | 77.92 | 77.64 | 77.46 | 77.25 | 77.20 |        |  |
| 21                               | 77.00 | 77.11 | 77.77                                      | 77.81       | 77.91         | 81.65 | 79.02             | 77.87 | 77.64 | 77.45 | 77.24 | 77.19 |        |  |
| 22                               | 77.00 | 77.10 | 77.92                                      | 77.76       | 78.10         | 79.50 | 78.69             | 77.83 | 77.63 | 77.44 | 77.23 | 77.19 |        |  |
| 23                               | 77.00 | 77.10 | 79.61                                      | 78.18       | 77.98         | 78.80 | 78.40             | 77.80 | 77.63 | 77.44 | 77.25 | 77.18 |        |  |
| 24                               | 77.00 | 77.10 | 78.81                                      | 80.65       | 77.94         | 78.64 | 78.34             | 77.89 | 77.62 | 77.42 | 77.27 | 77.18 |        |  |
| 25                               | 77.14 | 77.10 | 78.22                                      | 78.66       | 78.01         | 79.05 | 78.13             | 78.54 | 77.61 | 77.40 | 77.26 | 77.17 |        |  |
| 26                               | 77.22 | 77.10 | 78.36                                      | 78.20       | 78.27         | 79.13 | 78.02             | 78.00 | 77.60 | 77.40 | 77.25 | 77.17 |        |  |
| 27                               | 77.25 | 77.10 | 78.25                                      | 78.14       | 77.98         | 78.59 | 77.99             | 78.00 | 77.60 | 77.39 | 77.26 | 77.17 |        |  |
| 28                               | 77.22 | 77.10 | 78.24                                      | 79.81       | 77.93         | 78.74 | 77.98             | 78.24 | 77.59 | 77.38 | 77.25 | 77.16 |        |  |
| 29                               | 77.20 | 77.10 | 78.24                                      | 79.39       | 77.99         | 79.52 | 77.94             | 78.19 | 77.59 | 77.38 |       | 77.16 |        |  |
| 30                               | 77.20 | 77.10 | 78.05                                      | 79.26       | 77.96         | 82.12 | 77.88             | 78.15 | 77.58 | 77.38 |       | 77.15 |        |  |
| 31                               |       | 77.10 |                                            | 78.27       | 78.41         |       | 77.84             |       | 77.58 | 77.38 |       | 77.15 |        |  |
| Mean                             | 77.08 | 77.26 | 78.19                                      | 78.14       | 78.40         | 79.09 | 79.70             | 78.08 | 77.66 | 77.47 | 77.29 | 77.20 |        |  |
| Max                              | 77.25 | 77.89 | 80.06                                      | 80.65       | 79.74         | 82.41 | 85.43             | 79.50 | 77.81 | 77.55 | 77.37 | 77.25 | 85.43  |  |
| Min                              | 77.00 | 77.10 | 77.64                                      | 77.55       | 77.88         | 77.81 | 77.84             | 77.75 | 77.58 | 77.38 | 77.23 | 77.15 | 77.00  |  |
| Annual Max Momentary Gage Height |       | 86.20 | m. (MSL.) , at 18.00 Hours, on Oct 5, 2013 |             |               |       |                   |       |       |       |       |       |        |  |
| Zero Gage at Bottom Elevation    |       | 77.00 | m. (MSL.) , River Bed 77.29 m. (MSL.)      |             |               |       |                   |       |       |       |       |       |        |  |
| Left Bank Elevation              |       |       | 87.09                                      | m. (MSL.) , |               |       |                   |       |       |       |       |       |        |  |
| Right Bank Elevation             |       |       | 87.04                                      | m. (MSL.) , |               |       |                   |       |       |       |       |       |        |  |
|                                  |       |       |                                            |             | Drainage Area | 574   | Square Kilometers |       |       |       |       |       |        |  |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun    | Jul                  | Aug    | Sep      | Oct                      | Nov    | Dec    | Jan   | Feb  | Mar  | Annual         |
|----------------|--------|---------------------------------------------------------|--------|----------------------|--------|----------|--------------------------|--------|--------|-------|------|------|----------------|
| 1              | 0.00   | 0.00                                                    | 3.50   | 5.00                 | 36.34  | 12.27    | 113.00                   | 5.75   | 5.15   | 2.20  | 0.70 | 0.00 |                |
| 2              | 0.00   | 0.00                                                    | 3.40   | 4.10                 | 22.13  | 7.55     | 55.89                    | 5.45   | 4.60   | 2.50  | 0.60 | 0.00 |                |
| 3              | 0.00   | 0.00                                                    | 13.60  | 3.80                 | 29.91  | 7.40     | 94.00                    | 5.00   | 4.50   | 2.50  | 0.50 | 0.00 |                |
| 4              | 0.00   | 0.00                                                    | 19.20  | 6.65                 | 41.49  | 14.93    | 215.40                   | 4.90   | 4.40   | 2.50  | 0.50 | 0.00 |                |
| 5              | 0.00   | 0.00                                                    | 4.40   | 5.75                 | 22.40  | 6.05     | 485.90                   | 4.50   | 4.40   | 2.50  | 0.50 | 0.00 |                |
| 6              | 0.00   | 0.00                                                    | 7.55   | 6.80                 | 13.07  | 5.15     | 342.90                   | 4.50   | 4.20   | 2.40  | 0.30 | 0.00 |                |
| 7              | 0.00   | 0.00                                                    | 4.40   | 22.13                | 7.25   | 18.40    | 318.70                   | 4.50   | 4.00   | 2.40  | 0.30 | 0.00 |                |
| 8              | 0.00   | 2.60                                                    | 16.53  | 6.95                 | 23.20  | 44.57    | 113.00                   | 23.20  | 4.00   | 2.20  | 0.20 | 0.00 |                |
| 9              | 0.00   | 4.70                                                    | 4.40   | 6.65                 | 43.54  | 51.00    | 45.34                    | 47.14  | 4.00   | 2.00  | 0.20 | 0.00 |                |
| 10             | 0.00   | 6.35                                                    | 4.50   | 9.60                 | 27.34  | 13.87    | 33.26                    | 19.73  | 4.00   | 2.00  | 0.20 | 0.00 |                |
| 11             | 0.00   | 3.60                                                    | 4.90   | 6.05                 | 17.33  | 50.49    | 25.03                    | 12.80  | 3.90   | 2.00  | 0.00 | 0.00 |                |
| 12             | 0.00   | 2.50                                                    | 11.47  | 6.80                 | 53.31  | 21.87    | 20.27                    | 8.00   | 3.70   | 1.90  | 0.00 | 0.00 |                |
| 13             | 0.00   | 2.20                                                    | 27.86  | 5.00                 | 18.40  | 18.13    | 17.07                    | 8.27   | 3.50   | 1.90  | 0.00 | 0.00 |                |
| 14             | 0.00   | 1.30                                                    | 62.40  | 4.10                 | 27.09  | 46.11    | 14.67                    | 15.47  | 3.30   | 1.90  | 0.00 | 0.00 |                |
| 15             | 0.00   | 0.00                                                    | 25.54  | 3.60                 | 34.03  | 23.20    | 13.87                    | 20.27  | 3.00   | 1.80  | 0.00 | 0.00 |                |
| 16             | 0.00   | 0.00                                                    | 9.87   | 3.40                 | 20.53  | 32.49    | 34.29                    | 12.80  | 3.20   | 1.80  | 0.00 | 0.00 |                |
| 17             | 0.00   | 0.00                                                    | 6.20   | 3.10                 | 12.80  | 20.80    | 52.80                    | 8.00   | 3.80   | 1.80  | 0.00 | 0.00 |                |
| 18             | 0.00   | 0.00                                                    | 4.90   | 2.90                 | 12.80  | 17.60    | 72.80                    | 7.85   | 3.50   | 1.70  | 0.00 | 0.00 |                |
| 19             | 0.00   | 0.00                                                    | 10.40  | 2.50                 | 7.85   | 78.00    | 158.10                   | 7.55   | 3.40   | 1.70  | 0.00 | 0.00 |                |
| 20             | 0.00   | 0.00                                                    | 7.25   | 2.70                 | 6.20   | 184.70   | 53.06                    | 6.80   | 3.40   | 1.60  | 0.00 | 0.00 |                |
| 21             | 0.00   | 0.00                                                    | 4.70   | 5.15                 | 6.65   | 135.50   | 34.80                    | 6.05   | 3.40   | 1.50  | 0.00 | 0.00 |                |
| 22             | 0.00   | 0.00                                                    | 6.80   | 4.60                 | 10.67  | 47.14    | 26.31                    | 5.45   | 3.30   | 1.40  | 0.00 | 0.00 |                |
| 23             | 0.00   | 0.00                                                    | 49.97  | 12.80                | 7.70   | 29.14    | 18.67                    | 5.00   | 3.30   | 1.40  | 0.00 | 0.00 |                |
| 24             | 0.00   | 0.00                                                    | 29.40  | 86.00                | 7.10   | 25.03    | 17.07                    | 6.35   | 3.20   | 1.20  | 0.00 | 0.00 |                |
| 25             | 0.00   | 0.00                                                    | 13.87  | 25.54                | 8.27   | 35.57    | 11.47                    | 22.40  | 3.10   | 1.00  | 0.00 | 0.00 |                |
| 26             | 0.00   | 0.00                                                    | 17.60  | 13.33                | 15.20  | 37.63    | 8.53                     | 8.00   | 3.00   | 1.00  | 0.00 | 0.00 |                |
| 27             | 0.00   | 0.00                                                    | 14.67  | 11.73                | 7.70   | 23.73    | 7.85                     | 8.00   | 3.00   | 0.90  | 0.00 | 0.00 |                |
| 28             | 0.00   | 0.00                                                    | 14.40  | 55.11                | 6.95   | 27.60    | 7.70                     | 14.40  | 2.90   | 0.80  | 0.00 | 0.00 |                |
| 29             | 0.00   | 0.00                                                    | 14.40  | 44.31                | 7.85   | 47.66    | 7.10                     | 13.07  | 2.90   | 0.80  | 0.00 | 0.00 |                |
| 30             | 0.00   | 0.00                                                    | 9.33   | 40.97                | 7.40   | 164.40   | 6.20                     | 12.00  | 2.80   | 0.80  | 0.00 | 0.00 |                |
| 31             | 0.00   | 0.00                                                    | 15.20  | 18.93                | 5.60   | 2.80     | 0.80                     | 0.00   | 0.00   | 0.00  | 0.00 | 0.00 |                |
| Total          | 0.00   | 23.25                                                   | 427.41 | 432.32               | 581.43 | 1247.98  | 2430.65                  | 333.20 | 111.65 | 52.90 | 4.00 | 0.00 | 5644.79 CMSDAY |
| Mean           | 0.00   | 0.75                                                    | 14.25  | 13.95                | 18.76  | 41.60    | 78.41                    | 11.11  | 3.60   | 1.71  | 0.14 | 0.00 | 15.47 CMS      |
| Max            | 0.00   | 6.35                                                    | 62.40  | 86.00                | 53.31  | 184.70   | 485.90                   | 47.14  | 5.15   | 2.50  | 0.70 | 0.00 | 485.90 CMS     |
| Min            | 0.00   | 0.00                                                    | 3.40   | 2.50                 | 6.20   | 5.15     | 5.60                     | 4.50   | 2.80   | 0.80  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00   | 2.01                                                    | 36.93  | 37.35                | 50.24  | 107.83   | 210.01                   | 28.79  | 9.65   | 4.57  | 0.35 | 0.00 | 487.71 MCM     |
| Momentary Peak | 590.00 | CMS, at 86.20 m. (MSL.), at 18.00 Hours, on Oct 5, 2013 |        |                      |        |          |                          |        |        |       |      |      |                |
| Runoff Yield   | 26.94  | Liters/Second/Square KM.                                |        | Momentary Peak Yield |        | 1027.875 | Liters/Second/Square KM. |        |        |       |      |      |                |

**WATER YEAR : 2013**

## PRACHIN BURI RIVER BASIN

**Khlong Kawat Kong Yai at Ban Khok Noi , Sa Kaeo (Kgt.41)**

Lat 13 - 22 - 40 N    Long 102 - 05 - 30 E

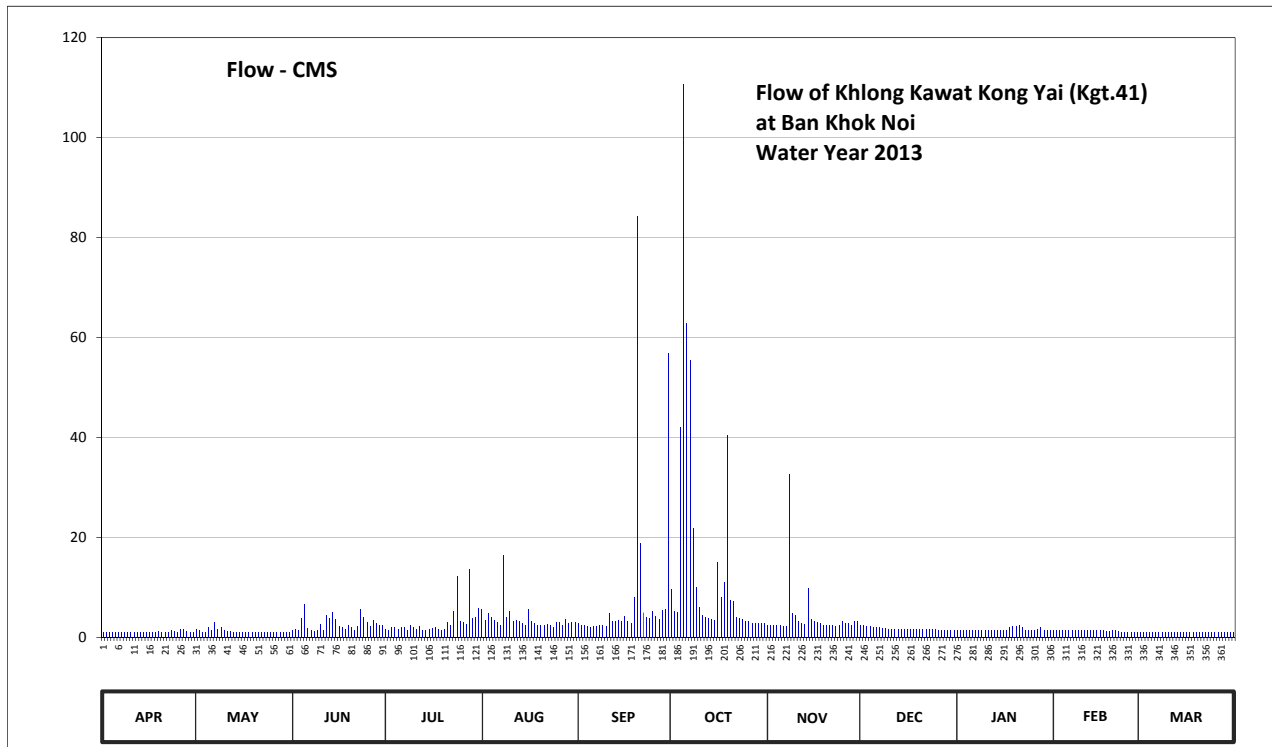
**Location :** on right bank at the bridge on highway.

|                                         |                                                                                           |           |               |             |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khok Noi  | <b>Amphoe</b> | Wang Sombun | <b>Changwat</b>  | Sa Kaeo           |
| <b>Drainage Area</b>                    | 123                                                                                       | sq.km.    |               |             |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +91.890                                                                                   | m. (MSL.) |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |             |                  |                   |
| <b>Location BM</b>                      | On right bank near the top staff gage.                                                    |           |               |             | <b>Elevation</b> | +99.163 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |           |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |             |                  |                   |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |           |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |           |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |           |               |             |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                            | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|--------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 79.60 | 79.81 | 79.75       | 79.82 | 80.23                          | 79.93 | 80.57             | 79.91 | 79.90 | 79.79 | 79.80 | 79.60 |        |
| 2                                | 79.60 | 79.74 | 79.82       | 79.79 | 80.00                          | 79.89 | 80.18             | 79.90 | 79.89 | 79.79 | 79.80 | 79.60 |        |
| 3                                | 79.60 | 79.60 | 79.79       | 79.86 | 80.13                          | 79.89 | 80.16             | 79.89 | 79.87 | 79.79 | 79.80 | 79.60 |        |
| 4                                | 79.60 | 79.60 | 80.04       | 79.86 | 80.06                          | 79.88 | 82.51             | 79.89 | 79.87 | 79.79 | 79.80 | 79.60 |        |
| 5                                | 79.60 | 79.86 | 80.32       | 79.82 | 80.00                          | 79.86 | 85.31             | 79.89 | 79.86 | 79.78 | 79.80 | 79.60 |        |
| 6                                | 79.60 | 79.80 | 79.84       | 79.85 | 79.96                          | 79.88 | 83.44             | 79.88 | 79.86 | 79.78 | 79.80 | 79.60 |        |
| 7                                | 79.60 | 79.95 | 79.78       | 79.86 | 79.91                          | 79.87 | 83.11             | 79.87 | 79.85 | 79.78 | 79.80 | 79.60 |        |
| 8                                | 79.60 | 79.82 | 79.72       | 79.79 | 81.03                          | 79.91 | 81.39             | 82.01 | 79.84 | 79.78 | 79.80 | 79.60 |        |
| 9                                | 79.60 | 79.85 | 79.76       | 79.90 | 80.05                          | 79.89 | 80.61             | 80.13 | 79.84 | 79.77 | 79.80 | 79.60 |        |
| 10                               | 79.60 | 79.78 | 79.92       | 79.85 | 80.18                          | 79.88 | 80.25             | 80.10 | 79.83 | 79.77 | 79.79 | 79.60 |        |
| 11                               | 79.60 | 79.72 | 79.79       | 79.81 | 79.99                          | 80.13 | 80.10             | 79.97 | 79.83 | 79.76 | 79.79 | 79.60 |        |
| 12                               | 79.60 | 79.70 | 80.09       | 79.87 | 80.00                          | 79.97 | 80.06             | 79.93 | 79.82 | 79.76 | 79.79 | 79.60 |        |
| 13                               | 79.60 | 79.60 | 80.04       | 79.80 | 79.97                          | 79.97 | 80.04             | 79.92 | 79.82 | 79.75 | 79.79 | 79.60 |        |
| 14                               | 79.60 | 79.60 | 80.16       | 79.79 | 79.93                          | 80.00 | 80.02             | 80.59 | 79.82 | 79.75 | 79.76 | 79.60 |        |
| 15                               | 79.60 | 79.60 | 80.01       | 79.83 | 79.91                          | 79.97 | 80.00             | 80.01 | 79.82 | 79.74 | 79.76 | 79.60 |        |
| 16                               | 79.60 | 79.60 | 79.87       | 79.84 | 80.21                          | 80.08 | 80.94             | 79.98 | 79.82 | 79.74 | 79.75 | 79.60 |        |
| 17                               | 79.60 | 79.60 | 79.86       | 79.85 | 79.98                          | 79.99 | 80.45             | 79.95 | 79.82 | 79.74 | 79.75 | 79.60 |        |
| 18                               | 79.60 | 79.60 | 79.83       | 79.82 | 79.93                          | 79.93 | 80.67             | 79.93 | 79.82 | 79.86 | 79.73 | 79.60 |        |
| 19                               | 79.71 | 79.60 | 79.91       | 79.80 | 79.90                          | 80.45 | 82.43             | 79.90 | 79.82 | 79.87 | 79.73 | 79.60 |        |
| 20                               | 79.63 | 79.60 | 79.86       | 79.83 | 79.89                          | 84.30 | 80.40             | 79.90 | 79.82 | 79.88 | 79.76 | 79.60 |        |
| 21                               | 79.60 | 79.60 | 79.79       | 79.96 | 79.91                          | 81.19 | 80.37             | 79.89 | 79.81 | 79.89 | 79.76 | 79.60 |        |
| 22                               | 79.60 | 79.60 | 79.88       | 79.90 | 79.92                          | 80.15 | 80.05             | 79.89 | 79.81 | 79.85 | 79.72 | 79.60 |        |
| 23                               | 79.77 | 79.60 | 80.23       | 80.17 | 79.91                          | 80.07 | 80.04             | 79.87 | 79.81 | 79.80 | 79.60 | 79.60 |        |
| 24                               | 79.71 | 79.60 | 80.06       | 80.75 | 79.86                          | 80.04 | 80.01             | 79.89 | 79.81 | 79.80 | 79.60 | 79.60 |        |
| 25                               | 79.63 | 79.60 | 79.96       | 79.99 | 79.96                          | 80.17 | 79.98             | 79.98 | 79.81 | 79.80 | 79.60 | 79.60 |        |
| 26                               | 79.81 | 79.60 | 79.88       | 79.95 | 79.96                          | 80.08 | 79.97             | 79.93 | 79.80 | 79.80 | 79.60 | 79.60 |        |
| 27                               | 79.81 | 79.60 | 80.00       | 79.92 | 79.91                          | 80.02 | 79.93             | 79.94 | 79.80 | 79.81 | 79.60 | 79.60 |        |
| 28                               | 79.71 | 79.60 | 79.93       | 80.85 | 80.02                          | 80.20 | 79.93             | 79.90 | 79.80 | 79.85 | 79.60 | 79.60 |        |
| 29                               | 79.60 | 79.60 | 79.91       | 80.04 | 79.93                          | 80.23 | 79.93             | 79.99 | 79.80 | 79.80 |       | 79.60 |        |
| 30                               | 79.60 | 79.60 | 79.90       | 80.06 | 79.95                          | 83.17 | 79.93             | 79.98 | 79.80 | 79.80 |       | 79.60 |        |
| 31                               |       | 79.60 |             | 80.24 | 79.95                          |       | 79.93             |       | 79.80 | 79.80 |       | 79.60 |        |
| Mean                             | 79.63 | 79.67 | 79.92       | 79.95 | 80.02                          | 80.30 | 80.73             | 80.03 | 79.83 | 79.80 | 79.74 | 79.60 |        |
| Max                              | 79.81 | 79.95 | 80.32       | 80.85 | 81.03                          | 84.30 | 85.31             | 82.01 | 79.90 | 79.89 | 79.80 | 79.60 | 85.31  |
| Min                              | 79.60 | 79.60 | 79.72       | 79.79 | 79.86                          | 79.86 | 79.93             | 79.87 | 79.80 | 79.74 | 79.60 | 79.60 | 79.60  |
| Annual Max Momentary Gage Height |       | 86.13 | m. (MSL.) , |       | at 12.00 Hours, on Oct 5, 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 79.00 | m. (MSL.) , |       | River Bed                      | 79.26 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 87.88 | m. (MSL.) , |       |                                |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 88.04 | m. (MSL.) , |       | Drainage Area                  | 123   | Square Kilometers |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun   | Jul                  | Aug    | Sep      | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|--------|---------------------------------------------------------|-------|----------------------|--------|----------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 1.12   | 1.60                                                    | 1.41  | 1.70                 | 5.80   | 2.80     | 9.63                     | 2.60   | 2.50  | 1.48  | 1.50  | 1.12  |                |
| 2              | 1.12   | 1.39                                                    | 1.70  | 1.48                 | 3.50   | 2.40     | 5.30                     | 2.50   | 2.40  | 1.48  | 1.50  | 1.12  |                |
| 3              | 1.12   | 1.12                                                    | 1.48  | 2.10                 | 4.80   | 2.40     | 5.10                     | 2.40   | 2.20  | 1.48  | 1.50  | 1.12  |                |
| 4              | 1.12   | 1.12                                                    | 3.90  | 2.10                 | 4.10   | 2.30     | 42.20                    | 2.40   | 2.20  | 1.48  | 1.50  | 1.12  |                |
| 5              | 1.12   | 2.10                                                    | 6.70  | 1.70                 | 3.50   | 2.10     | 110.77                   | 2.40   | 2.10  | 1.46  | 1.50  | 1.12  |                |
| 6              | 1.12   | 1.50                                                    | 1.90  | 2.00                 | 3.10   | 2.30     | 62.90                    | 2.30   | 2.10  | 1.46  | 1.50  | 1.12  |                |
| 7              | 1.12   | 3.00                                                    | 1.46  | 2.10                 | 2.60   | 2.20     | 55.48                    | 2.20   | 2.00  | 1.46  | 1.50  | 1.12  |                |
| 8              | 1.12   | 1.70                                                    | 1.35  | 1.48                 | 16.45  | 2.60     | 21.85                    | 32.68  | 1.90  | 1.46  | 1.50  | 1.12  |                |
| 9              | 1.12   | 2.00                                                    | 1.42  | 2.50                 | 4.00   | 2.40     | 10.15                    | 4.80   | 1.90  | 1.44  | 1.50  | 1.12  |                |
| 10             | 1.12   | 1.46                                                    | 2.70  | 2.00                 | 5.30   | 2.30     | 6.00                     | 4.50   | 1.80  | 1.44  | 1.48  | 1.12  |                |
| 11             | 1.12   | 1.35                                                    | 1.48  | 1.60                 | 3.40   | 4.80     | 4.50                     | 3.20   | 1.80  | 1.42  | 1.48  | 1.12  |                |
| 12             | 1.12   | 1.31                                                    | 4.40  | 2.20                 | 3.50   | 3.20     | 4.10                     | 2.80   | 1.70  | 1.42  | 1.48  | 1.12  |                |
| 13             | 1.12   | 1.12                                                    | 3.90  | 1.50                 | 3.20   | 3.20     | 3.90                     | 2.70   | 1.70  | 1.41  | 1.48  | 1.12  |                |
| 14             | 1.12   | 1.12                                                    | 5.10  | 1.48                 | 2.80   | 3.50     | 3.70                     | 9.87   | 1.70  | 1.41  | 1.42  | 1.12  |                |
| 15             | 1.12   | 1.12                                                    | 3.60  | 1.80                 | 2.60   | 3.20     | 3.50                     | 3.60   | 1.70  | 1.39  | 1.42  | 1.12  |                |
| 16             | 1.12   | 1.12                                                    | 2.20  | 1.90                 | 5.60   | 4.30     | 15.10                    | 3.30   | 1.70  | 1.39  | 1.41  | 1.12  |                |
| 17             | 1.12   | 1.12                                                    | 2.10  | 2.00                 | 3.30   | 3.40     | 8.12                     | 3.00   | 1.70  | 1.39  | 1.41  | 1.12  |                |
| 18             | 1.12   | 1.12                                                    | 1.80  | 1.70                 | 2.80   | 2.80     | 11.05                    | 2.80   | 1.70  | 2.10  | 1.37  | 1.12  |                |
| 19             | 1.33   | 1.12                                                    | 2.60  | 1.50                 | 2.50   | 8.12     | 40.60                    | 2.50   | 1.70  | 2.20  | 1.37  | 1.12  |                |
| 20             | 1.18   | 1.12                                                    | 2.10  | 1.80                 | 2.40   | 84.25    | 7.50                     | 2.50   | 1.70  | 2.30  | 1.42  | 1.12  |                |
| 21             | 1.12   | 1.12                                                    | 1.48  | 3.10                 | 2.60   | 18.85    | 7.20                     | 2.40   | 1.60  | 2.40  | 1.42  | 1.12  |                |
| 22             | 1.12   | 1.12                                                    | 2.30  | 2.50                 | 2.70   | 5.00     | 4.00                     | 2.40   | 1.60  | 2.00  | 1.35  | 1.12  |                |
| 23             | 1.44   | 1.12                                                    | 5.80  | 5.20                 | 2.60   | 4.20     | 3.90                     | 2.20   | 1.60  | 1.50  | 1.12  | 1.12  |                |
| 24             | 1.33   | 1.12                                                    | 4.10  | 12.25                | 2.10   | 3.90     | 3.60                     | 2.40   | 1.60  | 1.50  | 1.12  | 1.12  |                |
| 25             | 1.18   | 1.12                                                    | 3.10  | 3.40                 | 3.10   | 5.20     | 3.30                     | 3.30   | 1.60  | 1.50  | 1.12  | 1.12  |                |
| 26             | 1.60   | 1.12                                                    | 2.30  | 3.00                 | 3.10   | 4.30     | 3.20                     | 2.80   | 1.50  | 1.50  | 1.12  | 1.12  |                |
| 27             | 1.60   | 1.12                                                    | 3.50  | 2.70                 | 2.60   | 3.70     | 2.80                     | 2.90   | 1.50  | 1.60  | 1.12  | 1.12  |                |
| 28             | 1.33   | 1.12                                                    | 2.80  | 13.75                | 3.70   | 5.50     | 2.80                     | 2.50   | 1.50  | 2.00  | 1.12  | 1.12  |                |
| 29             | 1.12   | 1.12                                                    | 2.60  | 3.90                 | 2.80   | 5.80     | 2.80                     | 3.40   | 1.50  | 1.50  |       | 1.12  |                |
| 30             | 1.12   | 1.12                                                    | 2.50  | 4.10                 | 3.00   | 56.82    | 2.80                     | 3.30   | 1.50  | 1.50  |       | 1.12  |                |
| 31             |        | 1.12                                                    |       | 5.90                 | 3.00   |          | 2.80                     |        | 1.50  | 1.50  |       | 1.12  |                |
| Total          | 35.63  | 40.93                                                   | 83.78 | 96.44                | 116.55 | 257.84   | 470.65                   | 122.65 | 55.20 | 49.57 | 38.73 | 34.72 | 1402.69 CMSDAY |
| Mean           | 1.19   | 1.32                                                    | 2.79  | 3.11                 | 3.76   | 8.59     | 15.18                    | 4.09   | 1.78  | 1.60  | 1.38  | 1.12  | 3.84 CMS       |
| Max            | 1.60   | 3.00                                                    | 6.70  | 13.75                | 16.45  | 84.25    | 110.77                   | 32.68  | 2.50  | 2.40  | 1.50  | 1.12  | 110.77 CMS     |
| Min            | 1.12   | 1.12                                                    | 1.35  | 1.48                 | 2.10   | 2.10     | 2.80                     | 2.20   | 1.50  | 1.39  | 1.12  | 1.12  | 1.12 CMS       |
| Runoff         | 3.08   | 3.54                                                    | 7.24  | 8.33                 | 10.07  | 22.28    | 40.66                    | 10.60  | 4.77  | 4.28  | 3.35  | 3.00  | 121.19 MCM     |
| Momentary Peak | 133.32 | CMS, at 86.13 m. (MSL.), at 12.00 Hours, on Oct 5, 2013 |       |                      |        |          |                          |        |       |       |       |       |                |
| Runoff Yield   | 31.24  | Liters/Second/Square KM.                                |       | Momentary Peak Yield |        | 1083.902 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013**

## PRACHIN BURI RIVER BASIN

### Khlong Phra Sathung at Ban Tharapha , Sa Kaeo (Kgt.42)

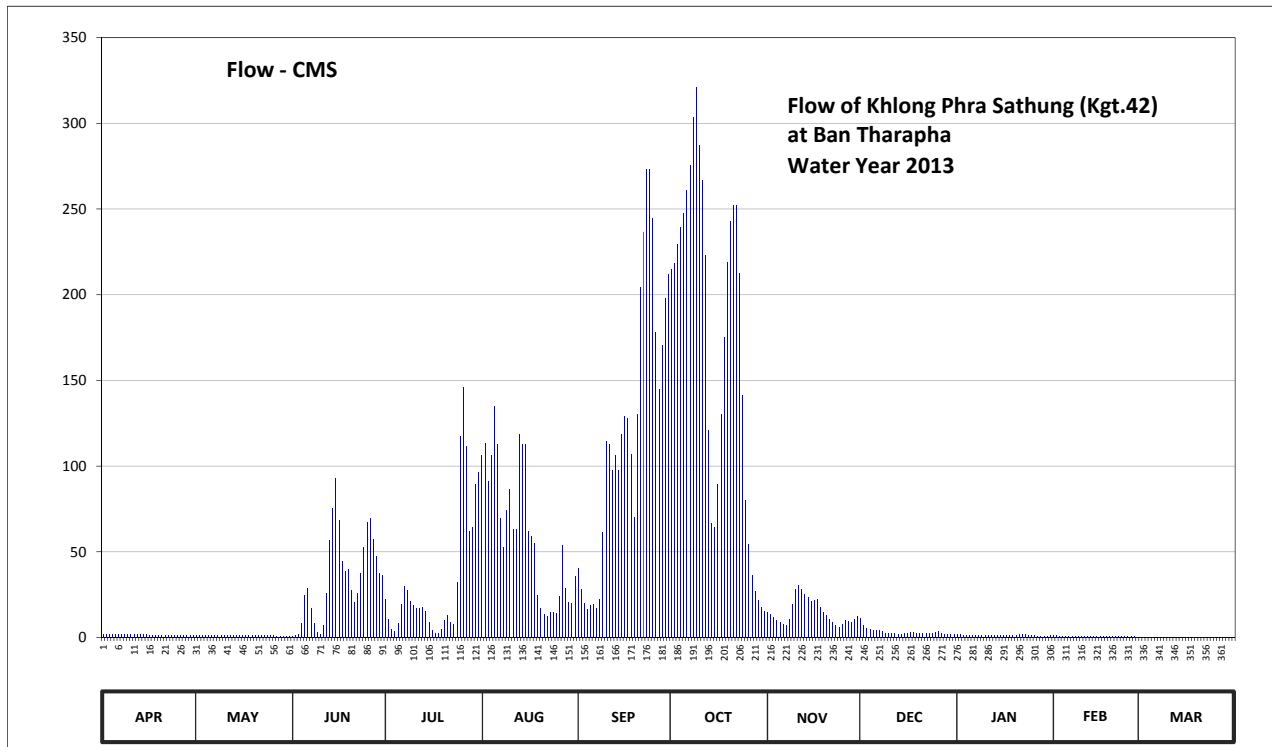
Lat 13 - 59 - 21 N      Long 101 - 57 - 30 E

**Location : on left bank at the bridge.**

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Tharapha  | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Sa Kaeo           |
| <b>Drainage Area</b>                    | 2,558                                                                                     | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +14.500                                                                                   | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |           |               |        | <b>Elevation</b> | +24.312 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 24 readings                                                           |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2005 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2005 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2005 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 20 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 14.80 | 14.71 | 14.59                                            | 17.14 | 20.85 | 18.34 | 23.14 | 16.41 | 16.08 | 14.76 | 14.64 | 14.51 |        |
|                                  | 2  | 14.80 | 14.71 | 14.64                                            | 16.00 | 21.05 | 17.53 | 23.20 | 16.29 | 15.61 | 14.75 | 14.63 | 14.51 |        |
|                                  | 3  | 14.80 | 14.71 | 14.80                                            | 15.29 | 20.41 | 16.97 | 23.40 | 16.13 | 15.36 | 14.74 | 14.62 | 14.51 |        |
|                                  | 4  | 14.79 | 14.71 | 15.72                                            | 15.17 | 20.85 | 16.59 | 23.56 | 15.98 | 15.25 | 14.73 | 14.61 | 14.50 |        |
|                                  | 5  | 14.79 | 14.71 | 17.28                                            | 15.72 | 21.58 | 16.86 | 23.69 | 15.85 | 15.21 | 14.73 | 14.60 | 14.50 |        |
|                                  | 6  | 14.78 | 14.70 | 17.55                                            | 16.91 | 21.04 | 16.93 | 23.90 | 15.71 | 15.20 | 14.72 | 14.59 | 14.50 |        |
|                                  | 7  | 14.78 | 14.70 | 16.66                                            | 17.64 | 19.69 | 16.67 | 24.12 | 15.64 | 15.18 | 14.72 | 14.59 | 14.50 |        |
|                                  | 8  | 14.78 | 14.70 | 15.76                                            | 17.47 | 18.95 | 17.12 | 24.55 | 16.04 | 15.14 | 14.71 | 14.58 | 14.50 |        |
|                                  | 9  | 14.77 | 14.70 | 15.06                                            | 17.07 | 19.84 | 19.37 | 24.82 | 16.90 | 14.98 | 14.71 | 14.57 | 14.50 |        |
|                                  | 10 | 14.77 | 14.69 | 14.77                                            | 16.84 | 20.25 | 21.08 | 24.30 | 17.53 | 14.91 | 14.70 | 14.56 | 14.50 |        |
|                                  | 11 | 14.76 | 14.69 | 15.62                                            | 16.69 | 19.43 | 21.04 | 23.99 | 17.66 | 14.90 | 14.70 | 14.55 | 14.50 |        |
|                                  | 12 | 14.76 | 14.69 | 17.35                                            | 16.67 | 19.42 | 20.60 | 23.29 | 17.50 | 14.90 | 14.69 | 14.55 | 14.50 |        |
|                                  | 13 | 14.76 | 14.69 | 19.15                                            | 16.71 | 21.18 | 20.86 | 21.24 | 17.33 | 14.85 | 14.69 | 14.55 | 14.50 |        |
|                                  | 14 | 14.75 | 14.69 | 19.89                                            | 16.52 | 21.04 | 20.60 | 19.57 | 17.21 | 14.84 | 14.68 | 14.55 | 14.50 |        |
|                                  | 15 | 14.75 | 14.69 | 20.47                                            | 15.85 | 21.03 | 21.18 | 19.48 | 17.07 | 14.87 | 14.69 | 14.55 | 14.50 |        |
|                                  | 16 | 14.74 | 14.68 | 19.65                                            | 15.20 | 19.39 | 21.44 | 20.36 | 17.09 | 14.92 | 14.70 | 14.54 | 14.50 |        |
|                                  | 17 | 14.74 | 14.68 | 18.53                                            | 14.97 | 19.25 | 21.42 | 21.47 | 17.14 | 15.03 | 14.71 | 14.54 | 14.50 |        |
|                                  | 18 | 14.74 | 14.68 | 18.20                                            | 14.97 | 19.05 | 20.88 | 22.42 | 16.74 | 15.00 | 14.72 | 14.54 | 14.50 |        |
|                                  | 19 | 14.74 | 14.68 | 18.30                                            | 15.33 | 17.30 | 19.70 | 23.21 | 16.46 | 14.90 | 14.73 | 14.54 | 14.50 |        |
|                                  | 20 | 14.74 | 14.68 | 17.48                                            | 15.96 | 16.68 | 21.47 | 23.62 | 16.25 | 14.90 | 14.74 | 14.54 | 14.50 |        |
|                                  | 21 | 14.73 | 14.68 | 16.99                                            | 16.26 | 16.31 | 22.95 | 23.76 | 16.05 | 14.91 | 14.75 | 14.54 | 14.50 |        |
|                                  | 22 | 14.73 | 14.67 | 17.36                                            | 15.83 | 16.18 | 23.52 | 23.76 | 15.84 | 14.92 | 14.76 | 14.53 | 14.50 |        |
|                                  | 23 | 14.73 | 14.66 | 18.16                                            | 15.68 | 16.41 | 24.09 | 23.10 | 15.63 | 14.87 | 14.75 | 14.53 | 14.50 |        |
|                                  | 24 | 14.73 | 14.65 | 18.95                                            | 17.80 | 16.43 | 24.09 | 21.71 | 15.46 | 14.94 | 14.71 | 14.53 | 14.50 |        |
|                                  | 25 | 14.73 | 14.64 | 19.60                                            | 21.15 | 16.36 | 23.65 | 20.04 | 15.71 | 15.09 | 14.67 | 14.53 | 14.50 |        |
|                                  | 26 | 14.72 | 14.63 | 19.68                                            | 21.82 | 17.25 | 22.47 | 19.03 | 15.96 | 15.10 | 14.63 | 14.52 | 14.50 |        |
|                                  | 27 | 14.72 | 14.62 | 19.17                                            | 21.01 | 19.01 | 21.79 | 18.08 | 15.87 | 14.97 | 14.59 | 14.52 | 14.50 |        |
|                                  | 28 | 14.72 | 14.61 | 18.68                                            | 19.39 | 17.56 | 22.33 | 17.43 | 15.83 | 14.81 | 14.58 | 14.51 | 14.50 |        |
|                                  | 29 | 14.72 | 14.60 | 18.15                                            | 19.48 | 17.00 | 22.83 | 17.08 | 16.02 | 14.79 | 14.58 |       | 14.50 |        |
|                                  | 30 | 14.72 | 14.59 | 18.07                                            | 20.36 | 16.95 | 23.09 | 16.72 | 16.18 | 14.78 | 14.61 |       | 14.50 |        |
|                                  | 31 |       | 14.58 |                                                  | 20.58 | 18.03 |       | 16.49 |       | 14.77 | 14.66 |       | 14.50 |        |
| Mean                             |    | 14.75 | 14.67 | 17.54                                            | 17.21 | 18.90 | 20.58 | 21.76 | 16.38 | 15.03 | 14.70 | 14.56 | 14.50 |        |
| Max                              |    | 14.80 | 14.71 | 20.47                                            | 21.82 | 21.58 | 24.09 | 24.82 | 17.66 | 16.08 | 14.76 | 14.64 | 14.51 | 24.82  |
| Min                              |    | 14.72 | 14.58 | 14.59                                            | 14.97 | 16.18 | 16.59 | 16.49 | 15.46 | 14.77 | 14.58 | 14.51 | 14.50 | 14.50  |
| Annual Max Momentary Gage Height |    |       | 24.93 | m. (MSL.) , at 06.00 Hours, on Oct 9, 2013       |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 14.50 | m. (MSL.) , River Bed 14.36 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 26.94 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 26.93 | m. (MSL.) , Drainage Area 2558 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



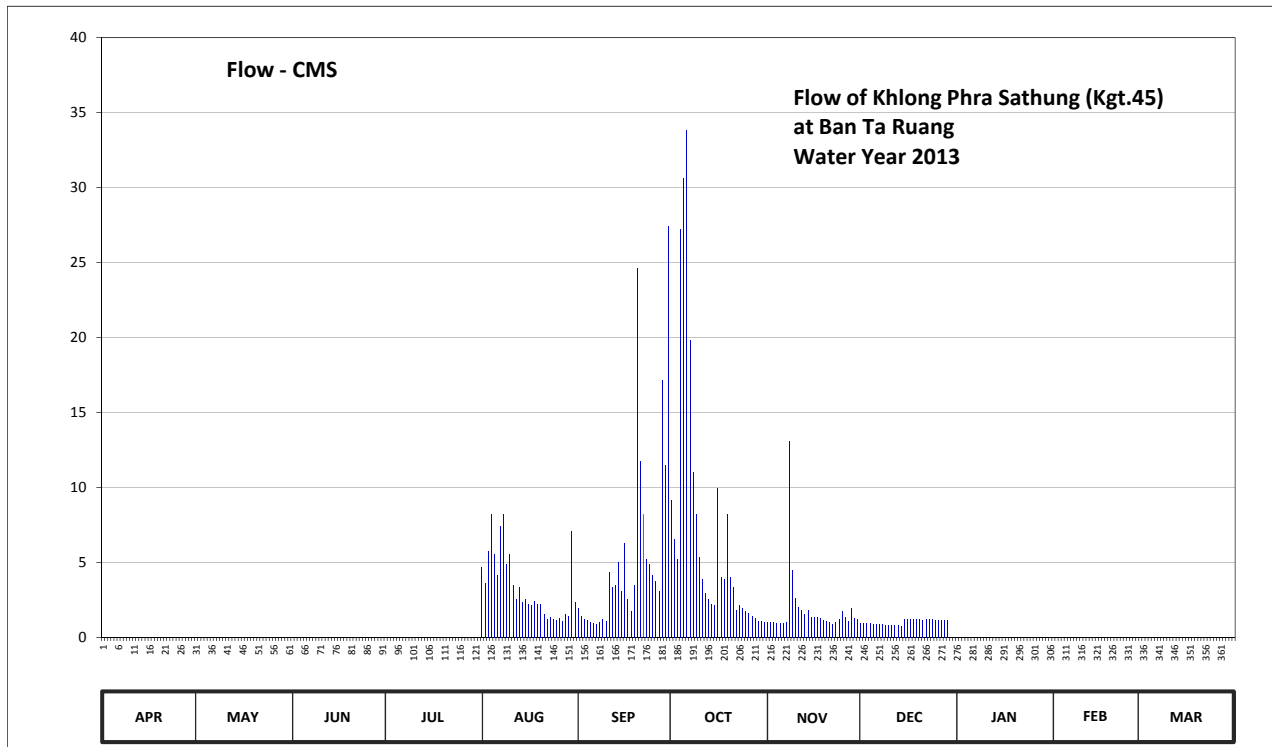
**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual          |
|----------------|--------|---------------------------------------------------------|---------|---------|----------------------|---------|---------|---------|--------------------------|-------|-------|-------|-----------------|
| 1              | 2.00   | 1.55                                                    | 0.95    | 22.60   | 106.25               | 40.80   | 214.70  | 14.60   | 11.30                    | 1.80  | 1.20  | 0.55  |                 |
| 2              | 2.00   | 1.55                                                    | 1.20    | 10.50   | 113.50               | 28.45   | 218.00  | 13.40   | 7.32                     | 1.75  | 1.15  | 0.55  |                 |
| 3              | 2.00   | 1.55                                                    | 2.00    | 4.92    | 91.30                | 20.20   | 229.50  | 11.80   | 5.45                     | 1.70  | 1.10  | 0.55  |                 |
| 4              | 1.95   | 1.55                                                    | 8.15    | 4.02    | 106.25               | 16.40   | 239.10  | 10.30   | 4.62                     | 1.65  | 1.05  | 0.50  |                 |
| 5              | 1.95   | 1.55                                                    | 24.70   | 8.15    | 135.10               | 19.10   | 247.35  | 9.13    | 4.32                     | 1.65  | 1.00  | 0.50  |                 |
| 6              | 1.90   | 1.50                                                    | 28.75   | 19.60   | 113.10               | 19.80   | 261.00  | 8.08    | 4.25                     | 1.60  | 0.95  | 0.50  |                 |
| 7              | 1.90   | 1.50                                                    | 17.10   | 30.10   | 69.75                | 17.20   | 275.30  | 7.55    | 4.10                     | 1.60  | 0.95  | 0.50  |                 |
| 8              | 1.90   | 1.50                                                    | 8.45    | 27.55   | 53.00                | 22.30   | 303.25  | 10.90   | 3.80                     | 1.55  | 0.90  | 0.50  |                 |
| 9              | 1.85   | 1.50                                                    | 3.30    | 21.55   | 74.20                | 61.75   | 320.80  | 19.50   | 2.90                     | 1.55  | 0.85  | 0.50  |                 |
| 10             | 1.85   | 1.45                                                    | 1.85    | 18.90   | 86.50                | 114.70  | 287.00  | 28.45   | 2.55                     | 1.50  | 0.80  | 0.50  |                 |
| 11             | 1.80   | 1.45                                                    | 7.40    | 17.40   | 63.25                | 113.10  | 266.85  | 30.40   | 2.50                     | 1.50  | 0.75  | 0.50  |                 |
| 12             | 1.80   | 1.45                                                    | 25.75   | 17.20   | 63.00                | 97.50   | 222.95  | 28.00   | 2.50                     | 1.45  | 0.75  | 0.50  |                 |
| 13             | 1.80   | 1.45                                                    | 57.00   | 17.60   | 118.70               | 106.60  | 121.10  | 25.45   | 2.25                     | 1.45  | 0.75  | 0.50  |                 |
| 14             | 1.75   | 1.45                                                    | 75.70   | 15.70   | 113.10               | 97.50   | 66.75   | 23.65   | 2.20                     | 1.40  | 0.75  | 0.50  |                 |
| 15             | 1.75   | 1.45                                                    | 93.10   | 9.13    | 112.70               | 118.70  | 64.50   | 21.55   | 2.35                     | 1.45  | 0.75  | 0.50  |                 |
| 16             | 1.70   | 1.40                                                    | 68.75   | 4.25    | 62.25                | 129.10  | 89.80   | 21.85   | 2.60                     | 1.50  | 0.70  | 0.50  |                 |
| 17             | 1.70   | 1.40                                                    | 44.60   | 2.85    | 59.00                | 128.30  | 130.30  | 22.60   | 3.15                     | 1.55  | 0.70  | 0.50  |                 |
| 18             | 1.70   | 1.40                                                    | 38.50   | 2.85    | 55.00                | 107.30  | 175.10  | 17.90   | 3.00                     | 1.60  | 0.70  | 0.50  |                 |
| 19             | 1.70   | 1.40                                                    | 40.00   | 5.22    | 25.00                | 70.00   | 218.55  | 15.10   | 2.50                     | 1.65  | 0.70  | 0.50  |                 |
| 20             | 1.70   | 1.40                                                    | 27.70   | 10.10   | 17.30                | 130.30  | 242.80  | 13.00   | 2.50                     | 1.70  | 0.70  | 0.50  |                 |
| 21             | 1.65   | 1.40                                                    | 20.40   | 13.10   | 13.60                | 204.25  | 251.90  | 11.00   | 2.55                     | 1.75  | 0.70  | 0.50  |                 |
| 22             | 1.65   | 1.35                                                    | 25.90   | 8.98    | 12.30                | 236.70  | 251.90  | 9.05    | 2.60                     | 1.80  | 0.65  | 0.50  |                 |
| 23             | 1.65   | 1.30                                                    | 37.90   | 7.85    | 14.60                | 273.35  | 212.50  | 7.48    | 2.35                     | 1.75  | 0.65  | 0.50  |                 |
| 24             | 1.65   | 1.25                                                    | 53.00   | 32.50   | 14.80                | 273.35  | 140.95  | 6.20    | 2.70                     | 1.55  | 0.65  | 0.50  |                 |
| 25             | 1.65   | 1.20                                                    | 67.50   | 117.50  | 14.10                | 244.75  | 80.20   | 8.08    | 3.45                     | 1.35  | 0.65  | 0.50  |                 |
| 26             | 1.60   | 1.15                                                    | 69.50   | 145.90  | 24.25                | 177.85  | 54.60   | 10.10   | 3.50                     | 1.15  | 0.60  | 0.50  |                 |
| 27             | 1.60   | 1.10                                                    | 57.40   | 111.90  | 54.20                | 144.55  | 36.70   | 9.28    | 2.85                     | 0.95  | 0.60  | 0.50  |                 |
| 28             | 1.60   | 1.05                                                    | 47.60   | 62.25   | 28.90                | 170.50  | 26.95   | 8.98    | 2.05                     | 0.90  | 0.55  | 0.50  |                 |
| 29             | 1.60   | 1.00                                                    | 37.75   | 64.50   | 20.50                | 197.65  | 21.70   | 10.70   | 1.95                     | 0.90  |       | 0.50  |                 |
| 30             | 1.60   | 0.95                                                    | 36.55   | 89.80   | 20.00                | 211.95  | 17.70   | 12.30   | 1.90                     | 1.05  |       | 0.50  |                 |
| 31             |        | 0.90                                                    |         | 96.80   | 35.95                |         | 15.40   |         | 1.85                     | 1.30  |       | 0.50  |                 |
| Total          | 52.95  | 42.10                                                   | 1028.45 | 1021.27 | 1891.45              | 3594.00 | 5305.20 | 446.38  | 103.91                   | 46.05 | 22.25 | 15.65 | 13569.66 CMSDAY |
| Mean           | 1.76   | 1.36                                                    | 34.28   | 32.94   | 61.01                | 119.80  | 171.14  | 14.88   | 3.35                     | 1.49  | 0.79  | 0.50  | 37.18 CMS       |
| Max            | 2.00   | 1.55                                                    | 93.10   | 145.90  | 135.10               | 273.35  | 320.80  | 30.40   | 11.30                    | 1.80  | 1.20  | 0.55  | 320.80 CMS      |
| Min            | 1.60   | 0.90                                                    | 0.95    | 2.85    | 12.30                | 16.40   | 15.40   | 6.20    | 1.85                     | 0.90  | 0.55  | 0.50  | 0.50 CMS        |
| Runoff         | 4.58   | 3.64                                                    | 88.86   | 88.24   | 163.42               | 310.52  | 458.37  | 38.57   | 8.98                     | 3.98  | 1.92  | 1.35  | 1172.42 MCM     |
| Momentary Peak | 328.10 | CMS, at 24.93 m. (MSL.), at 06.00 Hours, on Oct 9, 2013 |         |         |                      |         |         |         |                          |       |       |       |                 |
| Runoff Yield   | 14.53  | Liters/Second/Square KM.                                |         |         | Momentary Peak Yield |         |         | 128.264 | Liters/Second/Square KM. |       |       |       |                 |

Lat 13 - 12 - 30 N    Long 102 - 10 - 07 E

|                                         |                                                                                           |                  |               |         |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|---------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | Ta Ruang         | <b>Amphoe</b> | Soi Dao | <b>Changwat</b>  | Chanthaburi        |
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.           |               |         |                  |                    |
| <b>Type of Gage</b>                     | Water                                                                                     | - stage recorder |               |         |                  |                    |
| <b>Zero Gage at Bottom</b>              | +167.000                                                                                  | m. (MSL.)        |               |         |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                  |               |         |                  |                    |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |                  |               |         | <b>Elevation</b> | +172.948 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                  |               |         |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 24 readings                                                           |                  |               |         |                  |                    |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |                  |               |         |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |         |                  |                    |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |                  |               |         |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |         |                  |                    |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |                  |               |         |                  |                    |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                  |               |         |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |         |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 16 discharge measurements made in 2013. |                  |               |         |                  |                    |
| <b>Remark</b>                           | beginning on 1 <sup>st</sup> August 2013                                                  |                  |               |         |                  |                    |

| Date | Apr   | May   | Jun   | Jul   | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1    | ***** | ***** | ***** | ***** | 168.04 | 167.82 | 168.27 | 167.70 | 167.69 | 167.72 | 167.63 | 167.57 |        |
| 2    | ***** | ***** | ***** | ***** | 167.97 | 167.76 | 168.13 | 167.70 | 167.69 | 167.72 | 167.64 | 167.56 |        |
| 3    | ***** | ***** | ***** | ***** | 168.10 | 167.73 | 168.07 | 167.70 | 167.69 | 167.69 | 167.64 | 167.56 |        |
| 4    | ***** | ***** | ***** | ***** | 168.19 | 167.72 | 169.44 | 167.69 | 167.69 | 167.69 | 167.65 | 167.54 |        |
| 5    | ***** | ***** | ***** | ***** | 168.09 | 167.70 | 169.61 | 167.69 | 167.68 | 167.69 | 167.64 | 167.57 |        |
| 6    | ***** | ***** | ***** | ***** | 168.01 | 167.69 | 169.75 | 167.69 | 167.68 | 167.69 | 167.65 | 167.57 |        |
| 7    | ***** | ***** | ***** | ***** | 168.16 | 167.68 | 169.02 | 167.70 | 167.68 | 167.68 | 167.65 | 167.58 |        |
| 8    | ***** | ***** | ***** | ***** | 168.19 | 167.70 | 168.42 | 168.59 | 167.68 | 167.68 | 167.65 | 167.64 |        |
| 9    | ***** | ***** | ***** | ***** | 168.05 | 167.73 | 168.19 | 168.03 | 167.67 | 167.68 | 167.65 | 167.63 |        |
| 10   | ***** | ***** | ***** | ***** | 168.09 | 167.71 | 168.08 | 167.89 | 167.67 | 167.67 | 167.65 | 167.55 |        |
| 11   | ***** | ***** | ***** | ***** | 167.96 | 168.02 | 167.99 | 167.83 | 167.67 | 167.66 | 167.65 | 167.43 |        |
| 12   | ***** | ***** | ***** | ***** | 167.88 | 167.95 | 167.92 | 167.81 | 167.67 | 167.65 | 167.65 | 167.44 |        |
| 13   | ***** | ***** | ***** | ***** | 167.95 | 167.96 | 167.88 | 167.77 | 167.67 | 167.64 | 167.64 | 167.46 |        |
| 14   | ***** | ***** | ***** | ***** | 167.86 | 168.06 | 167.85 | 167.81 | 167.65 | 167.63 | 167.66 | 167.57 |        |
| 15   | ***** | ***** | ***** | ***** | 167.88 | 167.93 | 167.84 | 167.75 | 167.73 | 167.62 | 167.65 | 167.59 |        |
| 16   | ***** | ***** | ***** | ***** | 167.85 | 168.12 | 168.34 | 167.75 | 167.73 | 167.61 | 167.65 | 167.62 |        |
| 17   | ***** | ***** | ***** | ***** | 167.84 | 167.88 | 168.00 | 167.75 | 167.73 | 167.60 | 167.65 | 167.62 |        |
| 18   | ***** | ***** | ***** | ***** | 167.87 | 167.80 | 167.99 | 167.74 | 167.73 | 167.59 | 167.65 | 167.62 |        |
| 19   | ***** | ***** | ***** | ***** | 167.85 | 167.96 | 168.19 | 167.72 | 167.73 | 167.58 | 167.64 | 167.62 |        |
| 20   | ***** | ***** | ***** | ***** | 167.85 | 169.31 | 168.00 | 167.71 | 167.73 | 167.57 | 167.64 | 167.61 |        |
| 21   | ***** | ***** | ***** | ***** | 167.77 | 168.48 | 167.95 | 167.70 | 167.72 | 167.55 | 167.66 | 167.59 |        |
| 22   | ***** | ***** | ***** | ***** | 167.73 | 168.19 | 167.81 | 167.68 | 167.73 | 167.55 | 167.65 | 167.55 |        |
| 23   | ***** | ***** | ***** | ***** | 167.75 | 168.07 | 167.84 | 167.70 | 167.73 | 167.55 | 167.64 | 167.49 |        |
| 24   | ***** | ***** | ***** | ***** | 167.73 | 168.05 | 167.82 | 167.73 | 167.73 | 167.55 | 167.64 | 167.47 |        |
| 25   | ***** | ***** | ***** | ***** | 167.72 | 168.01 | 167.80 | 167.80 | 167.72 | 167.55 | 167.65 | 167.45 |        |
| 26   | ***** | ***** | ***** | ***** | 167.74 | 167.98 | 167.78 | 167.75 | 167.72 | 167.55 | 167.62 | 167.45 |        |
| 27   | ***** | ***** | ***** | ***** | 167.71 | 167.93 | 167.76 | 167.71 | 167.72 | 167.55 | 167.63 | 167.42 |        |
| 28   | ***** | ***** | ***** | ***** | 167.77 | 168.86 | 167.74 | 167.82 | 167.72 | 167.55 | 167.62 | 167.39 |        |
| 29   | ***** | ***** | ***** | ***** | 167.76 | 168.46 | 167.71 | 167.74 | 167.72 | 167.55 |        | 167.45 |        |
| 30   | ***** | ***** | ***** | ***** | 168.15 | 169.45 | 167.71 | 167.73 | 167.72 | 167.55 |        | 167.58 |        |
| 31   | ***** | ***** | ***** | ***** | 167.86 |        | 167.70 |        | 167.72 | 167.55 |        | 167.56 |        |
| Mean | ***** | ***** | ***** | ***** | 167.92 | 168.06 | 168.15 | 167.78 | 167.70 | 167.62 | 167.64 | 167    |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun   | Jul   | Aug                  | Sep    | Oct    | Nov   | Dec                      | Jan  | Feb  | Mar  | Annual       |
|----------------|----------------------------------------------------------------|--------------------------|-------|-------|----------------------|--------|--------|-------|--------------------------|------|------|------|--------------|
| 1              | *****                                                          | *****                    | ***** | ***** | 4.70                 | 1.95   | 9.20   | 1.00  | 0.95                     | 0.00 | 0.00 | 0.00 |              |
| 2              | *****                                                          | *****                    | ***** | ***** | 3.63                 | 1.45   | 6.58   | 1.00  | 0.95                     | 0.00 | 0.00 | 0.00 |              |
| 3              | *****                                                          | *****                    | ***** | ***** | 5.75                 | 1.22   | 5.23   | 1.00  | 0.95                     | 0.00 | 0.00 | 0.00 |              |
| 4              | *****                                                          | *****                    | ***** | ***** | 8.23                 | 1.15   | 27.20  | 0.95  | 0.95                     | 0.00 | 0.00 | 0.00 |              |
| 5              | *****                                                          | *****                    | ***** | ***** | 5.57                 | 1.00   | 30.63  | 0.95  | 0.90                     | 0.00 | 0.00 | 0.00 |              |
| 6              | *****                                                          | *****                    | ***** | ***** | 4.17                 | 0.95   | 33.85  | 0.95  | 0.90                     | 0.00 | 0.00 | 0.00 |              |
| 7              | *****                                                          | *****                    | ***** | ***** | 7.40                 | 0.90   | 19.78  | 1.00  | 0.90                     | 0.00 | 0.00 | 0.00 |              |
| 8              | *****                                                          | *****                    | ***** | ***** | 8.23                 | 1.00   | 11.00  | 13.12 | 0.90                     | 0.00 | 0.00 | 0.00 |              |
| 9              | *****                                                          | *****                    | ***** | ***** | 4.88                 | 1.22   | 8.23   | 4.52  | 0.85                     | 0.00 | 0.00 | 0.00 |              |
| 10             | *****                                                          | *****                    | ***** | ***** | 5.57                 | 1.08   | 5.40   | 2.65  | 0.85                     | 0.00 | 0.00 | 0.00 |              |
| 11             | *****                                                          | *****                    | ***** | ***** | 3.50                 | 4.35   | 3.88   | 2.05  | 0.85                     | 0.00 | 0.00 | 0.00 |              |
| 12             | *****                                                          | *****                    | ***** | ***** | 2.55                 | 3.38   | 3.00   | 1.85  | 0.85                     | 0.00 | 0.00 | 0.00 |              |
| 13             | *****                                                          | *****                    | ***** | ***** | 3.38                 | 3.50   | 2.55   | 1.53  | 0.85                     | 0.00 | 0.00 | 0.00 |              |
| 14             | *****                                                          | *****                    | ***** | ***** | 2.35                 | 5.05   | 2.25   | 1.85  | 0.75                     | 0.00 | 0.00 | 0.00 |              |
| 15             | *****                                                          | *****                    | ***** | ***** | 2.55                 | 3.12   | 2.15   | 1.38  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 16             | *****                                                          | *****                    | ***** | ***** | 2.25                 | 6.30   | 10.00  | 1.38  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 17             | *****                                                          | *****                    | ***** | ***** | 2.15                 | 2.55   | 4.00   | 1.38  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 18             | *****                                                          | *****                    | ***** | ***** | 2.45                 | 1.75   | 3.88   | 1.30  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 19             | *****                                                          | *****                    | ***** | ***** | 2.25                 | 3.50   | 8.23   | 1.15  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 20             | *****                                                          | *****                    | ***** | ***** | 2.25                 | 24.60  | 4.00   | 1.08  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 21             | *****                                                          | *****                    | ***** | ***** | 1.53                 | 11.75  | 3.38   | 1.00  | 1.15                     | 0.00 | 0.00 | 0.00 |              |
| 22             | *****                                                          | *****                    | ***** | ***** | 1.22                 | 8.23   | 1.85   | 0.90  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 23             | *****                                                          | *****                    | ***** | ***** | 1.38                 | 5.23   | 2.15   | 1.00  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 24             | *****                                                          | *****                    | ***** | ***** | 1.22                 | 4.88   | 1.95   | 1.22  | 1.22                     | 0.00 | 0.00 | 0.00 |              |
| 25             | *****                                                          | *****                    | ***** | ***** | 1.15                 | 4.17   | 1.75   | 1.75  | 1.15                     | 0.00 | 0.00 | 0.00 |              |
| 26             | *****                                                          | *****                    | ***** | ***** | 1.30                 | 3.75   | 1.60   | 1.38  | 1.15                     | 0.00 | 0.00 | 0.00 |              |
| 27             | *****                                                          | *****                    | ***** | ***** | 1.08                 | 3.12   | 1.45   | 1.08  | 1.15                     | 0.00 | 0.00 | 0.00 |              |
| 28             | *****                                                          | *****                    | ***** | ***** | 1.53                 | 17.14  | 1.30   | 1.95  | 1.15                     | 0.00 | 0.00 | 0.00 |              |
| 29             | *****                                                          | *****                    | ***** | ***** | 1.45                 | 11.50  | 1.08   | 1.30  | 1.15                     | 0.00 |      | 0.00 |              |
| 30             | *****                                                          | *****                    | ***** | ***** | 7.12                 | 27.40  | 1.08   | 1.22  | 0.00                     | 0.00 |      | 0.00 |              |
| 31             | *****                                                          | *****                    | ***** | ***** | 2.35                 |        | 1.00   |       | 0.00                     | 0.00 |      | 0.00 |              |
| Total          | *****                                                          | *****                    | ***** | ***** | 105.14               | 167.19 | 219.63 | 54.89 | 30.28                    | 0.00 | 0.00 | 0.00 | ***** CMSDAY |
| Mean           | *****                                                          | *****                    | ***** | ***** | 3.39                 | 5.57   | 7.08   | 1.83  | 0.98                     | 0.00 | 0.00 | 0.00 | ***** CMS    |
| Max            | *****                                                          | *****                    | ***** | ***** | 8.23                 | 27.40  | 33.85  | 13.12 | 1.22                     | 0.00 | 0.00 | 0.00 | 33.85 CMS    |
| Min            | *****                                                          | *****                    | ***** | ***** | 1.08                 | 0.90   | 1.00   | 0.90  | 0.00                     | 0.00 | 0.00 | 0.00 | ***** CMS    |
| Runoff         | *****                                                          | *****                    | ***** | ***** | 9.08                 | 14.45  | 18.98  | 4.74  | 2.62                     | 0.00 | 0.00 | 0.00 | ***** MCM    |
| Momentary Peak | 88.80 CMS, at 171.55 m. (MSL.), at 18.00 Hours, on Oct 6, 2013 |                          |       |       |                      |        |        |       |                          |      |      |      |              |
| Runoff Yield   | *****                                                          | Liters/Second/Square KM. |       |       | Momentary Peak Yield |        |        | ***** | Liters/Second/Square KM. |      |      |      |              |

**WATER YEAR : 2013**

## PRACHIN BURI RIVER BASIN

**Khlong Phra Sathung at Ban Dan Chai Phatthana , Sa Kaeo (Kgt.47)**

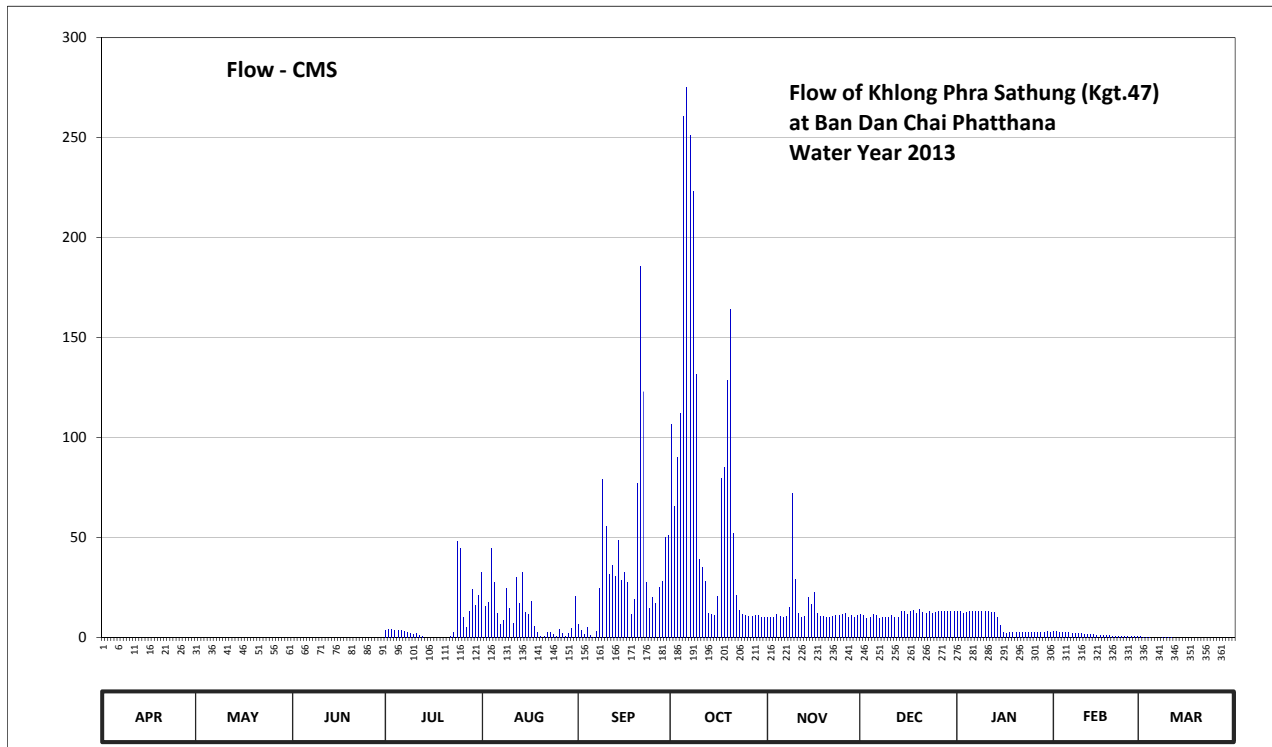
Lat 13 - 33 - 16 N      Long 102 - 02 - 43 E

**Location : on right bank at the bridge.**

|                                         |                                                                                          |                   |               |             |                  |                   |
|-----------------------------------------|------------------------------------------------------------------------------------------|-------------------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                               | Dan Chaiphatthana | <b>Amphoe</b> | Khao Chakan | <b>Changwat</b>  | Sa Kaeo           |
| <b>Drainage Area</b>                    | -                                                                                        | sq.km.            |               |             |                  |                   |
| <b>Type of Gage</b>                     | Water -                                                                                  | stage recorder    |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +52.000                                                                                  | m. (MSL.)         |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-                                                                                    | H.D.              |               |             |                  |                   |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                    |                   |               |             | <b>Elevation</b> | +61.000 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |                   |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 24 readings                                                          |                   |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                             |                   |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                          |                   |               |             |                  |                   |
| <b>Period of Rating</b>                 | 2013 to date                                                                             |                   |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                        |                   |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                             |                   |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |                   |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |                   |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 7 discharge measurements made in 2013. |                   |               |             |                  |                   |
| <b>Remark</b>                           | beginning on 1 <sup>st</sup> July 2013                                                   |                   |               |             |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                         | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | ***** | ***** | *****                                       | 55.18 | 57.43 | 55.46 | 60.71 | 55.81 | 55.95 | 56.10 | 55.10 | 54.70 |        |
| 2                                | ***** | ***** | *****                                       | 55.21 | 56.35 | 55.13 | 59.27 | 55.80 | 55.91 | 56.14 | 55.08 | 54.69 |        |
| 3                                | ***** | ***** | *****                                       | 55.24 | 56.49 | 54.92 | 60.16 | 55.84 | 55.79 | 56.04 | 55.06 | 54.68 |        |
| 4                                | ***** | ***** | *****                                       | 55.19 | 58.15 | 55.33 | 60.87 | 55.95 | 55.85 | 56.09 | 55.04 | 54.67 |        |
| 5                                | ***** | ***** | *****                                       | 55.18 | 57.09 | 54.80 | 63.78 | 55.89 | 55.96 | 56.14 | 55.03 | 54.60 |        |
| 6                                | ***** | ***** | *****                                       | 55.16 | 56.00 | 54.69 | 64.00 | 55.84 | 55.90 | 56.11 | 55.01 | 54.57 |        |
| 7                                | ***** | ***** | *****                                       | 55.12 | 55.46 | 55.07 | 63.63 | 55.87 | 55.78 | 56.11 | 54.99 | 54.59 |        |
| 8                                | ***** | ***** | *****                                       | 55.04 | 55.68 | 56.92 | 63.18 | 56.30 | 55.85 | 56.10 | 54.97 | 54.63 |        |
| 9                                | ***** | ***** | *****                                       | 54.97 | 56.92 | 59.79 | 61.36 | 59.53 | 55.82 | 56.10 | 54.95 | 54.64 |        |
| 10                               | ***** | ***** | *****                                       | 54.88 | 56.26 | 58.75 | 57.83 | 57.19 | 55.80 | 56.13 | 54.94 | 54.62 |        |
| 11                               | ***** | ***** | *****                                       | 54.94 | 55.54 | 57.35 | 57.59 | 56.02 | 55.92 | 56.10 | 54.92 | 54.66 |        |
| 12                               | ***** | ***** | *****                                       | 54.85 | 57.25 | 57.65 | 57.13 | 55.82 | 55.85 | 56.08 | 54.90 | 54.60 |        |
| 13                               | ***** | ***** | *****                                       | 54.79 | 56.46 | 57.30 | 56.02 | 55.87 | 55.84 | 56.06 | 54.88 | 54.56 |        |
| 14                               | ***** | ***** | *****                                       | 54.60 | 57.43 | 58.38 | 55.96 | 56.64 | 56.12 | 55.80 | 54.87 | 54.54 |        |
| 15                               | ***** | ***** | *****                                       | 54.46 | 56.07 | 57.18 | 55.92 | 56.43 | 56.11 | 55.40 | 54.86 | 54.56 |        |
| 16                               | ***** | ***** | *****                                       | 54.38 | 55.95 | 57.43 | 56.68 | 56.80 | 55.98 | 55.05 | 54.85 | 54.52 |        |
| 17                               | ***** | ***** | *****                                       | 54.33 | 56.50 | 57.10 | 59.81 | 56.04 | 56.14 | 55.00 | 54.83 | 54.48 |        |
| 18                               | ***** | ***** | *****                                       | 54.28 | 55.35 | 55.99 | 60.00 | 55.89 | 56.15 | 55.04 | 54.81 | 54.44 |        |
| 19                               | ***** | ***** | *****                                       | 54.22 | 55.03 | 56.58 | 61.29 | 55.89 | 56.02 | 55.02 | 54.80 | 54.46 |        |
| 20                               | ***** | ***** | *****                                       | 54.20 | 54.79 | 59.72 | 62.11 | 55.85 | 56.20 | 55.04 | 54.79 | 54.45 |        |
| 21                               | ***** | ***** | *****                                       | 54.30 | 54.73 | 62.53 | 58.56 | 55.80 | 56.09 | 55.02 | 54.78 | 54.42 |        |
| 22                               | ***** | ***** | *****                                       | 54.74 | 55.05 | 61.15 | 56.71 | 55.88 | 56.05 | 55.03 | 54.76 | 54.44 |        |
| 23                               | ***** | ***** | *****                                       | 55.05 | 55.01 | 57.11 | 56.15 | 55.91 | 56.14 | 55.04 | 54.75 | 54.34 |        |
| 24                               | ***** | ***** | *****                                       | 58.34 | 54.88 | 56.25 | 55.99 | 55.93 | 56.04 | 55.06 | 54.75 | 54.34 |        |
| 25                               | ***** | ***** | *****                                       | 58.15 | 54.79 | 56.62 | 55.90 | 55.95 | 56.07 | 55.05 | 54.74 | 54.29 |        |
| 26                               | ***** | ***** | *****                                       | 55.81 | 55.24 | 56.46 | 55.88 | 56.01 | 56.14 | 55.03 | 54.73 | 54.26 |        |
| 27                               | ***** | ***** | *****                                       | 55.34 | 54.94 | 56.96 | 55.88 | 55.85 | 56.10 | 55.04 | 54.73 | 54.24 |        |
| 28                               | ***** | ***** | *****                                       | 56.14 | 54.74 | 57.14 | 55.90 | 55.93 | 56.11 | 55.06 | 54.72 | 54.25 |        |
| 29                               | ***** | ***** | *****                                       | 56.89 | 54.94 | 58.46 | 55.92 | 55.80 | 56.13 | 55.04 |       | 54.21 |        |
| 30                               | ***** | ***** | *****                                       | 56.40 | 55.27 | 58.50 | 55.81 | 55.91 | 56.12 | 55.08 |       | 54.17 |        |
| 31                               | ***** | ***** | *****                                       | 56.70 | 56.68 |       | 55.82 |       | 56.10 | 55.02 |       | 54.17 |        |
| Mean                             | ***** | ***** | *****                                       | 55.29 | 55.89 | 57.22 | 58.57 | 56.14 | 56.00 | 55.52 | 54.88 | 54.48 |        |
| Max                              | ***** | ***** | *****                                       | 58.34 | 58.15 | 62.53 | 64.00 | 59.53 | 56.20 | 56.14 | 55.10 | 54.70 | 64.00  |
| Min                              | ***** | ***** | *****                                       | 54.20 | 54.73 | 54.69 | 55.81 | 55.80 | 55.78 | 55.00 | 54.72 | 54.17 | *****  |
| Annual Max Momentary Gage Height |       | 64.20 | m. (MSL.) , at 18.00 Hours, on Oct 5, 2013  |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 52.00 | m. (MSL.) , River Bed 50.40 m. (MSL.)       |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 63.65 | m. (MSL.) ,                                 |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 63.68 | m. (MSL.) , Drainage Area Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun   | Jul    | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan    | Feb   | Mar  | Annual       |
|----------------|----------------------------------------------------------------|--------------------------|-------|--------|----------------------|---------|---------|--------|--------------------------|--------|-------|------|--------------|
| 1              | *****                                                          | *****                    | ***** | 3.85   | 32.92                | 6.60    | 106.85  | 10.10  | 11.50                    | 13.00  | 3.25  | 0.50 |              |
| 2              | *****                                                          | *****                    | ***** | 4.10   | 15.87                | 3.48    | 65.75   | 10.00  | 11.10                    | 13.40  | 3.10  | 0.45 |              |
| 3              | *****                                                          | *****                    | ***** | 4.40   | 17.93                | 1.90    | 90.30   | 10.40  | 9.90                     | 12.40  | 2.95  | 0.40 |              |
| 4              | *****                                                          | *****                    | ***** | 3.92   | 44.75                | 5.30    | 112.45  | 11.50  | 10.50                    | 12.90  | 2.80  | 0.35 |              |
| 5              | *****                                                          | *****                    | ***** | 3.85   | 27.50                | 1.00    | 260.70  | 10.90  | 11.60                    | 13.40  | 2.72  | 0.00 |              |
| 6              | *****                                                          | *****                    | ***** | 3.70   | 12.00                | 0.45    | 275.00  | 10.40  | 11.00                    | 13.10  | 2.57  | 0.00 |              |
| 7              | *****                                                          | *****                    | ***** | 3.40   | 6.60                 | 3.02    | 250.95  | 10.70  | 9.80                     | 13.10  | 2.43  | 0.00 |              |
| 8              | *****                                                          | *****                    | ***** | 2.80   | 8.80                 | 24.79   | 223.30  | 15.25  | 10.50                    | 13.00  | 2.28  | 0.15 |              |
| 9              | *****                                                          | *****                    | ***** | 2.28   | 24.79                | 79.20   | 131.40  | 72.25  | 10.20                    | 13.00  | 2.13  | 0.20 |              |
| 10             | *****                                                          | *****                    | ***** | 1.60   | 14.75                | 55.75   | 39.29   | 29.09  | 10.00                    | 13.30  | 2.05  | 0.10 |              |
| 11             | *****                                                          | *****                    | ***** | 2.05   | 7.40                 | 31.64   | 35.47   | 12.20  | 11.20                    | 13.00  | 1.90  | 0.30 |              |
| 12             | *****                                                          | *****                    | ***** | 1.37   | 30.05                | 36.42   | 28.13   | 10.20  | 10.50                    | 12.80  | 1.75  | 0.00 |              |
| 13             | *****                                                          | *****                    | ***** | 0.95   | 17.46                | 30.84   | 12.20   | 10.70  | 10.40                    | 12.60  | 1.60  | 0.00 |              |
| 14             | *****                                                          | *****                    | ***** | 0.00   | 32.92                | 48.97   | 11.60   | 20.32  | 13.20                    | 10.00  | 1.52  | 0.00 |              |
| 15             | *****                                                          | *****                    | ***** | 0.00   | 12.70                | 28.93   | 11.20   | 16.98  | 13.10                    | 6.00   | 1.45  | 0.00 |              |
| 16             | *****                                                          | *****                    | ***** | 0.00   | 11.50                | 32.92   | 20.96   | 22.87  | 11.80                    | 2.87   | 1.37  | 0.00 |              |
| 17             | *****                                                          | *****                    | ***** | 0.00   | 18.09                | 27.66   | 79.80   | 12.40  | 13.40                    | 2.50   | 1.23  | 0.00 |              |
| 18             | *****                                                          | *****                    | ***** | 0.00   | 5.50                 | 11.90   | 85.50   | 10.90  | 13.50                    | 2.80   | 1.08  | 0.00 |              |
| 19             | *****                                                          | *****                    | ***** | 0.00   | 2.72                 | 19.37   | 128.60  | 10.90  | 12.20                    | 2.65   | 1.00  | 0.00 |              |
| 20             | *****                                                          | *****                    | ***** | 0.00   | 0.95                 | 77.10   | 164.00  | 10.50  | 14.00                    | 2.80   | 0.95  | 0.00 |              |
| 21             | *****                                                          | *****                    | ***** | 0.00   | 0.65                 | 185.65  | 52.27   | 10.00  | 12.90                    | 2.65   | 0.90  | 0.00 |              |
| 22             | *****                                                          | *****                    | ***** | 0.70   | 2.87                 | 123.00  | 21.44   | 10.80  | 12.50                    | 2.72   | 0.80  | 0.00 |              |
| 23             | *****                                                          | *****                    | ***** | 2.87   | 2.57                 | 27.82   | 13.50   | 11.10  | 13.40                    | 2.80   | 0.75  | 0.00 |              |
| 24             | *****                                                          | *****                    | ***** | 48.23  | 1.60                 | 14.62   | 11.90   | 11.30  | 12.40                    | 2.95   | 0.75  | 0.00 |              |
| 25             | *****                                                          | *****                    | ***** | 44.75  | 0.95                 | 20.01   | 11.00   | 11.50  | 12.70                    | 2.87   | 0.70  | 0.00 |              |
| 26             | *****                                                          | *****                    | ***** | 10.10  | 4.40                 | 17.46   | 10.80   | 12.10  | 13.40                    | 2.72   | 0.65  | 0.00 |              |
| 27             | *****                                                          | *****                    | ***** | 5.40   | 2.05                 | 25.42   | 10.80   | 10.50  | 13.00                    | 2.80   | 0.65  | 0.00 |              |
| 28             | *****                                                          | *****                    | ***** | 13.40  | 0.70                 | 28.29   | 11.00   | 11.30  | 13.10                    | 2.95   | 0.60  | 0.00 |              |
| 29             | *****                                                          | *****                    | ***** | 24.31  | 2.05                 | 50.43   | 11.20   | 10.00  | 13.30                    | 2.80   |       | 0.00 |              |
| 30             | *****                                                          | *****                    | ***** | 16.50  | 4.70                 | 51.17   | 10.10   | 11.10  | 13.20                    | 3.10   |       | 0.00 |              |
| 31             | *****                                                          | *****                    | ***** | 21.28  | 20.96                |         | 10.20   |        | 13.00                    | 2.65   |       | 0.00 |              |
| Total          | *****                                                          | *****                    | ***** | 225.81 | 388.70               | 1071.11 | 2307.66 | 438.26 | 372.30                   | 229.63 | 45.93 | 2.45 | ***** CMSDAY |
| Mean           | *****                                                          | *****                    | ***** | 7.28   | 12.54                | 35.70   | 74.44   | 14.61  | 12.01                    | 7.41   | 1.64  | 0.08 | ***** CMS    |
| Max            | *****                                                          | *****                    | ***** | 48.23  | 44.75                | 185.65  | 275.00  | 72.25  | 14.00                    | 13.40  | 3.25  | 0.50 | 275.00 CMS   |
| Min            | *****                                                          | *****                    | ***** | 0.00   | 0.65                 | 0.45    | 10.10   | 10.00  | 9.80                     | 2.50   | 0.60  | 0.00 | ***** CMS    |
| Runoff         | *****                                                          | *****                    | ***** | 19.51  | 33.58                | 92.54   | 199.38  | 37.87  | 32.17                    | 19.84  | 3.97  | 0.21 | ***** MCM    |
| Momentary Peak | 288.00 CMS, at 64.20 m. (MSL.), at 18.00 Hours, on Oct 5, 2013 |                          |       |        |                      |         |         |        |                          |        |       |      |              |
| Runoff Yield   | *****                                                          | Liters/Second/Square KM. |       |        | Momentary Peak Yield |         |         | *****  | Liters/Second/Square KM. |        |       |      |              |

**WATER YEAR : 2013**  
**BANG PAKONG RIVER BASIN**

**Nakhon Nayok River at Ban Khao Nang Buat , Nakhon Nayok (Ny.1B)**

Lat 14 - 14 - 38 N    Long 101 - 16 - 14 E

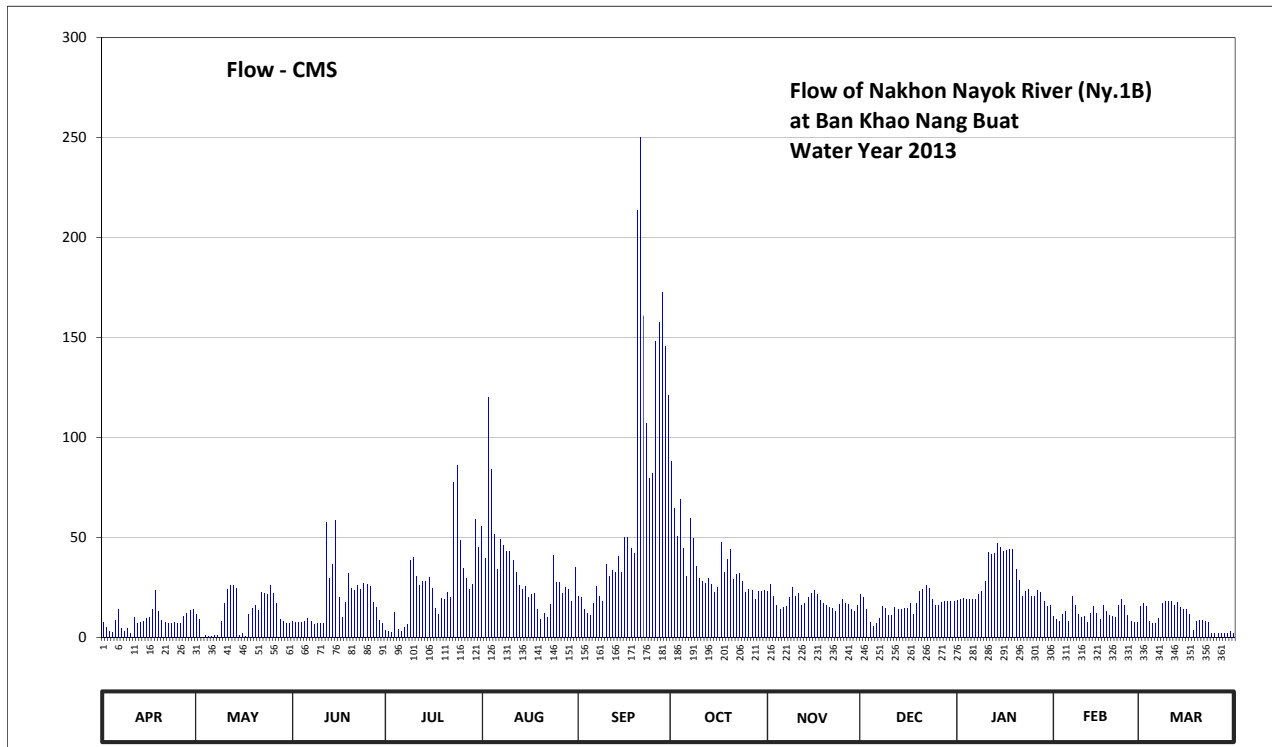
**Location : on right bank about 700 meters upstream from Ny.1**

|                                         |                                                                                           |                |               |        |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|--------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Khao Nang Buat | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Nakhon Nayok     |
| <b>Drainage Area</b>                    | 521                                                                                       | sq.km.         |               |        |                  |                  |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)      |               |        |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |        |                  |                  |
| <b>Location BM</b>                      | On right bank about 200 meters from the staff gage.                                       |                |               |        | <b>Elevation</b> | +8.758 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                |               |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                |               |        |                  |                  |
| <b>Period of Available Gage Records</b> | 1973 to date                                                                              |                |               |        |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |                |               |        |                  |                  |
| <b>Period of Rating</b>                 | 1973 - 1980 , 1991 to date                                                                |                |               |        |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |        |                  |                  |
| <b>Rated by Current Meter</b>           | 1973 - 1980 , 1991 to date                                                                |                |               |        |                  |                  |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |                |               |        |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |        |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 21 discharge measurements made in 2013. |                |               |        |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug                               | Sep  | Oct               | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|-----------------------------------|------|-------------------|------|------|------|------|------|--------|
| 1                                | 4.19  | 4.33 | 4.21        | 3.97 | 5.62                              | 4.63 | 6.36              | 4.70 | 4.66 | 4.56 | 4.29 | 4.45 |        |
| 2                                | 4.05  | 4.24 | 4.19        | 3.92 | 5.22                              | 4.60 | 5.84              | 4.82 | 4.60 | 4.58 | 4.24 | 4.50 |        |
| 3                                | 3.94  | 3.52 | 4.19        | 3.87 | 7.03                              | 4.41 | 5.50              | 4.62 | 4.40 | 4.59 | 4.21 | 4.46 |        |
| 4                                | 3.89  | 3.70 | 4.18        | 4.36 | 6.28                              | 4.34 | 5.95              | 4.48 | 4.18 | 4.58 | 4.33 | 4.20 |        |
| 5                                | 4.22  | 3.65 | 4.21        | 4.02 | 5.52                              | 4.30 | 5.34              | 4.41 | 4.09 | 4.57 | 4.37 | 4.17 |        |
| 6                                | 4.41  | 3.65 | 4.26        | 3.93 | 5.07                              | 4.50 | 4.96              | 4.44 | 4.16 | 4.58 | 4.20 | 4.17 |        |
| 7                                | 4.03  | 3.73 | 4.21        | 4.07 | 5.46                              | 4.79 | 5.72              | 4.46 | 4.26 | 4.58 | 4.62 | 4.26 |        |
| 8                                | 3.94  | 3.74 | 4.14        | 4.13 | 5.38                              | 4.62 | 5.47              | 4.61 | 4.45 | 4.66 | 4.47 | 4.50 |        |
| 9                                | 4.03  | 4.21 | 4.16        | 5.19 | 5.31                              | 4.55 | 5.12              | 4.78 | 4.42 | 4.70 | 4.32 | 4.54 |        |
| 10                               | 3.85  | 4.51 | 4.16        | 5.23 | 5.31                              | 5.14 | 4.92              | 4.63 | 4.30 | 4.88 | 4.27 | 4.55 |        |
| 11                               | 4.27  | 4.74 | 4.17        | 4.96 | 5.19                              | 4.96 | 4.87              | 4.68 | 4.30 | 5.30 | 4.29 | 4.55 |        |
| 12                               | 4.15  | 4.81 | 5.67        | 4.80 | 5.03                              | 5.06 | 4.84              | 4.48 | 4.44 | 5.27 | 4.19 | 4.48 |        |
| 13                               | 4.18  | 4.81 | 4.93        | 4.88 | 4.81                              | 5.02 | 4.92              | 4.51 | 4.41 | 5.28 | 4.35 | 4.52 |        |
| 14                               | 4.20  | 4.76 | 5.14        | 4.87 | 4.74                              | 5.24 | 4.82              | 4.60 | 4.41 | 5.41 | 4.46 | 4.44 |        |
| 15                               | 4.25  | 3.73 | 5.70        | 4.95 | 4.79                              | 5.03 | 4.69              | 4.67 | 4.42 | 5.36 | 4.34 | 4.41 |        |
| 16                               | 4.28  | 3.80 | 4.61        | 4.76 | 4.60                              | 5.48 | 4.78              | 4.72 | 4.43 | 5.31 | 4.24 | 4.40 |        |
| 17                               | 4.40  | 3.65 | 4.28        | 4.43 | 4.65                              | 5.48 | 5.42              | 4.66 | 4.50 | 5.32 | 4.47 | 4.33 |        |
| 18                               | 4.72  | 4.33 | 4.52        | 4.32 | 4.67                              | 5.34 | 5.03              | 4.56 | 4.33 | 5.33 | 4.38 | 3.97 |        |
| 19                               | 4.38  | 4.43 | 5.00        | 4.59 | 4.40                              | 5.28 | 5.21              | 4.51 | 4.50 | 5.33 | 4.30 | 4.20 |        |
| 20                               | 4.22  | 4.48 | 4.76        | 4.57 | 4.24                              | 8.42 | 5.33              | 4.48 | 4.71 | 5.08 | 4.29 | 4.22 |        |
| 21                               | 4.19  | 4.39 | 4.73        | 4.69 | 4.35                              | 8.92 | 4.91              | 4.44 | 4.74 | 4.89 | 4.28 | 4.22 |        |
| 22                               | 4.17  | 4.69 | 4.81        | 4.60 | 4.27                              | 7.67 | 4.99              | 4.43 | 4.80 | 4.63 | 4.48 | 4.20 |        |
| 23                               | 4.17  | 4.68 | 4.74        | 6.14 | 4.49                              | 6.76 | 5.00              | 4.38 | 4.76 | 4.70 | 4.57 | 4.19 |        |
| 24                               | 4.18  | 4.65 | 4.84        | 6.32 | 5.26                              | 6.18 | 4.87              | 4.49 | 4.57 | 4.74 | 4.48 | 3.85 |        |
| 25                               | 4.17  | 4.81 | 4.82        | 5.44 | 4.85                              | 6.24 | 4.69              | 4.57 | 4.47 | 4.63 | 4.31 | 3.84 |        |
| 26                               | 4.16  | 4.68 | 4.79        | 5.09 | 4.86                              | 7.49 | 4.74              | 4.51 | 4.48 | 4.62 | 4.20 | 3.85 |        |
| 27                               | 4.29  | 4.50 | 4.53        | 4.92 | 4.68                              | 7.62 | 4.73              | 4.49 | 4.53 | 4.72 | 4.19 | 3.83 |        |
| 28                               | 4.34  | 4.24 | 4.44        | 4.75 | 4.78                              | 7.84 | 4.57              | 4.40 | 4.54 | 4.69 | 4.18 | 3.82 |        |
| 29                               | 4.39  | 4.20 | 4.22        | 4.83 | 4.75                              | 7.45 | 4.70              | 4.37 | 4.54 | 4.54 |      | 3.82 |        |
| 30                               | 4.41  | 4.17 | 4.17        | 5.71 | 4.55                              | 7.05 | 4.71              | 4.47 | 4.54 | 4.46 |      | 3.93 |        |
| 31                               |       | 4.16 |             | 5.36 | 5.10                              |      | 4.73              |      | 4.54 | 4.48 |      | 3.82 |        |
| Mean                             | 4.20  | 4.26 | 4.56        | 4.76 | 5.01                              | 5.81 | 5.09              | 4.55 | 4.47 | 4.85 | 4.33 | 4.22 |        |
| Max                              | 4.72  | 4.81 | 5.70        | 6.32 | 7.03                              | 8.92 | 6.36              | 4.82 | 4.80 | 5.41 | 4.62 | 4.55 | 8.92   |
| Min                              | 3.85  | 3.52 | 4.14        | 3.87 | 4.24                              | 4.30 | 4.57              | 4.37 | 4.09 | 4.46 | 4.18 | 3.82 | 3.52   |
| Annual Max Momentary Gage Height | 9.29  |      | m. (MSL.) , |      | at 18.00 Hours , on Sep 20 , 2013 |      |                   |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      | River Bed                         | 2.72 | m. (MSL.)         |      |      |      |      |      |        |
| Left Bank Elevation              | 11.54 |      | m. (MSL.) , |      |                                   |      |                   |      |      |      |      |      |        |
| Right Bank Elevation             | 11.54 |      | m. (MSL.) , |      | Drainage Area                     | 521  | Square Kilometers |      |      |      |      |      |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                     | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual  |        |
|----------------|---------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|---------|--------|
| 1              | 7.80                                                    | 11.90                    | 8.30   | 3.70   | 55.80                | 20.90   | 88.10   | 23.00   | 21.80                    | 18.80  | 10.70  | 15.50  |         |        |
| 2              | 5.00                                                    | 9.20                     | 7.80   | 3.20   | 39.80                | 20.00   | 64.60   | 26.60   | 20.00                    | 19.40  | 9.20   | 17.00  |         |        |
| 3              | 3.40                                                    | 0.00                     | 7.80   | 2.70   | 119.93               | 14.30   | 51.00   | 20.60   | 14.00                    | 19.70  | 8.30   | 15.80  |         |        |
| 4              | 2.90                                                    | 1.00                     | 7.60   | 12.80  | 84.30                | 12.20   | 69.25   | 16.40   | 7.60                     | 19.40  | 11.90  | 8.00   |         |        |
| 5              | 8.60                                                    | 0.50                     | 8.30   | 4.40   | 51.80                | 11.00   | 44.60   | 14.30   | 5.80                     | 19.10  | 13.10  | 7.40   |         |        |
| 6              | 14.30                                                   | 0.50                     | 9.80   | 3.30   | 34.10                | 17.00   | 30.80   | 15.20   | 7.20                     | 19.40  | 8.00   | 7.40   |         |        |
| 7              | 4.60                                                    | 1.30                     | 8.30   | 5.40   | 49.40                | 25.70   | 59.80   | 15.80   | 9.80                     | 19.40  | 20.60  | 9.80   |         |        |
| 8              | 3.40                                                    | 1.40                     | 6.80   | 6.60   | 46.20                | 20.60   | 49.80   | 20.30   | 15.50                    | 21.80  | 16.10  | 17.00  |         |        |
| 9              | 4.60                                                    | 8.30                     | 7.20   | 38.60  | 43.40                | 18.50   | 35.80   | 25.40   | 14.60                    | 23.00  | 11.60  | 18.20  |         |        |
| 10             | 2.50                                                    | 17.30                    | 7.20   | 40.20  | 43.40                | 36.60   | 29.60   | 20.90   | 11.00                    | 28.40  | 10.10  | 18.50  |         |        |
| 11             | 10.10                                                   | 24.20                    | 7.40   | 30.80  | 38.60                | 30.80   | 28.10   | 22.40   | 11.00                    | 43.00  | 10.70  | 18.50  |         |        |
| 12             | 7.00                                                    | 26.30                    | 57.80  | 26.00  | 32.90                | 33.80   | 27.20   | 16.40   | 15.20                    | 41.80  | 7.80   | 16.40  |         |        |
| 13             | 7.60                                                    | 26.30                    | 29.90  | 28.40  | 26.30                | 32.60   | 29.60   | 17.30   | 14.30                    | 42.20  | 12.50  | 17.60  |         |        |
| 14             | 8.00                                                    | 24.80                    | 36.60  | 28.10  | 24.20                | 40.60   | 26.60   | 20.00   | 14.30                    | 47.40  | 15.80  | 15.20  |         |        |
| 15             | 9.50                                                    | 1.30                     | 59.00  | 30.50  | 25.70                | 32.90   | 22.70   | 22.10   | 14.60                    | 45.40  | 12.20  | 14.30  |         |        |
| 16             | 10.40                                                   | 2.00                     | 20.30  | 24.80  | 20.00                | 50.20   | 25.40   | 23.60   | 14.90                    | 43.40  | 9.20   | 14.00  |         |        |
| 17             | 14.00                                                   | 0.50                     | 10.40  | 14.90  | 21.50                | 50.20   | 47.80   | 21.80   | 17.00                    | 43.80  | 16.10  | 11.90  |         |        |
| 18             | 23.60                                                   | 11.90                    | 17.60  | 11.60  | 22.10                | 44.60   | 32.90   | 18.80   | 11.90                    | 44.20  | 13.40  | 3.70   |         |        |
| 19             | 13.40                                                   | 14.90                    | 32.00  | 19.70  | 14.00                | 42.20   | 39.40   | 17.30   | 17.00                    | 44.20  | 11.00  | 8.00   |         |        |
| 20             | 8.60                                                    | 16.40                    | 24.80  | 19.10  | 9.20                 | 213.40  | 44.20   | 16.40   | 23.30                    | 34.40  | 10.70  | 8.60   |         |        |
| 21             | 7.80                                                    | 13.70                    | 23.90  | 22.70  | 12.50                | 250.29  | 29.30   | 15.20   | 24.20                    | 28.70  | 10.40  | 8.60   |         |        |
| 22             | 7.40                                                    | 22.70                    | 26.30  | 20.00  | 10.10                | 160.90  | 31.70   | 14.90   | 26.00                    | 20.90  | 16.40  | 8.00   |         |        |
| 23             | 7.40                                                    | 22.40                    | 24.20  | 77.80  | 16.70                | 107.10  | 32.00   | 13.40   | 24.80                    | 23.00  | 19.10  | 7.80   |         |        |
| 24             | 7.60                                                    | 21.50                    | 27.20  | 86.20  | 41.40                | 79.60   | 28.10   | 16.70   | 19.10                    | 24.20  | 16.40  | 2.50   |         |        |
| 25             | 7.40                                                    | 26.30                    | 26.60  | 48.60  | 27.50                | 82.40   | 22.70   | 19.10   | 16.10                    | 20.90  | 11.30  | 2.40   |         |        |
| 26             | 7.20                                                    | 22.40                    | 25.70  | 34.70  | 27.80                | 148.30  | 24.20   | 17.30   | 16.40                    | 20.60  | 8.00   | 2.50   |         |        |
| 27             | 10.70                                                   | 17.00                    | 17.90  | 29.60  | 22.40                | 157.40  | 23.90   | 16.70   | 17.90                    | 23.60  | 7.80   | 2.30   |         |        |
| 28             | 12.20                                                   | 9.20                     | 15.20  | 24.50  | 25.40                | 172.80  | 19.10   | 14.00   | 18.20                    | 22.70  | 7.60   | 2.20   |         |        |
| 29             | 13.70                                                   | 8.00                     | 8.60   | 26.90  | 24.50                | 145.50  | 23.00   | 13.10   | 18.20                    | 18.20  |        | 2.20   |         |        |
| 30             | 14.30                                                   | 7.40                     | 7.40   | 59.40  | 18.50                | 120.88  | 23.30   | 16.10   | 18.20                    | 15.80  |        | 3.30   |         |        |
| 31             |                                                         | 7.20                     |        | 45.40  | 35.00                |         | 23.90   |         | 18.20                    | 16.40  |        | 2.20   |         |        |
| Total          | 265.00                                                  | 377.80                   | 577.90 | 830.60 | 1064.43              | 2193.27 | 1128.45 | 551.10  | 498.10                   | 873.20 | 336.00 | 306.80 | 9002.65 | CMSDAY |
| Mean           | 8.83                                                    | 12.19                    | 19.26  | 26.79  | 34.34                | 73.11   | 36.40   | 18.37   | 16.07                    | 28.17  | 12.00  | 9.90   | 24.66   | CMS    |
| Max            | 23.60                                                   | 26.30                    | 59.00  | 86.20  | 119.93               | 250.29  | 88.10   | 26.60   | 26.00                    | 47.40  | 20.60  | 18.50  | 250.29  | CMS    |
| Min            | 2.50                                                    | 0.00                     | 6.80   | 2.70   | 9.20                 | 11.00   | 19.10   | 13.10   | 5.80                     | 15.80  | 7.60   | 2.20   | 0.00    | CMS    |
| Runoff         | 22.90                                                   | 32.64                    | 49.93  | 71.76  | 91.97                | 189.50  | 97.50   | 47.62   | 43.04                    | 75.44  | 29.03  | 26.51  | 777.83  | MCM    |
| Momentary Peak | CMS. at 9.29 m. (MSL.) at 18.00 Hours , on Sep 20, 2013 |                          |        |        |                      |         |         |         |                          |        |        |        |         |        |
| Runoff Yield   | 47.30                                                   | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 535.716 | Liters/Second/Square KM. |        |        |        |         |        |

**WATER YEAR : 2013**

**BANG PAKONG RIVER BASIN**

**Lower Khlong Ban Na at Ban Pa Kha , Nakhon Nayok (Ny.3)**

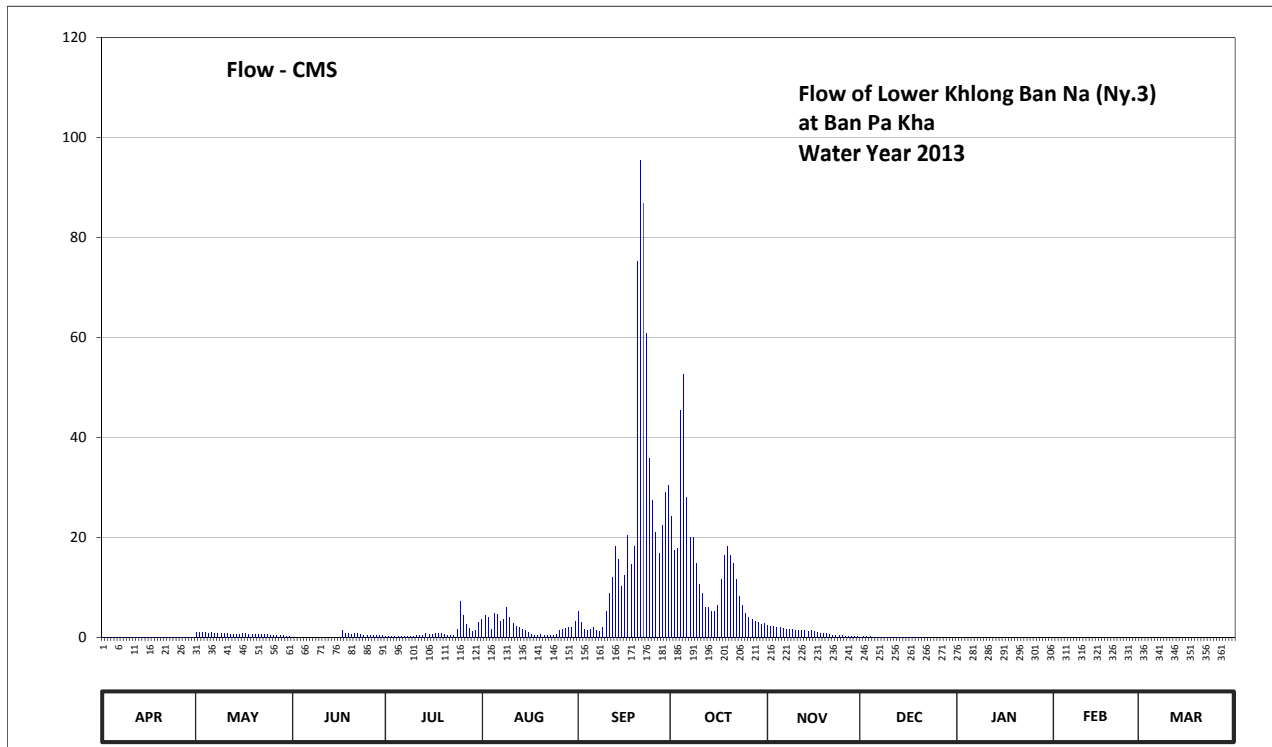
Lat 14 - 17 - 04 N      Long 101 - 04 - 28 E

**Location :** on left bank near Wat Ban Pa Kha.

|                                         |                                                                             |           |               |        |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Pa Kha    | <b>Amphoe</b> | Ban Na | <b>Changwat</b>  | Nakhon Nayok      |
| <b>Drainage Area</b>                    | 203                                                                         | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +6.330                                                                      | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |        |                  |                   |
| <b>Location BM</b>                      | About 10 meters from the top staff gage.                                    |           |               |        | <b>Elevation</b> | +12.695 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1977 to date                                                                |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1977 - 1978 , 1980, 1988 to date                                            |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1977 - 1978 , 1980, 1988 to date                                            |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Flow effected by the local weir.                              |           |               |        |                  |                   |
|                                         | Stage-discharge relation defined by 20 discharge measurements made in 1913. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                             | Jul  | Aug  | Sep   | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------------------------------------------|------|------|-------|-------|------|------|------|------|------|--------|
| 1                                | 7.03  | 7.52 | 6.73                                            | 7.27 | 8.09 | 8.31  | 9.85  | 7.87 | 7.14 | 6.93 | 6.83 | 6.83 |        |
| 2                                | 7.03  | 7.54 | 6.73                                            | 7.23 | 8.21 | 7.97  | 9.41  | 7.82 | 7.21 | 6.93 | 6.83 | 6.83 |        |
| 3                                | 7.03  | 7.52 | 6.73                                            | 7.23 | 8.16 | 7.69  | 9.44  | 7.80 | 7.22 | 6.93 | 6.83 | 6.83 |        |
| 4                                | 7.03  | 7.51 | 6.73                                            | 7.23 | 7.70 | 7.63  | 10.94 | 7.77 | 7.21 | 6.93 | 6.83 | 6.83 |        |
| 5                                | 7.03  | 7.49 | 6.73                                            | 7.23 | 8.27 | 7.69  | 11.24 | 7.75 | 7.18 | 6.93 | 6.83 | 6.83 |        |
| 6                                | 7.03  | 7.51 | 6.73                                            | 7.23 | 8.23 | 7.75  | 10.07 | 7.74 | 7.16 | 6.93 | 6.83 | 6.83 |        |
| 7                                | 7.03  | 7.50 | 6.73                                            | 7.23 | 8.01 | 7.62  | 9.58  | 7.70 | 7.13 | 6.93 | 6.83 | 6.83 |        |
| 8                                | 7.03  | 7.48 | 6.73                                            | 7.23 | 8.07 | 7.55  | 9.58  | 7.68 | 7.13 | 6.93 | 6.83 | 6.83 |        |
| 9                                | 7.03  | 7.47 | 6.73                                            | 7.23 | 8.40 | 7.75  | 9.22  | 7.66 | 7.13 | 6.93 | 6.83 | 6.83 |        |
| 10                               | 7.03  | 7.45 | 6.73                                            | 7.26 | 8.15 | 8.32  | 8.87  | 7.63 | 7.13 | 6.93 | 6.83 | 6.83 |        |
| 11                               | 7.03  | 7.45 | 6.73                                            | 7.33 | 7.94 | 8.70  | 8.70  | 7.63 | 7.08 | 6.93 | 6.83 | 6.83 |        |
| 12                               | 7.03  | 7.44 | 6.73                                            | 7.38 | 7.84 | 8.99  | 8.42  | 7.61 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 13                               | 7.03  | 7.43 | 6.73                                            | 7.39 | 7.78 | 9.47  | 8.40  | 7.62 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 14                               | 7.03  | 7.42 | 6.73                                            | 7.45 | 7.69 | 9.29  | 8.32  | 7.59 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 15                               | 7.03  | 7.42 | 6.73                                            | 7.43 | 7.60 | 8.84  | 8.31  | 7.61 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 16                               | 7.03  | 7.46 | 7.07                                            | 7.44 | 7.51 | 9.02  | 8.45  | 7.55 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 17                               | 7.03  | 7.45 | 7.60                                            | 7.47 | 7.44 | 9.61  | 8.96  | 7.51 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 18                               | 7.03  | 7.43 | 7.49                                            | 7.48 | 7.37 | 9.21  | 9.35  | 7.48 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 19                               | 7.03  | 7.41 | 7.46                                            | 7.48 | 7.39 | 9.46  | 9.47  | 7.48 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 20                               | 7.03  | 7.41 | 7.44                                            | 7.41 | 7.40 | 12.03 | 9.34  | 7.45 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 21                               | 7.03  | 7.41 | 7.47                                            | 7.34 | 7.38 | 12.67 | 9.22  | 7.40 | 7.03 | 6.93 | 6.83 | 6.83 |        |
| 22                               | 7.03  | 7.40 | 7.46                                            | 7.33 | 7.38 | 12.41 | 8.95  | 7.37 | 6.95 | 6.93 | 6.83 | 6.83 |        |
| 23                               | 7.03  | 7.40 | 7.42                                            | 7.33 | 7.38 | 11.53 | 8.65  | 7.33 | 6.93 | 6.93 | 6.83 | 6.83 |        |
| 24                               | 7.03  | 7.40 | 7.34                                            | 7.68 | 7.38 | 10.48 | 8.46  | 7.33 | 6.93 | 6.93 | 6.83 | 6.83 |        |
| 25                               | 7.03  | 7.36 | 7.33                                            | 8.55 | 7.44 | 10.04 | 8.27  | 7.30 | 6.93 | 6.93 | 6.83 | 6.83 |        |
| 26                               | 7.03  | 7.35 | 7.33                                            | 8.20 | 7.64 | 9.66  | 8.15  | 7.25 | 6.93 | 6.93 | 6.83 | 6.82 |        |
| 27                               | 7.03  | 7.34 | 7.34                                            | 7.91 | 7.69 | 9.37  | 8.08  | 7.23 | 6.93 | 6.93 | 6.83 | 6.74 |        |
| 28                               | 7.03  | 7.34 | 7.36                                            | 7.73 | 7.71 | 9.74  | 8.01  | 7.23 | 6.93 | 6.93 | 6.83 | 6.73 |        |
| 29                               | 7.03  | 7.31 | 7.35                                            | 7.56 | 7.77 | 10.13 | 7.97  | 7.23 | 6.93 | 6.93 |      | 6.73 |        |
| 30                               | 7.03  | 7.29 | 7.36                                            | 7.63 | 7.76 | 10.21 | 7.92  | 7.23 | 6.93 | 6.93 |      | 6.73 |        |
| 31                               |       | 7.25 |                                                 | 7.97 | 8.01 |       | 7.94  |      | 6.93 | 6.93 |      | 6.73 |        |
| Mean                             | 7.03  | 7.42 | 7.06                                            | 7.48 | 7.77 | 9.30  | 8.95  | 7.53 | 7.04 | 6.93 | 6.83 | 6.81 |        |
| Max                              | 7.03  | 7.54 | 7.60                                            | 8.55 | 8.40 | 12.67 | 11.24 | 7.87 | 7.22 | 6.93 | 6.83 | 6.83 | 12.67  |
| Min                              | 7.03  | 7.25 | 6.73                                            | 7.23 | 7.37 | 7.55  | 7.92  | 7.23 | 6.93 | 6.93 | 6.83 | 6.73 | 6.73   |
| Annual Max Momentary Gage Height | 12.78 |      | m. (MSL.) , at 06.00 Hours , on Sep 21 , 2013   |      |      |       |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 6.33  |      | m. (MSL.) , River Bed 6.27 m. (MSL.)            |      |      |       |       |      |      |      |      |      |        |
| Left Bank Elevation              | 13.60 |      | m. (MSL.) ,                                     |      |      |       |       |      |      |      |      |      |        |
| Right Bank Elevation             | 13.63 |      | m. (MSL.) , Drainage Area 203 Square Kilometers |      |      |       |       |      |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun  | Jul   | Aug                  | Sep    | Oct     | Nov                      | Dec  | Jan  | Feb  | Mar  | Annual  |
|----------------|-------|-----------------------------------------------------------|------|-------|----------------------|--------|---------|--------------------------|------|------|------|------|---------|
| 1              | 0.03  | 1.08                                                      | 0.00 | 0.34  | 3.74                 | 5.28   | 24.35   | 2.48                     | 0.14 | 0.00 | 0.00 | 0.00 |         |
| 2              | 0.03  | 1.16                                                      | 0.00 | 0.26  | 4.48                 | 3.02   | 17.45   | 2.28                     | 0.22 | 0.00 | 0.00 | 0.00 |         |
| 3              | 0.03  | 1.08                                                      | 0.00 | 0.26  | 4.16                 | 1.76   | 17.90   | 2.20                     | 0.24 | 0.00 | 0.00 | 0.00 |         |
| 4              | 0.03  | 1.04                                                      | 0.00 | 0.26  | 1.80                 | 1.52   | 45.58   | 2.08                     | 0.22 | 0.00 | 0.00 | 0.00 |         |
| 5              | 0.03  | 0.96                                                      | 0.00 | 0.26  | 4.96                 | 1.76   | 52.60   | 2.00                     | 0.18 | 0.00 | 0.00 | 0.00 |         |
| 6              | 0.03  | 1.04                                                      | 0.00 | 0.26  | 4.64                 | 2.00   | 28.09   | 1.96                     | 0.16 | 0.00 | 0.00 | 0.00 |         |
| 7              | 0.03  | 1.00                                                      | 0.00 | 0.26  | 3.26                 | 1.48   | 20.00   | 1.80                     | 0.13 | 0.00 | 0.00 | 0.00 |         |
| 8              | 0.03  | 0.92                                                      | 0.00 | 0.26  | 3.62                 | 1.20   | 20.00   | 1.72                     | 0.13 | 0.00 | 0.00 | 0.00 |         |
| 9              | 0.03  | 0.88                                                      | 0.00 | 0.26  | 6.00                 | 2.00   | 14.84   | 1.64                     | 0.13 | 0.00 | 0.00 | 0.00 |         |
| 10             | 0.03  | 0.80                                                      | 0.00 | 0.32  | 4.10                 | 5.36   | 10.64   | 1.52                     | 0.13 | 0.00 | 0.00 | 0.00 |         |
| 11             | 0.03  | 0.80                                                      | 0.00 | 0.46  | 2.84                 | 8.80   | 8.80    | 1.52                     | 0.08 | 0.00 | 0.00 | 0.00 |         |
| 12             | 0.03  | 0.76                                                      | 0.00 | 0.56  | 2.36                 | 12.08  | 6.16    | 1.44                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 13             | 0.03  | 0.72                                                      | 0.00 | 0.58  | 2.12                 | 18.35  | 6.00    | 1.48                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 14             | 0.03  | 0.68                                                      | 0.00 | 0.80  | 1.76                 | 15.68  | 5.36    | 1.36                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 15             | 0.03  | 0.68                                                      | 0.00 | 0.72  | 1.40                 | 10.28  | 5.28    | 1.44                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 16             | 0.03  | 0.84                                                      | 0.07 | 0.76  | 1.04                 | 12.44  | 6.40    | 1.20                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 17             | 0.03  | 0.80                                                      | 1.40 | 0.88  | 0.76                 | 20.45  | 11.72   | 1.04                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 18             | 0.03  | 0.72                                                      | 0.96 | 0.92  | 0.54                 | 14.72  | 16.55   | 0.92                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 19             | 0.03  | 0.64                                                      | 0.84 | 0.92  | 0.58                 | 18.20  | 18.35   | 0.92                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 20             | 0.03  | 0.64                                                      | 0.76 | 0.64  | 0.60                 | 75.27  | 16.40   | 0.80                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 21             | 0.03  | 0.64                                                      | 0.88 | 0.48  | 0.56                 | 95.51  | 14.84   | 0.60                     | 0.03 | 0.00 | 0.00 | 0.00 |         |
| 22             | 0.03  | 0.60                                                      | 0.84 | 0.46  | 0.56                 | 86.93  | 11.60   | 0.54                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 23             | 0.03  | 0.60                                                      | 0.68 | 0.46  | 0.56                 | 60.77  | 8.30    | 0.46                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 24             | 0.03  | 0.60                                                      | 0.48 | 1.72  | 0.56                 | 35.90  | 6.48    | 0.46                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 25             | 0.03  | 0.52                                                      | 0.46 | 7.30  | 0.76                 | 27.58  | 4.96    | 0.40                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 26             | 0.03  | 0.50                                                      | 0.46 | 4.40  | 1.56                 | 21.20  | 4.10    | 0.30                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 27             | 0.03  | 0.48                                                      | 0.48 | 2.66  | 1.76                 | 16.85  | 3.68    | 0.26                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 28             | 0.03  | 0.48                                                      | 0.52 | 1.92  | 1.84                 | 22.48  | 3.26    | 0.26                     | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 29             | 0.03  | 0.42                                                      | 0.50 | 1.24  | 2.08                 | 29.11  | 3.02    | 0.26                     | 0.00 | 0.00 |      | 0.00 |         |
| 30             | 0.03  | 0.38                                                      | 0.52 | 1.52  | 2.04                 | 30.50  | 2.72    | 0.26                     | 0.00 | 0.00 |      | 0.00 |         |
| 31             |       | 0.30                                                      |      | 3.02  | 3.26                 |        | 2.84    |                          | 0.00 | 0.00 |      | 0.00 |         |
| Total          | 0.90  | 22.76                                                     | 9.85 | 35.16 | 70.30                | 658.48 | 418.27  | 35.60                    | 2.06 | 0.00 | 0.00 | 0.00 | 1253.38 |
| Mean           | 0.03  | 0.73                                                      | 0.33 | 1.13  | 2.27                 | 21.95  | 13.49   | 1.19                     | 0.07 | 0.00 | 0.00 | 0.00 | 3.43    |
| Max            | 0.03  | 1.16                                                      | 1.40 | 7.30  | 6.00                 | 95.51  | 52.60   | 2.48                     | 0.24 | 0.00 | 0.00 | 0.00 | 95.51   |
| Min            | 0.03  | 0.30                                                      | 0.00 | 0.26  | 0.54                 | 1.20   | 2.72    | 0.26                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    |
| Runoff         | 0.08  | 1.97                                                      | 0.85 | 3.04  | 6.07                 | 56.89  | 36.14   | 3.08                     | 0.18 | 0.00 | 0.00 | 0.00 | 108.29  |
| Momentary Peak | 99.14 | CMS. at 12.78 m. (MSL.) at 06.00 Hours , on Sep 21 , 2013 |      |       |                      |        |         |                          |      |      |      |      |         |
| Runoff Yield   | 16.90 | Liters/Second/Square KM.                                  |      |       | Momentary Peak Yield |        | 487.894 | Liters/Second/Square KM. |      |      |      |      |         |

**WATER YEAR : 2013****BANG PAKONG RIVER BASIN****Khlong Samo Pun at Ban Noen Hom , Prachin Buri (Ny.4)**

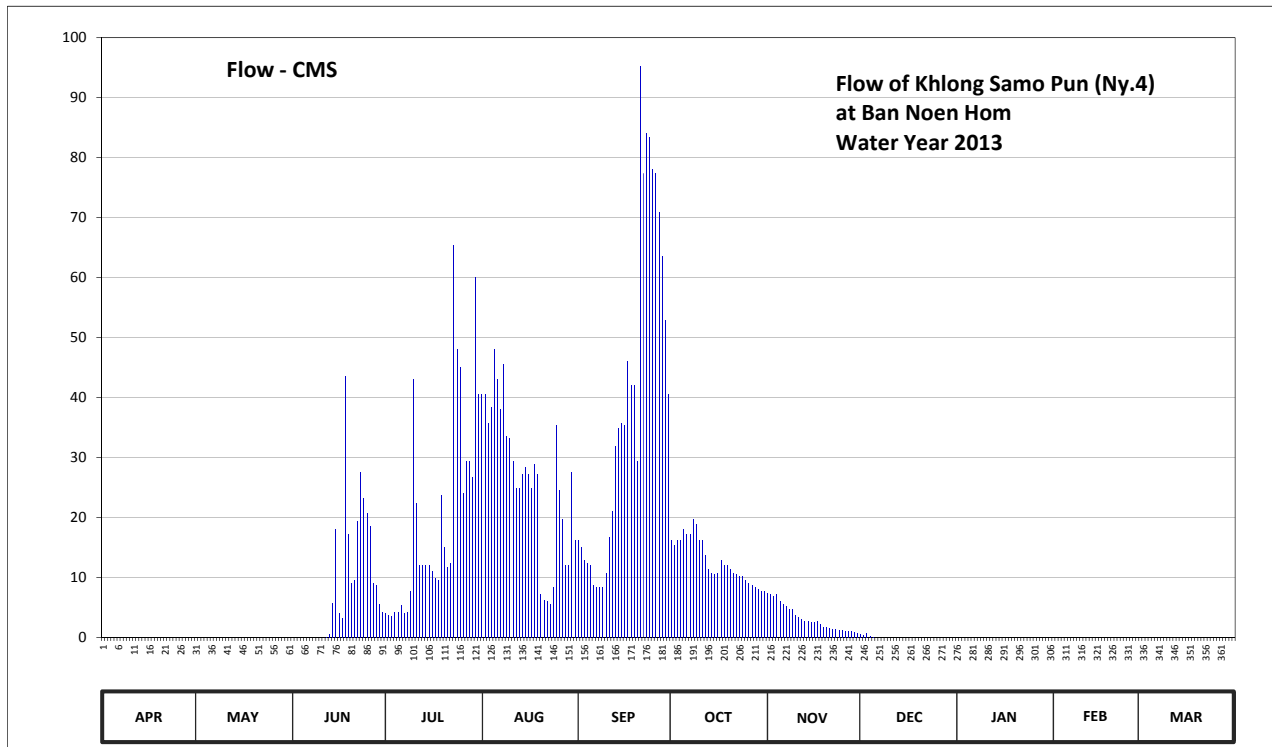
Lat 14 - 17 - 27 N Long 101 - 24 - 25 E

**Location : on left bank at the bridge of Prachin Buri - Khao Yai Highway.**

|                                         |                                                                                           |                 |               |               |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------------|---------------|---------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | <b>Noen Hom</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b>  | <b>Prachin Buri</b> |
| <b>Drainage Area</b>                    | 128                                                                                       | sq.km.          |               |               |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                 |               |               |                  |                     |
| <b>Zero Gage at Bottom</b>              | +376.100                                                                                  | m. (MSL.)       |               |               |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                 |               |               |                  |                     |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |                 |               |               | <b>Elevation</b> | +382.580 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                 |               |               |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                 |               |               |                  |                     |
| <b>Period of Available Gage Records</b> | 1986 to date                                                                              |                 |               |               |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |                 |               |               |                  |                     |
| <b>Period of Rating</b>                 | 1986 to date                                                                              |                 |               |               |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |                 |               |               |                  |                     |
| <b>Rated by Current Meter</b>           | 1986 to date                                                                              |                 |               |               |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                 |               |               |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                 |               |               |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 17 discharge measurements made in 2013. |                 |               |               |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr    | May    | Jun         | Jul    | Aug                               | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|--------|--------|-------------|--------|-----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| 1                                | 376.36 | 376.39 | 376.44      | 376.80 | 377.75                            | 377.20 | 377.20            | 376.95 | 376.55 | 376.45 | 376.43 | 376.42 |        |
| 2                                | 376.36 | 376.39 | 376.44      | 376.79 | 377.75                            | 377.17 | 377.18            | 376.94 | 376.54 | 376.45 | 376.43 | 376.42 |        |
| 3                                | 376.36 | 376.38 | 376.44      | 376.78 | 377.65                            | 377.12 | 377.20            | 376.93 | 376.58 | 376.45 | 376.43 | 376.42 |        |
| 4                                | 376.36 | 376.37 | 376.44      | 376.81 | 377.71                            | 377.11 | 377.20            | 376.94 | 376.52 | 376.45 | 376.43 | 376.42 |        |
| 5                                | 376.36 | 376.37 | 376.44      | 376.81 | 377.90                            | 377.10 | 377.24            | 376.90 | 376.51 | 376.45 | 376.43 | 376.42 |        |
| 6                                | 376.35 | 376.37 | 376.47      | 376.87 | 377.80                            | 376.99 | 377.22            | 376.88 | 376.50 | 376.45 | 376.43 | 376.40 |        |
| 7                                | 376.35 | 376.37 | 376.47      | 376.80 | 377.70                            | 376.98 | 377.22            | 376.86 | 376.50 | 376.45 | 376.43 | 376.40 |        |
| 8                                | 376.35 | 376.37 | 376.46      | 376.81 | 377.85                            | 376.98 | 377.28            | 376.84 | 376.49 | 376.45 | 376.43 | 376.40 |        |
| 9                                | 376.35 | 376.36 | 376.46      | 376.96 | 377.60                            | 376.98 | 377.26            | 376.84 | 376.49 | 376.45 | 376.43 | 376.38 |        |
| 10                               | 376.35 | 376.36 | 376.46      | 377.80 | 377.59                            | 377.06 | 377.20            | 376.79 | 376.48 | 376.45 | 376.43 | 376.38 |        |
| 11                               | 376.35 | 376.36 | 376.48      | 377.34 | 377.50                            | 377.21 | 377.20            | 376.77 | 376.48 | 376.45 | 376.43 | 376.38 |        |
| 12                               | 376.35 | 376.36 | 376.51      | 377.10 | 377.40                            | 377.31 | 377.14            | 376.75 | 376.48 | 376.45 | 376.43 | 376.38 |        |
| 13                               | 376.35 | 376.35 | 376.55      | 377.10 | 377.40                            | 377.56 | 377.08            | 376.74 | 376.48 | 376.45 | 376.43 | 376.38 |        |
| 14                               | 376.35 | 376.35 | 376.89      | 377.10 | 377.45                            | 377.63 | 377.06            | 376.74 | 376.48 | 376.45 | 376.43 | 376.38 |        |
| 15                               | 376.35 | 376.35 | 377.24      | 377.10 | 377.48                            | 377.65 | 377.05            | 376.73 | 376.48 | 376.44 | 376.42 | 376.38 |        |
| 16                               | 376.35 | 376.35 | 376.80      | 377.07 | 377.45                            | 377.64 | 377.06            | 376.73 | 376.48 | 376.44 | 376.42 | 376.38 |        |
| 17                               | 376.36 | 376.35 | 376.76      | 377.03 | 377.40                            | 377.86 | 377.12            | 376.74 | 376.47 | 376.44 | 376.42 | 376.38 |        |
| 18                               | 376.36 | 376.35 | 377.81      | 377.02 | 377.49                            | 377.78 | 377.10            | 376.71 | 376.47 | 376.44 | 376.42 | 376.38 |        |
| 19                               | 376.38 | 376.38 | 377.22      | 377.37 | 377.45                            | 377.78 | 377.10            | 376.68 | 376.47 | 376.44 | 376.42 | 376.38 |        |
| 20                               | 376.39 | 376.39 | 377.00      | 377.17 | 376.94                            | 377.50 | 377.08            | 376.67 | 376.48 | 376.44 | 376.42 | 376.38 |        |
| 21                               | 376.38 | 376.40 | 377.02      | 377.09 | 376.91                            | 378.66 | 377.06            | 376.66 | 376.47 | 376.43 | 376.42 | 376.38 |        |
| 22                               | 376.38 | 376.40 | 377.27      | 377.11 | 376.90                            | 378.39 | 377.05            | 376.65 | 376.46 | 376.43 | 376.42 | 376.38 |        |
| 23                               | 376.38 | 376.40 | 377.46      | 378.19 | 376.88                            | 378.50 | 377.04            | 376.64 | 376.46 | 376.43 | 376.42 | 376.38 |        |
| 24                               | 376.38 | 376.40 | 377.36      | 377.90 | 376.98                            | 378.49 | 377.04            | 376.63 | 376.46 | 376.43 | 376.42 | 376.38 |        |
| 25                               | 376.38 | 376.42 | 377.30      | 377.84 | 377.64                            | 378.40 | 377.02            | 376.62 | 376.42 | 376.43 | 376.42 | 376.38 |        |
| 26                               | 376.41 | 376.50 | 377.25      | 377.38 | 377.39                            | 378.39 | 377.00            | 376.61 | 376.46 | 376.43 | 376.42 | 376.38 |        |
| 27                               | 376.41 | 376.48 | 377.00      | 377.50 | 377.28                            | 378.28 | 376.99            | 376.60 | 376.46 | 376.43 | 376.42 | 376.38 |        |
| 28                               | 376.41 | 376.46 | 376.99      | 377.50 | 377.10                            | 378.16 | 376.98            | 376.60 | 376.46 | 376.43 | 376.42 | 376.38 |        |
| 29                               | 376.40 | 376.46 | 376.88      | 377.44 | 377.10                            | 377.98 | 376.97            | 376.59 | 376.46 | 376.43 |        | 376.38 |        |
| 30                               | 376.40 | 376.45 | 376.81      | 378.10 | 377.46                            | 377.75 | 376.96            | 376.57 | 376.46 | 376.43 |        | 376.38 |        |
| 31                               |        | 376.45 |             | 377.75 | 377.20                            |        | 376.96            |        | 376.46 | 376.43 |        | 376.38 |        |
| Mean                             | 376.37 | 376.39 | 376.84      | 377.24 | 377.42                            | 377.65 | 377.11            | 376.74 | 376.48 | 376.44 | 376.42 | 376.39 |        |
| Max                              | 376.41 | 376.50 | 377.81      | 378.19 | 377.90                            | 378.66 | 377.28            | 376.95 | 376.58 | 376.45 | 376.43 | 376.42 | 378.66 |
| Min                              | 376.35 | 376.35 | 376.44      | 376.78 | 376.88                            | 376.98 | 376.96            | 376.57 | 376.42 | 376.43 | 376.42 | 376.38 | 376.35 |
| Annual Max Momentary Gage Height | 379.30 |        | m. (MSL.) , |        | at 18.00 Hours , on Sep 21 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    | 376.10 |        | m. (MSL.) , |        | River Bed                         | 374.66 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation              | 382.16 |        | m. (MSL.) , |        |                                   |        |                   |        |        |        |        |        |        |
| Right Bank Elevation             | 383.63 |        | m. (MSL.) , |        | Drainage Area                     | 128    | Square Kilometers |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date  | Apr  | May  | Jun    | Jul    | Aug    | Sep     | Oct    | Nov   | Dec  | Jan  | Feb  | Mar  | Annual |
|-------|------|------|--------|--------|--------|---------|--------|-------|------|------|------|------|--------|
| 1     | 0.00 | 0.00 | 0.00   | 4.00   | 40.50  | 16.33   | 16.33  | 7.50  | 0.50 | 0.00 | 0.00 | 0.00 |        |
| 2     | 0.00 | 0.00 | 0.00   | 3.80   | 40.50  | 15.03   | 15.47  | 7.20  | 0.40 | 0.00 | 0.00 | 0.00 |        |
| 3     | 0.00 | 0.00 | 0.00   | 3.60   | 35.83  | 12.87   | 16.33  | 6.90  | 0.80 | 0.00 | 0.00 | 0.00 |        |
| 4     | 0.00 | 0.00 | 0.00   | 4.20   | 38.50  | 12.43   | 16.33  | 7.20  | 0.20 | 0.00 | 0.00 | 0.00 |        |
| 5     | 0.00 | 0.00 | 0.00   | 4.20   | 48.00  | 12.00   | 18.07  | 6.00  | 0.10 | 0.00 | 0.00 | 0.00 |        |
| 6     | 0.00 | 0.00 | 0.00   | 5.40   | 43.00  | 8.70    | 17.20  | 5.60  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 7     | 0.00 | 0.00 | 0.00   | 4.00   | 38.00  | 8.40    | 17.20  | 5.20  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 8     | 0.00 | 0.00 | 0.00   | 4.20   | 45.50  | 8.40    | 19.80  | 4.80  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 9     | 0.00 | 0.00 | 0.00   | 7.80   | 33.67  | 8.40    | 18.93  | 4.80  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 10    | 0.00 | 0.00 | 0.00   | 43.00  | 33.23  | 10.80   | 16.33  | 3.80  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 11    | 0.00 | 0.00 | 0.00   | 22.40  | 29.33  | 16.77   | 16.33  | 3.40  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 12    | 0.00 | 0.00 | 0.10   | 12.00  | 25.00  | 21.10   | 13.73  | 3.00  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 13    | 0.00 | 0.00 | 0.50   | 12.00  | 25.00  | 31.93   | 11.40  | 2.80  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 14    | 0.00 | 0.00 | 5.80   | 12.00  | 27.17  | 34.97   | 10.80  | 2.80  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 15    | 0.00 | 0.00 | 18.07  | 12.00  | 28.47  | 35.83   | 10.50  | 2.60  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 16    | 0.00 | 0.00 | 4.00   | 11.10  | 27.17  | 35.40   | 10.80  | 2.60  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 17    | 0.00 | 0.00 | 3.20   | 9.90   | 25.00  | 46.00   | 12.87  | 2.80  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 18    | 0.00 | 0.00 | 43.50  | 9.60   | 28.90  | 42.00   | 12.00  | 2.20  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 19    | 0.00 | 0.00 | 17.20  | 23.70  | 27.17  | 42.00   | 12.00  | 1.80  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 20    | 0.00 | 0.00 | 9.00   | 15.03  | 7.20   | 29.33   | 11.40  | 1.70  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 21    | 0.00 | 0.00 | 9.60   | 11.70  | 6.30   | 95.20   | 10.80  | 1.60  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 22    | 0.00 | 0.00 | 19.37  | 12.43  | 6.00   | 77.40   | 10.50  | 1.50  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 23    | 0.00 | 0.00 | 27.60  | 65.40  | 5.60   | 84.00   | 10.20  | 1.40  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 24    | 0.00 | 0.00 | 23.27  | 48.00  | 8.40   | 83.40   | 10.20  | 1.30  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 25    | 0.00 | 0.00 | 20.67  | 45.00  | 35.40  | 78.00   | 9.60   | 1.20  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 26    | 0.00 | 0.00 | 18.50  | 24.13  | 24.57  | 77.40   | 9.00   | 1.10  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 27    | 0.00 | 0.00 | 9.00   | 29.33  | 19.80  | 70.80   | 8.70   | 1.00  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 28    | 0.00 | 0.00 | 8.70   | 29.33  | 12.00  | 63.60   | 8.40   | 1.00  | 0.00 | 0.00 | 0.00 | 0.00 |        |
| 29    | 0.00 | 0.00 | 5.60   | 26.73  | 12.00  | 52.80   | 8.10   | 0.90  | 0.00 | 0.00 |      | 0.00 |        |
| 30    | 0.00 | 0.00 | 4.20   | 60.00  | 27.60  | 40.50   | 7.80   | 0.70  | 0.00 | 0.00 |      | 0.00 |        |
| 31    |      | 0.00 |        | 40.50  | 16.33  |         | 7.80   |       | 0.00 | 0.00 |      | 0.00 |        |
| Total | 0.00 | 0.00 | 247.88 | 616.48 | 821.14 | 1171.79 | 394.92 | 96.40 | 2.00 | 0.00 | 0.00 | 0.00 | 3350.  |

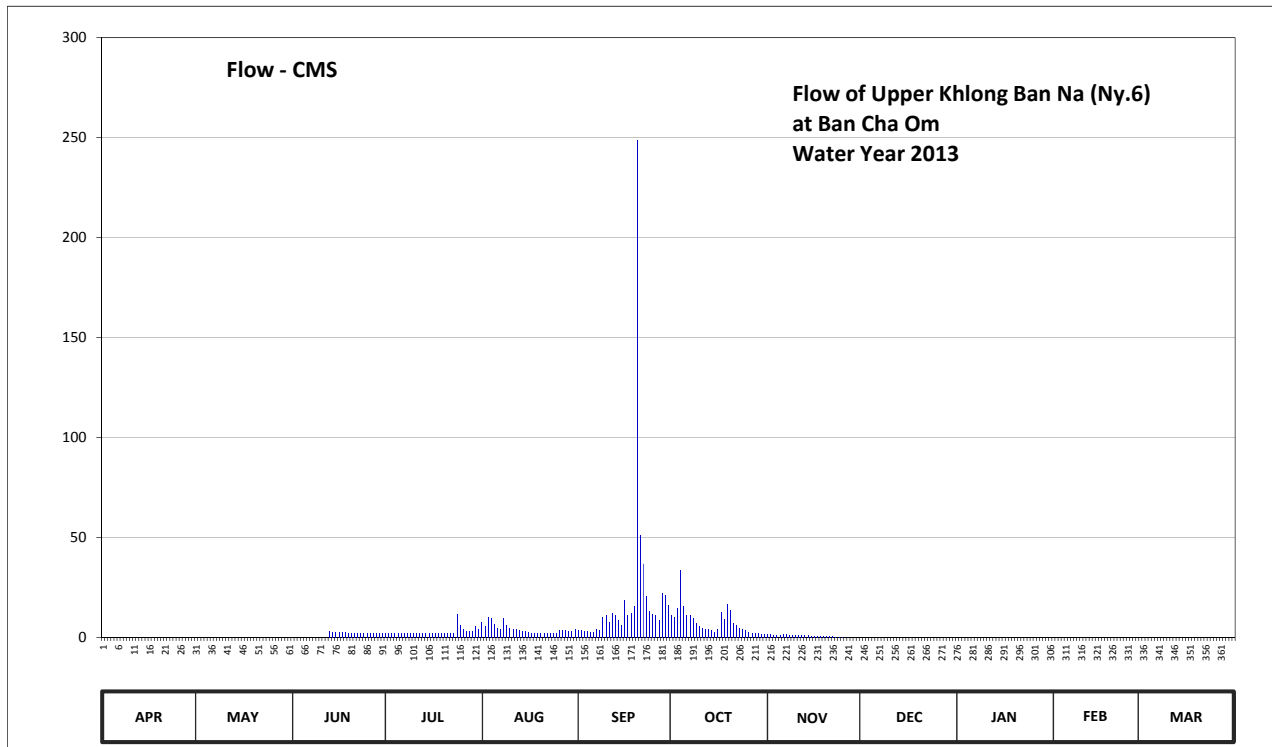
Lat 14 - 24 - 34 N    Long 101 - 07 - 30 E

**Location :** on left bank about 50 meters from the top staff gage.

|                                         |                                                                                           |           |               |            |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Cha Om    | <b>Amphoe</b> | Kaeng Khoi | <b>Changwat</b>  | Saraburi          |
| <b>Drainage Area</b>                    | 126                                                                                       | sq.km.    |               |            |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |            |                  |                   |
| <b>Zero Gage at Bottom</b>              | +29.600                                                                                   | m. (MSL.) |               |            |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |            |                  |                   |
| <b>Location BM</b>                      | On left bank about 50 meters from the top staff gage.                                     |           |               |            | <b>Elevation</b> | +34.960 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |           |               |            |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |           |               |            |                  |                   |
| <b>Period of Available Gage Records</b> | 1988 to date                                                                              |           |               |            |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |            |                  |                   |
| <b>Period of Rating</b>                 | 1988 to date                                                                              |           |               |            |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |            |                  |                   |
| <b>Rated by Current Meter</b>           | 1988 to date                                                                              |           |               |            |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |            |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +34.830 m.(MSL.), records are channel flow only.        |           |               |            |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 16 discharge measurements made in 2013. |           |               |            |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 30.48 | 30.48 | 30.48       | 30.70 | 31.13                             | 30.88 | 31.32             | 30.66 | 30.46 | 30.40 | 30.31 | 30.23 |        |
| 2                                | 30.48 | 30.48 | 30.48       | 30.70 | 31.03                             | 30.85 | 31.27             | 30.65 | 30.44 | 30.40 | 30.31 | 30.23 |        |
| 3                                | 30.48 | 30.48 | 30.48       | 30.70 | 31.27                             | 30.84 | 31.47             | 30.64 | 30.44 | 30.40 | 30.31 | 30.23 |        |
| 4                                | 30.48 | 30.48 | 30.48       | 30.70 | 31.23                             | 30.82 | 32.07             | 30.64 | 30.42 | 30.40 | 30.31 | 30.23 |        |
| 5                                | 30.48 | 30.48 | 30.48       | 30.70 | 31.09                             | 30.78 | 31.51             | 30.63 | 30.42 | 30.40 | 30.31 | 30.23 |        |
| 6                                | 30.48 | 30.48 | 30.48       | 30.70 | 30.97                             | 30.76 | 31.30             | 30.66 | 30.42 | 30.40 | 30.28 | 30.23 |        |
| 7                                | 30.48 | 30.48 | 30.48       | 30.70 | 30.90                             | 30.93 | 31.32             | 30.65 | 30.42 | 30.40 | 30.28 | 30.23 |        |
| 8                                | 30.48 | 30.48 | 30.48       | 30.70 | 31.23                             | 30.89 | 31.23             | 30.64 | 30.42 | 30.40 | 30.28 | 30.23 |        |
| 9                                | 30.48 | 30.48 | 30.48       | 30.70 | 31.05                             | 31.26 | 31.12             | 30.63 | 30.42 | 30.40 | 30.28 | 30.22 |        |
| 10                               | 30.48 | 30.48 | 30.48       | 30.70 | 30.99                             | 31.30 | 31.03             | 30.62 | 30.42 | 30.40 | 30.23 | 30.20 |        |
| 11                               | 30.48 | 30.48 | 30.48       | 30.70 | 30.95                             | 31.13 | 30.99             | 30.62 | 30.42 | 30.40 | 30.23 | 30.20 |        |
| 12                               | 30.48 | 30.48 | 30.48       | 30.70 | 30.93                             | 31.35 | 30.95             | 30.61 | 30.42 | 30.40 | 30.23 | 30.20 |        |
| 13                               | 30.48 | 30.48 | 30.80       | 30.70 | 30.85                             | 31.31 | 30.91             | 30.60 | 30.42 | 30.40 | 30.23 | 30.20 |        |
| 14                               | 30.48 | 30.48 | 30.78       | 30.70 | 30.82                             | 31.18 | 30.86             | 30.60 | 30.42 | 30.40 | 30.23 | 30.20 |        |
| 15                               | 30.48 | 30.48 | 30.78       | 30.70 | 30.80                             | 31.05 | 30.79             | 30.59 | 30.42 | 30.40 | 30.23 | 30.18 |        |
| 16                               | 30.48 | 30.48 | 30.78       | 30.70 | 30.77                             | 31.63 | 30.95             | 30.59 | 30.42 | 30.40 | 30.23 | 30.17 |        |
| 17                               | 30.48 | 30.48 | 30.76       | 30.70 | 30.74                             | 31.32 | 31.38             | 30.58 | 30.42 | 30.40 | 30.23 | 30.17 |        |
| 18                               | 30.48 | 30.48 | 30.76       | 30.70 | 30.72                             | 31.36 | 31.22             | 30.58 | 30.42 | 30.40 | 30.23 | 30.17 |        |
| 19                               | 30.48 | 30.48 | 30.74       | 30.70 | 30.70                             | 31.51 | 31.55             | 30.57 | 30.42 | 30.40 | 30.23 | 30.17 |        |
| 20                               | 30.48 | 30.48 | 30.74       | 30.70 | 30.70                             | 35.23 | 31.43             | 30.56 | 30.42 | 30.40 | 30.23 | 30.17 |        |
| 21                               | 30.48 | 30.48 | 30.74       | 30.70 | 30.70                             | 32.54 | 31.11             | 30.56 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 22                               | 30.48 | 30.48 | 30.74       | 30.70 | 30.70                             | 32.16 | 31.05             | 30.55 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 23                               | 30.48 | 30.48 | 30.74       | 30.70 | 30.70                             | 31.69 | 30.96             | 30.54 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 24                               | 30.48 | 30.48 | 30.74       | 31.34 | 30.70                             | 31.40 | 30.91             | 30.53 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 25                               | 30.48 | 30.48 | 30.72       | 31.07 | 30.75                             | 31.34 | 30.85             | 30.52 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 26                               | 30.48 | 30.48 | 30.72       | 30.93 | 30.88                             | 31.30 | 30.79             | 30.50 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 27                               | 30.48 | 30.48 | 30.72       | 30.84 | 30.89                             | 31.19 | 30.75             | 30.49 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 28                               | 30.48 | 30.48 | 30.72       | 30.80 | 30.86                             | 31.74 | 30.70             | 30.48 | 30.40 | 30.40 | 30.23 | 30.14 |        |
| 29                               | 30.48 | 30.48 | 30.72       | 30.80 | 30.82                             | 31.70 | 30.70             | 30.46 | 30.40 | 30.40 |       | 30.14 |        |
| 30                               | 30.48 | 30.48 | 30.72       | 31.04 | 30.83                             | 31.53 | 30.66             | 30.45 | 30.40 | 30.40 |       | 30.14 |        |
| 31                               |       | 30.48 |             | 30.95 | 30.91                             |       | 30.66             |       | 30.40 | 30.40 |       | 30.14 |        |
| Mean                             | 30.48 | 30.48 | 30.64       | 30.77 | 30.89                             | 31.43 | 31.09             | 30.58 | 30.42 | 30.40 | 30.25 | 30.18 |        |
| Max                              | 30.48 | 30.48 | 30.80       | 31.34 | 31.27                             | 35.23 | 32.07             | 30.66 | 30.46 | 30.40 | 30.31 | 30.23 | 35.23  |
| Min                              | 30.48 | 30.48 | 30.48       | 30.70 | 30.70                             | 30.76 | 30.66             | 30.45 | 30.40 | 30.40 | 30.23 | 30.14 | 30.14  |
| Annual Max Momentary Gage Height | 35.30 |       | m. (MSL.) , |       | at 06.00 Hours , on Sep 20 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 29.60 |       | m. (MSL.) , |       | River Bed                         | 29.89 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 34.83 |       | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 34.83 |       | m. (MSL.) , |       | Drainage Area                     | 126   | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun   | Jul                  | Aug    | Sep      | Oct    | Nov                      | Dec  | Jan  | Feb  | Mar  | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|-------|----------------------|--------|----------|--------|--------------------------|------|------|------|------|----------------|
| 1              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 7.60   | 3.80     | 11.40  | 1.60                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 5.60   | 3.50     | 10.40  | 1.50                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 10.40  | 3.40     | 14.75  | 1.40                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 9.60   | 3.20     | 33.67  | 1.40                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 6.80   | 2.80     | 15.75  | 1.30                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 4.70   | 2.60     | 11.00  | 1.60                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 4.00   | 4.30     | 11.40  | 1.50                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 9.60   | 3.90     | 9.60   | 1.40                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 6.00   | 10.20    | 7.40   | 1.30                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 4.90   | 11.00    | 5.60   | 1.20                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 4.50   | 7.60     | 4.90   | 1.20                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 4.30   | 12.00    | 4.50   | 1.10                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                             | 0.00                     | 3.00  | 2.00                 | 3.50   | 11.20    | 4.10   | 1.00                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                             | 0.00                     | 2.80  | 2.00                 | 3.20   | 8.60     | 3.60   | 1.00                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                             | 0.00                     | 2.80  | 2.00                 | 3.00   | 6.00     | 2.90   | 0.90                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                             | 0.00                     | 2.80  | 2.00                 | 2.70   | 18.90    | 4.50   | 0.90                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                             | 0.00                     | 2.60  | 2.00                 | 2.40   | 11.40    | 12.60  | 0.80                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                             | 0.00                     | 2.60  | 2.00                 | 2.20   | 12.20    | 9.40   | 0.80                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                             | 0.00                     | 2.40  | 2.00                 | 2.00   | 15.75    | 16.75  | 0.70                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                             | 0.00                     | 2.40  | 2.00                 | 2.00   | 248.60   | 13.75  | 0.60                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                             | 0.00                     | 2.40  | 2.00                 | 2.00   | 51.10    | 7.20   | 0.60                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                             | 0.00                     | 2.40  | 2.00                 | 2.00   | 36.90    | 6.00   | 0.50                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                             | 0.00                     | 2.40  | 2.00                 | 2.00   | 20.70    | 4.60   | 0.40                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                             | 0.00                     | 2.40  | 11.80                | 2.00   | 13.00    | 4.10   | 0.30                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                             | 0.00                     | 2.20  | 6.40                 | 2.50   | 11.80    | 3.50   | 0.20                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                             | 0.00                     | 2.20  | 4.30                 | 3.80   | 11.00    | 2.90   | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                             | 0.00                     | 2.20  | 3.40                 | 3.90   | 8.80     | 2.50   | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                             | 0.00                     | 2.20  | 3.00                 | 3.60   | 22.20    | 2.00   | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                             | 0.00                     | 2.20  | 3.00                 | 3.20   | 21.00    | 2.00   | 0.00                     | 0.00 | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                             | 0.00                     | 2.20  | 5.80                 | 3.30   | 16.25    | 1.60   | 0.00                     | 0.00 | 0.00 |      | 0.00 |                |
| 31             |                                                                  | 0.00                     |       | 4.50                 | 4.10   |          | 1.60   |                          | 0.00 | 0.00 |      | 0.00 |                |
| Total          | 0.00                                                             | 0.00                     | 44.20 | 88.20                | 131.40 | 613.70   | 245.97 | 25.20                    | 0.00 | 0.00 | 0.00 | 0.00 | 1148.67 CMSDAY |
| Mean           | 0.00                                                             | 0.00                     | 1.47  | 2.85                 | 4.24   | 20.46    | 7.93   | 0.84                     | 0.00 | 0.00 | 0.00 | 0.00 | 3.15 CMS       |
| Max            | 0.00                                                             | 0.00                     | 3.00  | 11.80                | 10.40  | 248.60   | 33.67  | 1.60                     | 0.00 | 0.00 | 0.00 | 0.00 | 248.60 CMS     |
| Min            | 0.00                                                             | 0.00                     | 0.00  | 2.00                 | 2.00   | 2.60     | 1.60   | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                             | 0.00                     | 3.82  | 7.62                 | 11.35  | 53.02    | 21.25  | 2.18                     | 0.00 | 0.00 | 0.00 | 0.00 | 99.25 MCM      |
| Momentary Peak | 257.00 CMS. at 35.30 m. (MSL.) at 06.00 Hours , on Sep 20 , 2013 |                          |       |                      |        |          |        |                          |      |      |      |      |                |
| Runoff Yield   | 24.93                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 2035.966 |        | Liters/Second/Square KM. |      |      |      |      |                |

## WATER YEAR : 2013

## TONLE SAP BASIN

### Khlong Phra Phut at Ban Pang Ngon , Chanthaburi (TI.3

Lat 12 - 58 - 12 N    Long 102 - 17 - 20 E

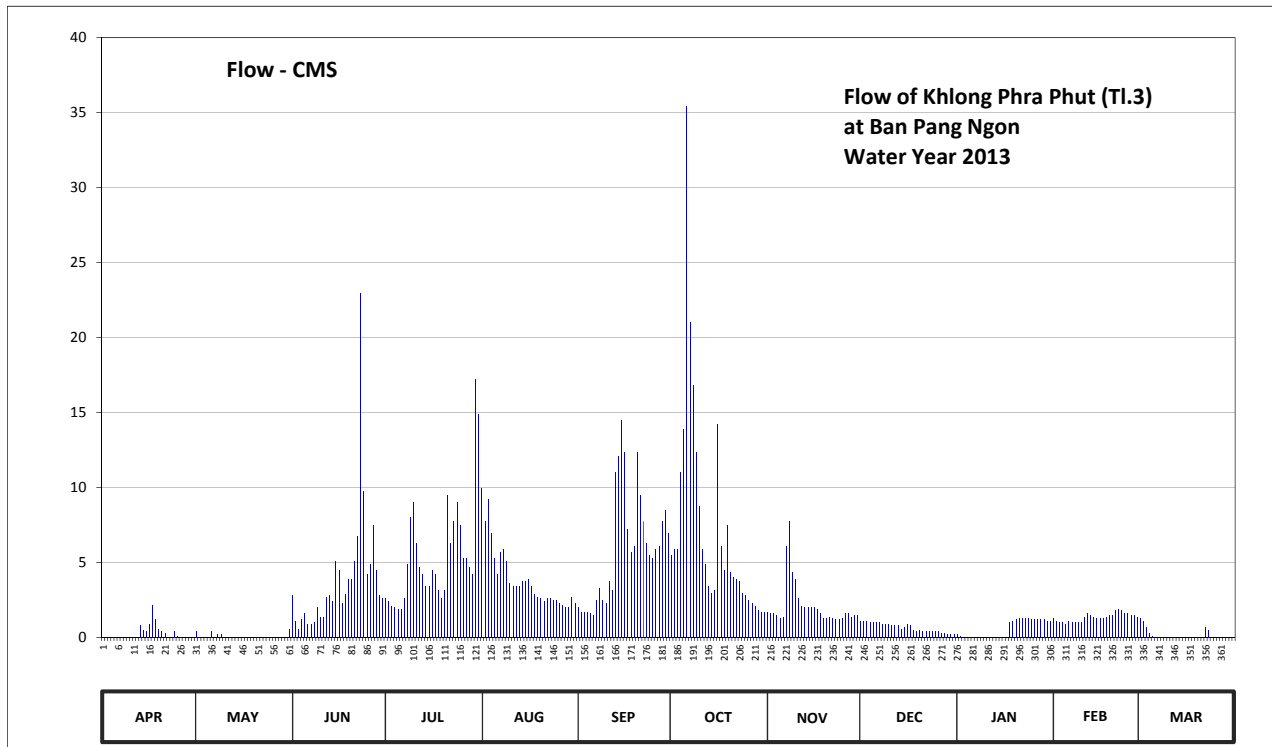
**Location : on left bank downstream from the bridge of Pong Nam Ron -Wang Nam Yen Highway**

|                                         |                                                                             |           |               |              |                  |                    |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                  | Pang Ngon | <b>Amphoe</b> | Pong Nam Ron | <b>Changwat</b>  | Chanthaburi        |
| <b>Drainage Area</b>                    | 71                                                                          | sq.km.    |               |              |                  |                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +190.680                                                                    | m. (MSL.) |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |              |                  |                    |
| <b>Location BM</b>                      | On left bank about 6 meters from the top staff gage.                        |           |               |              | <b>Elevation</b> | +195.973 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                |           |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                             |           |               |              |                  |                    |
| <b>Period of Rating</b>                 | 1986 to date                                                                |           |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 1986 to date                                                                |           |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                              |           |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |              |                  |                    |
| <b>General Description</b>              | Records good. Flow effected by the local weir.                              |           |               |              |                  |                    |
|                                         | Stage-discharge relation defined by 13 discharge measurements made in 2013. |           |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr    | May    | Jun                                            | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
|----------------------------------|----|--------|--------|------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  | 1  | 190.73 | 191.04 | 191.28                                         | 191.26 | 191.64 | 191.20 | 191.45 | 191.17 | 191.11 | 191.02 | 191.13 | 191.13 |        |
|                                  | 2  | 190.73 | 190.99 | 191.11                                         | 191.24 | 191.55 | 191.17 | 191.47 | 191.16 | 191.11 | 191.01 | 191.11 | 191.11 |        |
|                                  | 3  | 190.73 | 190.99 | 191.06                                         | 191.21 | 191.61 | 191.17 | 191.47 | 191.16 | 191.11 | 191.00 | 191.10 | 191.07 |        |
|                                  | 4  | 190.72 | 191.00 | 191.12                                         | 191.20 | 191.52 | 191.17 | 191.68 | 191.15 | 191.10 | 191.00 | 191.10 | 191.03 |        |
|                                  | 5  | 190.72 | 191.00 | 191.16                                         | 191.19 | 191.44 | 191.16 | 191.78 | 191.13 | 191.10 | 191.00 | 191.09 | 191.01 |        |
|                                  | 6  | 190.72 | 191.04 | 191.09                                         | 191.19 | 191.38 | 191.15 | 192.28 | 191.14 | 191.10 | 190.99 | 191.11 | 190.92 |        |
|                                  | 7  | 190.72 | 190.98 | 191.09                                         | 191.26 | 191.46 | 191.25 | 191.97 | 191.48 | 191.10 | 190.99 | 191.10 | 190.89 |        |
|                                  | 8  | 190.71 | 191.02 | 191.10                                         | 191.42 | 191.47 | 191.32 | 191.86 | 191.55 | 191.09 | 190.99 | 191.10 | 190.92 |        |
|                                  | 9  | 190.70 | 191.02 | 191.20                                         | 191.56 | 191.43 | 191.25 | 191.73 | 191.39 | 191.09 | 190.98 | 191.10 | 190.89 |        |
|                                  | 10 | 190.71 | 190.99 | 191.14                                         | 191.60 | 191.34 | 191.23 | 191.59 | 191.36 | 191.09 | 190.98 | 191.10 | 190.89 |        |
|                                  | 11 | 190.72 | 190.98 | 191.14                                         | 191.49 | 191.33 | 191.35 | 191.47 | 191.26 | 191.08 | 190.98 | 191.14 | 190.88 |        |
|                                  | 12 | 190.76 | 190.93 | 191.27                                         | 191.41 | 191.33 | 191.31 | 191.42 | 191.21 | 191.08 | 190.98 | 191.16 | 190.89 |        |
|                                  | 13 | 191.08 | 190.89 | 191.28                                         | 191.38 | 191.33 | 191.68 | 191.33 | 191.20 | 191.08 | 190.97 | 191.15 | 190.83 |        |
|                                  | 14 | 191.05 | 190.85 | 191.24                                         | 191.33 | 191.35 | 191.72 | 191.30 | 191.20 | 191.06 | 190.97 | 191.14 | 190.78 |        |
|                                  | 15 | 191.04 | 190.81 | 191.43                                         | 191.33 | 191.35 | 191.80 | 191.31 | 191.20 | 191.07 | 190.97 | 191.13 | 190.77 |        |
|                                  | 16 | 191.09 | 190.79 | 191.40                                         | 191.40 | 191.36 | 191.73 | 191.79 | 191.20 | 191.09 | 190.97 | 191.13 | 190.75 |        |
|                                  | 17 | 191.22 | 190.78 | 191.23                                         | 191.38 | 191.33 | 191.53 | 191.48 | 191.19 | 191.08 | 190.98 | 191.13 | 190.75 |        |
|                                  | 18 | 191.12 | 190.76 | 191.29                                         | 191.31 | 191.29 | 191.46 | 191.40 | 191.16 | 191.05 | 191.10 | 191.14 | 190.74 |        |
|                                  | 19 | 191.06 | 190.76 | 191.36                                         | 191.26 | 191.27 | 191.48 | 191.54 | 191.13 | 191.04 | 191.11 | 191.15 | 190.74 |        |
|                                  | 20 | 191.04 | 190.76 | 191.36                                         | 191.31 | 191.26 | 191.73 | 191.39 | 191.13 | 191.05 | 191.12 | 191.15 | 190.75 |        |
|                                  | 21 | 191.03 | 190.77 | 191.43                                         | 191.62 | 191.24 | 191.62 | 191.37 | 191.14 | 191.04 | 191.13 | 191.18 | 190.83 |        |
|                                  | 22 | 191.00 | 190.95 | 191.51                                         | 191.49 | 191.26 | 191.55 | 191.36 | 191.13 | 191.04 | 191.13 | 191.19 | 191.07 |        |
|                                  | 23 | 191.00 | 190.93 | 192.02                                         | 191.55 | 191.26 | 191.49 | 191.35 | 191.12 | 191.04 | 191.13 | 191.18 | 191.05 |        |
|                                  | 24 | 191.04 | 190.91 | 191.63                                         | 191.60 | 191.25 | 191.45 | 191.30 | 191.12 | 191.04 | 191.13 | 191.16 | 190.99 |        |
|                                  | 25 | 191.01 | 191.00 | 191.38                                         | 191.54 | 191.25 | 191.44 | 191.28 | 191.13 | 191.04 | 191.12 | 191.16 | 190.99 |        |
|                                  | 26 | 190.99 | 190.93 | 191.42                                         | 191.44 | 191.23 | 191.47 | 191.25 | 191.16 | 191.04 | 191.12 | 191.15 | 190.98 |        |
|                                  | 27 | 190.94 | 190.92 | 191.54                                         | 191.44 | 191.22 | 191.48 | 191.23 | 191.16 | 191.03 | 191.12 | 191.15 | 190.99 |        |
|                                  | 28 | 190.93 | 190.91 | 191.40                                         | 191.41 | 191.20 | 191.55 | 191.21 | 191.14 | 191.03 | 191.12 | 191.14 | 190.96 |        |
|                                  | 29 | 190.89 | 190.86 | 191.28                                         | 191.38 | 191.20 | 191.58 | 191.18 | 191.15 | 191.02 | 191.12 |        | 190.96 |        |
|                                  | 30 | 190.98 | 190.89 | 191.26                                         | 191.87 | 191.27 | 191.52 | 191.17 | 191.15 | 191.02 | 191.11 |        | 190.94 |        |
|                                  | 31 |        | 191.06 |                                                | 191.81 | 191.23 |        | 191.17 |        | 191.02 | 191.11 |        | 190.93 |        |
| Mean                             |    | 190.91 | 190.92 | 191.31                                         | 191.42 | 191.34 | 191.43 | 191.47 | 191.20 | 191.07 | 191.05 | 191.13 | 190.92 |        |
| Max                              |    | 191.22 | 191.06 | 192.02                                         | 191.87 | 191.64 | 191.80 | 192.28 | 191.55 | 191.11 | 191.13 | 191.19 | 191.13 | 192.28 |
| Min                              |    | 190.70 | 190.76 | 191.06                                         | 191.19 | 191.20 | 191.15 | 191.17 | 191.12 | 191.02 | 190.97 | 191.09 | 190.74 | 190.70 |
| Annual Max Momentary Gage Height |    |        | 192.67 | m. (MSL.) , at 18.00 Hours , on Oct 6 , 2013   |        |        |        |        |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation    |    |        | 190.68 | m. (MSL.) , River Bed 190.90 m. (MSL.)         |        |        |        |        |        |        |        |        |        |        |
| Left Bank Elevation              |    |        | 196.73 | m. (MSL.) ,                                    |        |        |        |        |        |        |        |        |        |        |
| Right Bank Elevation             |    |        | 196.73 | m. (MSL.) , Drainage Area 71 Square Kilometers |        |        |        |        |        |        |        |        |        |        |

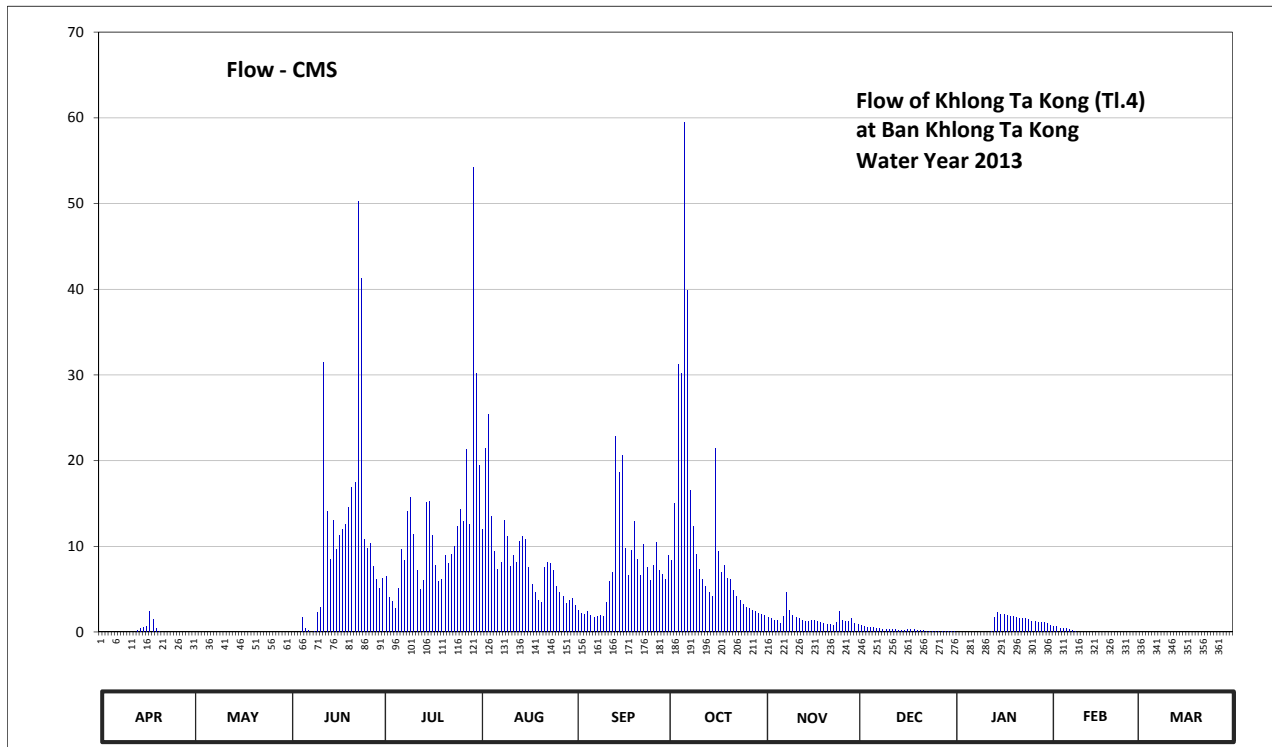




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar  | Annual        |
|----------------|----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|-------|-------|-------|-------|------|---------------|
| 1              | 0.00                                                           | 0.40                     | 2.80   | 2.60                 | 10.00  | 2.00    | 5.50                     | 1.70  | 1.10  | 0.20  | 1.30  | 1.30 |               |
| 2              | 0.00                                                           | 0.00                     | 1.10   | 2.40                 | 7.75   | 1.70    | 5.90                     | 1.60  | 1.10  | 0.10  | 1.10  | 1.10 |               |
| 3              | 0.00                                                           | 0.00                     | 0.60   | 2.10                 | 9.25   | 1.70    | 5.90                     | 1.60  | 1.10  | 0.00  | 1.00  | 0.70 |               |
| 4              | 0.00                                                           | 0.00                     | 1.20   | 2.00                 | 7.00   | 1.70    | 11.00                    | 1.50  | 1.00  | 0.00  | 1.00  | 0.30 |               |
| 5              | 0.00                                                           | 0.00                     | 1.60   | 1.90                 | 5.30   | 1.60    | 13.90                    | 1.30  | 1.00  | 0.00  | 0.90  | 0.10 |               |
| 6              | 0.00                                                           | 0.40                     | 0.90   | 1.90                 | 4.20   | 1.50    | 35.40                    | 1.40  | 1.00  | 0.00  | 1.10  | 0.00 |               |
| 7              | 0.00                                                           | 0.00                     | 0.90   | 2.60                 | 5.70   | 2.50    | 21.02                    | 6.10  | 1.00  | 0.00  | 1.00  | 0.00 |               |
| 8              | 0.00                                                           | 0.20                     | 1.00   | 4.90                 | 5.90   | 3.30    | 16.80                    | 7.75  | 0.90  | 0.00  | 1.00  | 0.00 |               |
| 9              | 0.00                                                           | 0.20                     | 2.00   | 8.00                 | 5.10   | 2.50    | 12.40                    | 4.35  | 0.90  | 0.00  | 1.00  | 0.00 |               |
| 10             | 0.00                                                           | 0.00                     | 1.40   | 9.00                 | 3.60   | 2.30    | 8.75                     | 3.90  | 0.90  | 0.00  | 1.00  | 0.00 |               |
| 11             | 0.00                                                           | 0.00                     | 1.40   | 6.30                 | 3.45   | 3.75    | 5.90                     | 2.60  | 0.80  | 0.00  | 1.40  | 0.00 |               |
| 12             | 0.00                                                           | 0.00                     | 2.70   | 4.70                 | 3.45   | 3.15    | 4.90                     | 2.10  | 0.80  | 0.00  | 1.60  | 0.00 |               |
| 13             | 0.80                                                           | 0.00                     | 2.80   | 4.20                 | 3.45   | 11.00   | 3.45                     | 2.00  | 0.80  | 0.00  | 1.50  | 0.00 |               |
| 14             | 0.50                                                           | 0.00                     | 2.40   | 3.45                 | 3.75   | 12.10   | 3.00                     | 2.00  | 0.60  | 0.00  | 1.40  | 0.00 |               |
| 15             | 0.40                                                           | 0.00                     | 5.10   | 3.45                 | 3.75   | 14.50   | 3.15                     | 2.00  | 0.70  | 0.00  | 1.30  | 0.00 |               |
| 16             | 0.90                                                           | 0.00                     | 4.50   | 4.50                 | 3.90   | 12.40   | 14.20                    | 2.00  | 0.90  | 0.00  | 1.30  | 0.00 |               |
| 17             | 2.20                                                           | 0.00                     | 2.30   | 4.20                 | 3.45   | 7.25    | 6.10                     | 1.90  | 0.80  | 0.00  | 1.30  | 0.00 |               |
| 18             | 1.20                                                           | 0.00                     | 2.90   | 3.15                 | 2.90   | 5.70    | 4.50                     | 1.60  | 0.50  | 1.00  | 1.40  | 0.00 |               |
| 19             | 0.60                                                           | 0.00                     | 3.90   | 2.60                 | 2.70   | 6.10    | 7.50                     | 1.30  | 0.40  | 1.10  | 1.50  | 0.00 |               |
| 20             | 0.40                                                           | 0.00                     | 3.90   | 3.15                 | 2.60   | 12.40   | 4.35                     | 1.30  | 0.50  | 1.20  | 1.50  | 0.00 |               |
| 21             | 0.30                                                           | 0.00                     | 5.10   | 9.50                 | 2.40   | 9.50    | 4.05                     | 1.40  | 0.40  | 1.30  | 1.80  | 0.00 |               |
| 22             | 0.00                                                           | 0.00                     | 6.75   | 6.30                 | 2.60   | 7.75    | 3.90                     | 1.30  | 0.40  | 1.30  | 1.90  | 0.70 |               |
| 23             | 0.00                                                           | 0.00                     | 22.93  | 7.75                 | 2.60   | 6.30    | 3.75                     | 1.20  | 0.40  | 1.30  | 1.80  | 0.50 |               |
| 24             | 0.40                                                           | 0.00                     | 9.75   | 9.00                 | 2.50   | 5.50    | 3.00                     | 1.20  | 0.40  | 1.30  | 1.60  | 0.00 |               |
| 25             | 0.10                                                           | 0.00                     | 4.20   | 7.50                 | 2.50   | 5.30    | 2.80                     | 1.30  | 0.40  | 1.20  | 1.60  | 0.00 |               |
| 26             | 0.00                                                           | 0.00                     | 4.90   | 5.30                 | 2.30   | 5.90    | 2.50                     | 1.60  | 0.40  | 1.20  | 1.50  | 0.00 |               |
| 27             | 0.00                                                           | 0.00                     | 7.50   | 5.30                 | 2.20   | 6.10    | 2.30                     | 1.60  | 0.30  | 1.20  | 1.50  | 0.00 |               |
| 28             | 0.00                                                           | 0.00                     | 4.50   | 4.70                 | 2.00   | 7.75    | 2.10                     | 1.40  | 0.30  | 1.20  | 1.40  | 0.00 |               |
| 29             | 0.00                                                           | 0.00                     | 2.80   | 4.20                 | 2.00   | 8.50    | 1.80                     | 1.50  | 0.20  | 1.20  |       | 0.00 |               |
| 30             | 0.00                                                           | 0.00                     | 2.60   | 17.18                | 2.70   | 7.00    | 1.70                     | 1.50  | 0.20  | 1.10  |       | 0.00 |               |
| 31             |                                                                | 0.60                     |        | 14.88                | 2.30   |         | 1.70                     |       | 0.20  | 1.10  |       | 0.00 |               |
| Total          | 7.80                                                           | 1.80                     | 116.43 | 168.71               | 123.30 | 178.75  | 223.22                   | 64.00 | 20.40 | 17.00 | 37.70 | 4.70 | 963.81 CMSDAY |
| Mean           | 0.26                                                           | 0.06                     | 3.88   | 5.44                 | 3.98   | 5.96    | 7.20                     | 2.13  | 0.66  | 0.55  | 1.35  | 0.15 | 2.64 CMS      |
| Max            | 2.20                                                           | 0.60                     | 22.93  | 17.18                | 10.00  | 14.50   | 35.40                    | 7.75  | 1.10  | 1.30  | 1.90  | 1.30 | 35.40 CMS     |
| Min            | 0.00                                                           | 0.00                     | 0.60   | 1.90                 | 2.00   | 1.50    | 1.70                     | 1.20  | 0.20  | 0.00  | 0.90  | 0.00 | 0.00 CMS      |
| Runoff         | 0.67                                                           | 0.16                     | 10.06  | 14.58                | 10.65  | 15.44   | 19.29                    | 5.53  | 1.76  | 1.47  | 3.26  | 0.41 | 83.27 MCM     |
| Momentary Peak | 66.85 CMS. at 192.67 m. (MSL.) at 18.00 Hours, on Oct 6 , 2013 |                          |        |                      |        |         |                          |       |       |       |       |      |               |
| Runoff Yield   | 37.00                                                          | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 936.668 | Liters/Second/Square KM. |       |       |       |       |      |               |

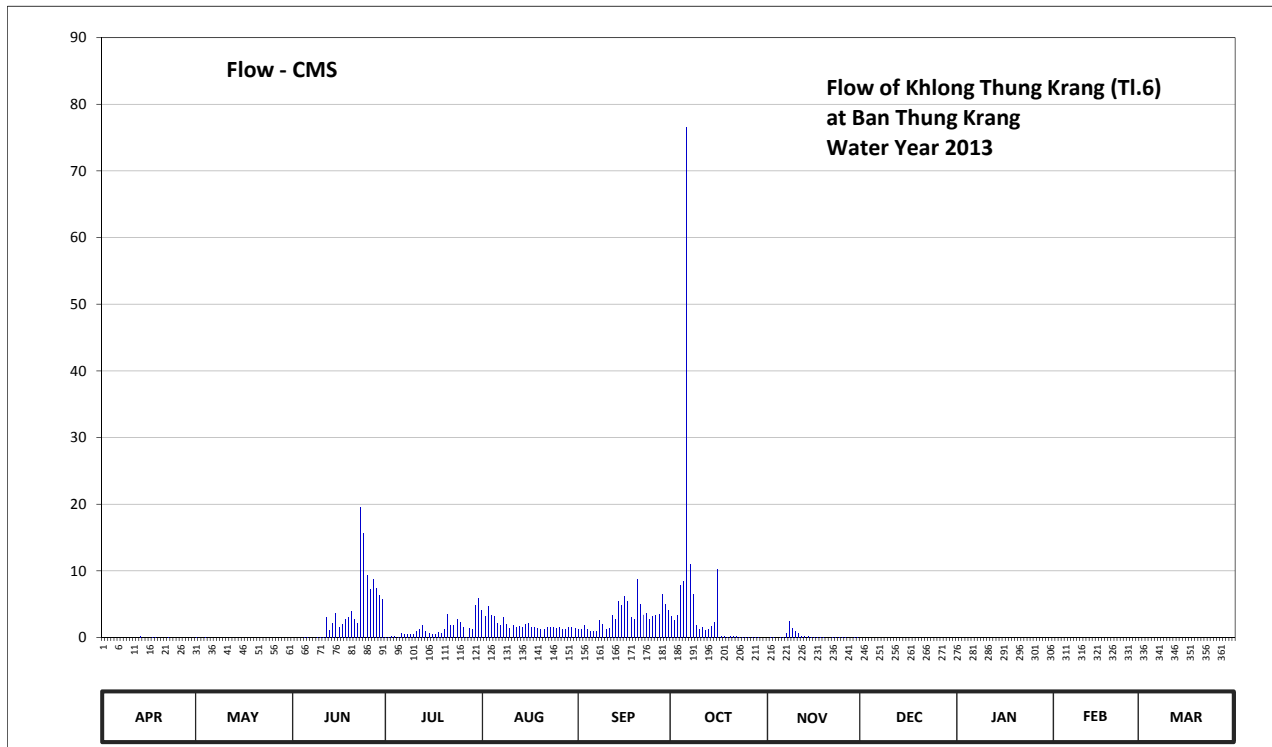




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                       | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov      | Dec                      | Jan   | Feb  | Mar  | Annual         |
|----------------|--------|-----------------------------------------------------------|--------|--------|----------------------|--------|--------|----------|--------------------------|-------|------|------|----------------|
| 1              | 0.00   | 0.00                                                      | 0.00   | 6.31   | 19.41                | 3.05   | 8.92   | 1.92     | 0.85                     | 0.04  | 0.80 | 0.00 |                |
| 2              | 0.00   | 0.00                                                      | 0.00   | 6.53   | 12.00                | 2.52   | 8.38   | 1.68     | 0.75                     | 0.00  | 0.70 | 0.00 |                |
| 3              | 0.00   | 0.00                                                      | 0.00   | 4.04   | 21.45                | 2.22   | 14.95  | 1.56     | 0.60                     | 0.00  | 0.60 | 0.00 |                |
| 4              | 0.00   | 0.00                                                      | 0.00   | 3.56   | 25.36                | 2.10   | 31.20  | 1.38     | 0.55                     | 0.00  | 0.45 | 0.00 |                |
| 5              | 0.00   | 0.00                                                      | 1.68   | 2.77   | 13.45                | 2.34   | 30.20  | 1.38     | 0.50                     | 0.00  | 0.40 | 0.00 |                |
| 6              | 0.00   | 0.00                                                      | 0.45   | 5.10   | 9.34                 | 1.98   | 59.43  | 0.96     | 0.50                     | 0.00  | 0.36 | 0.00 |                |
| 7              | 0.00   | 0.00                                                      | 0.20   | 9.62   | 7.30                 | 1.74   | 39.88  | 1.86     | 0.45                     | 0.00  | 0.28 | 0.00 |                |
| 8              | 0.00   | 0.00                                                      | 0.00   | 8.38   | 8.14                 | 1.80   | 16.50  | 4.56     | 0.36                     | 0.00  | 0.20 | 0.00 |                |
| 9              | 0.00   | 0.00                                                      | 0.08   | 14.05  | 13.00                | 1.92   | 12.28  | 2.52     | 0.32                     | 0.00  | 0.04 | 0.00 |                |
| 10             | 0.00   | 0.00                                                      | 2.28   | 15.70  | 11.16                | 1.86   | 9.06   | 1.98     | 0.28                     | 0.00  | 0.00 | 0.00 |                |
| 11             | 0.00   | 0.00                                                      | 2.84   | 11.44  | 7.66                 | 3.40   | 7.30   | 1.74     | 0.28                     | 0.00  | 0.00 | 0.00 |                |
| 12             | 0.00   | 0.00                                                      | 31.40  | 7.19   | 8.92                 | 5.87   | 6.20   | 1.56     | 0.28                     | 0.00  | 0.00 | 0.00 |                |
| 13             | 0.24   | 0.00                                                      | 14.05  | 4.92   | 8.14                 | 6.97   | 5.32   | 1.32     | 0.28                     | 0.08  | 0.00 | 0.00 |                |
| 14             | 0.40   | 0.00                                                      | 8.50   | 5.98   | 10.60                | 22.81  | 4.65   | 1.26     | 0.24                     | 1.74  | 0.00 | 0.00 |                |
| 15             | 0.50   | 0.00                                                      | 13.00  | 15.10  | 11.16                | 18.58  | 4.20   | 1.26     | 0.24                     | 2.28  | 0.00 | 0.00 |                |
| 16             | 0.70   | 0.00                                                      | 9.62   | 15.25  | 10.74                | 20.60  | 21.45  | 1.38     | 0.20                     | 2.10  | 0.00 | 0.00 |                |
| 17             | 2.34   | 0.00                                                      | 11.30  | 11.30  | 7.54                 | 9.76   | 9.34   | 1.32     | 0.32                     | 2.04  | 0.00 | 0.00 |                |
| 18             | 1.44   | 0.00                                                      | 12.00  | 7.78   | 5.54                 | 6.64   | 6.97   | 1.20     | 0.32                     | 1.92  | 0.00 | 0.00 |                |
| 19             | 0.45   | 0.00                                                      | 12.56  | 5.87   | 4.56                 | 9.48   | 7.78   | 1.08     | 0.28                     | 1.86  | 0.00 | 0.00 |                |
| 20             | 0.04   | 0.00                                                      | 14.50  | 6.20   | 3.72                 | 12.85  | 6.31   | 0.96     | 0.24                     | 1.80  | 0.00 | 0.00 |                |
| 21             | 0.00   | 0.00                                                      | 16.82  | 8.92   | 3.48                 | 8.50   | 6.09   | 0.90     | 0.20                     | 1.68  | 0.00 | 0.00 |                |
| 22             | 0.00   | 0.00                                                      | 17.46  | 8.02   | 7.54                 | 6.64   | 4.83   | 0.85     | 0.16                     | 1.62  | 0.00 | 0.00 |                |
| 23             | 0.00   | 0.00                                                      | 50.25  | 9.06   | 8.14                 | 10.18  | 4.12   | 0.75     | 0.12                     | 1.56  | 0.00 | 0.00 |                |
| 24             | 0.00   | 0.00                                                      | 41.20  | 10.04  | 8.02                 | 7.54   | 3.64   | 1.08     | 0.12                     | 1.56  | 0.00 | 0.00 |                |
| 25             | 0.00   | 0.00                                                      | 10.74  | 12.28  | 7.19                 | 5.98   | 3.26   | 2.46     | 0.12                     | 1.44  | 0.00 | 0.00 |                |
| 26             | 0.00   | 0.00                                                      | 9.76   | 14.35  | 5.32                 | 7.78   | 2.84   | 1.32     | 0.12                     | 1.26  | 0.00 | 0.00 |                |
| 27             | 0.00   | 0.00                                                      | 10.32  | 12.85  | 4.65                 | 10.46  | 2.70   | 1.20     | 0.12                     | 1.20  | 0.00 | 0.00 |                |
| 28             | 0.00   | 0.00                                                      | 7.66   | 21.28  | 4.12                 | 7.19   | 2.52   | 1.26     | 0.08                     | 1.14  | 0.00 | 0.00 |                |
| 29             | 0.00   | 0.00                                                      | 6.09   | 12.56  | 3.33                 | 6.75   | 2.34   | 1.62     | 0.08                     | 1.14  |      | 0.00 |                |
| 30             | 0.00   | 0.00                                                      | 5.10   | 54.25  | 3.64                 | 6.09   | 2.16   | 1.02     | 0.08                     | 1.08  |      | 0.00 |                |
| 31             |        | 0.00                                                      |        | 30.20  | 3.88                 |        | 2.04   |          | 0.08                     | 1.02  |      | 0.00 |                |
| Total          | 6.11   | 0.00                                                      | 309.86 | 360.90 | 278.50               | 215.60 | 346.86 | 45.34    | 9.12                     | 28.56 | 3.83 | 0.00 | 1604.68 CMSDAY |
| Mean           | 0.20   | 0.00                                                      | 10.33  | 11.64  | 8.98                 | 7.19   | 11.19  | 1.51     | 0.29                     | 0.92  | 0.14 | 0.00 | 4.40 CMS       |
| Max            | 2.34   | 0.00                                                      | 50.25  | 54.25  | 25.36                | 22.81  | 59.43  | 4.56     | 0.85                     | 2.28  | 0.80 | 0.00 | 59.43 CMS      |
| Min            | 0.00   | 0.00                                                      | 0.00   | 2.77   | 3.33                 | 1.74   | 2.04   | 0.75     | 0.08                     | 0.00  | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.53   | 0.00                                                      | 26.77  | 31.18  | 24.06                | 18.63  | 29.97  | 3.92     | 0.79                     | 2.47  | 0.33 | 0.00 | 138.64 MCM     |
| Momentary Peak | 134.50 | CMS. at 183.56 m. (MSL.) at 24.00 Hours , on Oct 6 , 2013 |        |        |                      |        |        |          |                          |       |      |      |                |
| Runoff Yield   | 51.12  | Liters/Second/Square KM.                                  |        |        | Momentary Peak Yield |        |        | 1563.953 | Liters/Second/Square KM. |       |      |      |                |

| Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014 |        |        |             |        |                                  |        |                   |        |        |        |        |        |        |
|------------------------------------------------------------------------|--------|--------|-------------|--------|----------------------------------|--------|-------------------|--------|--------|--------|--------|--------|--------|
| Date                                                                   | Apr    | May    | Jun         | Jul    | Aug                              | Sep    | Oct               | Nov    | Dec    | Jan    | Feb    | Mar    | Annual |
| 1                                                                      | 183.10 | 183.54 | 183.45      | 183.64 | 184.24                           | 183.96 | 184.17            | 183.50 | 183.49 | 183.42 | 183.37 | 183.35 |        |
| 2                                                                      | 183.10 | 183.41 | 183.49      | 183.64 | 184.17                           | 183.94 | 184.11            | 183.51 | 183.46 | 183.41 | 183.37 | 183.33 |        |
| 3                                                                      | 183.10 | 183.41 | 183.42      | 183.65 | 184.28                           | 184.04 | 184.18            | 183.51 | 183.50 | 183.41 | 183.36 | 183.32 |        |
| 4                                                                      | 183.10 | 183.53 | 183.48      | 183.65 | 184.18                           | 183.94 | 184.47            | 183.50 | 183.47 | 183.40 | 183.35 | 183.32 |        |
| 5                                                                      | 183.10 | 183.48 | 183.53      | 183.60 | 184.17                           | 183.90 | 184.50            | 183.51 | 183.50 | 183.39 | 183.36 | 183.32 |        |
| 6                                                                      | 183.10 | 183.46 | 183.51      | 183.82 | 184.07                           | 183.90 | 186.20            | 183.51 | 183.43 | 183.38 | 183.36 | 183.32 |        |
| 7                                                                      | 183.10 | 183.50 | 183.45      | 183.80 | 184.03                           | 183.89 | 184.63            | 183.85 | 183.44 | 183.41 | 183.37 | 183.32 |        |
| 8                                                                      | 183.10 | 183.48 | 183.47      | 183.80 | 184.16                           | 184.11 | 184.40            | 184.10 | 183.44 | 183.41 | 183.36 | 183.32 |        |
| 9                                                                      | 183.10 | 183.48 | 183.51      | 183.80 | 184.05                           | 184.05 | 184.03            | 183.99 | 183.45 | 183.41 | 183.36 | 183.32 |        |
| 10                                                                     | 183.10 | 183.45 | 183.59      | 183.80 | 183.99                           | 183.94 | 183.96            | 183.89 | 183.42 | 183.40 | 183.36 | 183.32 |        |
| 11                                                                     | 183.10 | 183.45 | 183.53      | 183.90 | 184.04                           | 183.99 | 184.00            | 183.82 | 183.45 | 183.41 | 183.36 | 183.31 |        |
| 12                                                                     | 183.46 | 183.44 | 184.16      | 183.94 | 184.01                           | 184.18 | 183.92            | 183.71 | 183.45 | 183.40 | 183.36 | 183.31 |        |
| 13                                                                     | 183.71 | 183.39 | 183.93      | 184.03 | 184.02                           | 184.13 | 183.97            | 183.69 | 183.44 | 183.39 | 183.36 | 183.30 |        |
| 14                                                                     | 183.46 | 183.34 | 184.06      | 183.90 | 184.01                           | 184.33 | 184.02            | 183.65 | 183.44 | 183.39 | 183.37 | 183.27 |        |
| 15                                                                     | 183.40 | 183.39 | 184.21      | 183.83 | 184.05                           | 184.29 | 184.08            | 183.60 | 183.45 | 183.39 | 183.37 | 183.27 |        |
| 16                                                                     | 183.46 | 183.38 | 184.01      | 183.80 | 184.06                           | 184.38 | 184.60            | 183.57 | 183.45 | 183.39 | 183.37 | 183.28 |        |
| 17                                                                     | 183.51 | 183.40 | 184.05      | 183.80 | 184.00                           | 184.33 | 183.72            | 183.57 | 183.45 | 183.39 | 183.37 | 183.30 |        |
| 18                                                                     | 183.53 | 183.39 | 184.13      | 183.86 | 184.01                           | 184.15 | 183.73            | 183.55 | 183.45 | 183.39 | 183.36 | 183.27 |        |
| 19                                                                     | 183.43 | 183.38 | 184.16      | 183.83 | 183.98                           | 184.13 | 183.63            | 183.52 | 183.45 | 183.38 | 183.35 | 183.28 |        |
| 20                                                                     | 183.45 | 183.38 | 184.23      | 183.97 | 183.97                           | 184.52 | 183.69            | 183.50 | 183.46 | 183.38 | 183.36 | 183.26 |        |
| 21                                                                     | 183.44 | 183.44 | 184.13      | 184.20 | 183.96                           | 184.30 | 183.69            | 183.50 | 183.45 | 183.38 | 183.36 | 183.27 |        |
| 22                                                                     | 183.63 | 183.41 | 184.06      | 184.03 | 184.00                           | 184.19 | 183.72            | 183.51 | 183.44 | 183.38 | 183.36 | 183.28 |        |
| 23                                                                     | 183.46 | 183.39 | 184.97      | 184.03 | 184.01                           | 184.21 | 183.59            | 183.51 | 183.42 | 183.38 | 183.36 | 183.37 |        |
| 24                                                                     | 183.42 | 183.39 | 184.83      | 184.13 | 184.00                           | 184.13 | 183.59            | 183.51 | 183.42 | 183.38 | 183.35 | 183.33 |        |
| 25                                                                     | 183.40 | 183.43 | 184.55      | 184.08 | 183.99                           | 184.17 | 183.60            | 183.51 | 183.42 | 183.38 | 183.36 | 183.32 |        |
| 26                                                                     | 183.44 | 183.43 | 184.44      | 184.00 | 184.00                           | 184.18 | 183.59            | 183.51 | 183.42 | 183.38 | 183.36 | 183.31 |        |
| 27                                                                     | 183.41 | 183.39 | 184.52      | 183.63 | 183.97                           | 184.20 | 183.56            | 183.50 | 183.42 | 183.38 | 183.36 | 183.31 |        |
| 28                                                                     | 183.40 | 183.38 | 184.45      | 183.98 | 183.97                           | 184.40 | 183.55            | 183.50 | 183.42 | 183.38 | 183.35 | 183.31 |        |
| 29                                                                     | 183.40 | 183.40 | 184.39      | 183.97 | 184.00                           | 184.30 | 183.54            | 183.51 | 183.42 | 183.38 |        | 183.30 |        |
| 30                                                                     | 183.39 | 183.39 | 184.35      | 184.29 | 184.00                           | 184.24 | 183.50            | 183.51 | 183.42 | 183.38 |        | 183.29 |        |
| 31                                                                     |        | 183.45 |             | 184.36 | 183.99                           |        | 183.50            |        | 183.42 | 183.38 |        | 183.32 |        |
| Mean                                                                   | 183.33 | 183.43 | 184.00      | 183.90 | 184.04                           | 184.15 | 183.98            | 183.60 | 183.44 | 183.39 | 183.36 | 183.31 |        |
| Max                                                                    | 183.71 | 183.54 | 184.97      | 184.36 | 184.28                           | 184.52 | 186.20            | 184.10 | 183.50 | 183.42 | 183.37 | 183.37 | 186.20 |
| Min                                                                    | 183.10 | 183.34 | 183.42      | 183.60 | 183.96                           | 183.89 | 183.50            | 183.50 | 183.42 | 183.38 | 183.35 | 183.26 | 183.10 |
| Annual Max Momentary Gage Height                                       | 187.10 |        | m. (MSL.) , |        | at 12.00 Hours , on Oct 6 , 2013 |        |                   |        |        |        |        |        |        |
| Zero Gage at Bottom Elevation                                          | 183.10 |        | m. (MSL.) , |        | River Bed                        | 182.99 | m. (MSL.)         |        |        |        |        |        |        |
| Left Bank Elevation                                                    | 187.39 |        | m. (MSL.) , |        |                                  |        |                   |        |        |        |        |        |        |
| Right Bank Elevation                                                   | 187.39 |        | m. (MSL.) , |        | Drainage Area                    | 42     | Square Kilometers |        |        |        |        |        |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                       | Jun    | Jul   | Aug                  | Sep   | Oct      | Nov                      | Dec  | Jan  | Feb  | Mar  | Annual        |
|----------------|--------|-----------------------------------------------------------|--------|-------|----------------------|-------|----------|--------------------------|------|------|------|------|---------------|
| 1              | 0.00   | 0.04                                                      | 0.00   | 0.14  | 4.10                 | 1.30  | 3.20     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 2              | 0.00   | 0.00                                                      | 0.00   | 0.14  | 3.20                 | 1.20  | 2.60     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 3              | 0.00   | 0.00                                                      | 0.00   | 0.15  | 4.70                 | 1.90  | 3.30     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 4              | 0.00   | 0.03                                                      | 0.00   | 0.15  | 3.30                 | 1.20  | 7.83     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 5              | 0.00   | 0.00                                                      | 0.03   | 0.10  | 3.20                 | 1.00  | 8.40     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 6              | 0.00   | 0.00                                                      | 0.01   | 0.60  | 2.20                 | 1.00  | 76.50    | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 7              | 0.00   | 0.00                                                      | 0.00   | 0.50  | 1.80                 | 0.95  | 10.99    | 0.75                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 8              | 0.00   | 0.00                                                      | 0.00   | 0.50  | 3.10                 | 2.60  | 6.50     | 2.50                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 9              | 0.00   | 0.00                                                      | 0.01   | 0.50  | 2.00                 | 2.00  | 1.80     | 1.45                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 10             | 0.00   | 0.00                                                      | 0.09   | 0.50  | 1.45                 | 1.20  | 1.30     | 0.95                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 11             | 0.00   | 0.00                                                      | 0.03   | 1.00  | 1.90                 | 1.45  | 1.50     | 0.60                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 12             | 0.00   | 0.00                                                      | 3.10   | 1.20  | 1.60                 | 3.30  | 1.10     | 0.23                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 13             | 0.23   | 0.00                                                      | 1.15   | 1.80  | 1.70                 | 2.80  | 1.35     | 0.19                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 14             | 0.00   | 0.00                                                      | 2.10   | 1.00  | 1.60                 | 5.45  | 1.70     | 0.15                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 15             | 0.00   | 0.00                                                      | 3.65   | 0.65  | 2.00                 | 4.85  | 2.30     | 0.10                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 16             | 0.00   | 0.00                                                      | 1.60   | 0.50  | 2.10                 | 6.20  | 10.30    | 0.07                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 17             | 0.01   | 0.00                                                      | 2.00   | 0.50  | 1.50                 | 5.45  | 0.26     | 0.07                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 18             | 0.03   | 0.00                                                      | 2.80   | 0.80  | 1.60                 | 3.00  | 0.29     | 0.05                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 19             | 0.00   | 0.00                                                      | 3.10   | 0.65  | 1.40                 | 2.80  | 0.13     | 0.02                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 20             | 0.00   | 0.00                                                      | 3.95   | 1.35  | 1.35                 | 8.78  | 0.19     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 21             | 0.00   | 0.00                                                      | 2.80   | 3.50  | 1.30                 | 5.00  | 0.19     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 22             | 0.13   | 0.00                                                      | 2.10   | 1.80  | 1.50                 | 3.40  | 0.26     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 23             | 0.00   | 0.00                                                      | 19.60  | 1.80  | 1.60                 | 3.65  | 0.09     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 24             | 0.00   | 0.00                                                      | 15.68  | 2.80  | 1.50                 | 2.80  | 0.09     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 25             | 0.00   | 0.00                                                      | 9.35   | 2.30  | 1.45                 | 3.20  | 0.10     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 26             | 0.00   | 0.00                                                      | 7.26   | 1.50  | 1.50                 | 3.30  | 0.09     | 0.01                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 27             | 0.00   | 0.00                                                      | 8.78   | 0.13  | 1.35                 | 3.50  | 0.06     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 28             | 0.00   | 0.00                                                      | 7.45   | 1.40  | 1.35                 | 6.50  | 0.05     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 |               |
| 29             | 0.00   | 0.00                                                      | 6.35   | 1.35  | 1.50                 | 5.00  | 0.04     | 0.01                     | 0.00 | 0.00 |      | 0.00 |               |
| 30             | 0.00   | 0.00                                                      | 5.75   | 4.85  | 1.50                 | 4.10  | 0.00     | 0.01                     | 0.00 | 0.00 |      | 0.00 |               |
| 31             |        | 0.00                                                      |        | 5.90  | 1.45                 |       | 0.00     |                          | 0.00 | 0.00 |      | 0.00 |               |
| Total          | 0.40   | 0.07                                                      | 108.74 | 40.06 | 61.80                | 98.88 | 142.51   | 7.24                     | 0.00 | 0.00 | 0.00 | 0.00 | 459.70 CMSDAY |
| Mean           | 0.01   | 0.00                                                      | 3.62   | 1.29  | 1.99                 | 3.30  | 4.60     | 0.24                     | 0.00 | 0.00 | 0.00 | 0.00 | 1.26 CMS      |
| Max            | 0.23   | 0.04                                                      | 19.60  | 5.90  | 4.70                 | 8.78  | 76.50    | 2.50                     | 0.00 | 0.00 | 0.00 | 0.00 | 76.50 CMS     |
| Min            | 0.00   | 0.00                                                      | 0.00   | 0.10  | 1.30                 | 0.95  | 0.00     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 0.04   | 0.01                                                      | 9.40   | 3.46  | 5.34                 | 8.54  | 12.31    | 0.63                     | 0.00 | 0.00 | 0.00 | 0.00 | 39.72 MCM     |
| Momentary Peak | 140.50 | CMS. at 187.10 m. (MSL.) at 12.00 Hours , on Oct 6 , 2013 |        |       |                      |       |          |                          |      |      |      |      |               |
| Runoff Yield   | 29.99  | Liters/Second/Square KM.                                  |        |       | Momentary Peak Yield |       | 3345.238 | Liters/Second/Square KM. |      |      |      |      |               |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

### Khlong Yai at Ban Si Bua Thong , Trat (Z.10)

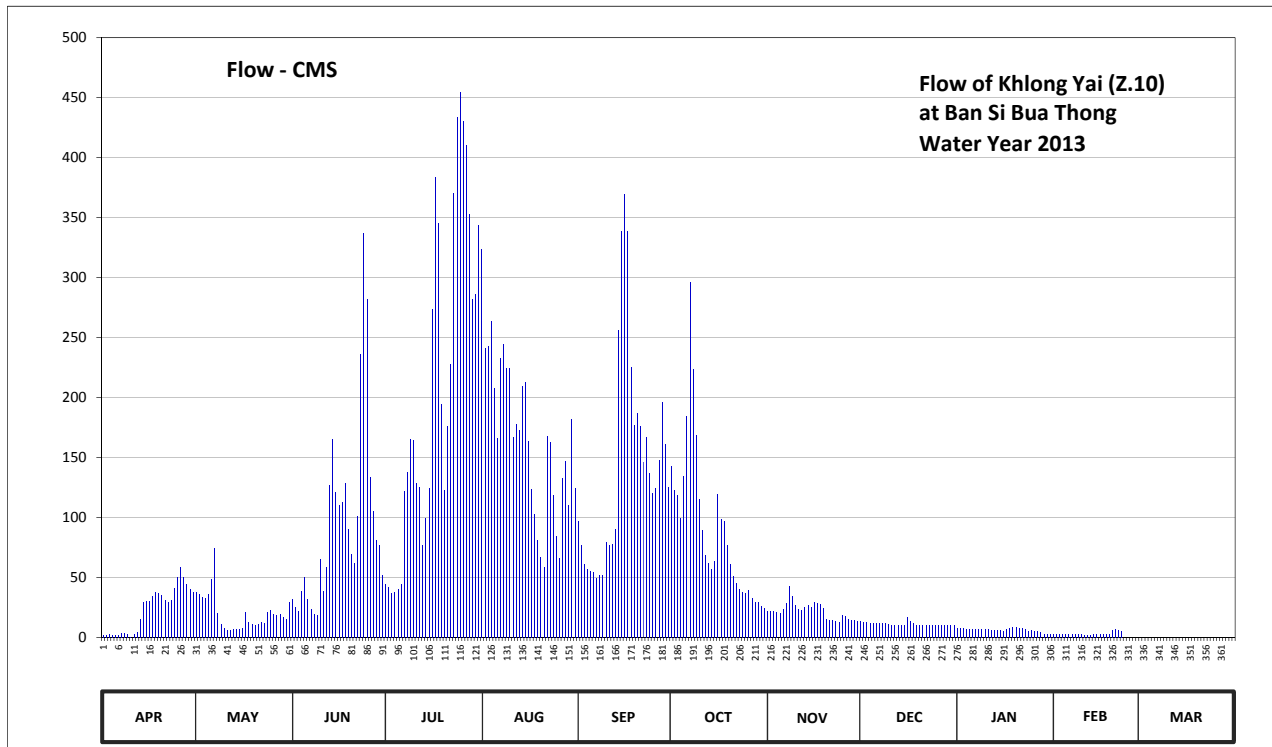
Lat 12 - 28 - 24 N    Long 102 - 28 - 49 E

**Location : on left bank at Ban Si Bua Thong**

|                                         |                                                                                           |              |               |             |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Si Bua Thong | <b>Amphoe</b> | Khao Saming | <b>Changwat</b>  | Trat              |
| <b>Drainage Area</b>                    | 779                                                                                       | sq.km.       |               |             |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |              |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +1.901                                                                                    | m. (MSL.)    |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |             |                  |                   |
| <b>Location BM</b>                      | Near automatic gage building.                                                             |              |               |             | <b>Elevation</b> | +13.181 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |              |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |              |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 1970 to date                                                                              |              |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |              |               |             |                  |                   |
| <b>Period of Rating</b>                 | 1973 - 1978 , 1999 to date                                                                |              |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 1973 - 1978 , 1999 to date                                                                |              |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |              |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                                          |              |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 48 discharge measurements made in 2013. |              |               |             |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------------------------------------------|-------|-------|-------|-------|------|------|------|------|------|--------|
| 1                                | 3.20  | 4.81 | 4.59                                            | 5.01  | 11.25 | 6.62  | 7.76  | 4.27 | 3.88 | 3.63 | 3.30 | 4.33 |        |
| 2                                | 3.23  | 4.73 | 4.39                                            | 4.93  | 9.75  | 6.05  | 7.29  | 4.26 | 3.87 | 3.63 | 3.29 | 4.05 |        |
| 3                                | 3.27  | 4.65 | 4.26                                            | 4.76  | 9.78  | 5.58  | 7.20  | 4.26 | 3.85 | 3.61 | 3.28 | 4.14 |        |
| 4                                | 3.22  | 4.62 | 4.83                                            | 4.79  | 10.16 | 5.42  | 6.71  | 4.21 | 3.83 | 3.59 | 3.27 | 4.21 |        |
| 5                                | 3.21  | 4.74 | 5.21                                            | 4.87  | 9.11  | 5.37  | 7.59  | 4.18 | 3.83 | 3.57 | 3.28 | 4.21 |        |
| 6                                | 3.24  | 5.17 | 4.60                                            | 5.02  | 8.26  | 5.36  | 8.66  | 4.32 | 3.82 | 3.56 | 3.28 | 4.20 |        |
| 7                                | 3.33  | 5.99 | 4.33                                            | 7.28  | 9.60  | 5.19  | 10.76 | 4.50 | 3.82 | 3.56 | 3.30 | 4.19 |        |
| 8                                | 3.33  | 4.20 | 4.15                                            | 7.66  | 9.81  | 5.26  | 9.43  | 4.95 | 3.82 | 3.55 | 3.30 | 4.18 |        |
| 9                                | 3.31  | 3.80 | 4.12                                            | 8.25  | 9.44  | 5.27  | 8.32  | 4.69 | 3.82 | 3.55 | 3.29 | 4.18 |        |
| 10                               | 3.04  | 3.60 | 5.70                                            | 8.23  | 9.45  | 6.14  | 7.11  | 4.44 | 3.79 | 3.54 | 3.27 | 4.18 |        |
| 11                               | 3.31  | 3.53 | 4.82                                            | 7.44  | 8.29  | 6.06  | 6.42  | 4.33 | 3.76 | 3.54 | 3.26 | 4.17 |        |
| 12                               | 3.40  | 3.53 | 5.49                                            | 7.37  | 8.52  | 6.09  | 5.81  | 4.30 | 3.76 | 3.52 | 3.25 | 4.15 |        |
| 13                               | 3.98  | 3.59 | 7.41                                            | 6.06  | 8.40  | 6.45  | 5.61  | 4.37 | 3.76 | 3.52 | 3.26 | 4.14 |        |
| 14                               | 4.51  | 3.59 | 8.24                                            | 6.71  | 9.15  | 10.02 | 5.42  | 4.43 | 3.76 | 3.53 | 3.28 | 4.14 |        |
| 15                               | 4.55  | 3.56 | 7.26                                            | 7.33  | 9.21  | 11.50 | 5.66  | 4.39 | 3.76 | 3.50 | 3.30 | 4.33 |        |
| 16                               | 4.55  | 3.62 | 6.99                                            | 10.35 | 8.21  | 12.01 | 7.22  | 4.53 | 4.04 | 3.44 | 3.29 | 4.45 |        |
| 17                               | 4.68  | 4.23 | 7.04                                            | 12.25 | 7.31  | 11.50 | 6.67  | 4.48 | 3.91 | 3.57 | 3.28 | 4.47 |        |
| 18                               | 4.80  | 3.85 | 7.45                                            | 11.61 | 6.80  | 9.46  | 6.62  | 4.47 | 3.82 | 3.64 | 3.28 | 4.47 |        |
| 19                               | 4.78  | 3.78 | 6.43                                            | 8.84  | 6.18  | 8.50  | 6.07  | 4.35 | 3.77 | 3.69 | 3.28 | 4.47 |        |
| 20                               | 4.71  | 3.77 | 5.84                                            | 7.29  | 5.78  | 8.70  | 5.58  | 3.98 | 3.77 | 3.67 | 3.50 | 4.44 |        |
| 21                               | 4.58  | 3.78 | 5.59                                            | 8.47  | 5.50  | 8.47  | 5.25  | 3.92 | 3.77 | 3.62 | 3.58 | 4.29 |        |
| 22                               | 4.51  | 3.87 | 6.75                                            | 9.51  | 8.31  | 7.84  | 5.05  | 3.93 | 3.76 | 3.62 | 3.50 | 4.26 |        |
| 23                               | 4.58  | 3.82 | 9.66                                            | 12.03 | 8.20  | 8.28  | 4.89  | 3.90 | 3.76 | 3.57 | 3.46 | 4.26 |        |
| 24                               | 4.92  | 4.21 | 11.47                                           | 13.07 | 7.20  | 7.65  | 4.79  | 3.87 | 3.76 | 3.48 | 3.79 | 4.25 |        |
| 25                               | 5.21  | 4.28 | 10.50                                           | 13.40 | 6.28  | 7.23  | 4.78  | 4.12 | 3.76 | 3.49 | 4.35 | 4.25 |        |
| 26                               | 5.48  | 4.16 | 7.56                                            | 13.02 | 5.73  | 7.33  | 4.84  | 4.08 | 3.76 | 3.46 | 4.61 | 4.27 |        |
| 27                               | 5.21  | 4.10 | 6.87                                            | 12.69 | 7.55  | 7.87  | 4.62  | 3.98 | 3.76 | 3.45 | 4.67 | 4.28 |        |
| 28                               | 5.02  | 4.14 | 6.17                                            | 11.73 | 7.86  | 8.87  | 4.53  | 3.94 | 3.76 | 3.42 | 4.62 | 4.31 |        |
| 29                               | 4.89  | 4.04 | 6.05                                            | 10.49 | 6.98  | 8.16  | 4.53  | 3.92 | 3.76 | 3.32 |      | 4.33 |        |
| 30                               | 4.79  | 3.96 | 5.27                                            | 10.57 | 8.61  | 7.36  | 4.41  | 3.89 | 3.76 | 3.28 |      | 4.31 |        |
| 31                               |       | 4.53 |                                                 | 11.58 | 7.35  |       | 4.35  |      | 3.76 | 3.27 |      | 4.27 |        |
| Mean                             | 4.16  | 4.14 | 6.30                                            | 8.79  | 8.19  | 7.52  | 6.26  | 4.24 | 3.80 | 3.53 | 3.51 | 4.26 |        |
| Max                              | 5.48  | 5.99 | 11.47                                           | 13.40 | 11.25 | 12.01 | 10.76 | 4.95 | 4.04 | 3.69 | 4.67 | 4.47 | 13.40  |
| Min                              | 3.04  | 3.53 | 4.12                                            | 4.76  | 5.50  | 5.19  | 4.35  | 3.87 | 3.76 | 3.27 | 3.25 | 4.05 | 3.04   |
| Annual Max Momentary Gage Height | 13.49 |      | m. (MSL.) , at 07.00 Hours, on Jul 25, 2013     |       |       |       |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 1.90  |      | m. (MSL.) , River Bed 1.92 m. (MSL.)            |       |       |       |       |      |      |      |      |      |        |
| Left Bank Elevation              | 15.94 |      | m. (MSL.) ,                                     |       |       |       |       |      |      |      |      |      |        |
| Right Bank Elevation             | 15.93 |      | m. (MSL.) , Drainage Area 779 Square Kilometers |       |       |       |       |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

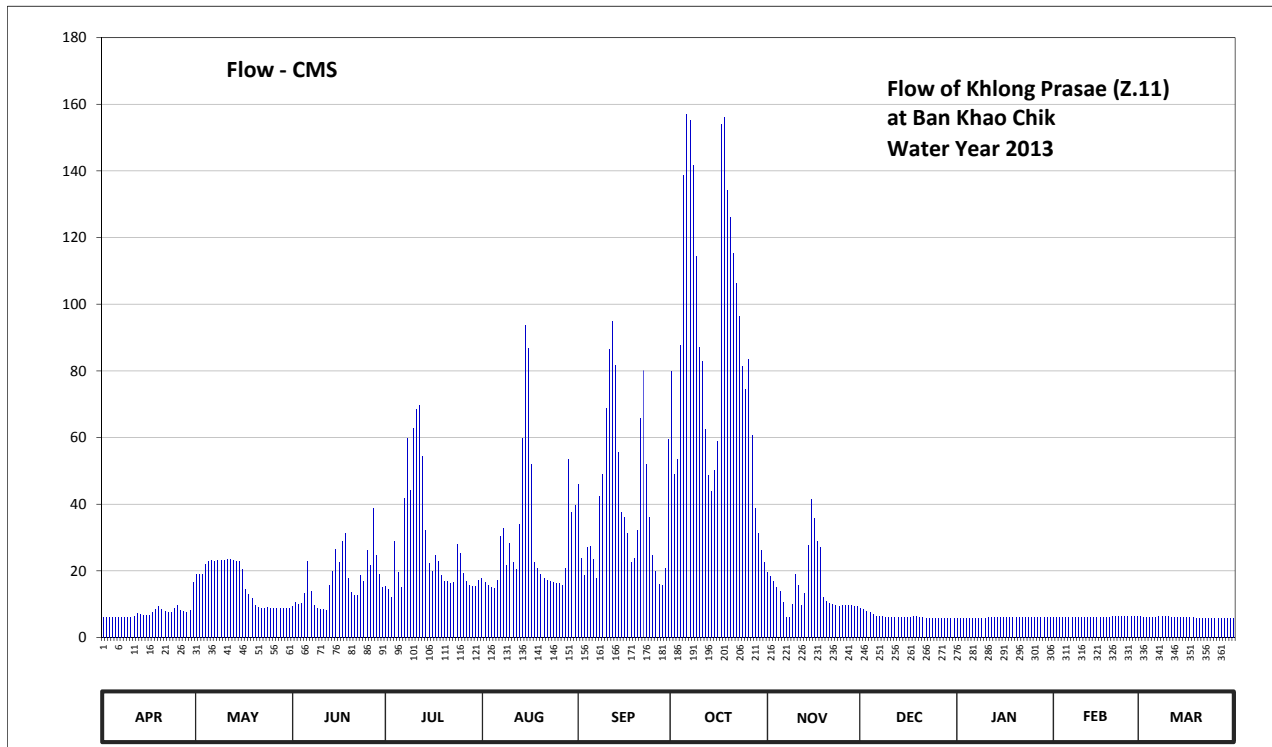
| Date           | Apr    | May                                                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar  | Annual          |
|----------------|--------|----------------------------------------------------------|---------|----------------------|---------|---------|--------------------------|--------|--------|--------|-------|------|-----------------|
| 1              | 1.80   | 38.30                                                    | 31.70   | 44.30                | 323.50  | 96.70   | 142.52                   | 22.31  | 13.34  | 8.08   | 2.80  | 0.00 |                 |
| 2              | 2.10   | 35.90                                                    | 25.70   | 41.90                | 240.75  | 76.75   | 122.60                   | 22.08  | 13.11  | 8.08   | 2.70  | 0.00 |                 |
| 3              | 2.50   | 33.50                                                    | 22.08   | 36.80                | 242.40  | 61.40   | 119.00                   | 22.08  | 12.65  | 7.76   | 2.60  | 0.00 |                 |
| 4              | 2.00   | 32.60                                                    | 38.90   | 37.70                | 263.30  | 56.60   | 99.85                    | 20.93  | 12.19  | 7.44   | 2.50  | 0.00 |                 |
| 5              | 1.90   | 36.20                                                    | 50.30   | 40.10                | 207.50  | 55.10   | 134.60                   | 20.24  | 12.19  | 7.12   | 2.60  | 0.00 |                 |
| 6              | 2.20   | 49.10                                                    | 32.00   | 44.60                | 166.02  | 54.80   | 185.00                   | 23.60  | 11.96  | 6.96   | 2.60  | 0.00 |                 |
| 7              | 3.28   | 74.65                                                    | 23.90   | 122.20               | 232.50  | 49.70   | 296.30                   | 29.00  | 11.96  | 6.96   | 2.80  | 0.00 |                 |
| 8              | 3.28   | 20.70                                                    | 19.55   | 137.82               | 244.05  | 51.80   | 223.50                   | 42.50  | 11.96  | 6.80   | 2.80  | 0.00 |                 |
| 9              | 2.96   | 11.50                                                    | 18.86   | 165.55               | 224.00  | 52.10   | 168.84                   | 34.70  | 11.96  | 6.80   | 2.70  | 0.00 |                 |
| 10             | 0.32   | 7.60                                                     | 65.00   | 164.61               | 224.50  | 79.90   | 115.40                   | 27.20  | 11.27  | 6.64   | 2.50  | 0.00 |                 |
| 11             | 2.96   | 6.48                                                     | 38.60   | 128.60               | 167.43  | 77.10   | 89.70                    | 23.90  | 10.58  | 6.64   | 2.40  | 0.00 |                 |
| 12             | 4.40   | 6.48                                                     | 58.70   | 125.80               | 178.24  | 78.15   | 68.35                    | 23.00  | 10.58  | 6.32   | 2.30  | 0.00 |                 |
| 13             | 15.64  | 7.44                                                     | 127.40  | 77.10                | 172.60  | 90.75   | 62.30                    | 25.10  | 10.58  | 6.32   | 2.40  | 0.00 |                 |
| 14             | 29.30  | 7.44                                                     | 165.08  | 99.85                | 209.50  | 255.60  | 56.60                    | 26.90  | 10.58  | 6.48   | 2.60  | 0.00 |                 |
| 15             | 30.50  | 6.96                                                     | 121.40  | 124.20               | 212.50  | 338.50  | 63.80                    | 25.70  | 10.58  | 6.00   | 2.80  | 0.00 |                 |
| 16             | 30.50  | 7.92                                                     | 110.60  | 273.75               | 163.67  | 369.10  | 119.80                   | 29.90  | 17.02  | 5.04   | 2.70  | 0.00 |                 |
| 17             | 34.40  | 21.39                                                    | 112.60  | 383.50               | 123.40  | 338.50  | 98.45                    | 28.40  | 14.03  | 7.12   | 2.60  | 0.00 |                 |
| 18             | 38.00  | 12.65                                                    | 129.00  | 345.10               | 103.00  | 225.00  | 96.70                    | 28.10  | 11.96  | 8.24   | 2.60  | 0.00 |                 |
| 19             | 37.40  | 11.04                                                    | 90.05   | 194.00               | 81.30   | 177.30  | 77.45                    | 24.50  | 10.81  | 9.04   | 2.60  | 0.00 |                 |
| 20             | 35.30  | 10.81                                                    | 69.40   | 122.60               | 67.40   | 187.00  | 61.40                    | 15.64  | 10.81  | 8.72   | 6.00  | 0.00 |                 |
| 21             | 31.40  | 11.04                                                    | 61.70   | 175.89               | 59.00   | 175.89  | 51.50                    | 14.26  | 10.81  | 7.92   | 7.28  | 0.00 |                 |
| 22             | 29.30  | 13.11                                                    | 101.25  | 227.55               | 168.37  | 146.28  | 45.50                    | 14.49  | 10.58  | 7.92   | 6.00  | 0.00 |                 |
| 23             | 31.40  | 11.96                                                    | 235.80  | 370.30               | 163.20  | 166.96  | 40.70                    | 13.80  | 10.58  | 7.12   | 5.36  | 0.00 |                 |
| 24             | 41.60  | 20.93                                                    | 336.70  | 433.51               | 119.00  | 137.35  | 37.70                    | 13.11  | 10.58  | 5.68   | 0.00  | 0.00 |                 |
| 25             | 50.30  | 22.54                                                    | 282.00  | 454.30               | 84.80   | 120.20  | 37.40                    | 18.86  | 10.58  | 5.84   | 0.00  | 0.00 |                 |
| 26             | 58.40  | 19.78                                                    | 133.40  | 430.36               | 65.90   | 124.20  | 39.20                    | 17.94  | 10.58  | 5.36   | 0.00  | 0.00 |                 |
| 27             | 50.30  | 18.40                                                    | 105.80  | 409.90               | 133.00  | 147.69  | 32.60                    | 15.64  | 10.58  | 5.20   | 0.00  | 0.00 |                 |
| 28             | 44.60  | 19.32                                                    | 80.95   | 352.30               | 147.22  | 195.50  | 29.90                    | 14.72  | 10.58  | 4.72   | 0.00  | 0.00 |                 |
| 29             | 40.70  | 17.02                                                    | 76.75   | 281.45               | 110.20  | 161.32  | 29.90                    | 14.26  | 10.58  | 3.12   |       | 0.00 |                 |
| 30             | 37.70  | 15.18                                                    | 52.10   | 285.85               | 182.50  | 125.40  | 26.30                    | 13.57  | 10.58  | 2.60   |       | 0.00 |                 |
| 31             |        | 29.90                                                    |         | 343.30               | 125.00  |         | 24.50                    |        | 10.58  | 2.50   |       | 0.00 |                 |
| Total          | 696.44 | 637.84                                                   | 2817.27 | 6474.79              | 5205.75 | 4272.64 | 2797.36                  | 666.43 | 356.73 | 200.54 | 74.24 | 0.00 | 24200.03 CMSDAY |
| Mean           | 23.21  | 20.58                                                    | 93.91   | 208.86               | 167.93  | 142.42  | 90.24                    | 22.21  | 11.51  | 6.47   | 2.65  | 0.00 | 66.30 CMS       |
| Max            | 58.40  | 74.65                                                    | 336.70  | 454.30               | 323.50  | 369.10  | 296.30                   | 42.50  | 17.02  | 9.04   | 7.28  | 0.00 | 454.30 CMS      |
| Min            | 0.32   | 6.48                                                     | 18.86   | 36.80                | 59.00   | 49.70   | 24.50                    | 13.11  | 10.58  | 2.50   | 0.00  | 0.00 | 0.00 CMS        |
| Runoff         | 60.17  | 55.11                                                    | 243.41  | 559.42               | 449.78  | 369.16  | 241.69                   | 57.58  | 30.82  | 17.33  | 6.41  | 0.00 | 2090.88 MCM     |
| Momentary Peak | 459.97 | CMS, at 13.49 m. (MSL.), at 07.00 Hours, on Jul 25, 2013 |         |                      |         |         |                          |        |        |        |       |      |                 |
| Runoff Yield   | 85.11  | Liters/Second/Square KM.                                 |         | Momentary Peak Yield |         | 590.462 | Liters/Second/Square KM. |        |        |        |       |      |                 |

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|                                         |                                                                                                        |           |               |        |                  |                   |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                             | Khao Chik | <b>Amphoe</b> | Klaeng | <b>Changwat</b>  | Rayong            |
| <b>Drainage Area</b>                    | 1,236                                                                                                  | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                                 |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +2.630                                                                                                 | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                              |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank near the Meteorological Station.                                                          |           |               |        | <b>Elevation</b> | +13.420 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                              |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                                         |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1965 - 1974 , 1989 to date                                                                             |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                                        |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1989 to date                                                                                           |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                                      |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1989 to date                                                                                           |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                                         |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                                                       |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Flow effectedn by the concrete weir about 7 kilometers downstream and 5 kilometers above |           |               |        |                  |                   |
|                                         | Stage-discharge relation defined by 43 discharge measurements made in 1913.                            |           |               |        |                  |                   |

| Date | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1    | 4.67 | 5.33 | 4.87 | 5.16 | 5.28 | 6.32 | 7.29 | 5.36 | 4.83 | 4.64 | 4.66 | 4.68 |        |
| 2    | 4.67 | 5.33 | 4.93 | 5.12 | 5.22 | 5.55 | 6.42 | 5.31 | 4.81 | 4.64 | 4.66 | 4.67 |        |
| 3    | 4.67 | 5.34 | 4.90 | 5.00 | 5.17 | 5.32 | 6.57 | 5.23 | 4.78 | 4.64 | 4.66 | 4.67 |        |
| 4    | 4.67 | 5.48 | 4.91 | 5.74 | 5.14 | 5.68 | 7.49 | 5.15 | 4.76 | 4.64 | 4.66 | 4.67 |        |
| 5    | 4.67 | 5.52 | 5.06 | 5.36 | 5.13 | 5.69 | 8.65 | 5.09 | 4.72 | 4.64 | 4.66 | 4.67 |        |
| 6    | 4.67 | 5.53 | 5.52 | 5.15 | 5.25 | 5.54 | 9.02 | 4.93 | 4.68 | 4.64 | 4.67 | 4.67 |        |
| 7    | 4.67 | 5.52 | 5.09 | 6.19 | 5.80 | 5.28 | 8.98 | 4.66 | 4.68 | 4.64 | 4.67 | 4.68 |        |
| 8    | 4.67 | 5.53 | 4.89 | 6.76 | 5.90 | 6.21 | 8.71 | 4.67 | 4.68 | 4.64 | 4.67 | 4.68 |        |
| 9    | 4.67 | 5.53 | 4.83 | 6.26 | 5.46 | 6.42 | 8.14 | 4.90 | 4.67 | 4.64 | 4.67 | 4.68 |        |
| 10   | 4.67 | 5.53 | 4.82 | 6.84 | 5.72 | 7.00 | 7.48 | 5.34 | 4.67 | 4.64 | 4.67 | 4.68 |        |
| 11   | 4.68 | 5.54 | 4.80 | 6.99 | 5.50 | 7.46 | 7.37 | 5.17 | 4.67 | 4.67 | 4.67 | 4.67 |        |
| 12   | 4.73 | 5.54 | 4.79 | 7.02 | 5.41 | 7.67 | 6.83 | 4.88 | 4.67 | 4.67 | 4.67 | 4.67 |        |
| 13   | 4.71 | 5.53 | 5.18 | 6.59 | 5.93 | 7.34 | 6.41 | 5.06 | 4.67 | 4.67 | 4.67 | 4.67 |        |
| 14   | 4.70 | 5.52 | 5.38 | 5.87 | 6.76 | 6.63 | 6.25 | 5.70 | 4.67 | 4.67 | 4.67 | 4.67 |        |
| 15   | 4.70 | 5.52 | 5.66 | 5.49 | 7.64 | 6.05 | 6.46 | 6.18 | 4.67 | 4.67 | 4.67 | 4.67 |        |
| 16   | 4.70 | 5.40 | 5.51 | 5.38 | 7.47 | 6.00 | 6.73 | 5.99 | 4.67 | 4.67 | 4.67 | 4.66 |        |
| 17   | 4.75 | 5.12 | 5.74 | 5.59 | 6.52 | 5.84 | 8.96 | 5.75 | 4.66 | 4.67 | 4.67 | 4.66 |        |
| 18   | 4.82 | 5.04 | 5.84 | 5.52 | 5.50 | 5.50 | 9.00 | 5.68 | 4.68 | 4.67 | 4.67 | 4.66 |        |
| 19   | 4.87 | 4.99 | 5.28 | 5.32 | 5.42 | 5.55 | 8.56 | 5.01 | 4.68 | 4.66 | 4.67 | 4.65 |        |
| 20   | 4.81 | 4.88 | 5.08 | 5.23 | 5.34 | 5.87 | 8.39 | 4.95 | 4.67 | 4.66 | 4.68 | 4.65 |        |
| 21   | 4.78 | 4.84 | 5.03 | 5.23 | 5.27 | 6.92 | 8.16 | 4.91 | 4.66 | 4.66 | 4.68 | 4.65 |        |
| 22   | 4.76 | 4.83 | 5.03 | 5.20 | 5.25 | 7.30 | 7.95 | 4.90 | 4.65 | 4.66 | 4.68 | 4.65 |        |
| 23   | 4.76 | 4.83 | 5.32 | 5.22 | 5.23 | 6.52 | 7.71 | 4.88 | 4.65 | 4.66 | 4.68 | 4.65 |        |
| 24   | 4.83 | 4.84 | 5.23 | 5.71 | 5.22 | 6.00 | 7.33 | 4.87 | 4.65 | 4.66 | 4.68 | 4.65 |        |
| 25   | 4.89 | 4.83 | 5.64 | 5.61 | 5.20 | 5.59 | 7.15 | 4.88 | 4.64 | 4.66 | 4.68 | 4.65 |        |
| 26   | 4.79 | 4.83 | 5.46 | 5.35 | 5.20 | 5.38 | 7.39 | 4.88 | 4.64 | 4.66 | 4.68 | 4.65 |        |
| 27   | 4.77 | 4.83 | 6.09 | 5.23 | 5.17 | 5.19 | 6.78 | 4.88 | 4.64 | 4.66 | 4.68 | 4.65 |        |
| 28   | 4.76 | 4.83 | 5.58 | 5.18 | 5.42 | 5.18 | 6.09 | 4.88 | 4.64 | 4.66 | 4.68 | 4.65 |        |
| 29   | 4.79 | 4.83 | 5.34 | 5.16 | 6.57 | 5.42 | 5.84 | 4.87 | 4.64 | 4.66 |      | 4.65 |        |
| 30   | 5.22 | 4.83 | 5.14 | 5.16 | 6.05 | 6.75 | 5.64 | 4.86 | 4.64 | 4.66 |      | 4.65 |        |
| 31   |      | 4.83 |      | 5.25 | 6.12 |      | 5.50 |      | 4.64 | 4.66 |      | 4.65 |        |
| Mean | 4.75 | 5.19 | 5.23 | 5.64 | 5.69 | 6.11 | 7.40 | 5.13 | 4.68 | 4.66 | 4.67 | 4.66 |        |
| Max  | 5.22 | 5.54 | 6.09 | 7.02 | 7.64 | 7.67 | 9.02 | 6.18 | 4.83 | 4.67 | 4.68 | 4.68 |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun    | Jul    | Aug    | Sep                  | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual  |        |  |
|----------------|--------|---------------------------------------------------------|--------|--------|--------|----------------------|---------|---------|--------------------------|--------|--------|--------|---------|--------|--|
| 1              | 6.26   | 18.96                                                   | 9.51   | 15.42  | 17.92  | 45.97                | 79.78   | 19.58   | 8.86                     | 5.77   | 6.10   | 6.42   |         |        |  |
| 2              | 6.26   | 18.96                                                   | 10.62  | 14.58  | 16.67  | 23.81                | 49.06   | 18.54   | 8.54                     | 5.77   | 6.10   | 6.26   |         |        |  |
| 3              | 6.26   | 19.17                                                   | 10.00  | 12.08  | 15.63  | 18.75                | 53.69   | 16.87   | 8.05                     | 5.77   | 6.10   | 6.26   |         |        |  |
| 4              | 6.26   | 22.08                                                   | 10.21  | 28.80  | 15.00  | 27.22                | 87.54   | 15.21   | 7.73                     | 5.77   | 6.10   | 6.26   |         |        |  |
| 5              | 6.26   | 23.02                                                   | 13.33  | 19.58  | 14.79  | 27.49                | 138.69  | 13.96   | 7.07                     | 5.77   | 6.10   | 6.26   |         |        |  |
| 6              | 6.26   | 23.29                                                   | 23.02  | 15.21  | 17.29  | 23.55                | 157.06  | 10.62   | 6.42                     | 5.77   | 6.26   | 6.26   |         |        |  |
| 7              | 6.26   | 23.02                                                   | 13.96  | 41.95  | 30.38  | 17.92                | 155.04  | 6.10    | 6.42                     | 5.77   | 6.26   | 6.42   |         |        |  |
| 8              | 6.26   | 23.29                                                   | 9.84   | 59.95  | 33.00  | 42.57                | 141.64  | 6.26    | 6.42                     | 5.77   | 6.26   | 6.42   |         |        |  |
| 9              | 6.26   | 23.29                                                   | 8.86   | 44.12  | 21.67  | 49.06                | 114.42  | 10.00   | 6.26                     | 5.77   | 6.26   | 6.42   |         |        |  |
| 10             | 6.26   | 23.29                                                   | 8.70   | 62.94  | 28.27  | 68.93                | 87.13   | 19.17   | 6.26                     | 5.77   | 6.26   | 6.42   |         |        |  |
| 11             | 6.42   | 23.55                                                   | 8.38   | 68.55  | 22.50  | 86.32                | 82.78   | 15.63   | 6.26                     | 6.26   | 6.26   | 6.26   |         |        |  |
| 12             | 7.24   | 23.55                                                   | 8.21   | 69.68  | 20.62  | 94.81                | 62.57   | 9.68    | 6.26                     | 6.26   | 6.26   | 6.26   |         |        |  |
| 13             | 6.91   | 23.29                                                   | 15.83  | 54.30  | 33.93  | 81.65                | 48.75   | 13.33   | 6.26                     | 6.26   | 6.26   | 6.26   |         |        |  |
| 14             | 6.75   | 23.02                                                   | 20.00  | 32.21  | 59.95  | 55.54                | 43.81   | 27.75   | 6.26                     | 6.26   | 6.26   | 6.26   |         |        |  |
| 15             | 6.75   | 23.02                                                   | 26.70  | 22.29  | 93.60  | 37.63                | 50.29   | 41.64   | 6.26                     | 6.26   | 6.26   | 6.26   |         |        |  |
| 16             | 6.75   | 20.42                                                   | 22.76  | 20.00  | 86.73  | 36.09                | 58.82   | 35.78   | 6.26                     | 6.26   | 6.26   | 6.10   |         |        |  |
| 17             | 7.56   | 14.58                                                   | 28.80  | 24.86  | 52.14  | 31.43                | 154.03  | 29.06   | 6.10                     | 6.26   | 6.26   | 6.10   |         |        |  |
| 18             | 8.70   | 12.92                                                   | 31.43  | 23.02  | 22.50  | 22.50                | 156.05  | 27.22   | 6.42                     | 6.26   | 6.26   | 6.10   |         |        |  |
| 19             | 9.51   | 11.87                                                   | 17.92  | 18.75  | 20.83  | 23.81                | 134.26  | 12.29   | 6.42                     | 6.10   | 6.26   | 5.94   |         |        |  |
| 20             | 8.54   | 9.68                                                    | 13.75  | 16.87  | 19.17  | 32.21                | 126.06  | 11.04   | 6.26                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 21             | 8.05   | 9.03                                                    | 12.71  | 16.87  | 17.71  | 65.93                | 115.28  | 10.21   | 6.10                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 22             | 7.73   | 8.86                                                    | 12.71  | 16.25  | 17.29  | 80.16                | 106.25  | 10.00   | 5.94                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 23             | 7.73   | 8.86                                                    | 18.75  | 16.67  | 16.87  | 52.14                | 96.42   | 9.68    | 5.94                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 24             | 8.86   | 9.03                                                    | 16.87  | 28.01  | 16.67  | 36.09                | 81.28   | 9.51    | 5.94                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 25             | 9.84   | 8.86                                                    | 26.17  | 25.39  | 16.25  | 24.86                | 74.54   | 9.68    | 5.77                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 26             | 8.21   | 8.86                                                    | 21.67  | 19.37  | 16.25  | 20.00                | 83.53   | 9.68    | 5.77                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 27             | 7.89   | 8.86                                                    | 38.87  | 16.87  | 15.63  | 16.04                | 60.69   | 9.68    | 5.77                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 28             | 7.73   | 8.86                                                    | 24.60  | 15.83  | 20.83  | 15.83                | 38.87   | 9.68    | 5.77                     | 6.10   | 6.42   | 5.94   |         |        |  |
| 29             | 8.21   | 8.86                                                    | 19.17  | 15.42  | 53.69  | 20.83                | 31.43   | 9.51    | 5.77                     | 6.10   |        | 5.94   |         |        |  |
| 30             | 16.67  | 8.86                                                    | 15.00  | 15.42  | 37.63  | 59.57                | 26.17   | 9.35    | 5.77                     | 6.10   |        | 5.94   |         |        |  |
| 31             |        | 8.86                                                    |        | 17.29  | 39.79  |                      | 22.50   |         | 5.77                     | 6.10   |        | 5.94   |         |        |  |
| Total          | 228.65 | 502.07                                                  | 518.35 | 868.55 | 911.20 | 1238.71              | 2718.43 | 456.71  | 199.10                   | 187.08 | 175.92 | 190.22 | 8194.99 | CMSDAY |  |
| Mean           | 7.62   | 16.20                                                   | 17.28  | 28.02  | 29.39  | 41.29                | 87.69   | 15.22   | 6.42                     | 6.03   | 6.28   | 6.14   | 22.45   | CMS    |  |
| Max            | 16.67  | 23.55                                                   | 38.87  | 69.68  | 93.60  | 94.81                | 157.06  | 41.64   | 8.86                     | 6.26   | 6.42   | 6.42   | 157.06  | CMS    |  |
| Min            | 6.26   | 8.86                                                    | 8.21   | 12.08  | 14.79  | 15.83                | 22.50   | 6.10    | 5.77                     | 5.77   | 6.10   | 5.94   | 5.77    | CMS    |  |
| Runoff         | 19.76  | 43.38                                                   | 44.79  | 75.04  | 78.73  | 107.03               | 234.87  | 39.46   | 17.20                    | 16.16  | 15.20  | 16.44  | 708.05  | MCM    |  |
| Momentary Peak | 165.14 | CMS, at 9.18 m. (MSL.), at 15:00 Hours, on Oct 17, 2013 |        |        |        |                      |         |         |                          |        |        |        |         |        |  |
| Runoff Yield   | 18.16  | Liters/Second/Square KM.                                |        |        |        | Momentary Peak Yield |         | 133.575 | Liters/Second/Square KM. |        |        |        |         |        |  |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

### Chanthaburi River at Ban Puk , Chanthaburi (Z.13)

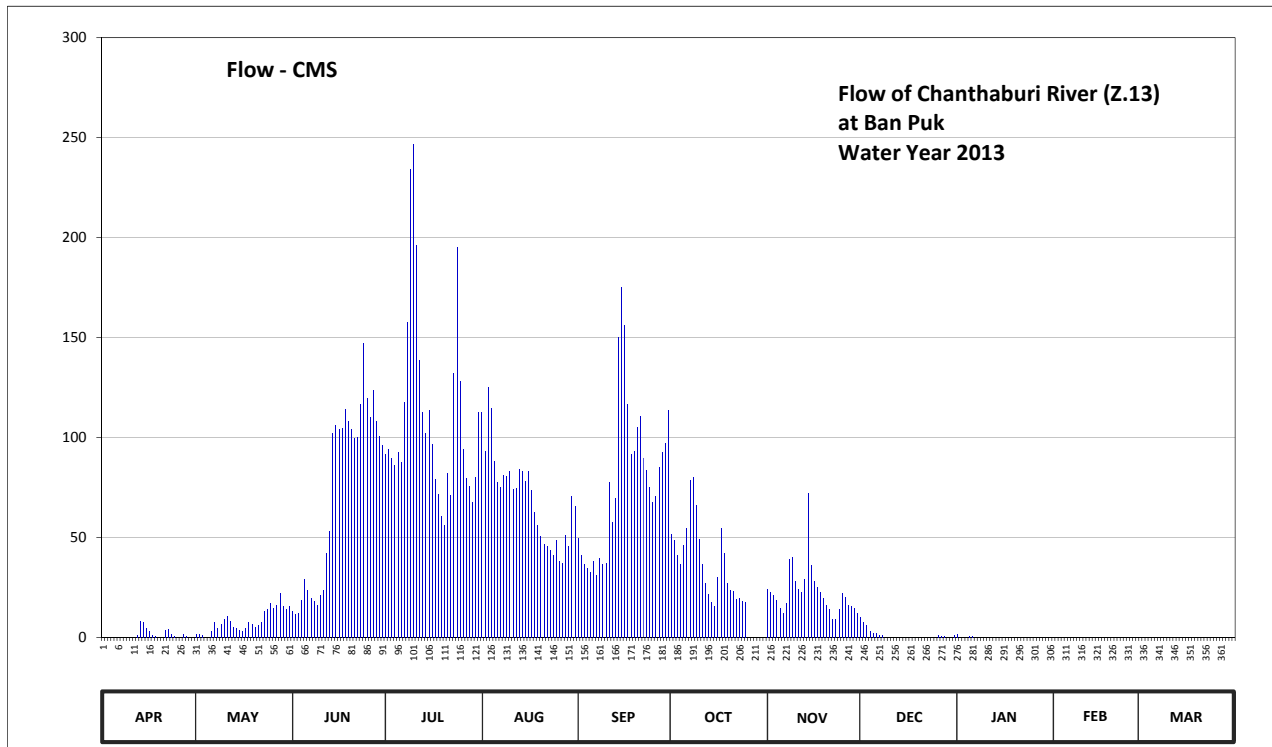
Lat 12 - 45 - 38 N    Long 102 - 08 - 33 E

**Location : on left bank at Ban Puk**

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Puk       | <b>Amphoe</b> | Makham | <b>Changwat</b>  | Chanthaburi       |
| <b>Drainage Area</b>                    | 647                                                                                       | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +6.300                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |           |               |        | <b>Elevation</b> | +14.374 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1968 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1969 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1969 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow                                                                          |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 14 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                             | Jul   | Aug   | Sep   | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------------------------------------------|-------|-------|-------|------|------|------|------|------|------|--------|
| 1                                | 8.09  | 8.63 | 8.79                                            | 9.30  | 9.80  | 8.15  | 8.23 | 8.93 | 8.75 | 8.63 | 8.45 | 8.43 |        |
| 2                                | 7.97  | 8.63 | 8.77                                            | 9.36  | 9.34  | 7.86  | 8.12 | 8.91 | 8.72 | 8.59 | 8.47 | 8.41 |        |
| 3                                | 8.06  | 8.62 | 8.78                                            | 9.25  | 10.09 | 7.71  | 7.87 | 8.89 | 8.70 | 8.57 | 8.48 | 8.41 |        |
| 4                                | 8.36  | 8.59 | 8.86                                            | 9.16  | 9.85  | 7.64  | 7.72 | 8.86 | 8.65 | 8.57 | 8.47 | 8.40 |        |
| 5                                | 8.21  | 8.59 | 8.99                                            | 9.33  | 9.21  | 7.57  | 8.03 | 8.81 | 8.64 | 8.61 | 8.48 | 8.40 |        |
| 6                                | 7.92  | 8.65 | 8.92                                            | 9.20  | 8.94  | 7.76  | 8.32 | 8.78 | 8.64 | 8.61 | 8.48 | 8.38 |        |
| 7                                | 7.77  | 8.72 | 8.87                                            | 9.92  | 8.87  | 7.53  | 8.97 | 8.84 | 8.62 | 8.57 | 8.48 | 8.38 |        |
| 8                                | 7.82  | 8.68 | 8.85                                            | 10.78 | 9.03  | 7.82  | 9.00 | 9.09 | 8.62 | 8.55 | 8.46 | 8.38 |        |
| 9                                | 8.14  | 8.71 | 8.83                                            | 12.31 | 9.02  | 7.71  | 8.64 | 9.10 | 8.60 | 8.54 | 8.46 | 8.42 |        |
| 10                               | 8.51  | 8.74 | 8.89                                            | 12.54 | 9.09  | 7.73  | 8.14 | 8.98 | 8.59 | 8.52 | 8.48 | 8.41 |        |
| 11                               | 8.56  | 8.76 | 8.92                                            | 11.60 | 8.85  | 8.94  | 7.71 | 8.93 | 8.56 | 8.55 | 8.49 | 8.41 |        |
| 12                               | 8.62  | 8.73 | 9.12                                            | 10.37 | 8.86  | 8.40  | 7.39 | 8.91 | 8.53 | 8.54 | 8.48 | 8.42 |        |
| 13                               | 8.73  | 8.69 | 9.21                                            | 9.80  | 9.11  | 8.73  | 7.20 | 8.99 | 8.55 | 8.54 | 8.46 | 8.42 |        |
| 14                               | 8.72  | 8.68 | 9.55                                            | 9.55  | 9.09  | 10.62 | 7.04 | 9.35 | 8.54 | 8.52 | 8.46 | 8.40 |        |
| 15                               | 8.68  | 8.66 | 9.65                                            | 9.83  | 8.95  | 11.15 | 6.96 | 9.06 | 8.48 | 8.48 | 8.47 | 8.40 |        |
| 16                               | 8.65  | 8.65 | 9.60                                            | 9.42  | 9.09  | 10.75 | 7.49 | 8.98 | 8.57 | 8.57 | 8.47 | 8.40 |        |
| 17                               | 8.62  | 8.68 | 9.62                                            | 8.98  | 8.84  | 9.90  | 8.32 | 8.94 | 8.54 | 8.54 | 8.47 | 8.38 |        |
| 18                               | 8.61  | 8.72 | 9.84                                            | 8.78  | 8.54  | 9.30  | 7.90 | 8.91 | 8.51 | 8.51 | 8.47 | 8.36 |        |
| 19                               | 8.60  | 8.71 | 9.70                                            | 8.49  | 8.36  | 9.34  | 7.38 | 8.87 | 8.50 | 8.50 | 8.47 | 8.35 |        |
| 20                               | 8.60  | 8.69 | 9.60                                            | 8.36  | 8.19  | 9.63  | 7.26 | 8.83 | 8.47 | 8.47 | 8.49 | 8.32 |        |
| 21                               | 8.66  | 8.70 | 9.49                                            | 9.06  | 8.05  | 9.75  | 7.24 | 8.80 | 8.42 | 8.52 | 8.51 | 8.31 |        |
| 22                               | 8.67  | 8.72 | 9.51                                            | 8.77  | 8.02  | 9.25  | 7.10 | 8.74 | 8.37 | 8.53 | 8.51 | 8.49 |        |
| 23                               | 8.63  | 8.79 | 9.90                                            | 10.24 | 7.96  | 9.10  | 7.12 | 8.74 | 8.33 | 8.52 | 8.50 | 8.49 |        |
| 24                               | 8.61  | 8.80 | 10.55                                           | 11.58 | 7.86  | 8.88  | 7.08 | 8.80 | 8.22 | 8.51 | 8.48 | 8.49 |        |
| 25                               | 8.59  | 8.84 | 9.97                                            | 10.15 | 8.13  | 8.67  | 7.04 | 8.90 | 8.22 | 8.51 | 8.47 | 8.47 |        |
| 26                               | 8.59  | 8.81 | 9.74                                            | 9.36  | 7.77  | 8.75  | 6.93 | 8.88 | 8.62 | 8.51 | 8.45 | 8.46 |        |
| 27                               | 8.63  | 8.83 | 10.06                                           | 8.99  | 7.73  | 9.13  | 6.91 | 8.83 | 8.61 | 8.51 | 8.45 | 8.46 |        |
| 28                               | 8.61  | 8.90 | 9.70                                            | 8.89  | 8.21  | 9.33  | 6.94 | 8.82 | 8.61 | 8.51 | 8.45 | 8.48 |        |
| 29                               | 8.59  | 8.82 | 9.52                                            | 8.67  | 8.02  | 9.43  | 6.91 | 8.81 | 8.60 | 8.51 |      | 8.48 |        |
| 30                               | 8.59  | 8.80 | 9.41                                            | 9.00  | 8.76  | 9.83  | 6.94 | 8.78 | 8.60 | 8.47 |      | 8.46 |        |
| 31                               |       | 8.82 |                                                 | 9.80  | 8.62  |       | 6.89 |      | 8.62 | 8.44 |      | 8.44 |        |
| Mean                             | 8.45  | 8.72 | 9.37                                            | 9.70  | 8.72  | 8.88  | 7.57 | 8.90 | 8.55 | 8.53 | 8.47 | 8.42 |        |
| Max                              | 8.73  | 8.90 | 10.55                                           | 12.54 | 10.09 | 11.15 | 9.00 | 9.35 | 8.75 | 8.63 | 8.51 | 8.49 | 12.54  |
| Min                              | 7.77  | 8.59 | 8.77                                            | 8.36  | 7.73  | 7.53  | 6.89 | 8.74 | 8.22 | 8.44 | 8.45 | 8.31 | 6.89   |
| Annual Max Momentary Gage Height | 12.60 |      | m. (MSL.) , at 04.00 Hours, on Jul 10, 2013     |       |       |       |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 6.30  |      | m. (MSL.) , River Bed 6.36 m. (MSL.)            |       |       |       |      |      |      |      |      |      |        |
| Left Bank Elevation              | 14.78 |      | m. (MSL.) ,                                     |       |       |       |      |      |      |      |      |      |        |
| Right Bank Elevation             | 14.77 |      | m. (MSL.) , Drainage Area 647 Square Kilometers |       |       |       |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun     | Jul     | Aug                  | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual          |
|----------------|--------|----------------------------------------------------------|---------|---------|----------------------|---------|--------------------------|--------|-------|------|------|------|-----------------|
| 1              | 0.00   | 1.80                                                     | 13.20   | 91.78   | 112.58               | 49.50   | 51.90                    | 24.40  | 10.00 | 1.80 | 0.00 | 0.00 |                 |
| 2              | 0.00   | 1.80                                                     | 11.60   | 94.18   | 93.38                | 41.04   | 48.60                    | 22.80  | 7.60  | 0.00 | 0.00 | 0.00 |                 |
| 3              | 0.00   | 1.20                                                     | 12.40   | 89.78   | 125.21               | 36.69   | 41.33                    | 21.20  | 6.00  | 0.00 | 0.00 | 0.00 |                 |
| 4              | 0.00   | 0.00                                                     | 18.80   | 86.22   | 114.68               | 34.66   | 36.98                    | 18.80  | 3.00  | 0.00 | 0.00 | 0.00 |                 |
| 5              | 0.00   | 0.00                                                     | 29.20   | 92.98   | 88.18                | 32.63   | 45.97                    | 14.80  | 2.40  | 0.60 | 0.00 | 0.00 |                 |
| 6              | 0.00   | 3.00                                                     | 23.60   | 87.78   | 77.70                | 38.14   | 54.73                    | 12.40  | 2.40  | 0.60 | 0.00 | 0.00 |                 |
| 7              | 0.00   | 7.60                                                     | 19.60   | 117.62  | 75.04                | 31.47   | 78.84                    | 17.20  | 1.20  | 0.00 | 0.00 | 0.00 |                 |
| 8              | 0.00   | 4.80                                                     | 18.00   | 157.64  | 81.15                | 39.88   | 79.98                    | 39.00  | 1.20  | 0.00 | 0.00 | 0.00 |                 |
| 9              | 0.00   | 6.80                                                     | 16.40   | 233.83  | 80.76                | 36.69   | 66.46                    | 40.00  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 10             | 0.00   | 9.20                                                     | 21.20   | 246.48  | 83.49                | 37.27   | 49.20                    | 28.40  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 11             | 0.00   | 10.80                                                    | 23.60   | 196.18  | 74.28                | 77.70   | 36.69                    | 24.40  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 12             | 1.20   | 8.40                                                     | 42.40   | 138.37  | 74.66                | 57.66   | 27.41                    | 22.80  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 13             | 8.40   | 5.40                                                     | 53.20   | 112.58  | 84.27                | 69.79   | 21.90                    | 29.20  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 14             | 7.60   | 4.80                                                     | 102.08  | 102.08  | 83.49                | 150.12  | 17.50                    | 72.00  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 15             | 4.80   | 3.60                                                     | 106.28  | 113.84  | 78.08                | 175.03  | 15.50                    | 36.00  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 16             | 3.00   | 3.00                                                     | 104.18  | 96.62   | 83.49                | 156.23  | 30.31                    | 28.40  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 17             | 1.20   | 4.80                                                     | 105.02  | 79.22   | 73.90                | 116.78  | 54.73                    | 25.20  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 18             | 0.60   | 7.60                                                     | 114.26  | 71.64   | 62.78                | 91.78   | 42.20                    | 22.80  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 19             | 0.00   | 6.80                                                     | 108.38  | 60.95   | 56.20                | 93.38   | 27.12                    | 19.60  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 20             | 0.00   | 5.40                                                     | 104.18  | 56.20   | 50.70                | 105.44  | 23.64                    | 16.40  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 21             | 3.60   | 6.00                                                     | 99.56   | 82.32   | 46.55                | 110.48  | 23.06                    | 14.00  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 22             | 4.20   | 7.60                                                     | 100.40  | 71.27   | 45.68                | 89.78   | 19.00                    | 9.20   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 23             | 1.80   | 13.20                                                    | 116.78  | 132.26  | 43.94                | 83.88   | 19.58                    | 9.20   | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 24             | 0.60   | 14.00                                                    | 146.83  | 195.24  | 41.04                | 75.42   | 18.50                    | 14.00  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 25             | 0.00   | 17.20                                                    | 119.72  | 128.03  | 48.90                | 67.57   | 17.50                    | 22.00  | 0.00  | 0.00 | 0.00 | 0.00 |                 |
| 26             | 0.00   | 14.80                                                    | 110.06  | 94.18   | 38.43                | 70.53   | 0.00                     | 20.40  | 1.20  | 0.00 | 0.00 | 0.00 |                 |
| 27             | 1.80   | 16.40                                                    | 123.80  | 79.60   | 37.27                | 85.05   | 0.00                     | 16.40  | 0.60  | 0.00 | 0.00 | 0.00 |                 |
| 28             | 0.60   | 22.00                                                    | 108.38  | 75.80   | 51.30                | 92.98   | 0.00                     | 15.60  | 0.60  | 0.00 | 0.00 | 0.00 |                 |
| 29             | 0.00   | 15.60                                                    | 100.82  | 67.57   | 45.68                | 97.04   | 0.00                     | 14.80  | 0.00  | 0.00 |      | 0.00 |                 |
| 30             | 0.00   | 14.00                                                    | 96.20   | 79.98   | 70.90                | 113.84  | 0.00                     | 12.40  | 0.00  | 0.00 |      | 0.00 |                 |
| 31             |        | 15.60                                                    |         | 112.58  | 65.72                |         | 0.00                     |        | 1.20  | 0.00 |      | 0.00 |                 |
| Total          | 39.40  | 253.20                                                   | 2170.13 | 3444.80 | 2189.43              | 2358.45 | 948.63                   | 683.80 | 37.40 | 3.00 | 0.00 | 0.00 | 12128.24 CMSDAY |
| Mean           | 1.31   | 8.17                                                     | 72.34   | 111.12  | 70.63                | 78.62   | 30.60                    | 22.79  | 1.21  | 0.10 | 0.00 | 0.00 | 33.23 CMS       |
| Max            | 8.40   | 22.00                                                    | 146.83  | 246.48  | 125.21               | 175.03  | 79.98                    | 72.00  | 10.00 | 1.80 | 0.00 | 0.00 | 246.48 CMS      |
| Min            | 0.00   | 0.00                                                     | 11.60   | 56.20   | 37.27                | 31.47   | 0.00                     | 9.20   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 CMS        |
| Runoff         | 3.40   | 21.88                                                    | 187.50  | 297.63  | 189.17               | 203.77  | 81.96                    | 59.08  | 3.23  | 0.26 | 0.00 | 0.00 | 1047.88 MCM     |
| Momentary Peak | 249.78 | CMS, at 12.60 m. (MSL.), at 04.00 Hours, on Jul 10, 2013 |         |         |                      |         |                          |        |       |      |      |      |                 |
| Runoff Yield   | 51.36  | Liters/Second/Square KM.                                 |         |         | Momentary Peak Yield | 386.059 | Liters/Second/Square KM. |        |       |      |      |      |                 |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

**Khlong Phayat at Ban Chaman , Chanthaburi (Z.14)**

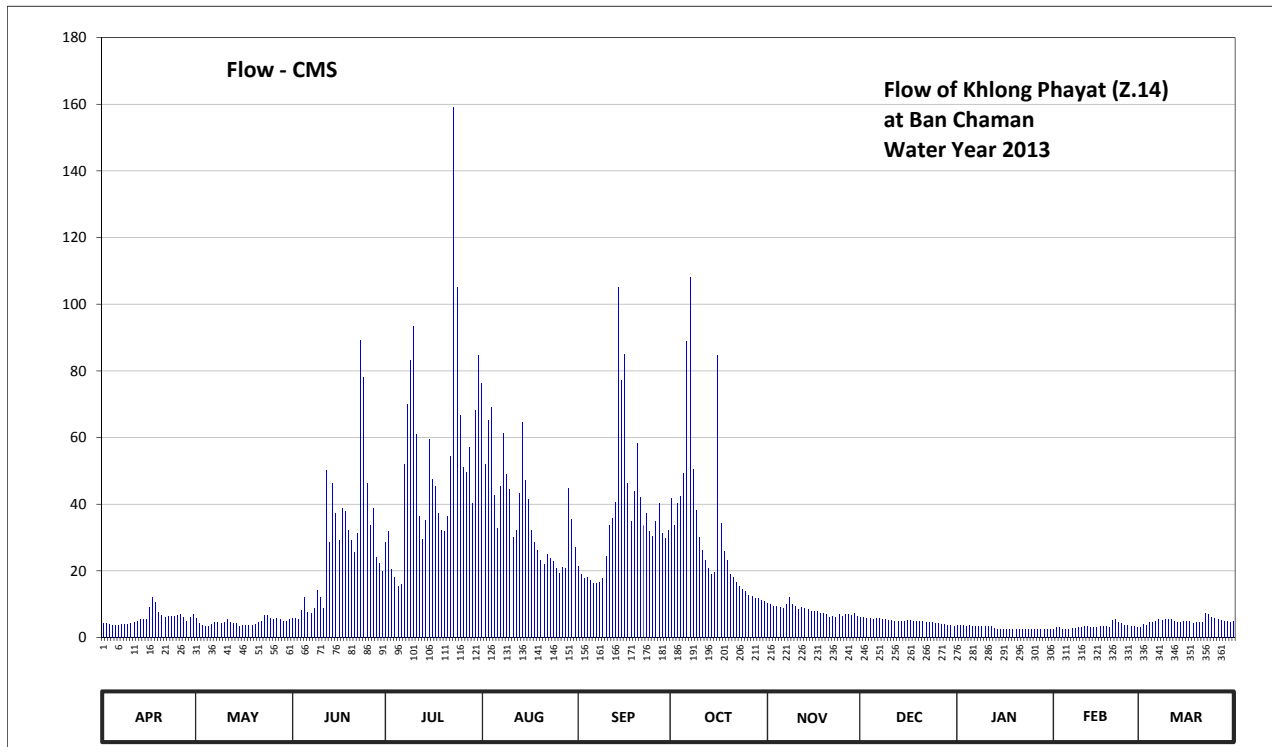
Lat 12 - 44 - 34 N      Long 102 - 12 - 35 E

**Location :** on left bank at the bridge of Khlong Prayat near Wat Chaman.

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Chaman    | <b>Amphoe</b> | Makham | <b>Changwat</b>  | Chanthaburi       |
| <b>Drainage Area</b>                    | 229                                                                                       | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +5.400                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank about 30 meters from the top staff gage.                                     |           |               |        | <b>Elevation</b> | +13.690 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1968 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1986 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1986 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable with variable water surface slope.                                          |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 20 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May                                             | Jun   | Jul   | Aug   | Sep   | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------|--------|
| 1                                | 6.42  | 6.57                                            | 6.57  | 8.04  | 10.15 | 7.65  | 8.71  | 6.94 | 6.61 | 6.36 | 6.27 | 6.32 |        |
| 2                                | 6.42  | 6.42                                            | 6.57  | 8.22  | 9.18  | 7.51  | 8.32  | 6.91 | 6.61 | 6.38 | 6.30 | 6.41 |        |
| 3                                | 6.41  | 6.37                                            | 6.55  | 7.59  | 9.72  | 7.44  | 8.65  | 6.87 | 6.59 | 6.36 | 6.30 | 6.39 |        |
| 4                                | 6.38  | 6.34                                            | 6.78  | 7.45  | 9.88  | 7.45  | 8.74  | 6.86 | 6.58 | 6.35 | 6.27 | 6.47 |        |
| 5                                | 6.39  | 6.34                                            | 7.06  | 7.30  | 8.76  | 7.41  | 9.06  | 6.85 | 6.56 | 6.37 | 6.26 | 6.47 |        |
| 6                                | 6.38  | 6.40                                            | 6.73  | 7.33  | 8.27  | 7.35  | 10.61 | 6.81 | 6.58 | 6.34 | 6.27 | 6.50 |        |
| 7                                | 6.41  | 6.47                                            | 6.70  | 9.19  | 8.89  | 7.35  | 11.25 | 6.91 | 6.57 | 6.33 | 6.28 | 6.55 |        |
| 8                                | 6.41  | 6.45                                            | 6.83  | 9.91  | 9.57  | 7.36  | 9.12  | 7.07 | 6.55 | 6.34 | 6.28 | 6.52 |        |
| 9                                | 6.40  | 6.43                                            | 7.21  | 10.40 | 9.05  | 7.44  | 8.55  | 6.91 | 6.54 | 6.34 | 6.32 | 6.55 |        |
| 10                               | 6.44  | 6.45                                            | 7.06  | 10.77 | 8.84  | 7.83  | 8.13  | 6.87 | 6.52 | 6.35 | 6.32 | 6.55 |        |
| 11                               | 6.46  | 6.56                                            | 6.82  | 9.55  | 8.12  | 8.32  | 7.91  | 6.80 | 6.53 | 6.33 | 6.33 | 6.55 |        |
| 12                               | 6.49  | 6.46                                            | 9.10  | 8.46  | 8.23  | 8.43  | 7.76  | 6.84 | 6.51 | 6.33 | 6.34 | 6.50 |        |
| 13                               | 6.55  | 6.42                                            | 8.05  | 8.09  | 8.79  | 8.66  | 7.61  | 6.82 | 6.50 | 6.29 | 6.32 | 6.47 |        |
| 14                               | 6.56  | 6.42                                            | 8.93  | 8.39  | 9.70  | 11.15 | 7.50  | 6.79 | 6.49 | 6.24 | 6.32 | 6.45 |        |
| 15                               | 6.56  | 6.34                                            | 8.50  | 9.49  | 8.97  | 10.18 | 7.54  | 6.75 | 6.49 | 6.24 | 6.32 | 6.50 |        |
| 16                               | 6.85  | 6.37                                            | 8.08  | 8.98  | 8.70  | 10.47 | 10.46 | 6.75 | 6.53 | 6.25 | 6.35 | 6.49 |        |
| 17                               | 7.07  | 6.37                                            | 8.57  | 8.89  | 8.23  | 8.92  | 8.34  | 6.74 | 6.52 | 6.25 | 6.34 | 6.49 |        |
| 18                               | 6.96  | 6.37                                            | 8.53  | 8.50  | 8.05  | 8.38  | 7.90  | 6.71 | 6.50 | 6.25 | 6.34 | 6.43 |        |
| 19                               | 6.72  | 6.38                                            | 8.23  | 8.23  | 7.91  | 8.82  | 7.75  | 6.69 | 6.48 | 6.27 | 6.30 | 6.47 |        |
| 20                               | 6.66  | 6.40                                            | 8.08  | 8.22  | 7.75  | 9.44  | 7.51  | 6.68 | 6.48 | 6.26 | 6.53 | 6.46 |        |
| 21                               | 6.62  | 6.45                                            | 7.88  | 8.46  | 7.69  | 8.73  | 7.46  | 6.62 | 6.48 | 6.27 | 6.55 | 6.47 |        |
| 22                               | 6.63  | 6.50                                            | 8.18  | 9.29  | 7.86  | 8.31  | 7.36  | 6.64 | 6.47 | 6.27 | 6.45 | 6.69 |        |
| 23                               | 6.64  | 6.66                                            | 10.62 | 12.83 | 7.79  | 8.51  | 7.29  | 6.61 | 6.47 | 6.27 | 6.44 | 6.68 |        |
| 24                               | 6.63  | 6.66                                            | 10.22 | 11.15 | 7.73  | 8.22  | 7.23  | 6.68 | 6.47 | 6.26 | 6.38 | 6.62 |        |
| 25                               | 6.65  | 6.59                                            | 8.92  | 9.78  | 7.61  | 8.14  | 7.19  | 6.64 | 6.43 | 6.27 | 6.37 | 6.58 |        |
| 26                               | 6.67  | 6.55                                            | 8.31  | 9.14  | 7.52  | 8.37  | 7.12  | 6.68 | 6.42 | 6.27 | 6.34 | 6.54 |        |
| 27                               | 6.61  | 6.57                                            | 8.57  | 9.07  | 7.63  | 8.65  | 7.09  | 6.67 | 6.41 | 6.27 | 6.34 | 6.53 |        |
| 28                               | 6.49  | 6.55                                            | 7.81  | 9.40  | 7.61  | 8.19  | 7.04  | 6.66 | 6.41 | 6.27 | 6.32 | 6.50 |        |
| 29                               | 6.60  | 6.50                                            | 7.71  | 8.65  | 8.85  | 8.10  | 7.05  | 6.69 | 6.38 | 6.27 |      | 6.49 |        |
| 30                               | 6.68  | 6.48                                            | 7.56  | 9.84  | 8.41  | 8.24  | 7.00  | 6.63 | 6.36 | 6.27 |      | 6.47 |        |
| 31                               |       | 6.54                                            |       | 10.46 | 7.96  |       | 6.97  |      | 6.35 | 6.25 |      | 6.50 |        |
| Mean                             | 6.57  | 6.46                                            | 7.89  | 9.07  | 8.50  | 8.37  | 8.07  | 6.77 | 6.50 | 6.30 | 6.34 | 6.50 |        |
| Max                              | 7.07  | 6.66                                            | 10.62 | 12.83 | 10.15 | 11.15 | 11.25 | 7.07 | 6.61 | 6.38 | 6.55 | 6.69 | 12.83  |
| Min                              | 6.38  | 6.34                                            | 6.55  | 7.30  | 7.52  | 7.35  | 6.97  | 6.61 | 6.35 | 6.24 | 6.26 | 6.32 | 6.24   |
| Annual Max Momentary Gage Height | 13.76 | m. (MSL.) , at 12.00 Hours, on Jul 23, 2013     |       |       |       |       |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 5.40  | m. (MSL.) , River Bed 5.61 m. (MSL.)            |       |       |       |       |       |      |      |      |      |      |        |
| Left Bank Elevation              | 13.92 | m. (MSL.) ,                                     |       |       |       |       |       |      |      |      |      |      |        |
| Right Bank Elevation             | 13.88 | m. (MSL.) , Drainage Area 229 Square Kilometers |       |       |       |       |       |      |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May    | Jun                                                      | Jul     | Aug                  | Sep     | Oct     | Nov    | Dec                      | Jan   | Feb   | Mar    | Annual  |        |
|----------------|--------|--------|----------------------------------------------------------|---------|----------------------|---------|---------|--------|--------------------------|-------|-------|--------|---------|--------|
| 1              | 4.20   | 5.70   | 5.70                                                     | 28.56   | 76.30                | 21.45   | 41.71   | 10.42  | 6.13                     | 3.60  | 2.70  | 3.20   |         |        |
| 2              | 4.20   | 4.20   | 5.70                                                     | 31.98   | 51.96                | 19.07   | 33.88   | 10.03  | 6.13                     | 3.80  | 3.00  | 4.10   |         |        |
| 3              | 4.10   | 3.70   | 5.50                                                     | 20.43   | 65.12                | 17.88   | 40.45   | 9.51   | 5.90                     | 3.60  | 3.00  | 3.90   |         |        |
| 4              | 3.80   | 3.40   | 8.34                                                     | 18.05   | 69.28                | 18.05   | 42.34   | 9.38   | 5.80                     | 3.50  | 2.70  | 4.70   |         |        |
| 5              | 3.90   | 3.40   | 11.98                                                    | 15.50   | 42.76                | 17.37   | 49.32   | 9.25   | 5.60                     | 3.70  | 2.60  | 4.70   |         |        |
| 6              | 3.80   | 4.00   | 7.69                                                     | 16.01   | 32.93                | 16.35   | 88.88   | 8.73   | 5.80                     | 3.40  | 2.70  | 5.00   |         |        |
| 7              | 4.10   | 4.70   | 7.30                                                     | 52.18   | 45.58                | 16.35   | 107.90  | 10.03  | 5.70                     | 3.30  | 2.80  | 5.50   |         |        |
| 8              | 4.10   | 4.50   | 8.99                                                     | 70.06   | 61.43                | 16.52   | 50.64   | 12.11  | 5.50                     | 3.40  | 2.80  | 5.20   |         |        |
| 9              | 4.00   | 4.30   | 14.15                                                    | 83.00   | 49.10                | 17.88   | 38.35   | 10.03  | 5.40                     | 3.40  | 3.20  | 5.50   |         |        |
| 10             | 4.40   | 4.50   | 11.98                                                    | 93.50   | 44.48                | 24.57   | 30.27   | 9.51   | 5.20                     | 3.50  | 3.20  | 5.50   |         |        |
| 11             | 4.60   | 5.60   | 8.86                                                     | 60.94   | 30.08                | 33.88   | 26.09   | 8.60   | 5.30                     | 3.30  | 3.30  | 5.50   |         |        |
| 12             | 4.90   | 4.60   | 50.20                                                    | 36.54   | 32.17                | 35.97   | 23.32   | 9.12   | 5.10                     | 3.30  | 3.40  | 5.00   |         |        |
| 13             | 5.50   | 4.20   | 28.75                                                    | 29.51   | 43.39                | 40.66   | 20.77   | 8.86   | 5.00                     | 2.90  | 3.20  | 4.70   |         |        |
| 14             | 5.60   | 4.20   | 46.46                                                    | 35.21   | 64.60                | 104.90  | 18.90   | 8.47   | 4.90                     | 2.40  | 3.20  | 4.50   |         |        |
| 15             | 5.60   | 3.40   | 37.30                                                    | 59.48   | 47.34                | 77.08   | 19.58   | 7.95   | 4.90                     | 2.40  | 3.20  | 5.00   |         |        |
| 16             | 9.25   | 3.70   | 29.32                                                    | 47.56   | 41.50                | 84.96   | 84.68   | 7.95   | 5.30                     | 2.50  | 3.50  | 4.90   |         |        |
| 17             | 12.11  | 3.70   | 38.77                                                    | 45.58   | 32.17                | 46.24   | 34.26   | 7.82   | 5.20                     | 2.50  | 3.40  | 4.90   |         |        |
| 18             | 10.68  | 3.70   | 37.93                                                    | 37.30   | 28.75                | 35.02   | 25.90   | 7.43   | 5.00                     | 2.50  | 3.40  | 4.30   |         |        |
| 19             | 7.56   | 3.80   | 32.17                                                    | 32.17   | 26.09                | 44.04   | 23.15   | 7.17   | 4.80                     | 2.70  | 3.00  | 4.70   |         |        |
| 20             | 6.78   | 4.00   | 29.32                                                    | 31.98   | 23.15                | 58.26   | 19.07   | 7.04   | 4.80                     | 2.60  | 5.30  | 4.60   |         |        |
| 21             | 6.26   | 4.50   | 25.52                                                    | 36.54   | 22.13                | 42.13   | 18.22   | 6.26   | 4.80                     | 2.70  | 5.50  | 4.70   |         |        |
| 22             | 6.39   | 5.00   | 31.22                                                    | 54.60   | 25.14                | 33.69   | 16.52   | 6.52   | 4.70                     | 2.70  | 4.50  | 7.17   |         |        |
| 23             | 6.52   | 6.78   | 89.16                                                    | 158.99  | 23.83                | 37.51   | 15.35   | 6.13   | 4.70                     | 2.70  | 4.40  | 7.04   |         |        |
| 24             | 6.39   | 6.78   | 78.12                                                    | 104.90  | 22.81                | 31.98   | 14.45   | 7.04   | 4.70                     | 2.60  | 3.80  | 6.26   |         |        |
| 25             | 6.65   | 5.90   | 46.24                                                    | 66.68   | 20.77                | 30.46   | 13.85   | 6.52   | 4.30                     | 2.70  | 3.70  | 5.80   |         |        |
| 26             | 6.91   | 5.50   | 33.69                                                    | 51.08   | 19.24                | 34.83   | 12.80   | 7.04   | 4.20                     | 2.70  | 3.40  | 5.40   |         |        |
| 27             | 6.13   | 5.70   | 38.77                                                    | 49.54   | 21.11                | 40.45   | 12.37   | 6.91   | 4.10                     | 2.70  | 3.40  | 5.30   |         |        |
| 28             | 4.90   | 5.50   | 24.19                                                    | 57.28   | 20.77                | 31.41   | 11.72   | 6.78   | 4.10                     | 2.70  | 3.20  | 5.00   |         |        |
| 29             | 6.00   | 5.00   | 22.47                                                    | 40.45   | 44.70                | 29.70   | 11.85   | 7.17   | 3.80                     | 2.70  |       | 4.90   |         |        |
| 30             | 7.04   | 4.80   | 19.92                                                    | 68.24   | 35.59                | 32.36   | 11.20   | 6.39   | 3.60                     | 2.70  |       | 4.70   |         |        |
| 31             |        | 5.40   |                                                          | 84.68   | 27.04                |         | 10.81   |        | 3.50                     | 2.50  |       | 5.00   |         |        |
| Total          | 176.37 | 144.16 | 835.71                                                   | 1618.52 | 1191.31              | 1091.02 | 968.60  | 246.17 | 153.96                   | 91.70 | 95.50 | 156.67 | 6769.69 | CMSDAY |
| Mean           | 5.88   | 4.65   | 27.86                                                    | 52.21   | 38.43                | 36.37   | 31.25   | 8.21   | 4.97                     | 2.96  | 3.41  | 5.05   | 18.55   | CMS    |
| Max            | 12.11  | 6.78   | 89.16                                                    | 158.99  | 76.30                | 104.90  | 107.90  | 12.11  | 6.13                     | 3.80  | 5.50  | 7.17   | 158.99  | CMS    |
| Min            | 3.80   | 3.40   | 5.50                                                     | 15.50   | 19.24                | 16.35   | 10.81   | 6.13   | 3.50                     | 2.40  | 2.60  | 3.20   | 2.40    | CMS    |
| Runoff         | 15.24  | 12.46  | 72.21                                                    | 139.84  | 102.93               | 94.26   | 83.69   | 21.27  | 13.30                    | 7.92  | 8.25  | 13.54  | 584.90  | MCM    |
| Momentary Peak | 190.60 |        | CMS, at 13.76 m. (MSL.), at 12.00 Hours, on Jul 23, 2013 |         |                      |         |         |        |                          |       |       |        |         |        |
| Runoff Yield   | 80.96  |        | Liters/Second/Square KM.                                 |         | Momentary Peak Yield |         | 832.024 |        | Liters/Second/Square KM. |       |       |        |         |        |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

### Khlong Phlo at Ban Chamkho , Rayong (Z.18)

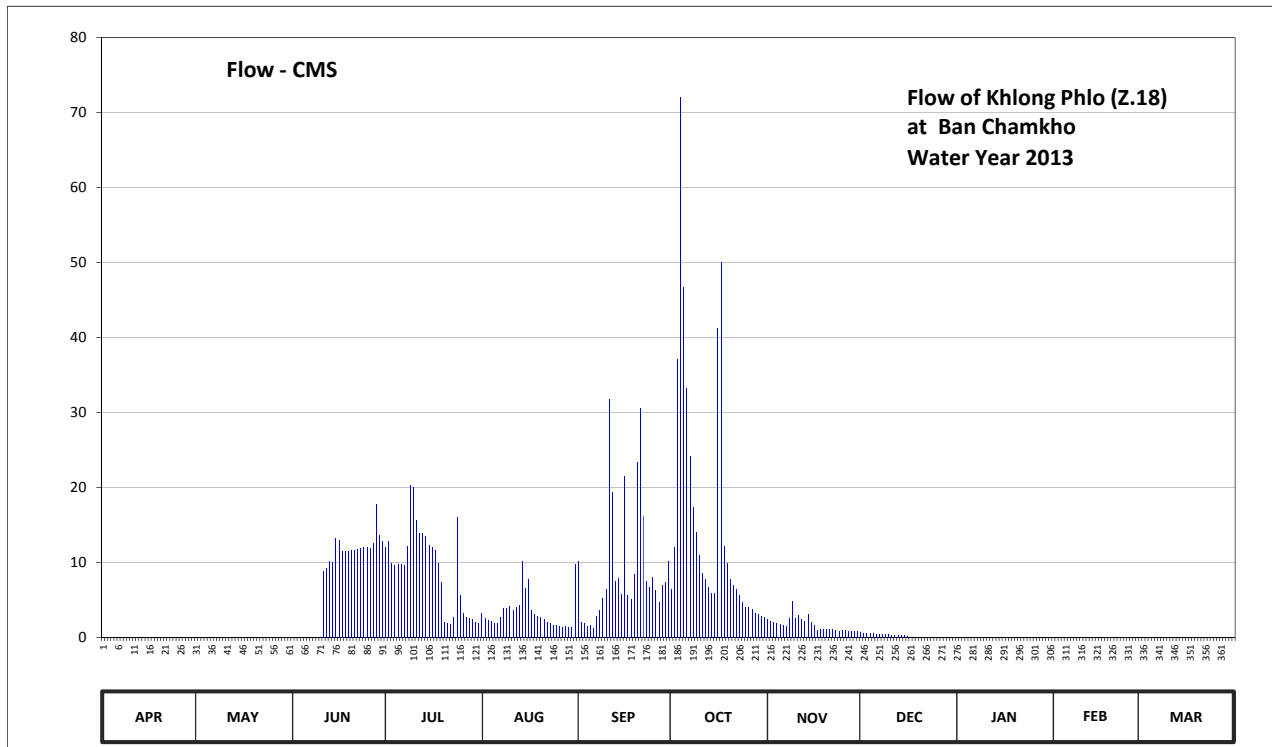
Lat 12 - 57 - 18 N    Long 101 - 40 - 32 E

**Location : on right bank at the bridge on road.**

|                                         |                                                                                                       |           |               |                  |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------|-----------|---------------|------------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                            | Chamkho   | <b>Amphoe</b> | K.A. Khao Chamao | <b>Changwat</b>  | Rayong            |
| <b>Drainage Area</b>                    | 201                                                                                                   | sq.km.    |               |                  |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                            |           |               |                  |                  |                   |
| <b>Zero Gage at Bottom</b>              | +28.146                                                                                               | m. (MSL.) |               |                  |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                             |           |               |                  |                  |                   |
| <b>Location BM</b>                      | On right bank near the top staff gage.                                                                |           |               |                  | <b>Elevation</b> | +40.318 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                                |           |               |                  |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                                         |           |               |                  |                  |                   |
| <b>Period of Available Gage Records</b> | 1982 to date                                                                                          |           |               |                  |                  |                   |
| <b>Rating Operation</b>                 |                                                                                                       |           |               |                  |                  |                   |
| <b>Period of Rating</b>                 | 1983 to date                                                                                          |           |               |                  |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                                     |           |               |                  |                  |                   |
| <b>Rated by Current Meter</b>           | 1983 to date                                                                                          |           |               |                  |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                               |           |               |                  |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                                     |           |               |                  |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by the concrete weir about 1.5 kilometers downstream from the gage site. |           |               |                  |                  |                   |
|                                         | Stage-discharge relation defined by 28 discharge measurements made in 2013.                           |           |               |                  |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 29.73 | 29.91 | 29.89                                           | 30.58 | 29.76 | 30.42 | 30.10 | 29.67 | 29.48 | 30.36 | 30.18 | 30.07 |        |
| 2                                | 29.73 | 29.90 | 29.89                                           | 30.65 | 29.69 | 29.63 | 30.58 | 29.64 | 29.47 | 30.36 | 30.18 | 30.01 |        |
| 3                                | 29.73 | 29.90 | 29.88                                           | 30.40 | 29.66 | 29.62 | 32.16 | 29.63 | 29.47 | 30.35 | 30.18 | 29.96 |        |
| 4                                | 29.73 | 29.89 | 29.90                                           | 30.38 | 29.65 | 29.57 | 33.38 | 29.61 | 29.46 | 30.35 | 30.18 | 29.93 |        |
| 5                                | 29.73 | 29.89 | 29.92                                           | 30.39 | 29.62 | 29.58 | 32.57 | 29.60 | 29.46 | 30.35 | 30.18 | 29.90 |        |
| 6                                | 29.72 | 29.88 | 29.94                                           | 30.39 | 29.62 | 29.54 | 31.98 | 29.58 | 29.45 | 30.34 | 30.17 | 29.86 |        |
| 7                                | 29.72 | 29.88 | 30.01                                           | 30.38 | 29.70 | 29.72 | 31.45 | 29.57 | 29.45 | 30.34 | 30.19 | 29.84 |        |
| 8                                | 29.71 | 29.84 | 30.06                                           | 30.59 | 29.83 | 29.81 | 31.01 | 29.69 | 29.45 | 30.33 | 30.19 | 29.81 |        |
| 9                                | 29.71 | 29.83 | 30.09                                           | 31.21 | 29.84 | 29.97 | 30.75 | 29.94 | 29.45 | 30.33 | 30.19 | 29.79 |        |
| 10                               | 29.70 | 29.83 | 30.13                                           | 31.19 | 29.86 | 30.10 | 30.49 | 29.69 | 29.45 | 30.31 | 30.19 | 29.76 |        |
| 11                               | 30.09 | 29.82 | 30.31                                           | 30.87 | 29.81 | 31.90 | 30.29 | 29.73 | 29.44 | 30.31 | 30.20 | 29.71 |        |
| 12                               | 30.10 | 29.82 | 30.35                                           | 30.73 | 29.85 | 31.15 | 30.22 | 29.67 | 29.44 | 30.29 | 30.20 | 29.69 |        |
| 13                               | 30.10 | 29.80 | 30.42                                           | 30.73 | 29.88 | 30.19 | 30.12 | 29.64 | 29.43 | 30.29 | 30.20 | 29.67 |        |
| 14                               | 30.09 | 29.80 | 30.41                                           | 30.70 | 30.42 | 30.23 | 30.04 | 29.74 | 29.43 | 30.24 | 30.20 | 29.64 |        |
| 15                               | 30.08 | 29.79 | 30.68                                           | 30.60 | 30.11 | 30.03 | 30.05 | 29.63 | 29.43 | 30.15 | 30.20 | 29.62 |        |
| 16                               | 30.08 | 29.79 | 30.66                                           | 30.58 | 30.22 | 31.28 | 32.34 | 29.58 | 29.42 | 30.15 | 30.20 | 29.59 |        |
| 17                               | 30.08 | 29.79 | 30.54                                           | 30.55 | 29.81 | 30.01 | 32.70 | 29.51 | 29.43 | 30.14 | 30.20 | 29.56 |        |
| 18                               | 30.09 | 29.82 | 30.54                                           | 30.40 | 29.74 | 29.96 | 30.59 | 29.53 | 29.65 | 30.14 | 30.19 | 29.51 |        |
| 19                               | 30.09 | 29.84 | 30.54                                           | 30.18 | 29.72 | 30.28 | 30.40 | 29.52 | 30.72 | 30.14 | 30.19 | 29.48 |        |
| 20                               | 30.08 | 29.84 | 30.55                                           | 29.63 | 29.70 | 31.40 | 30.22 | 29.52 | 30.74 | 30.13 | 30.19 | 29.44 |        |
| 21                               | 30.06 | 29.85 | 30.55                                           | 29.62 | 29.68 | 31.83 | 30.14 | 29.52 | 30.48 | 30.15 | 30.19 | 29.40 |        |
| 22                               | 29.83 | 29.85 | 30.56                                           | 29.60 | 29.63 | 30.92 | 30.10 | 29.52 | 30.46 | 30.15 | 30.19 | 29.35 |        |
| 23                               | 29.77 | 29.84 | 30.57                                           | 29.71 | 29.61 | 30.20 | 30.01 | 29.51 | 30.45 | 30.16 | 30.19 | 29.34 |        |
| 24                               | 29.73 | 29.84 | 30.58                                           | 30.91 | 29.59 | 30.12 | 29.92 | 29.50 | 30.45 | 30.16 | 30.19 | 29.33 |        |
| 25                               | 29.72 | 29.84 | 30.58                                           | 30.01 | 29.58 | 30.24 | 29.85 | 29.51 | 30.44 | 30.16 | 30.17 | 29.33 |        |
| 26                               | 29.72 | 29.85 | 30.57                                           | 29.77 | 29.57 | 30.08 | 29.85 | 29.51 | 30.43 | 30.17 | 30.16 | 29.33 |        |
| 27                               | 29.72 | 29.86 | 30.62                                           | 29.71 | 29.56 | 29.92 | 29.82 | 29.50 | 30.43 | 30.18 | 30.13 | 29.32 |        |
| 28                               | 29.71 | 29.87 | 31.04                                           | 29.69 | 29.57 | 30.15 | 29.77 | 29.50 | 30.41 | 30.19 | 30.13 | 29.28 |        |
| 29                               | 29.74 | 29.88 | 30.71                                           | 29.67 | 29.56 | 30.18 | 29.74 | 29.49 | 30.40 | 30.19 |       | 29.25 |        |
| 30                               | 29.80 | 29.88 | 30.65                                           | 29.63 | 29.56 | 30.43 | 29.72 | 29.49 | 30.40 | 30.19 |       | 29.21 |        |
| 31                               |       | 29.90 |                                                 | 29.62 | 30.39 |       | 29.70 |       | 30.40 | 30.18 |       | 29.17 |        |
| Mean                             | 29.86 | 29.85 | 30.37                                           | 30.29 | 29.77 | 30.28 | 30.65 | 29.59 | 29.89 | 30.23 | 30.18 | 29.59 |        |
| Max                              | 30.10 | 29.91 | 31.04                                           | 31.21 | 30.42 | 31.90 | 33.38 | 29.94 | 30.74 | 30.36 | 30.20 | 30.07 | 33.38  |
| Min                              | 29.70 | 29.79 | 29.88                                           | 29.60 | 29.56 | 29.54 | 29.70 | 29.49 | 29.42 | 30.13 | 30.13 | 29.17 | 29.17  |
| Annual Max Momentary Gage Height |       | 33.57 | m. (MSL.) , at 18.00 Hours, on Oct 16, 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 28.15 | m. (MSL.) , River Bed 27.95 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 34.38 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 34.79 | m. (MSL.) , Drainage Area 201 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual         |
|----------------|----------------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|---------|--------------------------|------|------|------|----------------|
| 1              | 0.00                                                           | 0.00                     | 0.00   | 12.06  | 3.24                 | 10.14  | 6.50   | 2.43    | 0.72                     | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00                                                           | 0.00                     | 0.00   | 12.90  | 2.61                 | 2.07   | 12.06  | 2.16    | 0.63                     | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00                                                           | 0.00                     | 0.00   | 9.90   | 2.34                 | 1.98   | 37.12  | 2.07    | 0.63                     | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00                                                           | 0.00                     | 0.00   | 9.66   | 2.25                 | 1.53   | 72.00  | 1.89    | 0.54                     | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00                                                           | 0.00                     | 0.00   | 9.78   | 1.98                 | 1.62   | 46.68  | 1.80    | 0.54                     | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00                                                           | 0.00                     | 0.00   | 9.78   | 1.98                 | 1.26   | 33.24  | 1.62    | 0.45                     | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00                                                           | 0.00                     | 0.00   | 9.66   | 2.70                 | 2.88   | 24.20  | 1.53    | 0.45                     | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00                                                           | 0.00                     | 0.00   | 12.18  | 3.87                 | 3.69   | 17.43  | 2.61    | 0.45                     | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00                                                           | 0.00                     | 0.00   | 20.36  | 3.96                 | 5.20   | 14.10  | 4.90    | 0.45                     | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00                                                           | 0.00                     | 0.00   | 20.04  | 4.14                 | 6.50   | 10.98  | 2.61    | 0.45                     | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00                                                           | 0.00                     | 8.82   | 15.61  | 3.69                 | 31.80  | 8.59   | 2.97    | 0.36                     | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00                                                           | 0.00                     | 9.30   | 13.86  | 4.05                 | 19.40  | 7.82   | 2.43    | 0.36                     | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00                                                           | 0.00                     | 10.14  | 13.86  | 4.32                 | 7.49   | 6.72   | 2.16    | 0.27                     | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00                                                           | 0.00                     | 10.02  | 13.50  | 10.14                | 7.93   | 5.90   | 3.06    | 0.27                     | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00                                                           | 0.00                     | 13.26  | 12.30  | 6.61                 | 5.80   | 6.00   | 2.07    | 0.27                     | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00                                                           | 0.00                     | 13.02  | 12.06  | 7.82                 | 21.48  | 41.16  | 1.62    | 0.18                     | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00                                                           | 0.00                     | 11.58  | 11.70  | 3.69                 | 5.60   | 50.00  | 0.99    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00                                                           | 0.00                     | 11.58  | 9.90   | 3.06                 | 5.10   | 12.18  | 1.17    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00                                                           | 0.00                     | 11.58  | 7.38   | 2.88                 | 8.48   | 9.90   | 1.08    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00                                                           | 0.00                     | 11.70  | 2.07   | 2.70                 | 23.40  | 7.82   | 1.08    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00                                                           | 0.00                     | 11.70  | 1.98   | 2.52                 | 30.54  | 6.94   | 1.08    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00                                                           | 0.00                     | 11.82  | 1.80   | 2.07                 | 16.26  | 6.50   | 1.08    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00                                                           | 0.00                     | 11.94  | 2.79   | 1.89                 | 7.60   | 5.60   | 0.99    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00                                                           | 0.00                     | 12.06  | 16.13  | 1.71                 | 6.72   | 4.70   | 0.90    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00                                                           | 0.00                     | 12.06  | 5.60   | 1.62                 | 8.04   | 4.05   | 0.99    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00                                                           | 0.00                     | 11.94  | 3.33   | 1.53                 | 6.30   | 4.05   | 0.99    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00                                                           | 0.00                     | 12.54  | 2.79   | 1.44                 | 4.70   | 3.78   | 0.90    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00                                                           | 0.00                     | 17.82  | 2.61   | 1.53                 | 7.05   | 3.33   | 0.90    | 0.00                     | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00                                                           | 0.00                     | 13.62  | 2.43   | 1.44                 | 7.38   | 3.06   | 0.81    | 0.00                     | 0.00 |      | 0.00 |                |
| 30             | 0.00                                                           | 0.00                     | 12.90  | 2.07   | 1.44                 | 10.26  | 2.88   | 0.81    | 0.00                     | 0.00 |      | 0.00 |                |
| 31             |                                                                | 0.00                     |        | 1.98   | 9.78                 |        | 2.70   |         | 0.00                     | 0.00 |      | 0.00 |                |
| Total          | 0.00                                                           | 0.00                     | 239.40 | 282.07 | 105.00               | 278.20 | 477.99 | 51.70   | 7.02                     | 0.00 | 0.00 | 0.00 | 1441.38 CMSDAY |
| Mean           | 0.00                                                           | 0.00                     | 7.98   | 9.10   | 3.39                 | 9.27   | 15.42  | 1.72    | 0.23                     | 0.00 | 0.00 | 0.00 | 3.95 CMS       |
| Max            | 0.00                                                           | 0.00                     | 17.82  | 20.36  | 10.14                | 31.80  | 72.00  | 4.90    | 0.72                     | 0.00 | 0.00 | 0.00 | 72.00 CMS      |
| Min            | 0.00                                                           | 0.00                     | 0.00   | 1.80   | 1.44                 | 1.26   | 2.70   | 0.81    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00                                                           | 0.00                     | 20.68  | 24.37  | 9.07                 | 24.04  | 41.30  | 4.47    | 0.61                     | 0.00 | 0.00 | 0.00 | 124.54 MCM     |
| Momentary Peak | 79.60 CMS, at 33.57 m. (MSL.), at 18.00 Hours, on Oct 16, 2013 |                          |        |        |                      |        |        |         |                          |      |      |      |                |
| Runoff Yield   | 19.61                                                          | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | 395.194 | Liters/Second/Square KM. |      |      |      |                |

## WATER YEAR : 2013

## EAST COAST - GULF BASIN

### Khlong Hin Dat at Ban Pong Rong Sen , Chanthaburi (Z.21)

Lat 12 - 47 - 15 N      Long 102 - 15 - 33

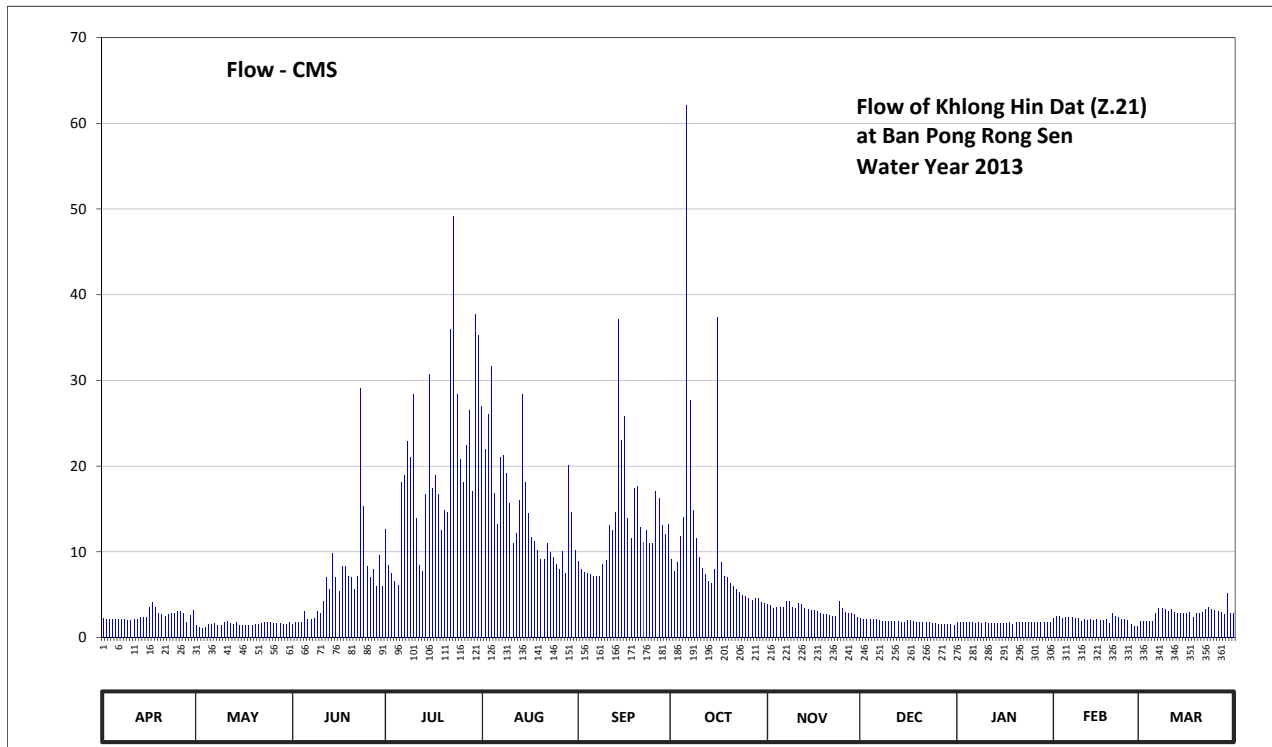
**Location : on left bank at the bridge on highway**

|                                         |                                                                                           |                |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Pong Rong Sen  | <b>Amphoe</b> | Makham | <b>Changwat</b>  | Chanthaburi       |
| <b>Drainage Area</b>                    | 78                                                                                        | sq.km.         |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water -                                                                                   | stage recorder |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +21.200                                                                                   | m. (MSL.)      |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank about 40 meters from the top staff gage.                                     |                |               |        | <b>Elevation</b> | +27.671 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                              |                |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1984 to date                                                                              |                |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                              |                |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 21 discharge measurements made in 2013. |                |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 22.03 | 21.89 | 21.91                                          | 22.91 | 23.57 | 22.66 | 22.68 | 22.19 | 22.03 | 21.95 | 22.03 | 21.98 |        |
|                                  | 2  | 22.02 | 21.85 | 21.96                                          | 22.63 | 23.35 | 22.60 | 22.58 | 22.18 | 22.02 | 21.95 | 22.05 | 21.99 |        |
|                                  | 3  | 22.01 | 21.83 | 21.95                                          | 22.55 | 23.53 | 22.56 | 22.65 | 22.14 | 22.02 | 21.96 | 22.05 | 21.99 |        |
|                                  | 4  | 22.02 | 21.84 | 21.97                                          | 22.46 | 23.77 | 22.55 | 22.86 | 22.15 | 22.01 | 21.96 | 22.03 | 21.99 |        |
|                                  | 5  | 22.02 | 21.92 | 22.11                                          | 22.41 | 23.12 | 22.54 | 22.98 | 22.15 | 22.01 | 21.95 | 22.04 | 21.99 |        |
|                                  | 6  | 22.02 | 21.92 | 22.01                                          | 23.18 | 22.94 | 22.52 | 24.75 | 22.15 | 22.01 | 21.96 | 22.04 | 22.09 |        |
|                                  | 7  | 22.02 | 21.94 | 22.01                                          | 23.22 | 23.31 | 22.52 | 23.60 | 22.22 | 22.00 | 21.94 | 22.04 | 22.14 |        |
|                                  | 8  | 22.01 | 21.90 | 22.03                                          | 23.39 | 23.32 | 22.52 | 23.02 | 22.23 | 21.99 | 21.95 | 22.03 | 22.14 |        |
|                                  | 9  | 22.00 | 21.90 | 22.11                                          | 23.31 | 23.23 | 22.64 | 22.84 | 22.16 | 21.99 | 21.94 | 22.03 | 22.13 |        |
|                                  | 10 | 22.00 | 21.95 | 22.08                                          | 23.63 | 23.06 | 22.67 | 22.69 | 22.14 | 21.99 | 21.95 | 21.98 | 22.11 |        |
|                                  | 11 | 22.01 | 21.99 | 22.22                                          | 22.97 | 22.80 | 22.93 | 22.61 | 22.20 | 21.98 | 21.94 | 22.02 | 22.13 |        |
|                                  | 12 | 22.01 | 21.94 | 22.51                                          | 22.63 | 22.88 | 22.90 | 22.54 | 22.19 | 21.98 | 21.94 | 22.00 | 22.10 |        |
|                                  | 13 | 22.04 | 21.91 | 22.37                                          | 22.58 | 23.08 | 23.01 | 22.46 | 22.14 | 21.98 | 21.94 | 22.01 | 22.09 |        |
|                                  | 14 | 22.04 | 21.95 | 22.72                                          | 23.11 | 23.63 | 23.96 | 22.44 | 22.13 | 21.97 | 21.93 | 22.00 | 22.08 |        |
|                                  | 15 | 22.04 | 21.89 | 22.51                                          | 23.73 | 23.18 | 23.40 | 22.60 | 22.12 | 21.97 | 21.94 | 22.01 | 22.09 |        |
|                                  | 16 | 22.15 | 21.90 | 22.34                                          | 23.15 | 23.00 | 23.52 | 23.97 | 22.12 | 22.00 | 21.94 | 22.00 | 22.09 |        |
|                                  | 17 | 22.21 | 21.89 | 22.62                                          | 23.22 | 22.85 | 22.97 | 22.65 | 22.11 | 22.00 | 21.94 | 22.00 | 22.10 |        |
|                                  | 18 | 22.16 | 21.89 | 22.62                                          | 23.11 | 22.82 | 22.84 | 22.52 | 22.09 | 21.98 | 21.95 | 22.01 | 22.04 |        |
|                                  | 19 | 22.09 | 21.89 | 22.52                                          | 22.90 | 22.75 | 23.15 | 22.51 | 22.07 | 21.97 | 21.91 | 21.94 | 22.08 |        |
|                                  | 20 | 22.07 | 21.92 | 22.51                                          | 23.02 | 22.68 | 23.16 | 22.44 | 22.07 | 21.97 | 21.96 | 22.08 | 22.08 |        |
|                                  | 21 | 22.05 | 21.92 | 22.37                                          | 23.01 | 22.68 | 22.92 | 22.40 | 22.06 | 21.96 | 21.96 | 22.05 | 22.10 |        |
|                                  | 22 | 22.07 | 21.94 | 22.52                                          | 23.92 | 22.80 | 22.81 | 22.36 | 22.05 | 21.95 | 21.95 | 22.04 | 22.13 |        |
|                                  | 23 | 22.09 | 21.96 | 23.66                                          | 24.36 | 22.73 | 22.90 | 22.33 | 22.05 | 21.95 | 21.95 | 22.02 | 22.16 |        |
|                                  | 24 | 22.09 | 21.95 | 23.04                                          | 23.63 | 22.69 | 22.80 | 22.30 | 22.22 | 21.94 | 21.96 | 22.01 | 22.13 |        |
|                                  | 25 | 22.11 | 21.95 | 22.62                                          | 23.30 | 22.64 | 22.80 | 22.28 | 22.14 | 21.93 | 21.96 | 22.00 | 22.12 |        |
|                                  | 26 | 22.11 | 21.94 | 22.50                                          | 23.18 | 22.60 | 23.13 | 22.26 | 22.10 | 21.92 | 21.96 | 21.92 | 22.11 |        |
|                                  | 27 | 22.08 | 21.94 | 22.60                                          | 23.37 | 22.74 | 23.09 | 22.24 | 22.08 | 21.92 | 21.95 | 21.87 | 22.10 |        |
|                                  | 28 | 21.97 | 21.94 | 22.40                                          | 23.55 | 22.55 | 22.93 | 22.26 | 22.09 | 21.91 | 21.96 | 21.87 | 22.07 |        |
|                                  | 29 | 22.06 | 21.91 | 22.71                                          | 23.13 | 23.27 | 22.87 | 22.26 | 22.07 | 21.91 | 21.95 |       | 22.32 |        |
|                                  | 30 | 22.12 | 21.92 | 22.40                                          | 23.98 | 23.01 | 22.94 | 22.21 | 22.04 | 21.91 | 21.95 |       | 22.08 |        |
|                                  | 31 |       | 21.96 |                                                | 23.90 | 22.75 |       | 22.20 |       | 21.89 | 21.95 |       | 22.09 |        |
| Mean                             |    | 22.06 | 21.92 | 22.40                                          | 23.21 | 23.01 | 22.89 | 22.66 | 22.13 | 21.97 | 21.95 | 22.01 | 22.09 |        |
| Max                              |    | 22.21 | 21.99 | 23.66                                          | 24.36 | 23.77 | 23.96 | 24.75 | 22.23 | 22.03 | 21.96 | 22.08 | 22.32 | 24.75  |
| Min                              |    | 21.97 | 21.83 | 21.91                                          | 22.41 | 22.55 | 22.52 | 22.20 | 22.04 | 21.89 | 21.91 | 21.87 | 21.98 | 21.83  |
| Annual Max Momentary Gage Height |    |       | 27.13 | m. (MSL.) , at 18.00 Hours, on Oct 6, 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 21.20 | m. (MSL.) , River Bed 20.89 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 29.70 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 29.69 | m. (MSL.) , Drainage Area 78 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov      | Dec                      | Jan   | Feb   | Mar   | Annual         |
|----------------|----------------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|----------|--------------------------|-------|-------|-------|----------------|
| 1              | 2.30                                                           | 1.45                     | 1.55   | 12.70  | 27.01                | 8.90   | 9.20   | 3.90     | 2.30                     | 1.75  | 2.30  | 1.90  |                |
| 2              | 2.20                                                           | 1.25                     | 1.80   | 8.45   | 21.95                | 8.00   | 7.80   | 3.80     | 2.20                     | 1.75  | 2.50  | 1.95  |                |
| 3              | 2.10                                                           | 1.15                     | 1.75   | 7.50   | 26.09                | 7.60   | 8.75   | 3.40     | 2.20                     | 1.80  | 2.50  | 1.95  |                |
| 4              | 2.20                                                           | 1.20                     | 1.85   | 6.60   | 31.61                | 7.50   | 11.90  | 3.50     | 2.10                     | 1.80  | 2.30  | 1.95  |                |
| 5              | 2.20                                                           | 1.60                     | 3.10   | 6.10   | 16.90                | 7.40   | 14.10  | 3.50     | 2.10                     | 1.75  | 2.40  | 1.95  |                |
| 6              | 2.20                                                           | 1.60                     | 2.10   | 18.10  | 13.30                | 7.20   | 62.05  | 3.50     | 2.10                     | 1.80  | 2.40  | 2.90  |                |
| 7              | 2.20                                                           | 1.70                     | 2.10   | 18.96  | 21.03                | 7.20   | 27.70  | 4.20     | 2.00                     | 1.70  | 2.40  | 3.40  |                |
| 8              | 2.10                                                           | 1.50                     | 2.30   | 22.87  | 21.26                | 7.20   | 14.90  | 4.30     | 1.95                     | 1.75  | 2.30  | 3.40  |                |
| 9              | 2.00                                                           | 1.50                     | 3.10   | 21.03  | 19.19                | 8.60   | 11.60  | 3.60     | 1.95                     | 1.70  | 2.30  | 3.30  |                |
| 10             | 2.00                                                           | 1.75                     | 2.80   | 28.39  | 15.70                | 9.05   | 9.35   | 3.40     | 1.95                     | 1.75  | 1.90  | 3.10  |                |
| 11             | 2.10                                                           | 1.95                     | 4.20   | 13.90  | 11.00                | 13.10  | 8.15   | 4.00     | 1.90                     | 1.70  | 2.20  | 3.30  |                |
| 12             | 2.10                                                           | 1.70                     | 7.10   | 8.45   | 12.20                | 12.50  | 7.40   | 3.90     | 1.90                     | 1.70  | 2.00  | 3.00  |                |
| 13             | 2.40                                                           | 1.55                     | 5.70   | 7.80   | 16.10                | 14.70  | 6.60   | 3.40     | 1.90                     | 1.70  | 2.10  | 2.90  |                |
| 14             | 2.40                                                           | 1.75                     | 9.80   | 16.70  | 28.39                | 37.10  | 6.40   | 3.30     | 1.85                     | 1.65  | 2.00  | 2.80  |                |
| 15             | 2.40                                                           | 1.45                     | 7.10   | 30.69  | 18.10                | 23.10  | 8.00   | 3.20     | 1.85                     | 1.70  | 2.10  | 2.90  |                |
| 16             | 3.50                                                           | 1.50                     | 5.40   | 17.50  | 14.50                | 25.86  | 37.40  | 3.20     | 2.00                     | 1.70  | 2.00  | 2.90  |                |
| 17             | 4.10                                                           | 1.45                     | 8.30   | 18.96  | 11.75                | 13.90  | 8.75   | 3.10     | 2.00                     | 1.70  | 2.00  | 3.00  |                |
| 18             | 3.60                                                           | 1.45                     | 8.30   | 16.70  | 11.30                | 11.60  | 7.20   | 2.90     | 1.90                     | 1.75  | 2.10  | 2.40  |                |
| 19             | 2.90                                                           | 1.45                     | 7.20   | 12.50  | 10.25                | 17.50  | 7.10   | 2.70     | 1.85                     | 1.55  | 1.70  | 2.80  |                |
| 20             | 2.70                                                           | 1.60                     | 7.10   | 14.90  | 9.20                 | 17.70  | 6.40   | 2.70     | 1.85                     | 1.80  | 2.80  | 2.80  |                |
| 21             | 2.50                                                           | 1.60                     | 5.70   | 14.70  | 9.20                 | 12.90  | 6.00   | 2.60     | 1.80                     | 1.80  | 2.50  | 3.00  |                |
| 22             | 2.70                                                           | 1.70                     | 7.20   | 35.90  | 11.00                | 11.15  | 5.60   | 2.50     | 1.75                     | 1.75  | 2.40  | 3.30  |                |
| 23             | 2.90                                                           | 1.80                     | 29.08  | 49.10  | 9.95                 | 12.50  | 5.30   | 2.50     | 1.75                     | 1.75  | 2.20  | 3.60  |                |
| 24             | 2.90                                                           | 1.75                     | 15.30  | 28.39  | 9.35                 | 11.00  | 5.00   | 4.20     | 1.70                     | 1.80  | 2.10  | 3.30  |                |
| 25             | 3.10                                                           | 1.75                     | 8.30   | 20.80  | 8.60                 | 11.00  | 4.80   | 3.40     | 1.65                     | 1.80  | 2.00  | 3.20  |                |
| 26             | 3.10                                                           | 1.70                     | 7.00   | 18.10  | 8.00                 | 17.10  | 4.60   | 3.00     | 1.60                     | 1.80  | 1.60  | 3.10  |                |
| 27             | 2.80                                                           | 1.70                     | 8.00   | 22.41  | 10.10                | 16.30  | 4.40   | 2.80     | 1.60                     | 1.75  | 1.35  | 3.00  |                |
| 28             | 1.85                                                           | 1.70                     | 6.00   | 26.55  | 7.50                 | 13.10  | 4.60   | 2.90     | 1.55                     | 1.80  | 1.35  | 2.70  |                |
| 29             | 2.60                                                           | 1.55                     | 9.65   | 17.10  | 20.11                | 12.05  | 4.60   | 2.70     | 1.55                     | 1.75  |       | 5.20  |                |
| 30             | 3.20                                                           | 1.60                     | 6.00   | 37.70  | 14.70                | 13.30  | 4.10   | 2.40     | 1.55                     | 1.75  |       | 2.80  |                |
| 31             |                                                                | 1.80                     |        | 35.30  | 10.25                |        | 4.00   |          | 1.45                     | 1.75  |       | 2.90  |                |
| Total          | 77.35                                                          | 49.20                    | 194.88 | 614.85 | 475.59               | 396.11 | 333.75 | 98.50    | 57.80                    | 54.00 | 59.80 | 90.70 | 2502.53 CMSDAY |
| Mean           | 2.58                                                           | 1.59                     | 6.50   | 19.83  | 15.34                | 13.20  | 10.77  | 3.28     | 1.86                     | 1.74  | 2.14  | 2.93  | 6.86 CMS       |
| Max            | 4.10                                                           | 1.95                     | 29.08  | 49.10  | 31.61                | 37.10  | 62.05  | 4.30     | 2.30                     | 1.80  | 2.80  | 5.20  | 62.05 CMS      |
| Min            | 1.85                                                           | 1.15                     | 1.55   | 6.10   | 7.50                 | 7.20   | 4.00   | 2.40     | 1.45                     | 1.55  | 1.35  | 1.90  | 1.15 CMS       |
| Runoff         | 6.68                                                           | 4.25                     | 16.84  | 53.12  | 41.09                | 34.22  | 28.84  | 8.51     | 4.99                     | 4.67  | 5.17  | 7.84  | 216.22 MCM     |
| Momentary Peak | 162.58 CMS, at 27.13 m. (MSL.), at 18.00 Hours, on Oct 6, 2013 |                          |        |        |                      |        |        |          |                          |       |       |       |                |
| Runoff Yield   | 87.90                                                          | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | 2084.359 | Liters/Second/Square KM. |       |       |       |                |

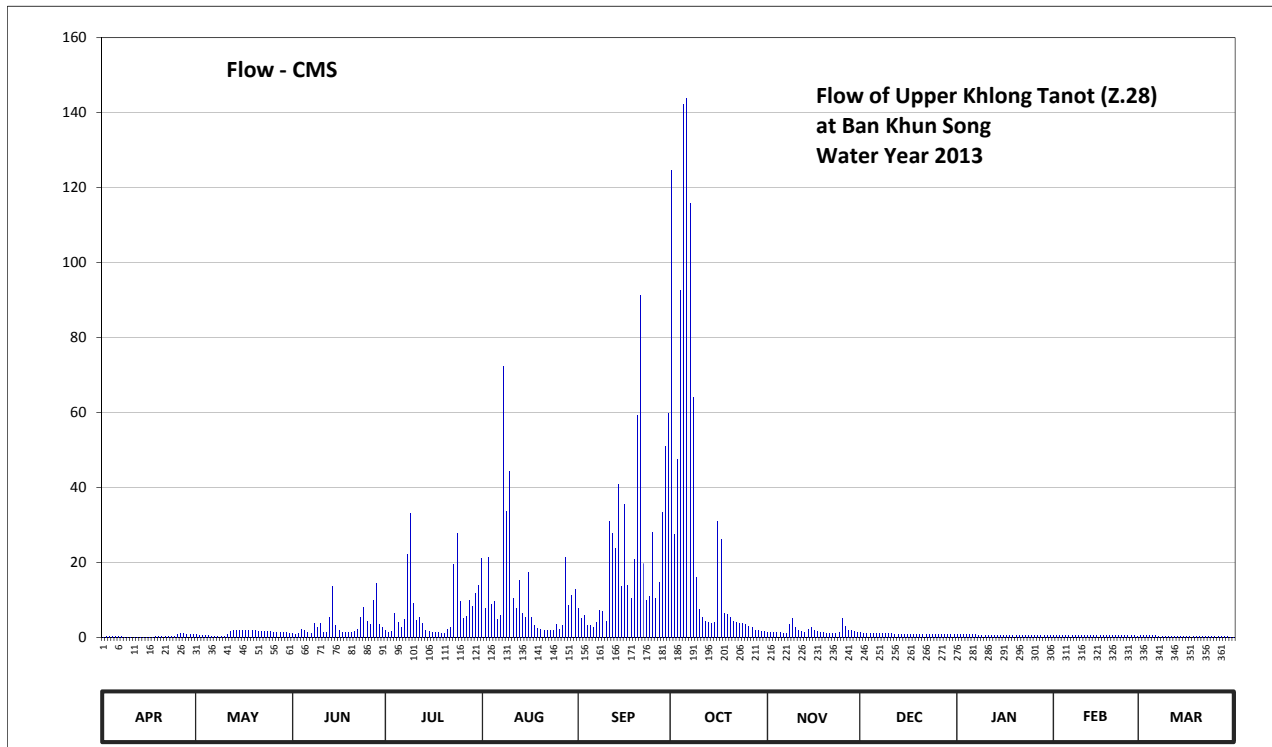
Lat 13 - 04 - 31 N    Long 101 - 56 - 55 E

**Location :** on right bank near Wat Khun Song.

|                                         |                                                                                           |           |               |                 |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khun Song | <b>Amphoe</b> | Kaeng Hang Maeo | <b>Changwat</b>  | Chanthaburi       |
| <b>Drainage Area</b>                    | 280                                                                                       | sq.km.    |               |                 |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |                 |                  |                   |
| <b>Zero Gage at Bottom</b>              | +32.600                                                                                   | m. (MSL.) |               |                 |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |                 |                  |                   |
| <b>Location BM</b>                      | On right bank about 10 meters from the top staff gage.                                    |           |               |                 | <b>Elevation</b> | +40.318 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |                 |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |                 |                  |                   |
| <b>Period of Available Gage Records</b> | 1986 to date                                                                              |           |               |                 |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |                 |                  |                   |
| <b>Period of Rating</b>                 | 1986 to date                                                                              |           |               |                 |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |                 |                  |                   |
| <b>Rated by Current Meter</b>           | 1986 to date                                                                              |           |               |                 |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |                 |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |                 |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 20 discharge measurements made in 2013. |           |               |                 |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                            | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|--------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 33.10 | 33.27 | 33.38       | 33.55 | 35.42                          | 34.43 | 39.24             | 33.45 | 33.43 | 33.27 | 33.26 | 33.22 |        |
| 2                                | 33.14 | 33.25 | 33.31       | 33.43 | 34.44                          | 34.13 | 35.75             | 33.43 | 33.40 | 33.27 | 33.26 | 33.22 |        |
| 3                                | 33.18 | 33.23 | 33.36       | 33.51 | 35.43                          | 34.23 | 36.70             | 33.43 | 33.38 | 33.27 | 33.26 | 33.22 |        |
| 4                                | 33.18 | 33.21 | 33.61       | 34.29 | 34.55                          | 33.87 | 38.31             | 33.42 | 33.37 | 33.27 | 33.25 | 33.21 |        |
| 5                                | 33.13 | 33.21 | 33.57       | 33.96 | 34.61                          | 33.85 | 39.72             | 33.41 | 33.36 | 33.27 | 33.25 | 33.21 |        |
| 6                                | 33.13 | 33.20 | 33.44       | 33.79 | 34.08                          | 33.77 | 39.77             | 33.40 | 33.36 | 33.27 | 33.25 | 33.21 |        |
| 7                                | 33.12 | 33.20 | 33.40       | 34.08 | 34.24                          | 33.99 | 38.99             | 33.40 | 33.35 | 33.27 | 33.25 | 33.20 |        |
| 8                                | 33.10 | 33.20 | 33.92       | 35.48 | 37.64                          | 34.37 | 37.35             | 33.91 | 33.35 | 33.26 | 33.25 | 33.20 |        |
| 9                                | 33.10 | 33.19 | 33.78       | 36.05 | 36.08                          | 34.36 | 35.07             | 34.13 | 33.35 | 33.26 | 33.25 | 33.20 |        |
| 10                               | 33.10 | 33.19 | 33.95       | 34.57 | 36.57                          | 34.03 | 34.42             | 33.75 | 33.34 | 33.26 | 33.25 | 33.19 |        |
| 11                               | 33.05 | 33.30 | 33.44       | 34.05 | 34.69                          | 35.93 | 34.15             | 33.56 | 33.34 | 33.26 | 33.25 | 33.19 |        |
| 12                               | 33.05 | 33.50 | 33.43       | 34.17 | 34.43                          | 35.77 | 34.03             | 33.51 | 33.33 | 33.26 | 33.25 | 33.19 |        |
| 13                               | 33.04 | 33.57 | 34.16       | 33.92 | 35.03                          | 35.56 | 33.98             | 33.47 | 33.33 | 33.26 | 33.25 | 33.19 |        |
| 14                               | 33.04 | 33.58 | 34.92       | 33.58 | 34.30                          | 36.43 | 33.95             | 33.66 | 33.33 | 33.26 | 33.25 | 33.19 |        |
| 15                               | 33.04 | 33.58 | 33.86       | 33.50 | 34.16                          | 34.91 | 33.96             | 33.78 | 33.32 | 33.26 | 33.26 | 33.18 |        |
| 16                               | 33.06 | 33.58 | 33.58       | 33.45 | 35.16                          | 36.17 | 35.94             | 33.56 | 33.32 | 33.26 | 33.26 | 33.18 |        |
| 17                               | 33.08 | 33.58 | 33.44       | 33.42 | 34.17                          | 34.94 | 35.68             | 33.51 | 33.31 | 33.25 | 33.26 | 33.18 |        |
| 18                               | 33.11 | 33.57 | 33.42       | 33.41 | 33.85                          | 34.69 | 34.29             | 33.46 | 33.31 | 33.25 | 33.26 | 33.18 |        |
| 19                               | 33.11 | 33.57 | 33.43       | 33.38 | 33.73                          | 35.40 | 34.26             | 33.44 | 33.31 | 33.25 | 33.26 | 33.17 |        |
| 20                               | 33.11 | 33.54 | 33.43       | 33.36 | 33.63                          | 37.18 | 34.17             | 33.36 | 33.31 | 33.25 | 33.26 | 33.17 |        |
| 21                               | 33.11 | 33.53 | 33.50       | 33.64 | 33.56                          | 38.27 | 34.03             | 33.37 | 33.30 | 33.25 | 33.26 | 33.17 |        |
| 22                               | 33.11 | 33.49 | 33.64       | 33.79 | 33.54                          | 35.32 | 33.98             | 33.40 | 33.30 | 33.25 | 33.26 | 33.17 |        |
| 23                               | 33.11 | 33.49 | 34.18       | 35.31 | 33.56                          | 34.64 | 33.95             | 33.39 | 33.30 | 33.25 | 33.26 | 33.17 |        |
| 24                               | 33.14 | 33.49 | 34.47       | 35.77 | 33.56                          | 34.74 | 33.93             | 33.45 | 33.28 | 33.24 | 33.26 | 33.16 |        |
| 25                               | 33.29 | 33.48 | 34.02       | 34.63 | 33.89                          | 35.78 | 33.89             | 34.13 | 33.28 | 33.24 | 33.25 | 33.16 |        |
| 26                               | 33.34 | 33.47 | 33.91       | 34.11 | 33.66                          | 34.70 | 33.83             | 33.83 | 33.28 | 33.24 | 33.25 | 33.16 |        |
| 27                               | 33.35 | 33.45 | 34.64       | 34.19 | 33.85                          | 34.98 | 33.74             | 33.58 | 33.28 | 33.25 | 33.24 | 33.14 |        |
| 28                               | 33.32 | 33.45 | 34.96       | 34.66 | 35.44                          | 36.06 | 33.60             | 33.55 | 33.28 | 33.26 | 33.18 | 33.14 |        |
| 29                               | 33.29 | 33.43 | 33.91       | 34.49 | 34.53                          | 36.84 | 33.55             | 33.48 | 33.27 | 33.26 |       | 33.13 |        |
| 30                               | 33.27 | 33.43 | 33.75       | 34.79 | 34.75                          | 37.20 | 33.51             | 33.46 | 33.27 | 33.26 |       | 33.10 |        |
| 31                               |       | 33.40 |             | 34.93 | 34.87                          |       | 33.48             |       | 33.27 | 33.26 |       | 33.09 |        |
| Mean                             | 33.14 | 33.41 | 33.79       | 34.17 | 34.56                          | 35.22 | 35.20             | 33.56 | 33.32 | 33.26 | 33.25 | 33.18 |        |
| Max                              | 33.35 | 33.58 | 34.96       | 36.05 | 37.64                          | 38.27 | 39.77             | 34.13 | 33.43 | 33.27 | 33.26 | 33.22 | 39.77  |
| Min                              | 33.04 | 33.19 | 33.31       | 33.36 | 33.54                          | 33.77 | 33.48             | 33.36 | 33.27 | 33.24 | 33.18 | 33.09 | 33.04  |
| Annual Max Momentary Gage Height | 40.80 |       | m. (MSL.) , |       | at 09.00 Hours, on Oct 6, 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 32.60 |       | m. (MSL.) , |       | River Bed                      | 32.46 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 41.14 |       | m. (MSL.) , |       |                                |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 41.11 |       | m. (MSL.) , |       | Drainage Area                  | 280   | Square Kilometers |       |       |       |       |       |        |



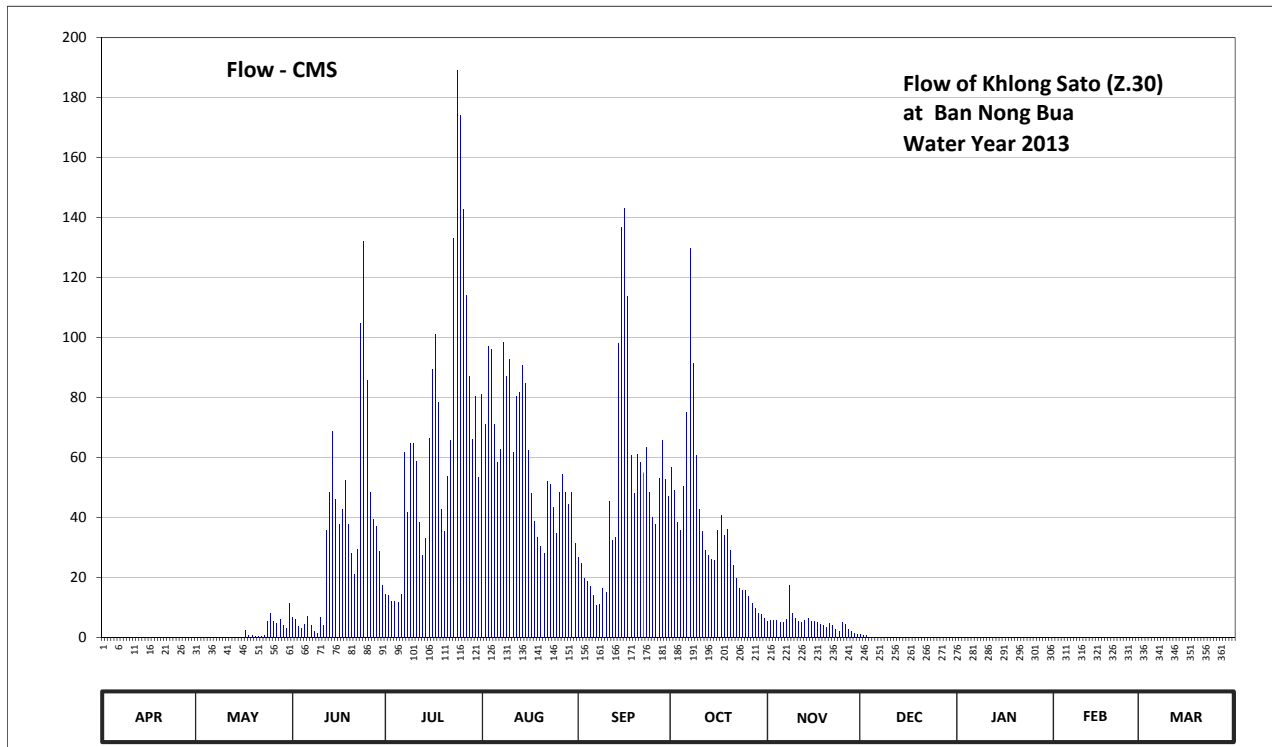
Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                     | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|--------|---------------------------------------------------------|--------|--------|----------------------|--------|--------|---------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 0.25   | 0.78                                                    | 1.22   | 1.90   | 21.30                | 7.80   | 124.46 | 1.50    | 1.42                     | 0.78  | 0.74  | 0.58  |         |        |
| 2              | 0.35   | 0.70                                                    | 0.94   | 1.42   | 7.90                 | 5.21   | 27.56  | 1.42    | 1.30                     | 0.78  | 0.74  | 0.58  |         |        |
| 3              | 0.45   | 0.62                                                    | 1.14   | 1.74   | 21.45                | 5.94   | 47.60  | 1.42    | 1.22                     | 0.78  | 0.74  | 0.58  |         |        |
| 4              | 0.45   | 0.54                                                    | 2.14   | 6.42   | 9.00                 | 3.39   | 92.52  | 1.38    | 1.18                     | 0.78  | 0.70  | 0.54  |         |        |
| 5              | 0.33   | 0.54                                                    | 1.98   | 4.02   | 9.60                 | 3.25   | 142.10 | 1.34    | 1.14                     | 0.78  | 0.70  | 0.54  |         |        |
| 6              | 0.33   | 0.50                                                    | 1.46   | 2.86   | 4.86                 | 2.78   | 143.95 | 1.30    | 1.14                     | 0.78  | 0.70  | 0.54  |         |        |
| 7              | 0.30   | 0.50                                                    | 1.30   | 4.86   | 6.02                 | 4.23   | 115.71 | 1.30    | 1.10                     | 0.78  | 0.70  | 0.50  |         |        |
| 8              | 0.25   | 0.50                                                    | 3.74   | 22.20  | 72.17                | 7.20   | 64.05  | 3.67    | 1.10                     | 0.74  | 0.70  | 0.50  |         |        |
| 9              | 0.25   | 0.47                                                    | 2.82   | 33.25  | 33.85                | 7.10   | 16.05  | 5.21    | 1.10                     | 0.74  | 0.70  | 0.50  |         |        |
| 10             | 0.25   | 0.47                                                    | 3.95   | 9.20   | 44.41                | 4.51   | 7.70   | 2.70    | 1.06                     | 0.74  | 0.70  | 0.47  |         |        |
| 11             | 0.12   | 0.90                                                    | 1.46   | 4.65   | 10.40                | 30.94  | 5.35   | 1.94    | 1.06                     | 0.74  | 0.70  | 0.47  |         |        |
| 12             | 0.12   | 1.70                                                    | 1.42   | 5.49   | 7.80                 | 27.94  | 4.51   | 1.74    | 1.02                     | 0.74  | 0.70  | 0.47  |         |        |
| 13             | 0.10   | 1.98                                                    | 5.42   | 3.74   | 15.45                | 23.85  | 4.16   | 1.58    | 1.02                     | 0.74  | 0.70  | 0.47  |         |        |
| 14             | 0.10   | 2.02                                                    | 13.80  | 2.02   | 6.50                 | 40.98  | 3.95   | 2.34    | 1.02                     | 0.74  | 0.70  | 0.47  |         |        |
| 15             | 0.10   | 2.02                                                    | 3.32   | 1.70   | 5.42                 | 13.65  | 4.02   | 2.82    | 0.98                     | 0.74  | 0.74  | 0.45  |         |        |
| 16             | 0.15   | 2.02                                                    | 2.02   | 1.50   | 17.40                | 35.65  | 31.12  | 1.94    | 0.98                     | 0.74  | 0.74  | 0.45  |         |        |
| 17             | 0.20   | 2.02                                                    | 1.46   | 1.38   | 5.49                 | 14.10  | 26.25  | 1.74    | 0.94                     | 0.70  | 0.74  | 0.45  |         |        |
| 18             | 0.28   | 1.98                                                    | 1.38   | 1.34   | 3.25                 | 10.40  | 6.42   | 1.54    | 0.94                     | 0.70  | 0.74  | 0.45  |         |        |
| 19             | 0.28   | 1.98                                                    | 1.42   | 1.22   | 2.62                 | 21.00  | 6.18   | 1.46    | 0.94                     | 0.70  | 0.74  | 0.42  |         |        |
| 20             | 0.28   | 1.86                                                    | 1.42   | 1.14   | 2.22                 | 59.36  | 5.49   | 1.14    | 0.94                     | 0.70  | 0.74  | 0.42  |         |        |
| 21             | 0.28   | 1.82                                                    | 1.70   | 2.26   | 1.94                 | 91.25  | 4.51   | 1.18    | 0.90                     | 0.70  | 0.74  | 0.42  |         |        |
| 22             | 0.28   | 1.66                                                    | 2.26   | 2.86   | 1.86                 | 19.80  | 4.16   | 1.30    | 0.90                     | 0.70  | 0.74  | 0.42  |         |        |
| 23             | 0.28   | 1.66                                                    | 5.56   | 19.65  | 1.94                 | 9.90   | 3.95   | 1.26    | 0.90                     | 0.70  | 0.74  | 0.42  |         |        |
| 24             | 0.35   | 1.66                                                    | 8.20   | 27.94  | 1.94                 | 11.10  | 3.81   | 1.50    | 0.82                     | 0.66  | 0.74  | 0.40  |         |        |
| 25             | 0.86   | 1.62                                                    | 4.44   | 9.80   | 3.53                 | 28.12  | 3.53   | 5.21    | 0.82                     | 0.66  | 0.70  | 0.40  |         |        |
| 26             | 1.06   | 1.58                                                    | 3.67   | 5.07   | 2.34                 | 10.50  | 3.11   | 3.11    | 0.82                     | 0.66  | 0.70  | 0.40  |         |        |
| 27             | 1.10   | 1.50                                                    | 9.90   | 5.63   | 3.25                 | 14.70  | 2.66   | 2.02    | 0.82                     | 0.70  | 0.66  | 0.35  |         |        |
| 28             | 0.98   | 1.50                                                    | 14.40  | 10.10  | 21.60                | 33.45  | 2.10   | 1.90    | 0.82                     | 0.74  | 0.45  | 0.35  |         |        |
| 29             | 0.86   | 1.42                                                    | 3.67   | 8.40   | 8.80                 | 51.03  | 1.90   | 1.62    | 0.78                     | 0.74  |       | 0.33  |         |        |
| 30             | 0.78   | 1.42                                                    | 2.70   | 11.85  | 11.25                | 59.85  | 1.74   | 1.54    | 0.78                     | 0.74  |       | 0.25  |         |        |
| 31             |        | 1.30                                                    |        | 13.95  | 13.05                |        | 1.62   |         | 0.78                     | 0.74  |       | 0.22  |         |        |
| Total          | 11.77  | 41.24                                                   | 110.31 | 229.56 | 378.61               | 658.98 | 912.24 | 60.12   | 30.74                    | 22.66 | 19.83 | 13.81 | 2489.87 | CMSDAY |
| Mean           | 0.39   | 1.33                                                    | 3.68   | 7.41   | 12.21                | 21.97  | 29.43  | 2.00    | 0.99                     | 0.73  | 0.71  | 0.45  | 6.82    | CMS    |
| Max            | 1.10   | 2.02                                                    | 14.40  | 33.25  | 72.17                | 91.25  | 143.95 | 5.21    | 1.42                     | 0.78  | 0.74  | 0.58  | 143.95  | CMS    |
| Min            | 0.10   | 0.47                                                    | 0.94   | 1.14   | 1.86                 | 2.78   | 1.62   | 1.14    | 0.78                     | 0.66  | 0.45  | 0.22  | 0.10    | CMS    |
| Runoff         | 1.02   | 3.56                                                    | 9.53   | 19.83  | 32.71                | 56.94  | 78.82  | 5.19    | 2.66                     | 1.96  | 1.71  | 1.19  | 215.13  | MCM    |
| Momentary Peak | 183.69 | CMS, at 40.80 m. (MSL.), at 09.00 Hours, on Oct 6, 2013 |        |        |                      |        |        |         |                          |       |       |       |         |        |
| Runoff Yield   | 24.36  | Liters/Second/Square KM.                                |        |        | Momentary Peak Yield |        |        | 656.036 | Liters/Second/Square KM. |       |       |       |         |        |

Lat 12 - 32 - 22 N      Long 102 - 26 - 58 E

|                                         |                                                                                           |           |               |             |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Nong Bua  | <b>Amphoe</b> | Khao Saming | <b>Changwat</b>  | Trat              |
| <b>Drainage Area</b>                    | 316                                                                                       | sq.km.    |               |             |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |             |                  |                   |
| <b>Zero Gage at Bottom</b>              | +9.200                                                                                    | m. (MSL.) |               |             |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |             |                  |                   |
| <b>Location BM</b>                      | On right bank next tall pole for eletric cable near dwelling.                             |           |               |             | <b>Elevation</b> | +18.683 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |             |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |             |                  |                   |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                              |           |               |             |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |             |                  |                   |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |           |               |             |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |             |                  |                   |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |           |               |             |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable with variable water surface slope.                                        |           |               |             |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |             |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |           |               |             |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 12.39 | 12.92 | 11.38 | 11.94 | 15.10 | 12.70 | 14.14 | 11.25 | 10.81 | 10.39   | 12.07 | 12.59 |        |
| 2    | 12.35 | 12.84 | 11.31 | 11.91 | 14.70 | 12.59 | 13.80 | 11.29 | 10.79 | 10.39   | 12.29 | 12.60 |        |
| 3    | 12.34 | 12.80 | 11.09 | 11.78 | 15.71 | 12.29 | 13.28 | 11.29 | 10.74 | 10.37   | 12.42 | 12.58 |        |
| 4    | 12.33 | 12.80 | 11.02 | 11.78 | 15.67 | 12.22 | 13.14 | 11.27 | 10.66 | 10.35   | 12.46 | 12.55 |        |
| 5    | 12.31 | 13.03 | 11.14 | 11.76 | 14.70 | 12.12 | 13.87 | 11.21 | 10.64 | 10.32   | 12.46 | 12.54 |        |
| 6    | 12.29 | 13.54 | 11.41 | 11.93 | 14.20 | 11.92 | 14.86 | 11.22 | 10.63 | 10.29   | 12.45 | 12.51 |        |
| 7    | 12.28 | 13.04 | 11.10 | 14.33 | 14.37 | 11.69 | 16.89 | 11.32 | 10.60 | 10.21   | 12.45 | 12.46 |        |
| 8    | 12.26 | 11.43 | 10.93 | 13.44 | 15.76 | 11.71 | 15.50 | 12.13 | 10.63 | 10.20   | 12.45 | 12.44 |        |
| 9    | 12.25 | 10.74 | 10.83 | 14.46 | 15.34 | 12.07 | 14.29 | 11.51 | 10.60 | 10.25   | 12.46 | 12.43 |        |
| 10   | 12.23 | 10.49 | 11.40 | 14.45 | 15.55 | 11.98 | 13.50 | 11.36 | 10.60 | 10.25   | 12.50 | 12.42 |        |
| 11   | 12.24 | 10.36 | 11.12 | 14.21 | 14.33 | 13.62 | 13.12 | 11.23 | 10.50 | 10.30   | 12.46 | 12.38 |        |
| 12   | 12.25 | 10.34 | 13.14 | 13.28 | 15.08 | 12.97 | 12.81 | 11.20 | 10.51 | 10.30   | 12.45 | 12.35 |        |
| 13   | 12.29 | 10.49 | 13.78 | 12.73 | 15.13 | 13.03 | 12.72 | 11.29 | 10.41 | 10.29   | 12.48 | 12.33 |        |
| 14   | 12.33 | 10.50 | 14.62 | 13.00 | 15.48 | 15.74 | 12.65 | 11.34 | 10.41 | 10.29   | 12.50 | 12.30 |        |
| 15   | 12.53 | 10.45 | 13.66 | 14.52 | 15.24 | 17.13 | 12.64 | 11.25 | 10.42 | 10.29   | 12.56 | 12.30 |        |
| 16   | 12.70 | 10.51 | 13.25 | 15.43 | 14.36 | 17.35 | 13.14 | 11.25 | 10.74 | 10.29   | 12.64 | 12.28 |        |
| 17   | 12.94 | 10.96 | 13.49 | 15.86 | 13.76 | 16.31 | 13.39 | 11.20 | 10.75 | 10.28   | 12.66 | 12.26 |        |
| 18   | 13.20 | 10.79 | 13.96 | 14.99 | 13.29 | 14.29 | 13.06 | 11.14 | 10.64 | 10.28   | 12.67 | 12.24 |        |
| 19   | 13.13 | 10.74 | 13.25 | 13.49 | 13.03 | 13.75 | 13.15 | 11.10 | 10.56 | 10.27   | 12.66 | 12.23 |        |
| 20   | 12.94 | 10.73 | 12.75 | 13.13 | 12.87 | 14.31 | 12.80 | 11.06 | 10.56 | 10.27   | 12.82 | 12.19 |        |
| 21   | 12.80 | 10.71 | 12.37 | 14.02 | 12.75 | 14.20 | 12.55 | 11.18 | 10.56 | 10.26   | 13.00 | 12.38 |        |
| 22   | 12.72 | 10.71 | 12.83 | 14.50 | 13.94 | 14.06 | 12.28 | 11.10 | 10.47 | 10.26   | 12.89 | 12.26 |        |
| 23   | 13.16 | 10.78 | 15.99 | 17.00 | 13.90 | 14.40 | 12.06 | 11.00 | 10.48 | 10.26   | 12.83 | 12.51 |        |
| 24   | 13.67 | 11.24 | 16.97 | 18.84 | 13.53 | 13.77 | 12.02 | 10.91 | 10.46 | 10.26   | 12.75 | 12.61 |        |
| 25   | 13.94 | 11.52 | 15.29 | 18.37 | 13.10 | 13.36 | 12.01 | 11.20 | 10.45 | 10.27   | 12.62 | 12.61 |        |
| 26   | 14.11 | 11.26 | 13.77 | 17.33 | 13.78 | 13.25 | 11.89 | 11.15 | 10.44 | 10.40   | 12.58 | 12.62 |        |
| 27   | 13.97 | 11.18 | 13.32 | 16.33 | 14.04 | 13.99 | 11.74 | 10.97 | 10.40 | 10.69   | 12.60 | 12.69 |        |
| 28   | 13.63 | 11.32 | 13.21 | 15.34 | 13.78 | 14.49 | 11.62 | 10.92 | 10.39 | 11.06   | 12.61 | 12.75 |        |
| 29   | 13.25 | 11.10 | 12.79 | 14.51 | 13.58 | 13.97 | 11.52 | 10.86 | 10.39 | 11.43   |       | 12.71 |        |
| 30   | 13.03 | 11.03 | 12.14 | 15.08 | 13.78 | 13.70 | 11.47 | 10.82 | 10.38 | 11.77</ |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                      | Jun    | Jul                  | Aug     | Sep     | Oct                      | Nov    | Dec  | Jan  | Feb  | Mar  | Annual         |
|----------------|--------|----------------------------------------------------------|--------|----------------------|---------|---------|--------------------------|--------|------|------|------|------|----------------|
| 1              | 0.00   | 0.00                                                     | 6.80   | 14.60                | 81.00   | 27.00   | 57.00                    | 5.50   | 1.10 | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00   | 0.00                                                     | 6.10   | 14.15                | 71.00   | 24.80   | 49.00                    | 5.90   | 0.95 | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00   | 0.00                                                     | 3.90   | 12.20                | 97.07   | 19.85   | 38.60                    | 5.90   | 0.70 | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00   | 0.00                                                     | 3.20   | 12.20                | 95.99   | 18.80   | 35.80                    | 5.70   | 0.30 | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00   | 0.00                                                     | 4.40   | 11.90                | 71.00   | 17.30   | 50.40                    | 5.10   | 0.20 | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00   | 0.00                                                     | 7.10   | 14.45                | 58.50   | 14.30   | 75.00                    | 5.20   | 0.15 | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00   | 0.00                                                     | 4.00   | 61.75                | 62.75   | 10.85   | 129.82                   | 6.20   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00   | 0.00                                                     | 2.30   | 41.80                | 98.42   | 11.15   | 91.40                    | 17.45  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00   | 0.00                                                     | 1.30   | 65.00                | 87.14   | 16.55   | 60.75                    | 8.15   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00   | 0.00                                                     | 7.00   | 64.75                | 92.75   | 15.20   | 43.00                    | 6.60   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00   | 0.00                                                     | 4.20   | 58.75                | 61.75   | 45.40   | 35.40                    | 5.30   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00   | 0.00                                                     | 35.80  | 38.60                | 80.50   | 32.40   | 29.20                    | 5.00   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00   | 0.00                                                     | 48.60  | 27.60                | 81.75   | 33.60   | 27.40                    | 5.90   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00   | 0.00                                                     | 69.00  | 33.00                | 90.86   | 97.88   | 26.00                    | 6.40   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00   | 0.00                                                     | 46.20  | 66.50                | 84.54   | 136.67  | 25.80                    | 5.50   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00   | 0.00                                                     | 38.00  | 89.51                | 62.50   | 143.20  | 35.80                    | 5.50   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00   | 2.60                                                     | 42.80  | 101.12               | 48.20   | 113.58  | 40.80                    | 5.00   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00   | 0.95                                                     | 52.50  | 78.25                | 38.80   | 60.75   | 34.20                    | 4.40   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00   | 0.70                                                     | 38.00  | 42.80                | 33.60   | 48.00   | 36.00                    | 4.00   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00   | 0.65                                                     | 28.00  | 35.60                | 30.40   | 61.25   | 29.00                    | 3.60   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00   | 0.55                                                     | 21.05  | 54.00                | 28.00   | 58.50   | 24.00                    | 4.80   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00   | 0.55                                                     | 29.60  | 66.00                | 52.00   | 55.00   | 19.70                    | 4.00   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00   | 0.90                                                     | 104.63 | 132.90               | 51.00   | 63.50   | 16.40                    | 3.00   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00   | 5.40                                                     | 132.06 | 189.18               | 43.60   | 48.40   | 15.80                    | 2.10   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00   | 8.30                                                     | 85.84  | 174.17               | 35.00   | 40.20   | 15.65                    | 5.00   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00   | 5.60                                                     | 48.40  | 142.60               | 48.60   | 38.00   | 13.85                    | 4.50   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00   | 4.80                                                     | 39.40  | 114.14               | 54.50   | 53.25   | 11.60                    | 2.70   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00   | 6.20                                                     | 37.20  | 87.14                | 48.60   | 65.75   | 9.80                     | 2.20   | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00   | 4.00                                                     | 28.80  | 66.25                | 44.60   | 52.75   | 8.30                     | 1.60   | 0.00 | 0.00 |      | 0.00 |                |
| 30             | 0.00   | 3.30                                                     | 17.60  | 80.50                | 48.60   | 47.00   | 7.70                     | 1.20   | 0.00 | 0.00 |      | 0.00 |                |
| 31             |        | 11.45                                                    |        | 53.50                | 31.60   |         | 6.60                     |        | 0.00 | 0.00 |      | 0.00 |                |
| Total          | 0.00   | 55.95                                                    | 993.78 | 2044.91              | 1914.62 | 1470.88 | 1099.77                  | 153.40 | 3.40 | 0.00 | 0.00 | 0.00 | 7736.71 CMSDAY |
| Mean           | 0.00   | 1.80                                                     | 33.13  | 65.96                | 61.76   | 49.03   | 35.48                    | 5.11   | 0.11 | 0.00 | 0.00 | 0.00 | 21.20 CMS      |
| Max            | 0.00   | 11.45                                                    | 132.06 | 189.18               | 98.42   | 143.20  | 129.82                   | 17.45  | 1.10 | 0.00 | 0.00 | 0.00 | 189.18 CMS     |
| Min            | 0.00   | 0.00                                                     | 1.30   | 11.90                | 28.00   | 10.85   | 6.60                     | 1.20   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00   | 4.83                                                     | 85.86  | 176.68               | 165.42  | 127.08  | 95.02                    | 13.25  | 0.29 | 0.00 | 0.00 | 0.00 | 668.45 MCM     |
| Momentary Peak | 194.96 | CMS, at 19.02 m. (MSL.), at 18.00 Hours, on Jul 24, 2013 |        |                      |         |         |                          |        |      |      |      |      |                |
| Runoff Yield   | 67.08  | Liters/Second/Square KM.                                 |        | Momentary Peak Yield |         | 616.962 | Liters/Second/Square KM. |        |      |      |      |      |                |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

**Khlong Thapma at Ban Khao Bot , Rayong (Z.38)**

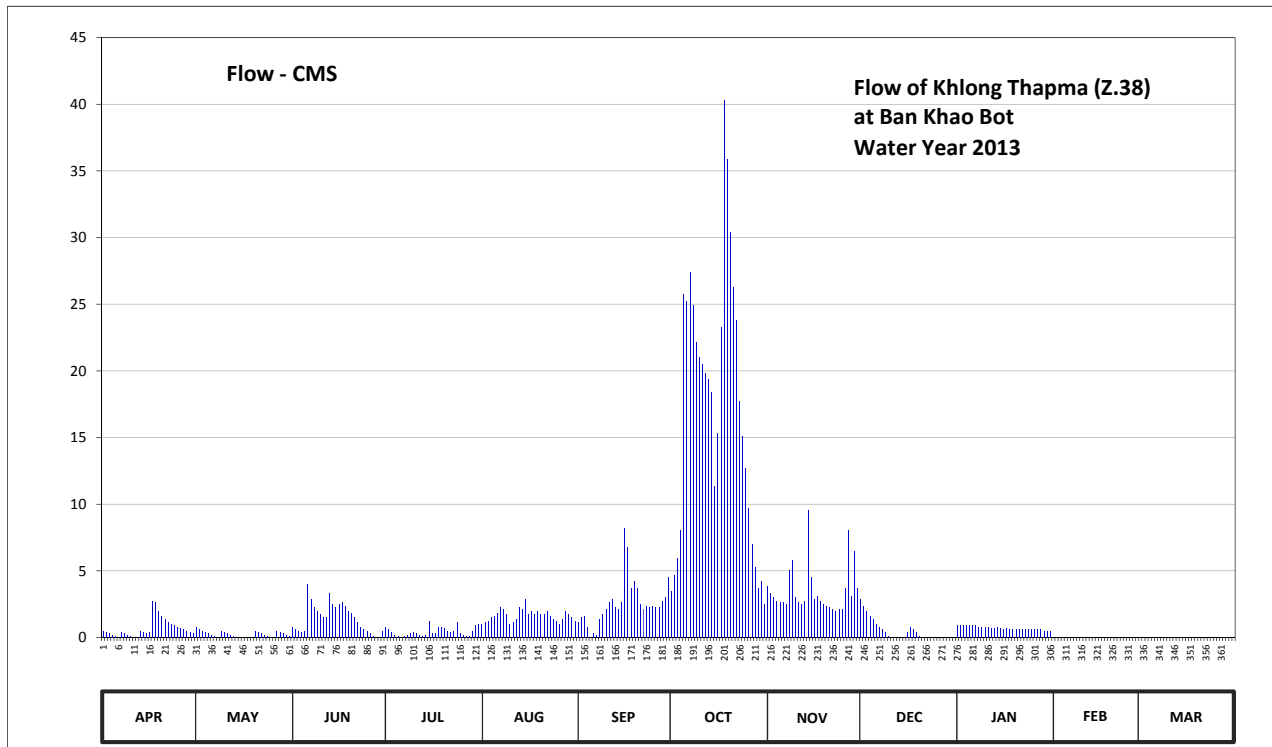
Lat 12 - 44 - 09 N Long 101 - 13 - 54 E

**Location :** on left bank at Ban Khao Bot.

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khao Bot  | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Rayong            |
| <b>Drainage Area</b>                    | 150                                                                                       | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder.                                                                   |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +8.100                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank next tall pole for eletric cable near dwelling.                              |           |               |        | <b>Elevation</b> | +12.100 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 24 readings                                                           |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2008 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2008 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2008 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 11 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                             | Jul  | Aug  | Sep  | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------------------------------------------|------|------|------|-------|------|------|------|------|------|--------|
| 1                                | 8.75  | 8.78 | 8.78                                            | 8.78 | 8.80 | 8.81 | 9.00  | 9.02 | 8.95 | 8.79 | 8.57 | 8.46 |        |
| 2                                | 8.74  | 8.76 | 8.76                                            | 8.76 | 8.81 | 8.84 | 9.07  | 8.99 | 8.91 | 8.79 | 8.56 | 8.46 |        |
| 3                                | 8.73  | 8.75 | 8.75                                            | 8.74 | 8.82 | 8.85 | 9.14  | 8.96 | 8.88 | 8.79 | 8.55 | 8.46 |        |
| 4                                | 8.72  | 8.74 | 8.74                                            | 8.72 | 8.84 | 8.78 | 9.26  | 8.94 | 8.85 | 8.79 | 8.54 | 8.45 |        |
| 5                                | 8.71  | 8.73 | 8.75                                            | 8.71 | 8.85 | 8.67 | 10.03 | 8.93 | 8.83 | 8.79 | 8.53 | 8.45 |        |
| 6                                | 8.70  | 8.72 | 9.03                                            | 8.70 | 8.87 | 8.73 | 10.01 | 8.93 | 8.80 | 8.79 | 8.52 | 8.45 |        |
| 7                                | 8.74  | 8.71 | 8.95                                            | 8.71 | 8.90 | 8.72 | 10.09 | 8.92 | 8.78 | 8.79 | 8.51 | 8.44 |        |
| 8                                | 8.73  | 8.70 | 8.90                                            | 8.72 | 8.89 | 8.83 | 10.00 | 9.09 | 8.76 | 8.78 | 8.50 | 8.44 |        |
| 9                                | 8.72  | 8.75 | 8.88                                            | 8.73 | 8.86 | 8.86 | 9.90  | 9.13 | 8.74 | 8.78 | 8.49 | 8.44 |        |
| 10                               | 8.71  | 8.74 | 8.86                                            | 8.74 | 8.80 | 8.89 | 9.85  | 8.96 | 8.71 | 8.78 | 8.48 | 8.44 |        |
| 11                               | 8.70  | 8.73 | 8.84                                            | 8.73 | 8.81 | 8.93 | 9.83  | 8.93 | 8.70 | 8.78 | 8.47 | 8.43 |        |
| 12                               | 8.70  | 8.72 | 8.84                                            | 8.72 | 8.83 | 8.95 | 9.80  | 8.92 | 8.68 | 8.77 | 8.46 | 8.43 |        |
| 13                               | 8.75  | 8.71 | 8.99                                            | 8.71 | 8.90 | 8.90 | 9.78  | 8.94 | 8.66 | 8.77 | 8.46 | 8.43 |        |
| 14                               | 8.74  | 8.70 | 8.92                                            | 8.72 | 8.89 | 8.89 | 9.74  | 9.34 | 8.64 | 8.78 | 8.54 | 8.43 |        |
| 15                               | 8.73  | 8.69 | 8.90                                            | 8.82 | 8.95 | 8.93 | 9.43  | 9.06 | 8.62 | 8.77 | 8.50 | 8.42 |        |
| 16                               | 8.74  | 8.68 | 8.92                                            | 8.73 | 8.86 | 9.27 | 9.61  | 8.95 | 8.74 | 8.76 | 8.48 | 8.42 |        |
| 17                               | 8.94  | 8.67 | 8.93                                            | 8.73 | 8.88 | 9.19 | 9.94  | 8.97 | 8.78 | 8.77 | 8.46 | 8.41 |        |
| 18                               | 8.93  | 8.66 | 8.91                                            | 8.78 | 8.86 | 9.01 | 10.55 | 8.94 | 8.76 | 8.76 | 8.45 | 8.41 |        |
| 19                               | 8.88  | 8.66 | 8.88                                            | 8.78 | 8.88 | 9.04 | 10.40 | 8.92 | 8.74 | 8.76 | 8.48 | 8.41 |        |
| 20                               | 8.85  | 8.75 | 8.87                                            | 8.77 | 8.86 | 9.01 | 10.20 | 8.91 | 8.71 | 8.76 | 8.50 | 8.40 |        |
| 21                               | 8.83  | 8.74 | 8.84                                            | 8.75 | 8.86 | 8.92 | 10.05 | 8.90 | 8.69 | 8.76 | 8.49 | 8.40 |        |
| 22                               | 8.81  | 8.73 | 8.81                                            | 8.74 | 8.88 | 8.89 | 9.96  | 8.89 | 8.68 | 8.76 | 8.48 | 8.40 |        |
| 23                               | 8.80  | 8.72 | 8.78                                            | 8.75 | 8.85 | 8.91 | 9.71  | 8.88 | 8.66 | 8.76 | 8.47 | 8.40 |        |
| 24                               | 8.79  | 8.71 | 8.76                                            | 8.81 | 8.83 | 8.90 | 9.60  | 8.89 | 8.64 | 8.76 | 8.46 | 8.39 |        |
| 25                               | 8.78  | 8.70 | 8.75                                            | 8.73 | 8.82 | 8.91 | 9.50  | 8.89 | 8.62 | 8.76 | 8.45 | 8.39 |        |
| 26                               | 8.77  | 8.70 | 8.73                                            | 8.72 | 8.80 | 8.90 | 9.35  | 9.01 | 8.60 | 8.76 | 8.44 | 8.39 |        |
| 27                               | 8.76  | 8.75 | 8.71                                            | 8.71 | 8.83 | 8.90 | 9.20  | 9.26 | 8.58 | 8.76 | 8.43 | 8.38 |        |
| 28                               | 8.75  | 8.74 | 8.69                                            | 8.71 | 8.88 | 8.94 | 9.10  | 8.97 | 8.56 | 8.76 | 8.40 | 8.38 |        |
| 29                               | 8.74  | 8.73 | 8.68                                            | 8.75 | 8.86 | 8.96 | 9.01  | 9.17 | 8.54 | 8.75 |      | 8.38 |        |
| 30                               | 8.73  | 8.72 | 8.75                                            | 8.79 | 8.84 | 9.06 | 9.04  | 9.01 | 8.52 | 8.75 |      | 8.38 |        |
| 31                               |       | 8.71 |                                                 | 8.80 | 8.82 |      | 8.92  |      | 8.50 | 8.75 |      | 8.39 |        |
| Mean                             | 8.77  | 8.72 | 8.83                                            | 8.74 | 8.85 | 8.91 | 9.65  | 8.99 | 8.70 | 8.77 | 8.49 | 8.42 |        |
| Max                              | 8.94  | 8.78 | 9.03                                            | 8.82 | 8.95 | 9.27 | 10.55 | 9.34 | 8.95 | 8.79 | 8.57 | 8.46 | 10.55  |
| Min                              | 8.70  | 8.66 | 8.68                                            | 8.70 | 8.80 | 8.67 | 8.92  | 8.88 | 8.50 | 8.75 | 8.40 | 8.38 | 8.38   |
| Annual Max Momentary Gage Height | 10.60 |      | m. (MSL.) , at 06.00 Hours, on Oct 18, 2013     |      |      |      |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 8.10  |      | m. (MSL.) , River Bed 7.79 m. (MSL.)            |      |      |      |       |      |      |      |      |      |        |
| Left Bank Elevation              | 12.75 |      | m. (MSL.) ,                                     |      |      |      |       |      |      |      |      |      |        |
| Right Bank Elevation             | 12.51 |      | m. (MSL.) , Drainage Area 150 Square Kilometers |      |      |      |       |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb  | Mar  | Annual        |
|----------------|-------|----------------------------------------------------------|-------|----------------------|-------|---------|--------------------------|--------|-------|-------|------|------|---------------|
| 1              | 0.50  | 0.80                                                     | 0.80  | 0.80                 | 1.00  | 1.13    | 3.50                     | 3.85   | 2.87  | 0.90  | 0.00 | 0.00 |               |
| 2              | 0.40  | 0.60                                                     | 0.60  | 0.60                 | 1.13  | 1.50    | 4.72                     | 3.37   | 2.37  | 0.90  | 0.00 | 0.00 |               |
| 3              | 0.30  | 0.50                                                     | 0.50  | 0.40                 | 1.25  | 1.63    | 5.95                     | 3.00   | 2.00  | 0.90  | 0.00 | 0.00 |               |
| 4              | 0.20  | 0.40                                                     | 0.40  | 0.20                 | 1.50  | 0.80    | 8.05                     | 2.75   | 1.63  | 0.90  | 0.00 | 0.00 |               |
| 5              | 0.10  | 0.30                                                     | 0.50  | 0.10                 | 1.63  | 0.00    | 25.73                    | 2.63   | 1.37  | 0.90  | 0.00 | 0.00 |               |
| 6              | 0.00  | 0.20                                                     | 4.02  | 0.00                 | 1.87  | 0.30    | 25.18                    | 2.63   | 1.00  | 0.90  | 0.00 | 0.00 |               |
| 7              | 0.40  | 0.10                                                     | 2.87  | 0.10                 | 2.25  | 0.20    | 27.38                    | 2.50   | 0.80  | 0.90  | 0.00 | 0.00 |               |
| 8              | 0.30  | 0.00                                                     | 2.25  | 0.20                 | 2.13  | 1.37    | 24.90                    | 5.08   | 0.60  | 0.80  | 0.00 | 0.00 |               |
| 9              | 0.20  | 0.50                                                     | 2.00  | 0.30                 | 1.75  | 1.75    | 22.15                    | 5.78   | 0.40  | 0.80  | 0.00 | 0.00 |               |
| 10             | 0.10  | 0.40                                                     | 1.75  | 0.40                 | 1.00  | 2.13    | 20.98                    | 3.00   | 0.10  | 0.80  | 0.00 | 0.00 |               |
| 11             | 0.00  | 0.30                                                     | 1.50  | 0.30                 | 1.13  | 2.63    | 20.51                    | 2.63   | 0.00  | 0.80  | 0.00 | 0.00 |               |
| 12             | 0.00  | 0.20                                                     | 1.50  | 0.20                 | 1.37  | 2.87    | 19.80                    | 2.50   | 0.00  | 0.70  | 0.00 | 0.00 |               |
| 13             | 0.50  | 0.10                                                     | 3.37  | 0.10                 | 2.25  | 2.25    | 19.33                    | 2.75   | 0.00  | 0.70  | 0.00 | 0.00 |               |
| 14             | 0.40  | 0.00                                                     | 2.50  | 0.20                 | 2.13  | 2.13    | 18.39                    | 9.55   | 0.00  | 0.80  | 0.00 | 0.00 |               |
| 15             | 0.30  | 0.00                                                     | 2.25  | 1.25                 | 2.87  | 2.63    | 11.35                    | 4.55   | 0.00  | 0.70  | 0.00 | 0.00 |               |
| 16             | 0.40  | 0.00                                                     | 2.50  | 0.30                 | 1.75  | 8.23    | 15.33                    | 2.87   | 0.40  | 0.60  | 0.00 | 0.00 |               |
| 17             | 2.75  | 0.00                                                     | 2.63  | 0.30                 | 2.00  | 6.82    | 23.25                    | 3.13   | 0.80  | 0.70  | 0.00 | 0.00 |               |
| 18             | 2.63  | 0.00                                                     | 2.37  | 0.80                 | 1.75  | 3.68    | 40.33                    | 2.75   | 0.60  | 0.60  | 0.00 | 0.00 |               |
| 19             | 2.00  | 0.00                                                     | 2.00  | 0.80                 | 2.00  | 4.20    | 35.90                    | 2.50   | 0.40  | 0.60  | 0.00 | 0.00 |               |
| 20             | 1.63  | 0.50                                                     | 1.87  | 0.70                 | 1.75  | 3.68    | 30.40                    | 2.37   | 0.10  | 0.60  | 0.00 | 0.00 |               |
| 21             | 1.37  | 0.40                                                     | 1.50  | 0.50                 | 1.75  | 2.50    | 26.28                    | 2.25   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 22             | 1.13  | 0.30                                                     | 1.13  | 0.40                 | 2.00  | 2.13    | 23.80                    | 2.13   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 23             | 1.00  | 0.20                                                     | 0.80  | 0.50                 | 1.63  | 2.37    | 17.69                    | 2.00   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 24             | 0.90  | 0.10                                                     | 0.60  | 1.13                 | 1.37  | 2.25    | 15.10                    | 2.13   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 25             | 0.80  | 0.00                                                     | 0.50  | 0.30                 | 1.25  | 2.37    | 12.75                    | 2.13   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 26             | 0.70  | 0.00                                                     | 0.30  | 0.20                 | 1.00  | 2.25    | 9.75                     | 3.68   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 27             | 0.60  | 0.50                                                     | 0.10  | 0.10                 | 1.37  | 2.25    | 7.00                     | 8.05   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 28             | 0.50  | 0.40                                                     | 0.00  | 0.10                 | 2.00  | 2.75    | 5.25                     | 3.13   | 0.00  | 0.60  | 0.00 | 0.00 |               |
| 29             | 0.40  | 0.30                                                     | 0.00  | 0.50                 | 1.75  | 3.00    | 3.68                     | 6.47   | 0.00  | 0.50  |      | 0.00 |               |
| 30             | 0.30  | 0.20                                                     | 0.50  | 0.90                 | 1.50  | 4.55    | 4.20                     | 3.68   | 0.00  | 0.50  |      | 0.00 |               |
| 31             |       | 0.10                                                     |       | 1.00                 | 1.25  |         | 2.50                     |        | 0.00  | 0.50  |      | 0.00 |               |
| Total          | 20.81 | 7.40                                                     | 43.61 | 13.68                | 51.38 | 76.35   | 531.13                   | 105.84 | 15.44 | 21.80 | 0.00 | 0.00 | 887.44 CMSDAY |
| Mean           | 0.69  | 0.24                                                     | 1.45  | 0.44                 | 1.66  | 2.55    | 17.13                    | 3.53   | 0.50  | 0.70  | 0.00 | 0.00 | 2.43 CMS      |
| Max            | 2.75  | 0.80                                                     | 4.02  | 1.25                 | 2.87  | 8.23    | 40.33                    | 9.55   | 2.87  | 0.90  | 0.00 | 0.00 | 40.33 CMS     |
| Min            | 0.00  | 0.00                                                     | 0.00  | 0.00                 | 1.00  | 0.00    | 2.50                     | 2.00   | 0.00  | 0.50  | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 1.80  | 0.64                                                     | 3.77  | 1.18                 | 4.44  | 6.60    | 45.89                    | 9.15   | 1.33  | 1.88  | 0.00 | 0.00 | 76.68 MCM     |
| Momentary Peak | 41.80 | CMS, at 10.60 m. (MSL.), at 06.00 Hours, on Oct 18, 2013 |       |                      |       |         |                          |        |       |       |      |      |               |
| Runoff Yield   | 16.16 | Liters/Second/Square KM.                                 |       | Momentary Peak Yield |       | 277.870 | Liters/Second/Square KM. |        |       |       |      |      |               |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

### Khlong Prakaet at Ban Prakaet , Chanthaburi (Z.42)

Lat 12 - 57 - 32 N    Long 101 - 51 - 57 E

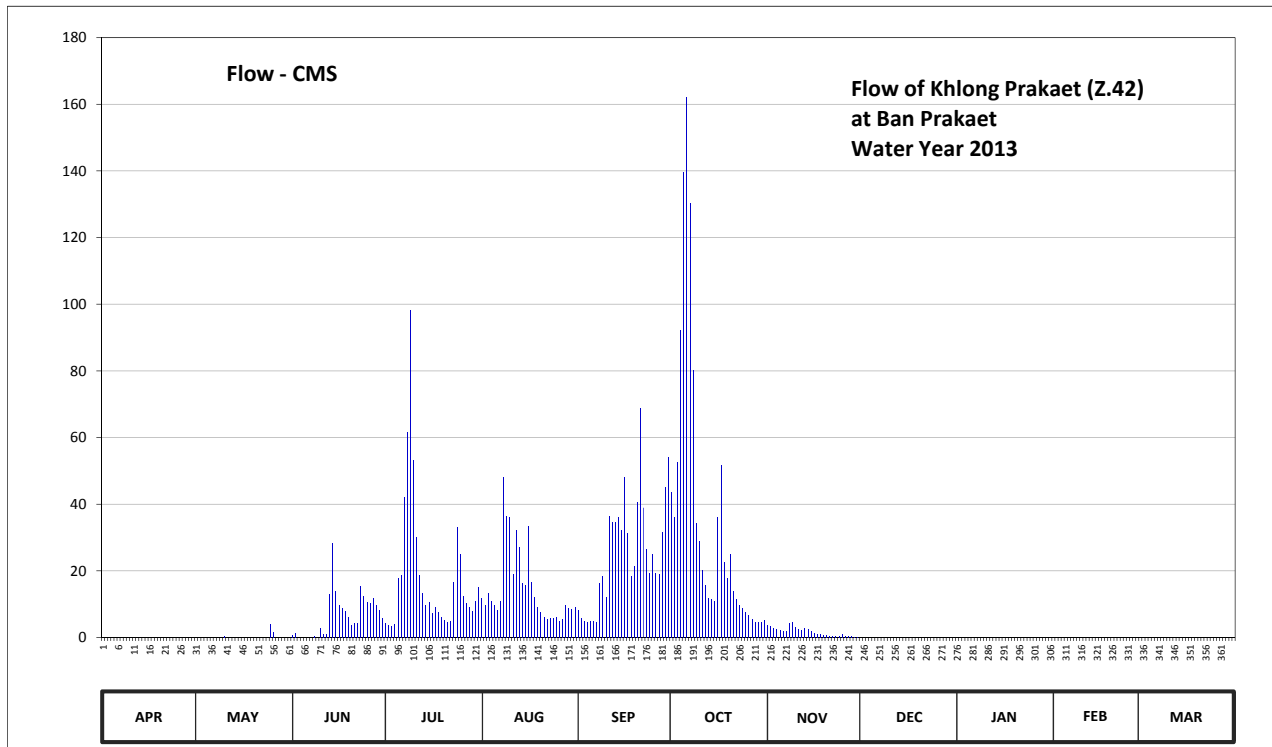
**Location :** on left bank at Ban Prakaet, Tambon Sam Phinong.

|                                         | Ban                                                                                       | Prakaet   | Amphoe | Kaeng Hang Maeo | Changwat         | Chanthaburi       |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|--------|-----------------|------------------|-------------------|
| <b>Drainage Area</b>                    | 451                                                                                       | sq.km.    |        |                 |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |        |                 |                  |                   |
| <b>Zero Gage at Bottom</b>              | +17.754                                                                                   | m. (MSL.) |        |                 |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |        |                 |                  |                   |
| <b>Location BM</b>                      | On left bank about 200 meters from the gage observer's house.                             |           |        |                 | <b>Elevation</b> | +24.921 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |        |                 |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 24 readings                                                           |           |        |                 |                  |                   |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |           |        |                 |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |        |                 |                  |                   |
| <b>Period of Rating</b>                 | 2000 to date                                                                              |           |        |                 |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |        |                 |                  |                   |
| <b>Rated by Current Meter</b>           | 2000 to date                                                                              |           |        |                 |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable with variable water surface slope.                                        |           |        |                 |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +24.900 m.(MSL.) and is including overbank flow.        |           |        |                 |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 22 discharge measurements made in 2013. |           |        |                 |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                        | Jul   | Aug   | Sep           | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------|-------|-------|---------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 17.64 | 17.77 | 18.07                                      | 18.32 | 18.76 | 18.59         | 20.65 | 18.29             | 17.98 | 17.84 | 17.64 | 17.64 |        |
| 2                                | 17.64 | 17.65 | 18.12                                      | 18.29 | 18.66 | 18.42         | 20.10 | 18.27             | 17.97 | 17.84 | 17.64 | 17.64 |        |
| 3                                | 17.64 | 17.64 | 17.97                                      | 18.26 | 18.84 | 18.37         | 21.18 | 18.23             | 17.97 | 17.83 | 17.64 | 17.64 |        |
| 4                                | 17.64 | 17.64 | 17.92                                      | 18.31 | 18.72 | 18.35         | 22.84 | 18.21             | 17.96 | 17.83 | 17.64 | 17.64 |        |
| 5                                | 17.64 | 17.64 | 17.93                                      | 19.01 | 18.66 | 18.36         | 24.28 | 18.18             | 17.94 | 17.82 | 17.64 | 17.64 |        |
| 6                                | 17.64 | 17.68 | 17.93                                      | 19.05 | 18.59 | 18.36         | 24.87 | 18.16             | 17.93 | 17.82 | 17.64 | 17.64 |        |
| 7                                | 17.64 | 17.90 | 17.91                                      | 20.55 | 18.72 | 18.35         | 24.02 | 18.16             | 17.93 | 17.82 | 17.64 | 17.64 |        |
| 8                                | 17.64 | 17.83 | 18.04                                      | 21.64 | 20.95 | 18.95         | 22.40 | 18.33             | 17.93 | 17.81 | 17.64 | 17.64 |        |
| 9                                | 17.64 | 17.84 | 17.98                                      | 23.05 | 20.16 | 19.04         | 19.94 | 18.35             | 17.92 | 17.81 | 17.64 | 17.64 |        |
| 10                               | 17.64 | 18.03 | 18.22                                      | 21.21 | 20.13 | 18.79         | 19.37 | 18.25             | 17.92 | 17.80 | 17.64 | 17.64 |        |
| 11                               | 17.64 | 17.89 | 18.09                                      | 19.41 | 19.06 | 20.15         | 19.11 | 18.20             | 17.90 | 17.80 | 17.64 | 17.64 |        |
| 12                               | 17.64 | 17.82 | 18.11                                      | 19.05 | 19.68 | 19.95         | 18.93 | 18.18             | 17.89 | 17.80 | 17.64 | 17.64 |        |
| 13                               | 17.64 | 17.78 | 18.82                                      | 18.83 | 19.32 | 19.96         | 18.76 | 18.22             | 17.88 | 17.78 | 17.64 | 17.64 |        |
| 14                               | 17.64 | 17.66 | 19.35                                      | 18.67 | 18.95 | 20.13         | 18.75 | 18.20             | 17.87 | 17.76 | 17.64 | 17.64 |        |
| 15                               | 17.64 | 17.64 | 18.86                                      | 18.70 | 18.93 | 19.68         | 18.72 | 18.16             | 17.86 | 17.64 | 17.64 | 17.64 |        |
| 16                               | 17.64 | 17.64 | 18.66                                      | 18.52 | 19.83 | 20.95         | 20.12 | 18.13             | 17.85 | 17.64 | 17.64 | 17.64 |        |
| 17                               | 17.64 | 17.64 | 18.62                                      | 18.63 | 18.97 | 19.60         | 21.14 | 18.10             | 17.86 | 17.64 | 17.64 | 17.64 |        |
| 18                               | 17.64 | 17.64 | 18.57                                      | 18.54 | 18.78 | 19.04         | 19.19 | 18.09             | 17.92 | 17.64 | 17.64 | 17.64 |        |
| 19                               | 17.64 | 17.67 | 18.44                                      | 18.44 | 18.63 | 19.15         | 19.01 | 18.07             | 17.90 | 17.64 | 17.64 | 17.64 |        |
| 20                               | 17.64 | 17.84 | 18.29                                      | 18.38 | 18.54 | 20.45         | 19.26 | 18.06             | 17.89 | 17.64 | 17.64 | 17.64 |        |
| 21                               | 17.64 | 17.83 | 18.32                                      | 18.34 | 18.44 | 21.95         | 18.86 | 18.05             | 17.89 | 17.64 | 17.64 | 17.64 |        |
| 22                               | 17.64 | 17.83 | 18.33                                      | 18.37 | 18.40 | 20.33         | 18.75 | 18.04             | 17.88 | 17.64 | 17.64 | 17.64 |        |
| 23                               | 17.64 | 17.82 | 18.92                                      | 18.96 | 18.43 | 19.30         | 18.66 | 18.03             | 17.87 | 17.64 | 17.64 | 17.64 |        |
| 24                               | 17.68 | 17.97 | 18.80                                      | 19.81 | 18.43 | 19.08         | 18.62 | 18.03             | 17.87 | 17.64 | 17.64 | 17.64 |        |
| 25                               | 17.87 | 18.30 | 18.70                                      | 19.26 | 18.45 | 19.26         | 18.55 | 18.09             | 17.85 | 17.64 | 17.64 | 17.64 |        |
| 26                               | 17.90 | 18.14 | 18.69                                      | 18.80 | 18.36 | 19.07         | 18.48 | 18.05             | 17.85 | 17.64 | 17.64 | 17.64 |        |
| 27                               | 17.84 | 17.99 | 18.76                                      | 18.69 | 18.40 | 19.06         | 18.41 | 18.04             | 17.85 | 17.64 | 17.64 | 17.64 |        |
| 28                               | 17.82 | 17.91 | 18.66                                      | 18.63 | 18.66 | 19.61         | 18.35 | 18.03             | 17.85 | 17.64 | 17.64 | 17.64 |        |
| 29                               | 17.82 | 17.87 | 18.59                                      | 18.57 | 18.62 | 20.74         | 18.35 | 18.02             | 17.84 | 17.64 |       | 17.64 |        |
| 30                               | 17.80 | 17.81 | 18.42                                      | 18.72 | 18.61 | 21.26         | 18.35 | 18.01             | 17.84 | 17.64 |       | 17.64 |        |
| 31                               |       | 17.91 |                                            | 18.91 | 18.63 |               | 18.39 |                   | 17.84 | 17.64 |       | 17.64 |        |
| Mean                             | 17.68 | 17.81 | 18.40                                      | 19.09 | 18.91 | 19.48         | 19.88 | 18.14             | 17.89 | 17.72 | 17.64 | 17.64 |        |
| Max                              | 17.90 | 18.30 | 19.35                                      | 23.05 | 20.95 | 21.95         | 24.87 | 18.35             | 17.98 | 17.84 | 17.64 | 17.64 | 24.87  |
| Min                              | 17.64 | 17.64 | 17.91                                      | 18.26 | 18.36 | 18.35         | 18.35 | 18.01             | 17.84 | 17.64 | 17.64 | 17.64 | 17.64  |
| Annual Max Momentary Gage Height |       | 24.95 | m. (MSL.) , at 09.00 Hours, on Oct 6, 2013 |       |       |               |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 17.75 | m. (MSL.) ,                                |       |       | River Bed     | 17.64 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              |       | 24.92 | m. (MSL.) ,                                |       |       |               |       |                   |       |       |       |       |        |
| Right Bank Elevation             |       | 24.89 | m. (MSL.) ,                                |       |       | Drainage Area | 451   | Square Kilometers |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                     | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov   | Dec  | Jan  | Feb  | Mar  | Annual         |
|----------------|--------|---------------------------------------------------------|--------|----------------------|--------|---------|--------------------------|-------|------|------|------|------|----------------|
| 1              | 0.00   | 0.00                                                    | 0.70   | 4.30                 | 11.70  | 8.35    | 43.75                    | 3.85  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00   | 0.00                                                    | 1.30   | 3.85                 | 9.70   | 5.80    | 36.00                    | 3.55  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00   | 0.00                                                    | 0.00   | 3.40                 | 13.50  | 5.05    | 52.60                    | 2.95  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00   | 0.00                                                    | 0.00   | 4.15                 | 10.90  | 4.75    | 92.12                    | 2.65  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00   | 0.00                                                    | 0.00   | 17.75                | 9.70   | 4.90    | 139.48                   | 2.20  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00   | 0.00                                                    | 0.00   | 18.75                | 8.35   | 4.90    | 162.03                   | 1.90  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00   | 0.00                                                    | 0.00   | 42.25                | 10.90  | 4.75    | 130.12                   | 1.90  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00   | 0.00                                                    | 0.40   | 61.80                | 48.25  | 16.25   | 80.10                    | 4.45  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00   | 0.00                                                    | 0.00   | 98.00                | 36.60  | 18.50   | 34.40                    | 4.75  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00   | 0.30                                                    | 2.80   | 53.20                | 36.30  | 12.30   | 28.95                    | 3.25  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00   | 0.00                                                    | 0.90   | 30.07                | 19.00  | 36.50   | 20.30                    | 2.50  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00   | 0.00                                                    | 1.15   | 18.75                | 32.10  | 34.50   | 15.75                    | 2.20  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00   | 0.00                                                    | 13.00  | 13.25                | 27.20  | 34.60   | 11.70                    | 2.80  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00   | 0.00                                                    | 28.25  | 9.90                 | 16.25  | 36.30   | 11.50                    | 2.50  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00   | 0.00                                                    | 14.00  | 10.50                | 15.75  | 32.10   | 10.90                    | 1.90  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00   | 0.00                                                    | 9.70   | 7.30                 | 33.30  | 48.25   | 36.20                    | 1.45  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00   | 0.00                                                    | 8.90   | 9.10                 | 16.75  | 31.50   | 51.80                    | 1.00  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00   | 0.00                                                    | 8.05   | 7.60                 | 12.10  | 18.50   | 22.70                    | 0.90  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00   | 0.00                                                    | 6.10   | 6.10                 | 9.10   | 21.50   | 17.75                    | 0.70  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00   | 0.00                                                    | 3.85   | 5.20                 | 7.60   | 40.75   | 25.10                    | 0.60  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00   | 0.00                                                    | 4.30   | 4.60                 | 6.10   | 68.85   | 14.00                    | 0.50  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00   | 0.00                                                    | 4.45   | 5.05                 | 5.50   | 38.95   | 11.50                    | 0.40  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00   | 0.00                                                    | 15.50  | 16.50                | 5.95   | 26.50   | 9.70                     | 0.30  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00   | 0.00                                                    | 12.50  | 33.10                | 5.95   | 19.50   | 8.90                     | 0.30  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00   | 4.00                                                    | 10.50  | 25.10                | 6.25   | 25.10   | 7.75                     | 0.90  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00   | 1.60                                                    | 10.30  | 12.50                | 4.90   | 19.25   | 6.70                     | 0.50  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00   | 0.00                                                    | 11.70  | 10.30                | 5.50   | 19.00   | 5.65                     | 0.40  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00   | 0.00                                                    | 9.70   | 9.10                 | 9.70   | 31.58   | 4.75                     | 0.30  | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00   | 0.00                                                    | 8.35   | 8.05                 | 8.90   | 45.10   | 4.75                     | 0.20  | 0.00 | 0.00 |      | 0.00 |                |
| 30             | 0.00   | 0.00                                                    | 5.80   | 10.90                | 8.70   | 54.20   | 4.75                     | 0.10  | 0.00 | 0.00 |      | 0.00 |                |
| 31             |        | 0.00                                                    |        | 15.25                | 9.10   |         | 5.35                     |       | 0.00 | 0.00 |      | 0.00 |                |
| Total          | 0.00   | 5.90                                                    | 192.20 | 575.67               | 461.60 | 768.08  | 1107.05                  | 51.90 | 0.00 | 0.00 | 0.00 | 0.00 | 3162.40 CMSDAY |
| Mean           | 0.00   | 0.19                                                    | 6.41   | 18.57                | 14.89  | 25.60   | 35.71                    | 1.73  | 0.00 | 0.00 | 0.00 | 0.00 | 8.66 CMS       |
| Max            | 0.00   | 4.00                                                    | 28.25  | 98.00                | 48.25  | 68.85   | 162.03                   | 4.75  | 0.00 | 0.00 | 0.00 | 0.00 | 162.03 CMS     |
| Min            | 0.00   | 0.00                                                    | 0.00   | 3.40                 | 4.90   | 4.75    | 4.75                     | 0.10  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00   | 0.51                                                    | 16.61  | 49.74                | 39.88  | 66.36   | 95.65                    | 4.48  | 0.00 | 0.00 | 0.00 | 0.00 | 273.23 MCM     |
| Momentary Peak | 165.15 | CMS, at 24.95 m. (MSL.), at 09.00 Hours, on Oct 6, 2013 |        |                      |        |         |                          |       |      |      |      |      |                |
| Runoff Yield   | 19.21  | Liters/Second/Square KM.                                |        | Momentary Peak Yield |        | 366.186 | Liters/Second/Square KM. |       |      |      |      |      |                |

## WATER YEAR : 2013

## EAST COAST - GULF BASIN

### Khlong Hin Phloeng at Ban Hin Phloeng , Chanthaburi (Z.43)

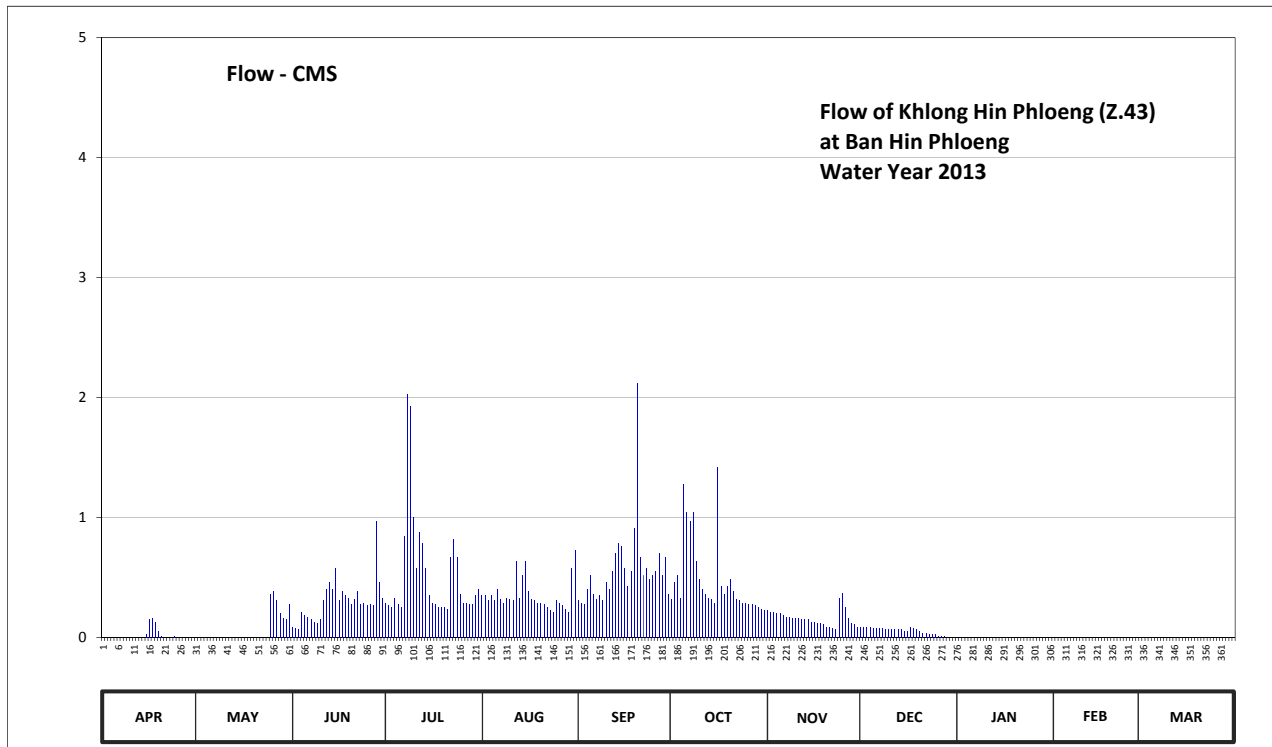
Lat 12 - 57 - 04 N      Long 101 - 47 - 59

**Location : on right bank at the bridge on highway**

|                                         |                                                                                           |             |               |                 |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|-----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Hin Phloeng | <b>Amphoe</b> | Kaeng Hang Maeo | <b>Changwat</b>  | Chanthaburi       |
| <b>Drainage Area</b>                    | 4                                                                                         | sq.km.      |               |                 |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |             |               |                 |                  |                   |
| <b>Zero Gage at Bottom</b>              | +45.094                                                                                   | m. (MSL.)   |               |                 |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |                 |                  |                   |
| <b>Location BM</b>                      | On right bank about 20 meters from the top staff gage.                                    |             |               |                 | <b>Elevation</b> | +48.611 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |             |               |                 |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |             |               |                 |                  |                   |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |             |               |                 |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |             |               |                 |                  |                   |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |             |               |                 |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |                 |                  |                   |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |             |               |                 |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |             |               |                 |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |                 |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 18 discharge measurements made in 2013. |             |               |                 |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                           | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|-----------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 45.45 | 45.47 | 45.57                                         | 45.72 | 45.76 | 45.73 | 45.74 | 45.67 | 45.57 | 45.49 | 45.46 | 45.45 |        |
|                                  | 2  | 45.45 | 45.46 | 45.56                                         | 45.70 | 45.76 | 45.72 | 45.82 | 45.66 | 45.57 | 45.49 | 45.46 | 45.45 |        |
|                                  | 3  | 45.45 | 45.46 | 45.55                                         | 45.69 | 45.73 | 45.71 | 45.84 | 45.66 | 45.57 | 45.49 | 45.46 | 45.44 |        |
|                                  | 4  | 45.45 | 45.45 | 45.66                                         | 45.75 | 45.76 | 45.80 | 45.75 | 45.65 | 45.57 | 45.49 | 45.46 | 45.44 |        |
|                                  | 5  | 45.44 | 45.48 | 45.64                                         | 45.71 | 45.73 | 45.84 | 46.06 | 45.65 | 45.56 | 45.49 | 45.46 | 45.44 |        |
|                                  | 6  | 45.44 | 45.49 | 45.63                                         | 45.69 | 45.80 | 45.77 | 46.01 | 45.64 | 45.56 | 45.48 | 45.46 | 45.43 |        |
|                                  | 7  | 45.44 | 45.48 | 45.61                                         | 45.95 | 45.74 | 45.74 | 45.99 | 45.63 | 45.56 | 45.48 | 45.46 | 45.43 |        |
|                                  | 8  | 45.43 | 45.48 | 45.60                                         | 46.22 | 45.72 | 45.76 | 46.01 | 45.63 | 45.56 | 45.48 | 45.46 | 45.43 |        |
|                                  | 9  | 45.43 | 45.47 | 45.59                                         | 46.20 | 45.75 | 45.73 | 45.88 | 45.62 | 45.55 | 45.48 | 45.46 | 45.43 |        |
|                                  | 10 | 45.43 | 45.47 | 45.61                                         | 46.00 | 45.74 | 45.82 | 45.83 | 45.62 | 45.55 | 45.48 | 45.46 | 45.43 |        |
|                                  | 11 | 45.42 | 45.47 | 45.73                                         | 45.86 | 45.73 | 45.80 | 45.80 | 45.62 | 45.55 | 45.47 | 45.46 | 45.43 |        |
|                                  | 12 | 45.42 | 45.46 | 45.80                                         | 45.96 | 45.88 | 45.85 | 45.77 | 45.61 | 45.55 | 45.47 | 45.46 | 45.42 |        |
|                                  | 13 | 45.49 | 45.46 | 45.82                                         | 45.93 | 45.75 | 45.90 | 45.75 | 45.61 | 45.55 | 45.47 | 45.46 | 45.42 |        |
|                                  | 14 | 45.49 | 45.46 | 45.80                                         | 45.86 | 45.84 | 45.93 | 45.74 | 45.61 | 45.55 | 45.47 | 45.46 | 45.42 |        |
|                                  | 15 | 45.52 | 45.45 | 45.86                                         | 45.76 | 45.88 | 45.92 | 45.72 | 45.60 | 45.54 | 45.47 | 45.46 | 45.42 |        |
|                                  | 16 | 45.61 | 45.45 | 45.73                                         | 45.72 | 45.79 | 45.86 | 46.09 | 45.60 | 45.54 | 45.47 | 45.46 | 45.42 |        |
|                                  | 17 | 45.62 | 45.44 | 45.79                                         | 45.71 | 45.74 | 45.81 | 45.81 | 45.59 | 45.57 | 45.47 | 45.46 | 45.41 |        |
|                                  | 18 | 45.60 | 45.47 | 45.76                                         | 45.69 | 45.73 | 45.85 | 45.77 | 45.59 | 45.56 | 45.47 | 45.46 | 45.41 |        |
|                                  | 19 | 45.54 | 45.46 | 45.75                                         | 45.69 | 45.72 | 45.97 | 45.81 | 45.58 | 45.55 | 45.46 | 45.46 | 45.41 |        |
|                                  | 20 | 45.51 | 45.49 | 45.71                                         | 45.69 | 45.72 | 46.24 | 45.83 | 45.57 | 45.54 | 45.46 | 45.46 | 45.41 |        |
|                                  | 21 | 45.50 | 45.49 | 45.74                                         | 45.68 | 45.71 | 45.89 | 45.79 | 45.57 | 45.53 | 45.46 | 45.46 | 45.40 |        |
|                                  | 22 | 45.48 | 45.48 | 45.79                                         | 45.89 | 45.69 | 45.84 | 45.74 | 45.56 | 45.53 | 45.46 | 45.46 | 45.43 |        |
|                                  | 23 | 45.50 | 45.48 | 45.71                                         | 45.94 | 45.67 | 45.86 | 45.73 | 45.55 | 45.52 | 45.46 | 45.46 | 45.43 |        |
|                                  | 24 | 45.51 | 45.48 | 45.72                                         | 45.89 | 45.66 | 45.83 | 45.72 | 45.75 | 45.52 | 45.46 | 45.45 | 45.43 |        |
|                                  | 25 | 45.50 | 45.77 | 45.70                                         | 45.77 | 45.73 | 45.84 | 45.72 | 45.78 | 45.52 | 45.46 | 45.45 | 45.42 |        |
|                                  | 26 | 45.49 | 45.79 | 45.71                                         | 45.72 | 45.72 | 45.85 | 45.71 | 45.69 | 45.51 | 45.46 | 45.45 | 45.42 |        |
|                                  | 27 | 45.49 | 45.73 | 45.70                                         | 45.72 | 45.70 | 45.90 | 45.71 | 45.62 | 45.51 | 45.46 | 45.45 | 45.42 |        |
|                                  | 28 | 45.48 | 45.65 | 45.99                                         | 45.71 | 45.68 | 45.84 | 45.70 | 45.59 | 45.51 | 45.46 | 45.45 | 45.41 |        |
|                                  | 29 | 45.47 | 45.62 | 45.82                                         | 45.71 | 45.66 | 45.89 | 45.69 | 45.58 | 45.50 | 45.46 |       | 45.41 |        |
|                                  | 30 | 45.47 | 45.61 | 45.75                                         | 45.76 | 45.86 | 45.77 | 45.68 | 45.57 | 45.49 | 45.46 |       | 45.40 |        |
| 31                               |    | 45.71 |       | 45.80                                         | 45.91 |       | 45.67 |       | 45.49 | 45.46 |       | 45.40 |       |        |
| Mean                             |    | 45.48 | 45.52 | 45.71                                         | 45.81 | 45.75 | 45.84 | 45.80 | 45.62 | 45.54 | 45.47 | 45.46 | 45.42 |        |
| Max                              |    | 45.62 | 45.79 | 45.99                                         | 46.22 | 45.91 | 46.24 | 46.09 | 45.78 | 45.57 | 45.49 | 45.46 | 45.45 | 46.2   |
| Min                              |    | 45.42 | 45.44 | 45.55                                         | 45.68 | 45.66 | 45.71 | 45.67 | 45.55 | 45.49 | 45.46 | 45.45 | 45.40 | 45.4   |
| Annual Max Momentary Gage Height |    |       | 46.84 | m. (MSL.) , at 15.00 Hours, on Jun 28, 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 45.09 | m. (MSL.) , River Bed 45.17 m. (MSL.)         |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 49.93 | m. (MSL.) ,                                   |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 49.84 | m. (MSL.) , Drainage Area 4 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



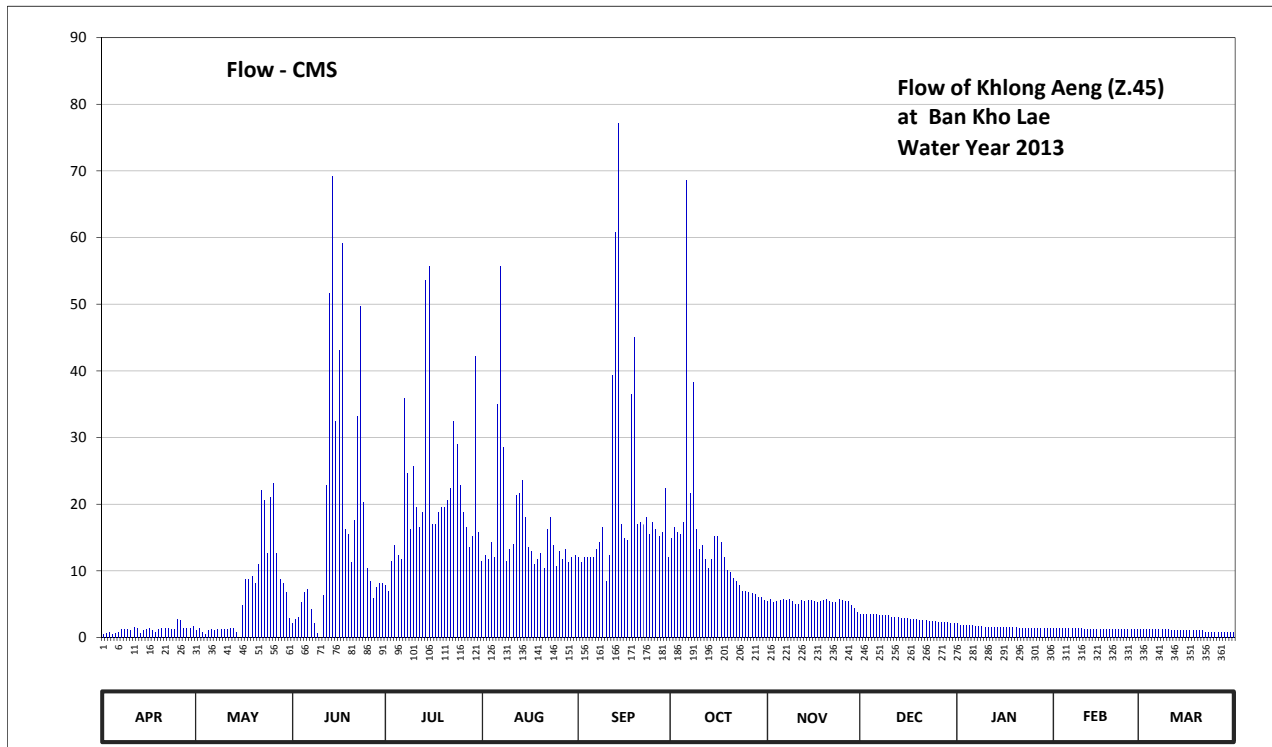
**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                           | May                      | Jun  | Jul   | Aug                  | Sep   | Oct   | Nov      | Dec                      | Jan  | Feb  | Mar  | Annual |        |
|----------------|---------------------------------------------------------------|--------------------------|------|-------|----------------------|-------|-------|----------|--------------------------|------|------|------|--------|--------|
| 1              | 0.00                                                          | 0.00                     | 0.09 | 0.29  | 0.35                 | 0.31  | 0.32  | 0.23     | 0.09                     | 0.00 | 0.00 | 0.00 |        |        |
| 2              | 0.00                                                          | 0.00                     | 0.08 | 0.27  | 0.35                 | 0.29  | 0.46  | 0.21     | 0.09                     | 0.00 | 0.00 | 0.00 |        |        |
| 3              | 0.00                                                          | 0.00                     | 0.07 | 0.25  | 0.31                 | 0.28  | 0.52  | 0.21     | 0.09                     | 0.00 | 0.00 | 0.00 |        |        |
| 4              | 0.00                                                          | 0.00                     | 0.21 | 0.33  | 0.35                 | 0.40  | 0.33  | 0.20     | 0.09                     | 0.00 | 0.00 | 0.00 |        |        |
| 5              | 0.00                                                          | 0.00                     | 0.19 | 0.28  | 0.31                 | 0.52  | 1.28  | 0.20     | 0.08                     | 0.00 | 0.00 | 0.00 |        |        |
| 6              | 0.00                                                          | 0.00                     | 0.17 | 0.25  | 0.40                 | 0.36  | 1.05  | 0.19     | 0.08                     | 0.00 | 0.00 | 0.00 |        |        |
| 7              | 0.00                                                          | 0.00                     | 0.15 | 0.85  | 0.32                 | 0.32  | 0.97  | 0.17     | 0.08                     | 0.00 | 0.00 | 0.00 |        |        |
| 8              | 0.00                                                          | 0.00                     | 0.13 | 2.03  | 0.29                 | 0.35  | 1.05  | 0.17     | 0.08                     | 0.00 | 0.00 | 0.00 |        |        |
| 9              | 0.00                                                          | 0.00                     | 0.12 | 1.93  | 0.33                 | 0.31  | 0.64  | 0.16     | 0.07                     | 0.00 | 0.00 | 0.00 |        |        |
| 10             | 0.00                                                          | 0.00                     | 0.15 | 1.00  | 0.32                 | 0.46  | 0.49  | 0.16     | 0.07                     | 0.00 | 0.00 | 0.00 |        |        |
| 11             | 0.00                                                          | 0.00                     | 0.31 | 0.58  | 0.31                 | 0.40  | 0.40  | 0.16     | 0.07                     | 0.00 | 0.00 | 0.00 |        |        |
| 12             | 0.00                                                          | 0.00                     | 0.40 | 0.88  | 0.64                 | 0.55  | 0.36  | 0.15     | 0.07                     | 0.00 | 0.00 | 0.00 |        |        |
| 13             | 0.00                                                          | 0.00                     | 0.46 | 0.79  | 0.33                 | 0.70  | 0.33  | 0.15     | 0.07                     | 0.00 | 0.00 | 0.00 |        |        |
| 14             | 0.00                                                          | 0.00                     | 0.40 | 0.58  | 0.52                 | 0.79  | 0.32  | 0.15     | 0.07                     | 0.00 | 0.00 | 0.00 |        |        |
| 15             | 0.03                                                          | 0.00                     | 0.58 | 0.35  | 0.64                 | 0.76  | 0.29  | 0.13     | 0.05                     | 0.00 | 0.00 | 0.00 |        |        |
| 16             | 0.15                                                          | 0.00                     | 0.31 | 0.29  | 0.39                 | 0.58  | 1.42  | 0.13     | 0.05                     | 0.00 | 0.00 | 0.00 |        |        |
| 17             | 0.16                                                          | 0.00                     | 0.39 | 0.28  | 0.32                 | 0.43  | 0.43  | 0.12     | 0.09                     | 0.00 | 0.00 | 0.00 |        |        |
| 18             | 0.13                                                          | 0.00                     | 0.35 | 0.25  | 0.31                 | 0.55  | 0.36  | 0.12     | 0.08                     | 0.00 | 0.00 | 0.00 |        |        |
| 19             | 0.05                                                          | 0.00                     | 0.33 | 0.25  | 0.29                 | 0.91  | 0.43  | 0.11     | 0.07                     | 0.00 | 0.00 | 0.00 |        |        |
| 20             | 0.01                                                          | 0.00                     | 0.28 | 0.25  | 0.29                 | 2.12  | 0.49  | 0.09     | 0.05                     | 0.00 | 0.00 | 0.00 |        |        |
| 21             | 0.00                                                          | 0.00                     | 0.32 | 0.24  | 0.28                 | 0.67  | 0.39  | 0.09     | 0.04                     | 0.00 | 0.00 | 0.00 |        |        |
| 22             | 0.00                                                          | 0.00                     | 0.39 | 0.67  | 0.25                 | 0.52  | 0.32  | 0.08     | 0.04                     | 0.00 | 0.00 | 0.00 |        |        |
| 23             | 0.00                                                          | 0.00                     | 0.28 | 0.82  | 0.23                 | 0.58  | 0.31  | 0.07     | 0.03                     | 0.00 | 0.00 | 0.00 |        |        |
| 24             | 0.01                                                          | 0.00                     | 0.29 | 0.67  | 0.21                 | 0.49  | 0.29  | 0.33     | 0.03                     | 0.00 | 0.00 | 0.00 |        |        |
| 25             | 0.00                                                          | 0.36                     | 0.27 | 0.36  | 0.31                 | 0.52  | 0.29  | 0.37     | 0.03                     | 0.00 | 0.00 | 0.00 |        |        |
| 26             | 0.00                                                          | 0.39                     | 0.28 | 0.29  | 0.29                 | 0.55  | 0.28  | 0.25     | 0.01                     | 0.00 | 0.00 | 0.00 |        |        |
| 27             | 0.00                                                          | 0.31                     | 0.27 | 0.29  | 0.27                 | 0.70  | 0.28  | 0.16     | 0.01                     | 0.00 | 0.00 | 0.00 |        |        |
| 28             | 0.00                                                          | 0.20                     | 0.97 | 0.28  | 0.24                 | 0.52  | 0.27  | 0.12     | 0.01                     | 0.00 | 0.00 | 0.00 |        |        |
| 29             | 0.00                                                          | 0.16                     | 0.46 | 0.28  | 0.21                 | 0.67  | 0.25  | 0.11     | 0.00                     | 0.00 |      | 0.00 |        |        |
| 30             | 0.00                                                          | 0.15                     | 0.33 | 0.35  | 0.58                 | 0.36  | 0.24  | 0.09     | 0.00                     | 0.00 |      | 0.00 |        |        |
| 31             |                                                               | 0.28                     |      | 0.40  | 0.73                 |       | 0.23  |          | 0.00                     | 0.00 |      | 0.00 |        |        |
| Total          | 0.54                                                          | 1.85                     | 9.03 | 16.63 | 10.97                | 16.97 | 15.09 | 4.88     | 1.69                     | 0.00 | 0.00 | 0.00 | 77.65  | CMSDAY |
| Mean           | 0.02                                                          | 0.06                     | 0.30 | 0.54  | 0.35                 | 0.57  | 0.49  | 0.16     | 0.05                     | 0.00 | 0.00 | 0.00 | 0.21   | CMS    |
| Max            | 0.16                                                          | 0.39                     | 0.97 | 2.03  | 0.73                 | 2.12  | 1.42  | 0.37     | 0.09                     | 0.00 | 0.00 | 0.00 | 2.12   | CMS    |
| Min            | 0.00                                                          | 0.00                     | 0.07 | 0.24  | 0.21                 | 0.28  | 0.23  | 0.07     | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00   | CMS    |
| Runoff         | 0.05                                                          | 0.16                     | 0.78 | 1.44  | 0.95                 | 1.47  | 1.30  | 0.42     | 0.15                     | 0.00 | 0.00 | 0.00 | 6.71   | MCM    |
| Momentary Peak | 6.69 CMS, at 46.84 m. (MSL.), at 15.00 Hours, on Jun 28, 2013 |                          |      |       |                      |       |       |          |                          |      |      |      |        |        |
| Runoff Yield   | 53.18                                                         | Liters/Second/Square KM. |      |       | Momentary Peak Yield |       |       | 1672.500 | Liters/Second/Square KM. |      |      |      |        |        |

Lat 12 - 36 - 58 N      Long 102 - 28 - 42 E

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Kho Lae   | <b>Amphoe</b> | Bo Rai | <b>Changwat</b>  | Trat              |
| <b>Drainage Area</b>                    | 58                                                                                        | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +30.000                                                                                   | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank about 15 meters from the top staff gage.                                    |           |               |        | <b>Elevation</b> | +36.550 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1999 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 1999 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 1999 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |           |               |        |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 30.83 | 30.86 | 30.92 | 31.23 | 31.36 | 31.38 | 31.48 | 31.11 | 31.00 | 30.92   | 30.88 | 30.87 |        |
| 2    | 30.84 | 30.88 | 30.96 | 31.20 | 31.39 | 31.35 | 31.53 | 31.13 | 31.00 | 30.91   | 30.88 | 30.87 |        |
| 3    | 30.85 | 30.85 | 30.98 | 31.36 | 31.37 | 31.38 | 31.51 | 31.10 | 31.00 | 30.91   | 30.88 | 30.87 |        |
| 4    | 30.83 | 30.83 | 31.10 | 31.44 | 31.46 | 31.38 | 31.50 | 31.11 | 31.00 | 30.91   | 30.88 | 30.87 |        |
| 5    | 30.84 | 30.86 | 31.19 | 31.39 | 31.38 | 31.38 | 31.55 | 31.12 | 31.00 | 30.91   | 30.88 | 30.87 |        |
| 6    | 30.85 | 30.87 | 31.21 | 31.37 | 32.00 | 31.38 | 32.66 | 31.13 | 31.00 | 30.91   | 30.88 | 30.87 |        |
| 7    | 30.87 | 30.86 | 31.04 | 32.02 | 32.43 | 31.42 | 31.67 | 31.12 | 30.99 | 30.90   | 30.88 | 30.87 |        |
| 8    | 30.87 | 30.87 | 30.92 | 31.75 | 31.85 | 31.46 | 32.07 | 31.13 | 30.99 | 30.90   | 30.88 | 30.87 |        |
| 9    | 30.87 | 30.87 | 30.84 | 31.52 | 31.36 | 31.53 | 31.52 | 31.11 | 30.99 | 30.90   | 30.88 | 30.87 |        |
| 10   | 30.86 | 30.87 | 30.79 | 31.78 | 31.42 | 31.25 | 31.42 | 31.09 | 30.99 | 30.89   | 30.88 | 30.87 |        |
| 11   | 30.89 | 30.87 | 31.16 | 31.61 | 31.45 | 31.39 | 31.44 | 31.09 | 30.98 | 30.89   | 30.87 | 30.86 |        |
| 12   | 30.88 | 30.88 | 31.70 | 31.53 | 31.66 | 32.09 | 31.37 | 31.12 | 30.98 | 30.89   | 30.87 | 30.86 |        |
| 13   | 30.84 | 30.88 | 32.35 | 31.59 | 31.67 | 32.52 | 31.32 | 31.11 | 30.98 | 30.89   | 30.87 | 30.86 |        |
| 14   | 30.86 | 30.85 | 32.67 | 32.39 | 31.72 | 32.81 | 31.37 | 31.12 | 30.97 | 30.89   | 30.87 | 30.86 |        |
| 15   | 30.87 | 30.78 | 31.94 | 32.43 | 31.57 | 31.54 | 31.49 | 31.12 | 30.97 | 30.89   | 30.87 | 30.86 |        |
| 16   | 30.88 | 31.08 | 32.17 | 31.54 | 31.43 | 31.48 | 31.49 | 31.11 | 30.97 | 30.89   | 30.87 | 30.86 |        |
| 17   | 30.86 | 31.26 | 32.49 | 31.54 | 31.41 | 31.47 | 31.46 | 31.10 | 30.96 | 30.89   | 30.87 | 30.86 |        |
| 18   | 30.85 | 31.26 | 31.52 | 31.59 | 31.34 | 32.03 | 31.38 | 31.11 | 30.96 | 30.89   | 30.87 | 30.86 |        |
| 19   | 30.87 | 31.28 | 31.50 | 31.61 | 31.37 | 32.21 | 31.31 | 31.12 | 30.96 | 30.89   | 30.87 | 30.86 |        |
| 20   | 30.88 | 31.24 | 31.35 | 31.61 | 31.40 | 31.54 | 31.30 | 31.13 | 30.95 | 30.89   | 30.87 | 30.86 |        |
| 21   | 30.88 | 31.34 | 31.56 | 31.64 | 31.32 | 31.55 | 31.27 | 31.11 | 30.95 | 30.88   | 30.87 | 30.86 |        |
| 22   | 30.88 | 31.68 | 31.96 | 31.69 | 31.52 | 31.54 | 31.25 | 31.10 | 30.95 | 30.88   | 30.87 | 30.85 |        |
| 23   | 30.87 | 31.64 | 32.31 | 31.94 | 31.57 | 31.57 | 31.23 | 31.10 | 30.94 | 30.88   | 30.87 | 30.85 |        |
| 24   | 30.87 | 31.40 | 31.63 | 31.86 | 31.44 | 31.50 | 31.20 | 31.13 | 30.94 | 30.88   | 30.87 | 30.85 |        |
| 25   | 30.96 | 31.65 | 31.32 | 31.70 | 31.33 | 31.55 | 31.20 | 31.12 | 30.94 | 30.88   | 30.87 | 30.85 |        |
| 26   | 30.95 | 31.71 | 31.25 | 31.59 | 31.41 | 31.52 | 31.19 | 31.11 | 30.93 | 30.88   | 30.87 | 30.85 |        |
| 27   | 30.88 | 31.40 | 31.14 | 31.53 | 31.37 | 31.49 | 31.18 | 31.11 | 30.93 | 30.88   | 30.87 | 30.85 |        |
| 28   | 30.88 | 31.26 | 31.22 | 31.43 | 31.42 | 31.51 | 31.17 | 31.08 | 30.93 | 30.88   | 30.87 | 30.85 |        |
| 29   | 30.88 | 31.24 | 31.24 | 31.49 | 31.35 | 31.69 | 31.15 | 31.05 | 30.93 | 30.88   |       | 30.85 |        |
| 30   | 30.90 | 31.19 | 31.24 | 32.15 | 31.38 | 31.38 | 31.15 | 31.02 | 30.92 | 30.88</ |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                     | Jun    | Jul    | Aug                  | Sep    | Oct      | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|--------|---------------------------------------------------------|--------|--------|----------------------|--------|----------|--------------------------|-------|-------|-------|-------|----------------|
| 1              | 0.53   | 1.05                                                    | 2.10   | 7.85   | 11.53                | 12.10  | 14.93    | 5.43                     | 3.50  | 2.10  | 1.40  | 1.23  |                |
| 2              | 0.70   | 1.40                                                    | 2.80   | 7.00   | 12.38                | 11.25  | 16.60    | 5.77                     | 3.50  | 1.93  | 1.40  | 1.23  |                |
| 3              | 0.88   | 0.88                                                    | 3.15   | 11.53  | 11.82                | 12.10  | 15.87    | 5.25                     | 3.50  | 1.93  | 1.40  | 1.23  |                |
| 4              | 0.53   | 0.53                                                    | 5.25   | 13.80  | 14.37                | 12.10  | 15.50    | 5.43                     | 3.50  | 1.93  | 1.40  | 1.23  |                |
| 5              | 0.70   | 1.05                                                    | 6.82   | 12.38  | 12.10                | 12.10  | 17.33    | 5.60                     | 3.50  | 1.93  | 1.40  | 1.23  |                |
| 6              | 0.88   | 1.23                                                    | 7.28   | 11.82  | 35.00                | 12.10  | 68.62    | 5.77                     | 3.50  | 1.93  | 1.40  | 1.23  |                |
| 7              | 1.23   | 1.05                                                    | 4.20   | 35.95  | 55.69                | 13.23  | 21.73    | 5.60                     | 3.32  | 1.75  | 1.40  | 1.23  |                |
| 8              | 1.23   | 1.23                                                    | 2.10   | 24.67  | 28.63                | 14.37  | 38.32    | 5.77                     | 3.32  | 1.75  | 1.40  | 1.23  |                |
| 9              | 1.23   | 1.23                                                    | 0.70   | 16.23  | 11.53                | 16.60  | 16.23    | 5.43                     | 3.32  | 1.75  | 1.40  | 1.23  |                |
| 10             | 1.05   | 1.23                                                    | 0.00   | 25.77  | 13.23                | 8.42   | 13.23    | 5.07                     | 3.32  | 1.57  | 1.40  | 1.23  |                |
| 11             | 1.57   | 1.23                                                    | 6.30   | 19.53  | 14.08                | 12.38  | 13.80    | 5.07                     | 3.15  | 1.57  | 1.23  | 1.05  |                |
| 12             | 1.40   | 1.40                                                    | 22.83  | 16.60  | 21.37                | 39.27  | 11.82    | 5.60                     | 3.15  | 1.57  | 1.23  | 1.05  |                |
| 13             | 0.70   | 1.40                                                    | 51.62  | 18.80  | 21.73                | 60.75  | 10.40    | 5.43                     | 3.15  | 1.57  | 1.23  | 1.05  |                |
| 14             | 1.05   | 0.88                                                    | 69.19  | 53.52  | 23.57                | 77.12  | 11.82    | 5.60                     | 2.97  | 1.57  | 1.23  | 1.05  |                |
| 15             | 1.23   | 0.00                                                    | 32.45  | 55.69  | 18.07                | 16.97  | 15.22    | 5.60                     | 2.97  | 1.57  | 1.23  | 1.05  |                |
| 16             | 1.40   | 4.90                                                    | 43.07  | 16.97  | 13.52                | 14.93  | 15.22    | 5.43                     | 2.97  | 1.57  | 1.23  | 1.05  |                |
| 17             | 1.05   | 8.70                                                    | 59.06  | 16.97  | 12.95                | 14.65  | 14.37    | 5.25                     | 2.80  | 1.57  | 1.23  | 1.05  |                |
| 18             | 0.88   | 8.70                                                    | 16.23  | 18.80  | 10.97                | 36.42  | 12.10    | 5.43                     | 2.80  | 1.57  | 1.23  | 1.05  |                |
| 19             | 1.23   | 9.27                                                    | 15.50  | 19.53  | 11.82                | 44.97  | 10.12    | 5.60                     | 2.80  | 1.57  | 1.23  | 1.05  |                |
| 20             | 1.40   | 8.13                                                    | 11.25  | 19.53  | 12.67                | 16.97  | 9.83     | 5.77                     | 2.63  | 1.57  | 1.23  | 1.05  |                |
| 21             | 1.40   | 10.97                                                   | 17.70  | 20.63  | 10.40                | 17.33  | 8.98     | 5.43                     | 2.63  | 1.40  | 1.23  | 1.05  |                |
| 22             | 1.40   | 22.10                                                   | 33.30  | 22.47  | 16.23                | 16.97  | 8.42     | 5.25                     | 2.63  | 1.40  | 1.23  | 0.88  |                |
| 23             | 1.23   | 20.63                                                   | 49.73  | 32.45  | 18.07                | 18.07  | 7.85     | 5.25                     | 2.45  | 1.40  | 1.23  | 0.88  |                |
| 24             | 1.23   | 12.67                                                   | 20.27  | 29.05  | 13.80                | 15.50  | 7.00     | 5.77                     | 2.45  | 1.40  | 1.23  | 0.88  |                |
| 25             | 2.80   | 21.00                                                   | 10.40  | 22.83  | 10.68                | 17.33  | 7.00     | 5.60                     | 2.45  | 1.40  | 1.23  | 0.88  |                |
| 26             | 2.63   | 23.20                                                   | 8.42   | 18.80  | 12.95                | 16.23  | 6.82     | 5.43                     | 2.28  | 1.40  | 1.23  | 0.88  |                |
| 27             | 1.40   | 12.67                                                   | 5.95   | 16.60  | 11.82                | 15.22  | 6.65     | 5.43                     | 2.28  | 1.40  | 1.23  | 0.88  |                |
| 28             | 1.40   | 8.70                                                    | 7.57   | 13.52  | 13.23                | 15.87  | 6.47     | 4.90                     | 2.28  | 1.40  | 1.23  | 0.88  |                |
| 29             | 1.40   | 8.13                                                    | 8.13   | 15.22  | 11.25                | 22.47  | 6.12     | 4.37                     | 2.28  | 1.40  |       | 0.88  |                |
| 30             | 1.75   | 6.82                                                    | 8.13   | 42.13  | 12.10                | 12.10  | 6.12     | 3.85                     | 2.10  | 1.40  |       | 0.88  |                |
| 31             |        | 2.97                                                    |        | 15.87  | 12.38                |        | 5.60     |                          | 2.10  | 1.40  |       | 0.88  |                |
| Total          | 37.51  | 205.35                                                  | 531.50 | 672.51 | 509.94               | 625.89 | 440.09   | 161.18                   | 89.60 | 49.67 | 36.14 | 32.65 | 3392.03 CMSDAY |
| Mean           | 1.25   | 6.62                                                    | 17.72  | 21.69  | 16.45                | 20.86  | 14.20    | 5.37                     | 2.89  | 1.60  | 1.29  | 1.05  | 9.29 CMS       |
| Max            | 2.80   | 23.20                                                   | 69.19  | 55.69  | 55.69                | 77.12  | 68.62    | 5.77                     | 3.50  | 2.10  | 1.40  | 1.23  | 77.12 CMS      |
| Min            | 0.53   | 0.00                                                    | 0.00   | 7.00   | 10.40                | 8.42   | 5.60     | 3.85                     | 2.10  | 1.40  | 1.23  | 0.88  | 0.00 CMS       |
| Runoff         | 3.24   | 17.74                                                   | 45.92  | 58.11  | 44.06                | 54.08  | 38.02    | 13.93                    | 7.74  | 4.29  | 3.12  | 2.82  | 293.07 MCM     |
| Momentary Peak | 166.00 | CMS, at 34.10 m. (MSL.), at 18.00 Hours, on Oct 6, 2013 |        |        |                      |        |          |                          |       |       |       |       |                |
| Runoff Yield   | 160.23 | Liters/Second/Square KM.                                |        |        | Momentary Peak Yield |        | 2862.069 | Liters/Second/Square KM. |       |       |       |       |                |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

**Khlong Sano at Ban Nonthee , Trat (Z.46)**

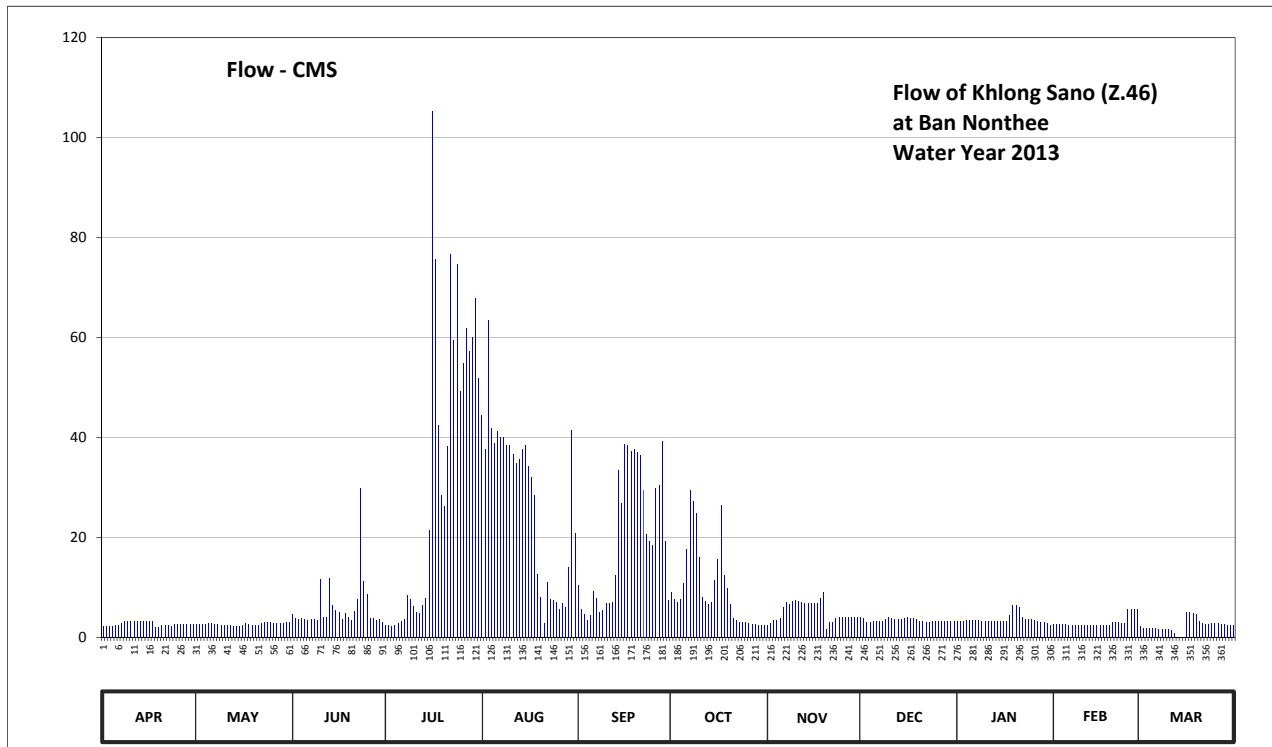
Lat 12 - 31 - 05 N    Long 102 - 35 - 00 E

**Location : on right bank at Ban Nonthee**

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Nonthee   | <b>Amphoe</b> | Bo Rai | <b>Changwat</b>  | Trat              |
| <b>Drainage Area</b>                    | 92                                                                                        | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +20.128                                                                                   | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M. -H.D.                                                                                |           |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank about 50 meters from the top staff gage.                                    |           |               |        | <b>Elevation</b> | +27.928 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2000 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2000 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 13 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                         | Jul   | Aug   | Sep           | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------|-------|-------|---------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 20.03 | 20.07 | 20.24                                       | 20.06 | 22.17 | 20.64         | 20.54 | 20.06             | 20.20 | 20.13 | 20.07 | 20.02 |        |
| 2                                | 20.03 | 20.07 | 20.18                                       | 20.04 | 21.91 | 20.32         | 20.44 | 20.09             | 20.18 | 20.13 | 20.07 | 19.99 |        |
| 3                                | 20.03 | 20.07 | 20.17                                       | 20.02 | 22.81 | 20.24         | 20.41 | 20.15             | 20.11 | 20.13 | 20.07 | 19.99 |        |
| 4                                | 20.03 | 20.07 | 20.18                                       | 20.04 | 22.08 | 20.15         | 20.44 | 20.15             | 20.11 | 20.15 | 20.07 | 19.99 |        |
| 5                                | 20.04 | 20.09 | 20.16                                       | 20.08 | 21.96 | 20.23         | 20.66 | 20.19             | 20.13 | 20.15 | 20.07 | 19.99 |        |
| 6                                | 20.04 | 20.09 | 20.15                                       | 20.12 | 22.05 | 20.55         | 21.04 | 20.34             | 20.13 | 20.15 | 20.06 | 19.99 |        |
| 7                                | 20.08 | 20.07 | 20.16                                       | 20.16 | 22.00 | 20.46         | 21.57 | 20.41             | 20.14 | 20.15 | 20.06 | 19.98 |        |
| 8                                | 20.13 | 20.07 | 20.17                                       | 20.50 | 22.00 | 20.27         | 21.48 | 20.38             | 20.14 | 20.15 | 20.06 | 19.98 |        |
| 9                                | 20.13 | 20.05 | 20.15                                       | 20.45 | 21.94 | 20.30         | 21.38 | 20.42             | 20.17 | 20.14 | 20.06 | 19.97 |        |
| 10                               | 20.13 | 20.04 | 20.71                                       | 20.35 | 21.94 | 20.39         | 20.96 | 20.43             | 20.21 | 20.14 | 20.06 | 19.97 |        |
| 11                               | 20.13 | 20.04 | 20.20                                       | 20.27 | 21.87 | 20.39         | 20.47 | 20.42             | 20.19 | 20.14 | 20.05 | 19.95 |        |
| 12                               | 20.13 | 20.04 | 20.20                                       | 20.26 | 21.80 | 20.40         | 20.42 | 20.41             | 20.17 | 20.13 | 20.05 | 19.88 |        |
| 13                               | 20.13 | 20.03 | 20.72                                       | 20.37 | 21.83 | 20.77         | 20.38 | 20.39             | 20.17 | 20.13 | 20.05 | 19.68 |        |
| 14                               | 20.13 | 20.03 | 20.37                                       | 20.46 | 21.91 | 21.74         | 20.40 | 20.39             | 20.17 | 20.13 | 20.05 | 19.63 |        |
| 15                               | 20.13 | 20.03 | 20.30                                       | 21.22 | 21.94 | 21.46         | 20.70 | 20.39             | 20.19 | 20.13 | 20.05 | 19.80 |        |
| 16                               | 20.13 | 20.06 | 20.27                                       | 24.48 | 21.77 | 21.95         | 20.93 | 20.39             | 20.21 | 20.13 | 20.05 | 20.27 |        |
| 17                               | 20.13 | 20.08 | 20.17                                       | 23.17 | 21.68 | 21.94         | 21.45 | 20.39             | 20.19 | 20.13 | 20.05 | 20.27 |        |
| 18                               | 20.01 | 20.07 | 20.26                                       | 22.10 | 21.53 | 21.89         | 20.76 | 20.46             | 20.19 | 20.23 | 20.05 | 20.26 |        |
| 19                               | 20.01 | 20.06 | 20.20                                       | 21.53 | 20.78 | 21.91         | 20.59 | 20.54             | 20.17 | 20.37 | 20.05 | 20.25 |        |
| 20                               | 20.04 | 20.04 | 20.15                                       | 21.44 | 20.48 | 21.88         | 20.38 | 19.97             | 20.13 | 20.37 | 20.10 | 20.14 |        |
| 21                               | 20.04 | 20.04 | 20.29                                       | 21.93 | 20.09 | 21.86         | 20.19 | 20.10             | 20.12 | 20.34 | 20.11 | 20.08 |        |
| 22                               | 20.04 | 20.09 | 20.44                                       | 23.20 | 20.67 | 21.57         | 20.15 | 20.11             | 20.11 | 20.21 | 20.10 | 20.07 |        |
| 23                               | 20.03 | 20.11 | 21.59                                       | 22.68 | 20.44 | 21.18         | 20.11 | 20.18             | 20.11 | 20.17 | 20.09 | 20.07 |        |
| 24                               | 20.07 | 20.11 | 20.69                                       | 23.14 | 20.43 | 21.12         | 20.11 | 20.21             | 20.12 | 20.17 | 20.09 | 20.08 |        |
| 25                               | 20.07 | 20.11 | 20.51                                       | 22.34 | 20.40 | 21.07         | 20.10 | 20.21             | 20.14 | 20.17 | 20.31 | 20.09 |        |
| 26                               | 20.07 | 20.09 | 20.18                                       | 22.53 | 20.32 | 21.59         | 20.08 | 20.20             | 20.14 | 20.15 | 20.31 | 20.09 |        |
| 27                               | 20.07 | 20.09 | 20.18                                       | 22.76 | 20.39 | 21.61         | 20.07 | 20.20             | 20.14 | 20.13 | 20.31 | 20.07 |        |
| 28                               | 20.07 | 20.09 | 20.15                                       | 22.61 | 20.34 | 21.97         | 20.07 | 20.20             | 20.14 | 20.11 | 20.31 | 20.07 |        |
| 29                               | 20.07 | 20.09 | 20.17                                       | 22.70 | 20.85 | 21.11         | 20.06 | 20.20             | 20.14 | 20.11 |       | 20.06 |        |
| 30                               | 20.07 | 20.10 | 20.11                                       | 22.94 | 22.06 | 20.43         | 20.05 | 20.20             | 20.14 | 20.08 |       | 20.05 |        |
| 31                               |       | 20.11 |                                             | 22.43 | 21.19 |               | 20.04 |                   | 20.14 | 20.05 |       | 20.05 |        |
| Mean                             | 20.07 | 20.07 | 20.31                                       | 21.50 | 21.41 | 21.05         | 20.53 | 20.27             | 20.15 | 20.16 | 20.10 | 20.03 |        |
| Max                              | 20.13 | 20.11 | 21.59                                       | 24.48 | 22.81 | 21.97         | 21.57 | 20.54             | 20.21 | 20.37 | 20.31 | 20.27 | 24.48  |
| Min                              | 20.01 | 20.03 | 20.11                                       | 20.02 | 20.09 | 20.15         | 20.04 | 19.97             | 20.11 | 20.05 | 20.05 | 19.63 | 19.63  |
| Annual Max Momentary Gage Height |       | 26.03 | m. (MSL.) , at 15.00 Hours, on Jul 16, 2013 |       |       |               |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 20.13 | m. (MSL.) ,                                 |       |       | River Bed     | 19.26 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              |       | 28.03 | m. (MSL.) ,                                 |       |       |               |       |                   |       |       |       |       |        |
| Right Bank Elevation             |       | 27.81 | m. (MSL.) ,                                 |       |       | Drainage Area | 92    | Square Kilometers |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

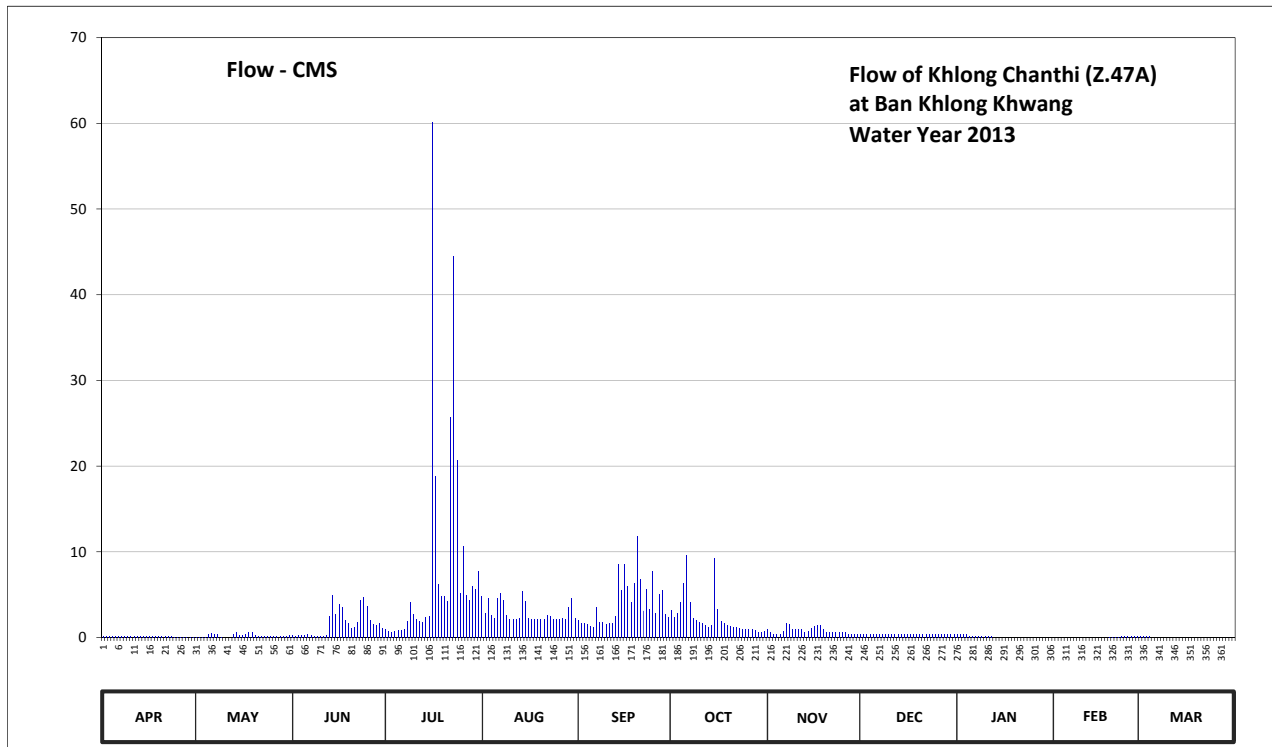
| Date           | Apr                                                             | May                      | Jun    | Jul     | Aug                  | Sep    | Oct    | Nov      | Dec                      | Jan    | Feb   | Mar   | Annual  |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|---------|----------------------|--------|--------|----------|--------------------------|--------|-------|-------|---------|--------|
| 1              | 2.30                                                            | 2.70                     | 4.60   | 2.60    | 44.46                | 10.60  | 9.10   | 2.60     | 4.00                     | 3.30   | 2.70  | 2.20  |         |        |
| 2              | 2.30                                                            | 2.70                     | 3.80   | 2.40    | 37.75                | 5.80   | 7.60   | 2.90     | 3.80                     | 3.30   | 2.70  | 1.90  |         |        |
| 3              | 2.30                                                            | 2.70                     | 3.70   | 2.20    | 63.44                | 4.60   | 7.15   | 3.50     | 3.10                     | 3.30   | 2.70  | 1.90  |         |        |
| 4              | 2.30                                                            | 2.70                     | 3.80   | 2.40    | 42.00                | 3.50   | 7.60   | 3.50     | 3.10                     | 3.50   | 2.70  | 1.90  |         |        |
| 5              | 2.40                                                            | 2.90                     | 3.60   | 2.80    | 39.00                | 4.45   | 10.90  | 3.90     | 3.30                     | 3.50   | 2.70  | 1.90  |         |        |
| 6              | 2.40                                                            | 2.90                     | 3.50   | 3.20    | 41.25                | 9.25   | 17.80  | 6.10     | 3.30                     | 3.50   | 2.60  | 1.90  |         |        |
| 7              | 2.80                                                            | 2.70                     | 3.60   | 3.60    | 40.00                | 7.90   | 29.48  | 7.15     | 3.40                     | 3.50   | 2.60  | 1.80  |         |        |
| 8              | 3.30                                                            | 2.70                     | 3.70   | 8.50    | 40.00                | 5.05   | 27.32  | 6.70     | 3.40                     | 3.50   | 2.60  | 1.80  |         |        |
| 9              | 3.30                                                            | 2.50                     | 3.50   | 7.75    | 38.50                | 5.50   | 24.92  | 7.30     | 3.70                     | 3.40   | 2.60  | 1.70  |         |        |
| 10             | 3.30                                                            | 2.40                     | 11.65  | 6.25    | 38.50                | 6.85   | 16.20  | 7.45     | 4.15                     | 3.40   | 2.60  | 1.70  |         |        |
| 11             | 3.30                                                            | 2.40                     | 4.00   | 5.05    | 36.75                | 6.85   | 8.05   | 7.30     | 3.90                     | 3.40   | 2.50  | 1.50  |         |        |
| 12             | 3.30                                                            | 2.40                     | 4.00   | 4.90    | 35.00                | 7.00   | 7.30   | 7.15     | 3.70                     | 3.30   | 2.50  | 0.80  |         |        |
| 13             | 3.30                                                            | 2.30                     | 11.80  | 6.55    | 35.75                | 12.55  | 6.70   | 6.85     | 3.70                     | 3.30   | 2.50  | 0.00  |         |        |
| 14             | 3.30                                                            | 2.30                     | 6.55   | 7.90    | 37.75                | 33.56  | 7.00   | 6.85     | 3.70                     | 3.30   | 2.50  | 0.00  |         |        |
| 15             | 3.30                                                            | 2.30                     | 5.50   | 21.40   | 38.50                | 26.84  | 11.50  | 6.85     | 3.90                     | 3.30   | 2.50  | 0.00  |         |        |
| 16             | 3.30                                                            | 2.60                     | 5.05   | 105.20  | 34.28                | 38.75  | 15.60  | 6.85     | 4.15                     | 3.30   | 2.50  | 5.05  |         |        |
| 17             | 3.30                                                            | 2.80                     | 3.70   | 75.68   | 32.12                | 38.50  | 26.60  | 6.85     | 3.90                     | 3.30   | 2.50  | 5.05  |         |        |
| 18             | 2.10                                                            | 2.70                     | 4.90   | 42.50   | 28.52                | 37.25  | 12.40  | 7.90     | 3.90                     | 4.45   | 2.50  | 4.90  |         |        |
| 19             | 2.10                                                            | 2.60                     | 4.00   | 28.52   | 12.70                | 37.75  | 9.85   | 9.10     | 3.70                     | 6.55   | 2.50  | 4.75  |         |        |
| 20             | 2.40                                                            | 2.40                     | 3.50   | 26.36   | 8.20                 | 37.00  | 6.70   | 1.70     | 3.30                     | 6.55   | 3.00  | 3.40  |         |        |
| 21             | 2.40                                                            | 2.40                     | 5.35   | 38.25   | 2.90                 | 36.50  | 3.90   | 3.00     | 3.20                     | 6.10   | 3.10  | 2.80  |         |        |
| 22             | 2.40                                                            | 2.90                     | 7.60   | 76.70   | 11.05                | 29.48  | 3.50   | 3.10     | 3.10                     | 4.15   | 3.00  | 2.70  |         |        |
| 23             | 2.30                                                            | 3.10                     | 29.96  | 59.38   | 7.60                 | 20.60  | 3.10   | 3.80     | 3.10                     | 3.70   | 2.90  | 2.70  |         |        |
| 24             | 2.70                                                            | 3.10                     | 11.35  | 74.66   | 7.45                 | 19.40  | 3.10   | 4.15     | 3.20                     | 3.70   | 2.90  | 2.80  |         |        |
| 25             | 2.70                                                            | 3.10                     | 8.65   | 49.22   | 7.00                 | 18.40  | 3.00   | 4.15     | 3.40                     | 3.70   | 5.65  | 2.90  |         |        |
| 26             | 2.70                                                            | 2.90                     | 3.80   | 54.80   | 5.80                 | 29.96  | 2.80   | 4.00     | 3.40                     | 3.50   | 5.65  | 2.90  |         |        |
| 27             | 2.70                                                            | 2.90                     | 3.80   | 61.86   | 6.85                 | 30.44  | 2.70   | 4.00     | 3.40                     | 3.30   | 5.65  | 2.70  |         |        |
| 28             | 2.70                                                            | 2.90                     | 3.50   | 57.21   | 6.10                 | 39.25  | 2.70   | 4.00     | 3.40                     | 3.10   | 5.65  | 2.70  |         |        |
| 29             | 2.70                                                            | 2.90                     | 3.70   | 60.00   | 14.00                | 19.20  | 2.60   | 4.00     | 3.40                     | 3.10   |       | 2.60  |         |        |
| 30             | 2.70                                                            | 3.00                     | 3.10   | 67.86   | 41.50                | 7.45   | 2.50   | 4.00     | 3.40                     | 2.80   |       | 2.50  |         |        |
| 31             |                                                                 | 3.10                     |        | 51.80   | 20.80                |        | 2.40   |          | 3.40                     | 2.50   |       | 2.50  |         |        |
| Total          | 82.40                                                           | 84.00                    | 179.26 | 1017.50 | 855.52               | 590.23 | 302.07 | 156.70   | 109.50                   | 114.60 | 86.50 | 73.95 | 3652.23 | CMSDAY |
| Mean           | 2.75                                                            | 2.71                     | 5.98   | 32.82   | 27.60                | 19.67  | 9.74   | 5.22     | 3.53                     | 3.70   | 3.09  | 2.39  | 10.01   | CMS    |
| Max            | 3.30                                                            | 3.10                     | 29.96  | 105.20  | 63.44                | 39.25  | 29.48  | 9.10     | 4.15                     | 6.55   | 5.65  | 5.05  | 105.20  | CMS    |
| Min            | 2.10                                                            | 2.30                     | 3.10   | 2.20    | 2.90                 | 3.50   | 2.40   | 1.70     | 3.10                     | 2.50   | 2.50  | 0.00  | 0.00    | CMS    |
| Runoff         | 7.12                                                            | 7.26                     | 15.49  | 87.91   | 73.92                | 51.00  | 26.10  | 13.54    | 9.46                     | 9.90   | 7.47  | 6.39  | 315.55  | MCM    |
| Momentary Peak | 139.41 CMS, at 26.03 m. (MSL.), at 15.00 Hours, on Jul 16, 2013 |                          |        |         |                      |        |        |          |                          |        |       |       |         |        |
| Runoff Yield   | 108.40                                                          | Liters/Second/Square KM. |        |         | Momentary Peak Yield |        |        | 1510.237 | Liters/Second/Square KM. |        |       |       |         |        |

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|                                         |                                                                                           |               |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khlong Khwang | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Trat              |
| <b>Drainage Area</b>                    | 27                                                                                        | sq.km.        |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |               |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +18.000                                                                                   | m. (MSL.)     |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank about 20 meters from the top staff gage.                                     |               |               |        | <b>Elevation</b> | +23.608 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |               |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |               |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |               |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |               |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |               |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |               |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |               |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 14 discharge measurements made in 2013. |               |               |        |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 18.55 | 18.51 | 18.56 | 18.70 | 19.27 | 18.91 | 19.12 | 18.70 | 18.60 | 18.60   | 18.50 | 18.55 |        |
| 2    | 18.55 | 18.51 | 18.55 | 18.67 | 19.06 | 18.85 | 18.98 | 18.65 | 18.60 | 18.60   | 18.50 | 18.55 |        |
| 3    | 18.55 | 18.51 | 18.57 | 18.65 | 19.25 | 18.85 | 19.08 | 18.60 | 18.60 | 18.60   | 18.50 | 18.53 |        |
| 4    | 18.55 | 18.52 | 18.57 | 18.67 | 19.03 | 18.83 | 19.20 | 18.60 | 18.60 | 18.60   | 18.50 | 18.53 |        |
| 5    | 18.55 | 18.60 | 18.58 | 18.69 | 18.97 | 18.78 | 19.41 | 18.60 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 6    | 18.55 | 18.62 | 18.60 | 18.69 | 19.25 | 18.75 | 19.71 | 18.66 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 7    | 18.55 | 18.60 | 18.58 | 18.70 | 19.30 | 19.15 | 19.20 | 18.84 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 8    | 18.55 | 18.59 | 18.55 | 18.88 | 19.23 | 18.87 | 18.97 | 18.82 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 9    | 18.54 | 18.51 | 18.55 | 19.20 | 19.02 | 18.86 | 18.92 | 18.71 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 10   | 18.54 | 18.50 | 18.55 | 19.04 | 18.94 | 18.83 | 18.87 | 18.70 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 11   | 18.54 | 18.50 | 18.55 | 18.93 | 18.93 | 18.85 | 18.85 | 18.70 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 12   | 18.54 | 18.50 | 18.58 | 18.89 | 18.93 | 18.85 | 18.80 | 18.70 | 18.60 | 18.55   | 18.50 | 18.50 |        |
| 13   | 18.54 | 18.60 | 19.00 | 18.87 | 18.95 | 19.01 | 18.76 | 18.65 | 18.60 | 18.50   | 18.50 | 18.50 |        |
| 14   | 18.54 | 18.65 | 19.28 | 18.98 | 19.32 | 19.62 | 18.81 | 18.66 | 18.60 | 18.50   | 18.50 | 18.50 |        |
| 15   | 18.54 | 18.56 | 19.05 | 19.01 | 19.22 | 19.33 | 19.68 | 18.73 | 18.60 | 18.50   | 18.50 | 18.50 |        |
| 16   | 18.53 | 18.58 | 19.18 | 21.70 | 18.97 | 19.62 | 19.13 | 18.78 | 18.60 | 18.50   | 18.50 | 18.50 |        |
| 17   | 18.53 | 18.59 | 19.15 | 20.21 | 18.93 | 19.38 | 18.90 | 18.80 | 18.60 | 18.50   | 18.50 | 18.50 |        |
| 18   | 18.53 | 18.65 | 18.91 | 19.40 | 18.93 | 19.20 | 18.84 | 18.79 | 18.60 | 18.50   | 18.50 | 18.50 |        |
| 19   | 18.53 | 18.65 | 18.85 | 19.27 | 18.93 | 19.41 | 18.80 | 18.70 | 18.60 | 18.50   | 18.51 | 18.50 |        |
| 20   | 18.53 | 18.56 | 18.74 | 19.27 | 18.93 | 19.84 | 18.77 | 18.65 | 18.60 | 18.50   | 18.51 | 18.50 |        |
| 21   | 18.53 | 18.55 | 18.75 | 19.21 | 18.94 | 19.45 | 18.75 | 18.65 | 18.60 | 18.50   | 18.52 | 18.50 |        |
| 22   | 18.53 | 18.54 | 18.86 | 20.54 | 19.03 | 19.11 | 18.75 | 18.65 | 18.60 | 18.50   | 18.52 | 18.50 |        |
| 23   | 18.53 | 18.54 | 19.23 | 21.21 | 19.01 | 19.34 | 18.74 | 18.65 | 18.60 | 18.50   | 18.53 | 18.50 |        |
| 24   | 18.52 | 18.54 | 19.26 | 20.30 | 18.93 | 19.13 | 18.70 | 18.65 | 18.60 | 18.50   | 18.53 | 18.50 |        |
| 25   | 18.52 | 18.54 | 19.16 | 19.30 | 18.93 | 19.54 | 18.70 | 18.65 | 18.60 | 18.50   | 18.54 | 18.50 |        |
| 26   | 18.52 | 18.55 | 18.91 | 19.77 | 18.93 | 19.07 | 18.70 | 18.65 | 18.60 | 18.50   | 18.54 | 18.50 |        |
| 27   | 18.52 | 18.54 | 18.83 | 19.28 | 18.95 | 19.29 | 18.70 | 18.60 | 18.60 | 18.50   | 18.55 | 18.50 |        |
| 28   | 18.52 | 18.54 | 18.80 | 19.23 | 18.93 | 19.33 | 18.69 | 18.60 | 18.60 | 18.50   | 18.55 | 18.50 |        |
| 29   | 18.52 | 18.54 | 18.84 | 19.38 | 19.15 | 19.05 | 18.65 | 18.60 | 18.60 | 18.50   |       | 18.50 |        |
| 30   | 18.52 | 18.55 | 18.73 | 19.35 | 19.25 | 18.99 | 18.65 | 18.60 | 18.60 | 18.50</ |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul    | Aug                  | Sep    | Oct      | Nov                      | Dec   | Jan  | Feb  | Mar  | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|-------|--------|----------------------|--------|----------|--------------------------|-------|------|------|------|---------------|
| 1              | 0.20                                                            | 0.04                     | 0.24  | 0.92   | 4.84                 | 2.01   | 3.22     | 0.92                     | 0.40  | 0.40 | 0.00 | 0.20 |               |
| 2              | 0.20                                                            | 0.04                     | 0.20  | 0.76   | 2.79                 | 1.70   | 2.38     | 0.66                     | 0.40  | 0.40 | 0.00 | 0.20 |               |
| 3              | 0.20                                                            | 0.04                     | 0.28  | 0.66   | 4.62                 | 1.70   | 2.90     | 0.40                     | 0.40  | 0.40 | 0.00 | 0.12 |               |
| 4              | 0.20                                                            | 0.08                     | 0.28  | 0.76   | 2.64                 | 1.60   | 4.08     | 0.40                     | 0.40  | 0.40 | 0.00 | 0.12 |               |
| 5              | 0.20                                                            | 0.40                     | 0.32  | 0.87   | 2.32                 | 1.34   | 6.36     | 0.40                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 6              | 0.20                                                            | 0.50                     | 0.40  | 0.87   | 4.62                 | 1.18   | 9.67     | 0.71                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 7              | 0.20                                                            | 0.40                     | 0.32  | 0.92   | 5.17                 | 3.54   | 4.08     | 1.65                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 8              | 0.20                                                            | 0.36                     | 0.20  | 1.86   | 4.41                 | 1.80   | 2.32     | 1.54                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 9              | 0.16                                                            | 0.04                     | 0.20  | 4.08   | 2.58                 | 1.75   | 2.06     | 0.97                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 10             | 0.16                                                            | 0.00                     | 0.20  | 2.69   | 2.17                 | 1.60   | 1.80     | 0.92                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 11             | 0.16                                                            | 0.00                     | 0.20  | 2.12   | 2.12                 | 1.70   | 1.70     | 0.92                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 12             | 0.16                                                            | 0.00                     | 0.32  | 1.91   | 2.12                 | 1.70   | 1.44     | 0.92                     | 0.40  | 0.20 | 0.00 | 0.00 |               |
| 13             | 0.16                                                            | 0.40                     | 2.48  | 1.80   | 2.22                 | 2.53   | 1.23     | 0.66                     | 0.40  | 0.00 | 0.00 | 0.00 |               |
| 14             | 0.16                                                            | 0.66                     | 4.95  | 2.38   | 5.38                 | 8.63   | 1.49     | 0.71                     | 0.40  | 0.00 | 0.00 | 0.00 |               |
| 15             | 0.16                                                            | 0.24                     | 2.74  | 2.53   | 4.30                 | 5.49   | 9.28     | 1.08                     | 0.40  | 0.00 | 0.00 | 0.00 |               |
| 16             | 0.12                                                            | 0.32                     | 3.87  | 60.17  | 2.32                 | 8.63   | 3.32     | 1.34                     | 0.40  | 0.00 | 0.00 | 0.00 |               |
| 17             | 0.12                                                            | 0.36                     | 3.54  | 18.87  | 2.12                 | 6.03   | 1.96     | 1.44                     | 0.40  | 0.00 | 0.00 | 0.00 |               |
| 18             | 0.12                                                            | 0.66                     | 2.01  | 6.25   | 2.12                 | 4.08   | 1.65     | 1.39                     | 0.40  | 0.00 | 0.00 | 0.00 |               |
| 19             | 0.12                                                            | 0.66                     | 1.70  | 4.84   | 2.12                 | 6.36   | 1.44     | 0.92                     | 0.40  | 0.00 | 0.04 | 0.00 |               |
| 20             | 0.12                                                            | 0.24                     | 1.13  | 4.84   | 2.12                 | 11.83  | 1.28     | 0.66                     | 0.40  | 0.00 | 0.04 | 0.00 |               |
| 21             | 0.12                                                            | 0.20                     | 1.18  | 4.19   | 2.17                 | 6.79   | 1.18     | 0.66                     | 0.40  | 0.00 | 0.08 | 0.00 |               |
| 22             | 0.12                                                            | 0.16                     | 1.75  | 25.75  | 2.64                 | 3.11   | 1.18     | 0.66                     | 0.40  | 0.00 | 0.08 | 0.00 |               |
| 23             | 0.12                                                            | 0.16                     | 4.41  | 44.52  | 2.53                 | 5.60   | 1.13     | 0.66                     | 0.40  | 0.00 | 0.12 | 0.00 |               |
| 24             | 0.08                                                            | 0.16                     | 4.73  | 20.75  | 2.12                 | 3.32   | 0.92     | 0.66                     | 0.40  | 0.00 | 0.12 | 0.00 |               |
| 25             | 0.08                                                            | 0.16                     | 3.65  | 5.17   | 2.12                 | 7.77   | 0.92     | 0.66                     | 0.40  | 0.00 | 0.16 | 0.00 |               |
| 26             | 0.08                                                            | 0.20                     | 2.01  | 10.67  | 2.12                 | 2.84   | 0.92     | 0.66                     | 0.40  | 0.00 | 0.16 | 0.00 |               |
| 27             | 0.08                                                            | 0.16                     | 1.60  | 4.95   | 2.22                 | 5.06   | 0.92     | 0.40                     | 0.40  | 0.00 | 0.20 | 0.00 |               |
| 28             | 0.08                                                            | 0.16                     | 1.44  | 4.41   | 2.12                 | 5.49   | 0.87     | 0.40                     | 0.40  | 0.00 | 0.20 | 0.00 |               |
| 29             | 0.08                                                            | 0.16                     | 1.65  | 6.03   | 3.54                 | 2.74   | 0.66     | 0.40                     | 0.40  | 0.00 |      | 0.00 |               |
| 30             | 0.08                                                            | 0.20                     | 1.08  | 5.71   | 4.62                 | 2.43   | 0.66     | 0.40                     | 0.40  | 0.00 |      | 0.00 |               |
| 31             |                                                                 | 0.24                     |       | 7.77   | 2.22                 |        | 0.76     |                          | 0.40  | 0.00 |      | 0.00 |               |
| Total          | 4.24                                                            | 7.40                     | 49.08 | 260.02 | 91.52                | 120.35 | 73.78    | 24.17                    | 12.40 | 3.20 | 1.20 | 0.64 | 648.00 CMSDAY |
| Mean           | 0.14                                                            | 0.24                     | 1.64  | 8.39   | 2.95                 | 4.01   | 2.38     | 0.81                     | 0.40  | 0.10 | 0.04 | 0.02 | 1.78 CMS      |
| Max            | 0.20                                                            | 0.66                     | 4.95  | 60.17  | 5.38                 | 11.83  | 9.67     | 1.65                     | 0.40  | 0.40 | 0.20 | 0.20 | 60.17 CMS     |
| Min            | 0.08                                                            | 0.00                     | 0.20  | 0.66   | 2.12                 | 1.18   | 0.66     | 0.40                     | 0.40  | 0.00 | 0.00 | 0.00 | 0.00 CMS      |
| Runoff         | 0.37                                                            | 0.64                     | 4.24  | 22.47  | 7.91                 | 10.40  | 6.38     | 2.09                     | 1.07  | 0.28 | 0.10 | 0.06 | 55.99 MCM     |
| Momentary Peak | 124.23 CMS, at 23.14 m. (MSL.), at 12.00 Hours, on Jul 16, 2013 |                          |       |        |                      |        |          |                          |       |      |      |      |               |
| Runoff Yield   | 65.75                                                           | Liters/Second/Square KM. |       |        | Momentary Peak Yield |        | 4601.111 | Liters/Second/Square KM. |       |      |      |      |               |

## WATER YEAR : 2013

## EAST COAST - GULF BASIN

### Khlong Pran Bun at Ban Khlong Yai Tai , Chanthaburi (Z.52)

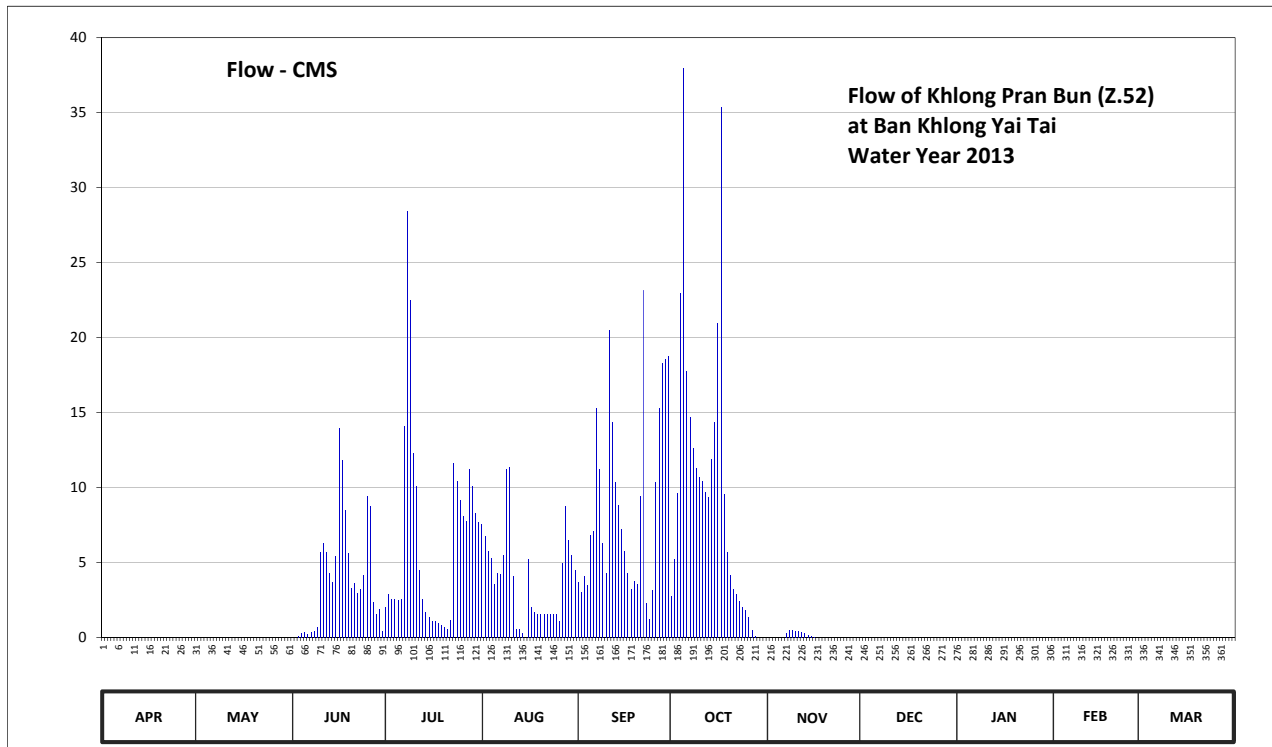
Lat 13 - 05 - 10 N      Long 101 - 56 - 25 E

**Location :** on left bank at Ban Khlong Yai Tai

|                                         |                                                                                           |                |               |                 |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khlong Yai Tai | <b>Amphoe</b> | Kaeng Hang Maeo | <b>Changwat</b>  | Chanthaburi       |
| <b>Drainage Area</b>                    | 60                                                                                        | sq.km.         |               |                 |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |                 |                  |                   |
| <b>Zero Gage at Bottom</b>              | +37.740                                                                                   | m. (MSL.)      |               |                 |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                |               |                 |                  |                   |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |                |               |                 | <b>Elevation</b> | +42.415 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                |               |                 |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                |               |                 |                  |                   |
| <b>Period of Available Gage Records</b> | 2001 to date                                                                              |                |               |                 |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                |               |                 |                  |                   |
| <b>Period of Rating</b>                 | 2001 to date                                                                              |                |               |                 |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |                 |                  |                   |
| <b>Rated by Current Meter</b>           | 2001 to date                                                                              |                |               |                 |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                |               |                 |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |                 |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 17 discharge measurements made in 2013. |                |               |                 |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 38.29 | 38.38 | 38.32                                          | 39.04 | 39.86 | 39.33 | 39.18 | 38.15 | 37.82 | 37.80 | 37.74 | 37.74 |        |
|                                  | 2  | 38.29 | 38.38 | 38.37                                          | 39.20 | 39.75 | 39.22 | 39.54 | 38.14 | 37.82 | 37.80 | 37.74 | 37.74 |        |
|                                  | 3  | 38.29 | 38.36 | 38.56                                          | 39.14 | 39.61 | 39.38 | 40.10 | 38.14 | 37.82 | 37.80 | 37.74 | 37.74 |        |
|                                  | 4  | 38.24 | 38.36 | 38.66                                          | 39.14 | 39.55 | 39.30 | 41.34 | 38.14 | 37.82 | 37.80 | 37.74 | 37.74 |        |
|                                  | 5  | 38.18 | 38.34 | 38.69                                          | 39.13 | 39.31 | 39.76 | 42.54 | 38.13 | 37.82 | 37.80 | 37.74 | 37.74 |        |
|                                  | 6  | 38.28 | 38.36 | 38.61                                          | 39.14 | 39.41 | 39.80 | 40.89 | 38.12 | 37.82 | 37.80 | 37.74 | 37.74 |        |
|                                  | 7  | 38.28 | 38.34 | 38.69                                          | 40.56 | 39.40 | 40.68 | 40.62 | 38.65 | 37.82 | 37.79 | 37.74 | 37.74 |        |
|                                  | 8  | 38.28 | 38.34 | 38.70                                          | 41.80 | 39.58 | 40.28 | 40.42 | 38.72 | 37.82 | 37.79 | 37.74 | 37.74 |        |
|                                  | 9  | 38.26 | 38.34 | 38.76                                          | 41.30 | 40.28 | 39.69 | 40.29 | 38.72 | 37.82 | 37.79 | 37.74 | 37.74 |        |
|                                  | 10 | 38.26 | 38.32 | 39.60                                          | 40.39 | 40.30 | 39.41 | 40.22 | 38.71 | 37.82 | 37.79 | 37.74 | 37.74 |        |
|                                  | 11 | 38.16 | 38.32 | 39.69                                          | 40.15 | 39.38 | 41.13 | 40.19 | 38.70 | 37.82 | 37.79 | 37.74 | 37.74 |        |
|                                  | 12 | 38.14 | 38.31 | 39.60                                          | 39.44 | 38.74 | 40.59 | 40.11 | 38.69 | 37.82 | 37.79 | 37.74 | 37.74 |        |
|                                  | 13 | 38.14 | 38.32 | 39.41                                          | 39.14 | 38.74 | 40.18 | 40.07 | 38.65 | 37.82 | 37.79 | 37.74 | 37.74 |        |
|                                  | 14 | 38.14 | 38.29 | 39.33                                          | 38.98 | 38.65 | 40.01 | 40.35 | 38.57 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 15 | 38.14 | 38.28 | 39.57                                          | 38.91 | 38.48 | 39.82 | 40.59 | 38.54 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 16 | 38.14 | 38.27 | 40.55                                          | 38.85 | 39.54 | 39.61 | 41.17 | 38.53 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 17 | 38.14 | 38.27 | 40.34                                          | 38.84 | 39.04 | 39.41 | 42.34 | 38.34 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 18 | 38.14 | 38.24 | 39.97                                          | 38.82 | 38.98 | 39.26 | 40.09 | 38.24 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 19 | 38.14 | 38.24 | 39.59                                          | 38.79 | 38.94 | 39.34 | 39.60 | 38.18 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 20 | 38.14 | 38.24 | 39.27                                          | 38.76 | 38.94 | 39.31 | 39.39 | 38.10 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 21 | 38.24 | 38.25 | 39.32                                          | 38.74 | 38.94 | 40.08 | 39.26 | 38.04 | 37.81 | 37.79 | 37.74 | 37.74 |        |
|                                  | 22 | 38.24 | 38.25 | 39.21                                          | 38.86 | 38.94 | 41.36 | 39.20 | 37.94 | 37.80 | 37.79 | 37.74 | 37.74 |        |
|                                  | 23 | 38.24 | 38.25 | 39.26                                          | 40.32 | 38.95 | 39.10 | 39.12 | 37.92 | 37.80 | 37.79 | 37.74 | 37.74 |        |
|                                  | 24 | 38.24 | 38.26 | 39.39                                          | 40.19 | 38.95 | 38.88 | 39.04 | 37.90 | 37.80 | 37.79 | 37.74 | 37.74 |        |
|                                  | 25 | 38.31 | 38.26 | 40.08                                          | 40.05 | 38.95 | 39.24 | 39.00 | 37.90 | 37.80 | 37.79 | 37.74 | 37.74 |        |
|                                  | 26 | 38.41 | 38.26 | 40.00                                          | 39.93 | 38.84 | 40.18 | 38.90 | 37.88 | 37.80 | 37.79 | 37.74 | 37.74 |        |
|                                  | 27 | 38.34 | 38.26 | 39.11                                          | 39.89 | 39.50 | 40.68 | 38.72 | 37.85 | 37.80 | 37.74 | 37.74 | 37.74 |        |
|                                  | 28 | 38.29 | 38.26 | 38.95                                          | 40.28 | 40.00 | 40.94 | 38.54 | 37.84 | 37.80 | 37.74 | 37.74 | 37.74 |        |
|                                  | 29 | 38.38 | 38.28 | 39.01                                          | 40.15 | 39.71 | 40.96 | 38.49 | 37.82 | 37.80 | 37.74 |       | 37.74 |        |
|                                  | 30 | 38.38 | 38.28 | 38.70                                          | 39.95 | 39.58 | 40.98 | 38.34 | 37.82 | 37.80 | 37.74 |       | 37.74 |        |
| 31                               |    | 38.29 |       | 39.88                                          | 39.44 |       |       | 38.23 |       | 37.80 | 37.74 |       | 37.74 |        |
| Mean                             |    | 38.24 | 38.30 | 39.24                                          | 39.61 | 39.30 | 39.93 | 39.87 | 38.24 | 37.81 | 37.78 | 37.74 | 37.74 |        |
| Max                              |    | 38.41 | 38.38 | 40.55                                          | 41.80 | 40.30 | 41.36 | 42.54 | 38.72 | 37.82 | 37.80 | 37.74 | 37.74 | 42.54  |
| Min                              |    | 38.14 | 38.24 | 38.32                                          | 38.74 | 38.48 | 38.88 | 38.23 | 37.82 | 37.80 | 37.74 | 37.74 | 37.74 | 37.74  |
| Annual Max Momentary Gage Height |    |       | 42.94 | m. (MSL.) , at 06.00 Hours, on Oct 5, 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 37.74 | m. (MSL.) , River Bed 38.59 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 43.12 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 43.15 | m. (MSL.) , Drainage Area 60 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                     | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov  | Dec  | Jan  | Feb  | Mar  | Annual         |
|----------------|-------|---------------------------------------------------------|--------|----------------------|--------|---------|--------------------------|------|------|------|------|------|----------------|
| 1              | 0.00  | 0.00                                                    | 0.00   | 2.02                 | 7.56   | 3.72    | 2.78                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 2              | 0.00  | 0.00                                                    | 0.00   | 2.90                 | 6.76   | 3.02    | 5.24                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 3              | 0.00  | 0.00                                                    | 0.12   | 2.54                 | 5.75   | 4.08    | 9.62                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 4              | 0.00  | 0.00                                                    | 0.32   | 2.54                 | 5.31   | 3.50    | 22.94                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 5              | 0.00  | 0.00                                                    | 0.38   | 2.48                 | 3.57   | 6.83    | 37.98                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 6              | 0.00  | 0.00                                                    | 0.22   | 2.54                 | 4.30   | 7.12    | 17.71                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 7              | 0.00  | 0.00                                                    | 0.38   | 14.07                | 4.23   | 15.29   | 14.68                    | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 8              | 0.00  | 0.00                                                    | 0.40   | 28.44                | 5.53   | 11.22   | 12.63                    | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 9              | 0.00  | 0.00                                                    | 0.68   | 22.47                | 11.22  | 6.33    | 11.31                    | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 10             | 0.00  | 0.00                                                    | 5.67   | 12.32                | 11.40  | 4.30    | 10.69                    | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 11             | 0.00  | 0.00                                                    | 6.33   | 10.07                | 4.08   | 20.50   | 10.42                    | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 12             | 0.00  | 0.00                                                    | 5.67   | 4.51                 | 0.59   | 14.37   | 9.71                     | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 13             | 0.00  | 0.00                                                    | 4.30   | 2.54                 | 0.59   | 10.34   | 9.36                     | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 14             | 0.00  | 0.00                                                    | 3.72   | 1.73                 | 0.30   | 8.83    | 11.91                    | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 15             | 0.00  | 0.00                                                    | 5.46   | 1.40                 | 0.00   | 7.27    | 14.37                    | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 16             | 0.00  | 0.00                                                    | 13.96  | 1.11                 | 5.24   | 5.75    | 20.96                    | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 17             | 0.00  | 0.00                                                    | 11.81  | 1.07                 | 2.02   | 4.30    | 35.35                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 18             | 0.00  | 0.00                                                    | 8.47   | 0.97                 | 1.73   | 3.26    | 9.54                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 19             | 0.00  | 0.00                                                    | 5.60   | 0.83                 | 1.54   | 3.79    | 5.67                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 20             | 0.00  | 0.00                                                    | 3.32   | 0.68                 | 1.54   | 3.57    | 4.15                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 21             | 0.00  | 0.00                                                    | 3.65   | 0.59                 | 1.54   | 9.45    | 3.26                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 22             | 0.00  | 0.00                                                    | 2.96   | 1.16                 | 1.54   | 23.17   | 2.90                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 23             | 0.00  | 0.00                                                    | 3.26   | 11.61                | 1.59   | 2.30    | 2.42                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 24             | 0.00  | 0.00                                                    | 4.15   | 10.42                | 1.59   | 1.26    | 2.02                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 25             | 0.00  | 0.00                                                    | 9.45   | 9.18                 | 1.59   | 3.14    | 1.83                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 26             | 0.00  | 0.00                                                    | 8.74   | 8.12                 | 1.07   | 10.34   | 1.35                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 27             | 0.00  | 0.00                                                    | 2.36   | 7.78                 | 4.95   | 15.29   | 0.50                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 28             | 0.00  | 0.00                                                    | 1.59   | 11.22                | 8.74   | 18.29   | 0.08                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |                |
| 29             | 0.00  | 0.00                                                    | 1.87   | 10.07                | 6.47   | 18.52   | 0.00                     | 0.00 | 0.00 | 0.00 |      | 0.00 |                |
| 30             | 0.00  | 0.00                                                    | 0.40   | 8.29                 | 5.53   | 18.75   | 0.00                     | 0.00 | 0.00 | 0.00 |      | 0.00 |                |
| 31             |       | 0.00                                                    |        | 7.70                 | 4.51   |         | 0.00                     |      | 0.00 | 0.00 |      | 0.00 |                |
| Total          | 0.00  | 0.00                                                    | 115.24 | 203.37               | 122.38 | 267.90  | 291.38                   | 3.11 | 0.00 | 0.00 | 0.00 | 0.00 | 1003.38 CMSDAY |
| Mean           | 0.00  | 0.00                                                    | 3.84   | 6.56                 | 3.95   | 8.93    | 9.40                     | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 2.75 CMS       |
| Max            | 0.00  | 0.00                                                    | 13.96  | 28.44                | 11.40  | 23.17   | 37.98                    | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 37.98 CMS      |
| Min            | 0.00  | 0.00                                                    | 0.00   | 0.59                 | 0.00   | 1.26    | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 CMS       |
| Runoff         | 0.00  | 0.00                                                    | 9.96   | 17.57                | 10.57  | 23.15   | 25.18                    | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 86.69 MCM      |
| Momentary Peak | 43.36 | CMS, at 42.94 m. (MSL.), at 06.00 Hours, on Oct 5, 2013 |        |                      |        |         |                          |      |      |      |      |      |                |
| Runoff Yield   | 45.82 | Liters/Second/Square KM.                                |        | Momentary Peak Yield |        | 722.667 | Liters/Second/Square KM. |      |      |      |      |      |                |

**WATER YEAR : 2013****EAST COAST - GULF BASIN****Chanthaburi River at Ban Thung Ta In , Chanthaburi (Z.53)**

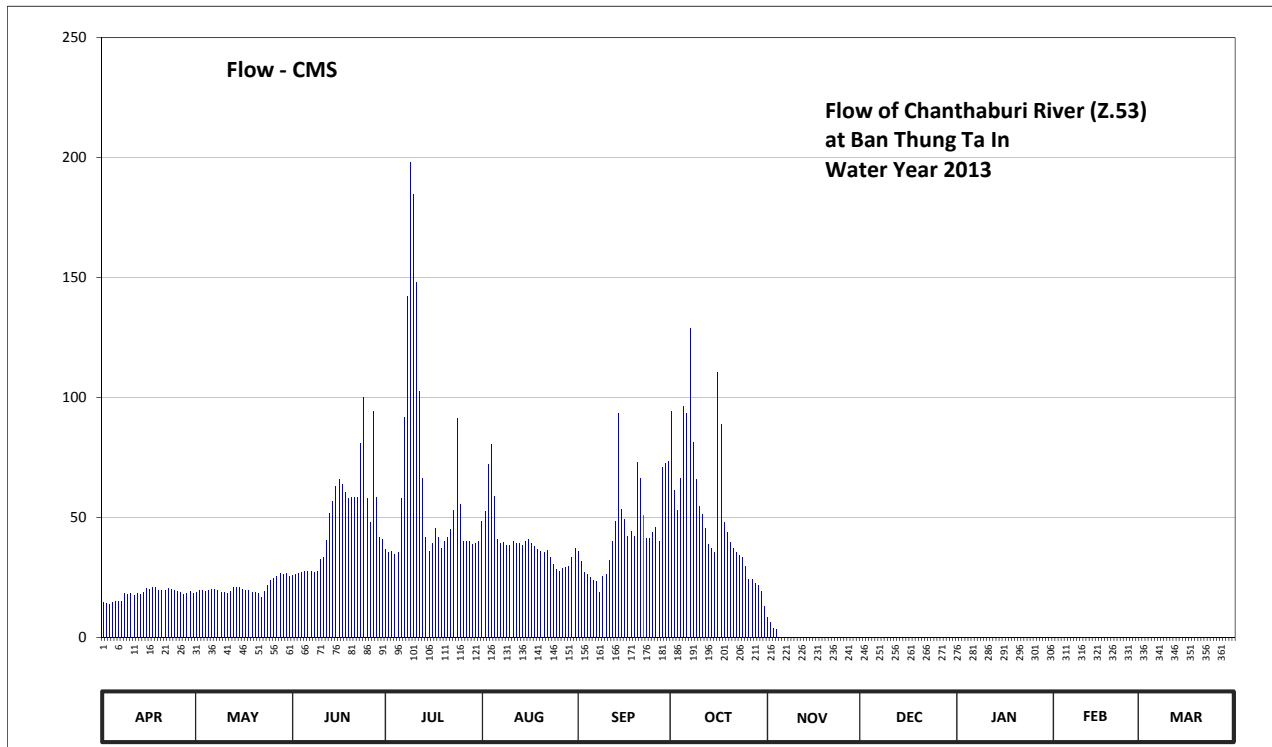
Lat 12 - 50 - 23 N Long 102 - 05 - 04 E

Location : on left bank at the bridge on highway.

|                                         |                                                                                           |                    |               |                       |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------------|---------------|-----------------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Thung Ta In</b> | <b>Amphoe</b> | <b>Khao Kitchakut</b> | <b>Changwat</b>  | <b>Chanthaburi</b> |
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.             |               |                       |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                    |               |                       |                  |                    |
| <b>Zero Gage at Bottom</b>              | +14.260                                                                                   | m. (MSL.)          |               |                       |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                    |               |                       |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |                    |               |                       | <b>Elevation</b> | +21.404 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                    |               |                       |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 3 readings                                                            |                    |               |                       |                  |                    |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |                    |               |                       |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                    |               |                       |                  |                    |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |                    |               |                       |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                    |               |                       |                  |                    |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |                    |               |                       |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                    |               |                       |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                    |               |                       |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 13 discharge measurements made in 2013. |                    |               |                       |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                            | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|--------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 15.49 | 15.63 | 15.86       | 16.22 | 16.60                          | 16.19 | 17.83             | 15.23 | 15.80 | 15.68 | 15.51 | 15.03 |        |
| 2                                | 15.48 | 15.65 | 15.87       | 16.17 | 16.73                          | 16.05 | 17.00             | 15.13 | 15.78 | 15.66 | 15.48 | 14.99 |        |
| 3                                | 15.47 | 15.66 | 15.89       | 16.19 | 17.28                          | 15.90 | 16.74             | 14.99 | 15.79 | 15.64 | 15.46 | 14.95 |        |
| 4                                | 15.49 | 15.64 | 15.90       | 16.14 | 17.49                          | 15.87 | 17.13             | 14.97 | 15.77 | 15.61 | 15.47 | 14.94 |        |
| 5                                | 15.51 | 15.65 | 15.91       | 16.17 | 16.93                          | 15.83 | 17.88             | 15.36 | 15.77 | 15.61 | 15.47 | 14.94 |        |
| 6                                | 15.51 | 15.67 | 15.91       | 16.91 | 16.35                          | 15.79 | 17.81             | 15.67 | 15.75 | 15.59 | 15.48 | 15.10 |        |
| 7                                | 15.51 | 15.67 | 15.91       | 17.77 | 16.30                          | 15.77 | 18.69             | 16.00 | 15.74 | 15.60 | 15.46 | 15.25 |        |
| 8                                | 15.62 | 15.65 | 15.90       | 19.00 | 16.31                          | 15.63 | 17.51             | 16.31 | 15.73 | 15.60 | 15.46 | 15.51 |        |
| 9                                | 15.60 | 15.63 | 15.91       | 20.25 | 16.27                          | 15.84 | 17.11             | 16.23 | 15.73 | 15.61 | 15.44 | 15.63 |        |
| 10                               | 15.61 | 15.63 | 16.08       | 19.96 | 16.27                          | 15.87 | 16.80             | 16.05 | 15.72 | 15.59 | 15.44 | 15.64 |        |
| 11                               | 15.59 | 15.61 | 16.11       | 19.13 | 16.33                          | 16.06 | 16.69             | 15.92 | 15.74 | 15.58 | 15.45 | 15.62 |        |
| 12                               | 15.62 | 15.64 | 16.34       | 18.03 | 16.29                          | 16.33 | 16.50             | 15.91 | 15.74 | 15.57 | 15.44 | 15.64 |        |
| 13                               | 15.60 | 15.69 | 16.70       | 17.12 | 16.29                          | 16.60 | 16.28             | 16.03 | 15.74 | 15.57 | 15.44 | 15.65 |        |
| 14                               | 15.63 | 15.70 | 16.87       | 16.38 | 16.27                          | 17.81 | 16.23             | 16.23 | 15.73 | 15.57 | 15.44 | 15.66 |        |
| 15                               | 15.68 | 15.69 | 17.04       | 16.19 | 16.33                          | 16.76 | 16.18             | 16.01 | 15.72 | 15.56 | 15.42 | 15.67 |        |
| 16                               | 15.67 | 15.67 | 17.11       | 16.30 | 16.35                          | 16.63 | 18.23             | 15.97 | 15.72 | 15.56 | 15.41 | 15.64 |        |
| 17                               | 15.70 | 15.65 | 17.06       | 16.50 | 16.29                          | 16.39 | 17.70             | 15.95 | 15.71 | 15.54 | 15.42 | 15.64 |        |
| 18                               | 15.70 | 15.66 | 16.97       | 16.38 | 16.26                          | 16.46 | 16.58             | 15.88 | 15.71 | 15.53 | 15.42 | 15.38 |        |
| 19                               | 15.66 | 15.63 | 16.91       | 16.23 | 16.21                          | 16.39 | 16.45             | 15.83 | 15.71 | 15.52 | 15.43 | 15.21 |        |
| 20                               | 15.66 | 15.63 | 16.92       | 16.32 | 16.19                          | 17.30 | 16.31             | 15.82 | 15.72 | 15.52 | 15.44 | 15.11 |        |
| 21                               | 15.66 | 15.61 | 16.92       | 16.38 | 16.18                          | 17.13 | 16.23             | 15.80 | 15.71 | 15.52 | 15.42 | 15.22 |        |
| 22                               | 15.68 | 15.56 | 16.92       | 16.48 | 16.20                          | 16.68 | 16.17             | 15.79 | 15.70 | 15.50 | 15.43 | 15.30 |        |
| 23                               | 15.67 | 15.64 | 17.50       | 16.75 | 16.10                          | 16.36 | 16.13             | 15.79 | 15.67 | 15.50 | 15.39 | 15.41 |        |
| 24                               | 15.65 | 15.72 | 17.97       | 17.76 | 16.01                          | 16.37 | 16.11             | 15.90 | 15.67 | 15.49 | 15.28 | 15.54 |        |
| 25                               | 15.64 | 15.79 | 16.91       | 16.83 | 15.94                          | 16.45 | 15.98             | 16.04 | 15.66 | 15.49 | 15.23 | 15.59 |        |
| 26                               | 15.63 | 15.82 | 16.58       | 16.33 | 15.91                          | 16.51 | 15.81             | 15.89 | 15.63 | 15.48 | 15.19 | 15.60 |        |
| 27                               | 15.60 | 15.85 | 17.83       | 16.33 | 15.95                          | 16.32 | 15.80             | 15.87 | 15.65 | 15.49 | 15.13 | 15.60 |        |
| 28                               | 15.61 | 15.88 | 16.92       | 16.33 | 15.97                          | 17.24 | 15.75             | 15.87 | 15.64 | 15.49 | 15.05 | 15.60 |        |
| 29                               | 15.64 | 15.87 | 16.38       | 16.28 | 15.98                          | 17.29 | 15.73             | 15.86 | 15.63 | 15.50 |       | 15.60 |        |
| 30                               | 15.61 | 15.89 | 16.35       | 16.30 | 16.10                          | 17.31 | 15.64             | 15.83 | 15.66 | 15.50 |       | 15.60 |        |
| 31                               |       | 15.84 |             | 16.33 | 16.23                          |       | 15.43             |       | 15.68 | 15.49 |       | 15.60 |        |
| Mean                             | 15.61 | 15.69 | 16.58       | 16.95 | 16.32                          | 16.44 | 16.66             | 15.80 | 15.71 | 15.55 | 15.40 | 15.41 |        |
| Max                              | 15.70 | 15.89 | 17.97       | 20.25 | 17.49                          | 17.81 | 18.69             | 16.31 | 15.80 | 15.68 | 15.51 | 15.67 | 20.25  |
| Min                              | 15.47 | 15.56 | 15.86       | 16.14 | 15.91                          | 15.63 | 15.43             | 14.97 | 15.63 | 15.48 | 15.05 | 14.94 | 14.94  |
| Annual Max Momentary Gage Height | 20.26 |       | m. (MSL.) , |       | at 12.00 Hours, on Jul 9, 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 14.26 |       | m. (MSL.) , |       | River Bed                      | 12.65 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 21.61 |       | m. (MSL.) , |       |                                |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 21.68 |       | m. (MSL.) , |       | Drainage Area                  |       | Square Kilometers |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                            | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov   | Dec                      | Jan  | Feb  | Mar  | Annual  |
|----------------|----------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|-------|--------------------------|------|------|------|---------|
| 1              | 14.75                                                          | 19.02                    | 26.05   | 37.04   | 48.64                | 36.12   | 94.32   | 8.60  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 2              | 14.44                                                          | 19.63                    | 26.35   | 35.51   | 52.61                | 31.85   | 61.64   | 6.60  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 3              | 14.14                                                          | 19.94                    | 26.96   | 36.12   | 72.39                | 27.27   | 52.91   | 3.80  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 4              | 14.75                                                          | 19.33                    | 27.27   | 34.59   | 80.63                | 26.35   | 66.63   | 3.40  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 5              | 15.36                                                          | 19.63                    | 27.57   | 35.51   | 58.95                | 25.13   | 96.34   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 6              | 15.36                                                          | 20.24                    | 27.57   | 58.18   | 41.01                | 23.91   | 93.52   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 7              | 15.36                                                          | 20.24                    | 27.57   | 91.91   | 39.48                | 23.30   | 128.97  | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 8              | 18.72                                                          | 19.63                    | 27.27   | 142.24  | 39.79                | 19.02   | 81.43   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 9              | 18.11                                                          | 19.02                    | 27.57   | 197.91  | 38.56                | 25.43   | 65.86   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 10             | 18.41                                                          | 19.02                    | 32.76   | 184.72  | 38.56                | 26.35   | 54.75   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 11             | 17.80                                                          | 18.41                    | 33.68   | 147.98  | 40.40                | 32.15   | 51.39   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 12             | 18.72                                                          | 19.33                    | 40.70   | 102.38  | 39.17                | 40.40   | 45.59   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 13             | 18.11                                                          | 20.85                    | 51.69   | 66.25   | 39.17                | 48.64   | 38.87   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 14             | 19.02                                                          | 21.16                    | 56.88   | 41.92   | 38.56                | 93.52   | 37.34   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 15             | 20.55                                                          | 20.85                    | 63.18   | 36.12   | 40.40                | 53.53   | 35.82   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 16             | 20.24                                                          | 20.24                    | 65.86   | 39.48   | 41.01                | 49.56   | 110.44  | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 17             | 21.16                                                          | 19.63                    | 63.94   | 45.59   | 39.17                | 42.23   | 89.09   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 18             | 21.16                                                          | 19.94                    | 60.49   | 41.92   | 38.26                | 44.37   | 48.03   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 19             | 19.94                                                          | 19.02                    | 58.18   | 37.34   | 36.73                | 42.23   | 44.06   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 20             | 19.94                                                          | 19.02                    | 58.57   | 40.09   | 36.12                | 73.16   | 39.79   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 21             | 19.94                                                          | 18.41                    | 58.57   | 41.92   | 35.82                | 66.63   | 37.34   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 22             | 20.55                                                          | 16.89                    | 58.57   | 44.98   | 36.43                | 51.08   | 35.51   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 23             | 20.24                                                          | 19.33                    | 81.03   | 53.22   | 33.37                | 41.31   | 34.29   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 24             | 19.63                                                          | 21.77                    | 99.96   | 91.50   | 30.63                | 41.62   | 33.68   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 25             | 19.33                                                          | 23.91                    | 58.18   | 55.66   | 28.49                | 44.06   | 29.71   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 26             | 19.02                                                          | 24.82                    | 48.03   | 40.40   | 27.57                | 45.89   | 24.52   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 27             | 18.11                                                          | 25.74                    | 94.32   | 40.40   | 28.79                | 40.09   | 24.21   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 28             | 18.41                                                          | 26.66                    | 58.57   | 40.40   | 29.40                | 70.86   | 22.69   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 |         |
| 29             | 19.33                                                          | 26.35                    | 41.92   | 38.87   | 29.71                | 72.78   | 22.08   | 0.00  | 0.00                     | 0.00 |      | 0.00 |         |
| 30             | 18.41                                                          | 26.96                    | 41.01   | 39.48   | 33.37                | 73.54   | 19.33   | 0.00  | 0.00                     | 0.00 |      | 0.00 |         |
| 31             |                                                                | 25.43                    |         | 40.40   | 37.34                |         | 12.92   |       | 0.00                     | 0.00 |      | 0.00 |         |
| Total          | 549.01                                                         | 650.42                   | 1470.27 | 1980.03 | 1250.53              | 1332.38 | 1633.07 | 22.40 | 0.00                     | 0.00 | 0.00 | 0.00 | 8888.11 |
| Mean           | 18.30                                                          | 20.98                    | 49.01   | 63.87   | 40.34                | 44.41   | 52.68   | 0.75  | 0.00                     | 0.00 | 0.00 | 0.00 | 24.35   |
| Max            | 21.16                                                          | 26.96                    | 99.96   | 197.91  | 80.63                | 93.52   | 128.97  | 8.60  | 0.00                     | 0.00 | 0.00 | 0.00 | 197.91  |
| Min            | 14.14                                                          | 16.89                    | 26.05   | 34.59   | 27.57                | 19.02   | 12.92   | 0.00  | 0.00                     | 0.00 | 0.00 | 0.00 | 0.00    |
| Runoff         | 47.43                                                          | 56.20                    | 127.03  | 171.08  | 108.05               | 115.12  | 141.10  | 1.94  | 0.00                     | 0.00 | 0.00 | 0.00 | 767.93  |
| Momentary Peak | 198.38 CMS, at 20.26 m. (MSL-), at 12.00 Hours, on Jul 9, 2013 |                          |         |         |                      |         |         |       |                          |      |      |      |         |
| Runoff Yield   | *****                                                          | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | ***** | Liters/Second/Square KM. |      |      |      |         |

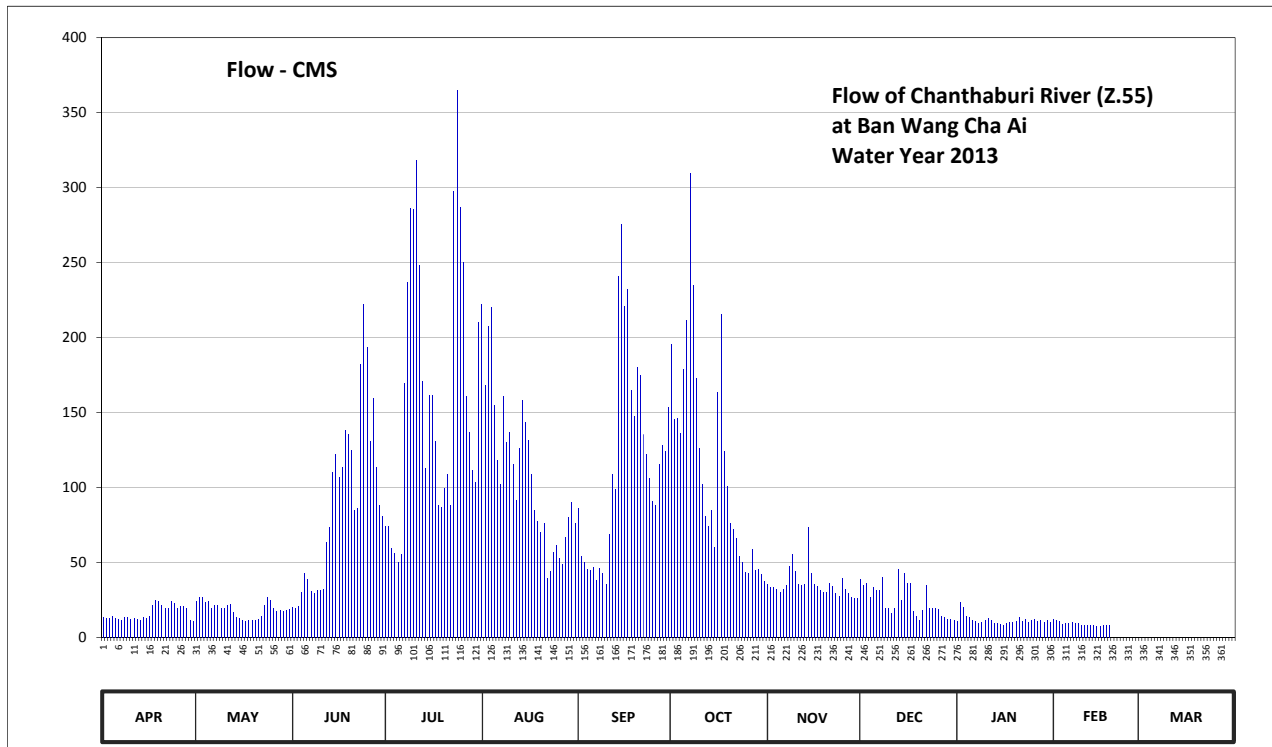
Lat 12 - 42 - 26 N      Long 102 - 10 - 53 E

**Location : on left bank at the bridge on highway.**

|                                         |            |                                                                                           |               |        |                  |                  |
|-----------------------------------------|------------|-------------------------------------------------------------------------------------------|---------------|--------|------------------|------------------|
|                                         | <b>Ban</b> | Bang Cha Ai                                                                               | <b>Amphoe</b> | Makham | <b>Changwat</b>  | Chanthaburi      |
| <b>Drainage Area</b>                    | -          | sq.km.                                                                                    |               |        |                  |                  |
| <b>Type of Gage</b>                     |            | Staff gage                                                                                |               |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +1.739     | m. (MSL.)                                                                                 |               |        |                  |                  |
| <b>Bench Mark</b>                       |            | B.M.-H.D.                                                                                 |               |        |                  |                  |
| <b>Location BM</b>                      |            | On left bank near the gage site.                                                          |               |        | <b>Elevation</b> | +8.680 m. (MSL.) |
| <b>Gage Reading Frequency</b>           |            | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |               |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  |            | Arithmetic mean of 5 readings                                                             |               |        |                  |                  |
| <b>Period of Available Gage Records</b> |            | 2008 to date                                                                              |               |        |                  |                  |
| <b>Rating Operation</b>                 |            |                                                                                           |               |        |                  |                  |
| <b>Period of Rating</b>                 |            | 2008 to date                                                                              |               |        |                  |                  |
| <b>Rated by Flot</b>                    |            | -                                                                                         |               |        |                  |                  |
| <b>Rated by Current Meter</b>           |            | 2008 to date                                                                              |               |        |                  |                  |
| <b>Stability of Channel Regimes</b>     |            | Fairly stable with variable water surface slope.                                          |               |        |                  |                  |
| <b>Overbank Flow Conditions</b>         |            | No overbank flow.                                                                         |               |        |                  |                  |
| <b>General Description</b>              |            | Records good. Stage-discharge relation defined by 15 discharge measurements made in 2013. |               |        |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                         | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|---------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 2.58  | 2.84 | 2.75                                        | 3.94 | 6.33 | 4.17 | 5.94 | 3.13 | 3.21 | 2.53 | 2.56 | 2.87 |        |
| 2                                | 2.57  | 2.92 | 2.74                                        | 3.93 | 5.54 | 3.54 | 5.19 | 3.07 | 3.11 | 2.83 | 2.54 | 2.87 |        |
| 3                                | 2.57  | 2.92 | 2.76                                        | 3.65 | 6.11 | 3.46 | 5.21 | 3.08 | 3.14 | 2.75 | 2.53 | 2.94 |        |
| 4                                | 2.60  | 2.83 | 2.99                                        | 3.59 | 6.30 | 3.36 | 5.03 | 3.05 | 2.91 | 2.60 | 2.47 | 2.92 |        |
| 5                                | 2.57  | 2.84 | 3.31                                        | 3.46 | 5.34 | 3.35 | 5.69 | 3.00 | 3.07 | 2.58 | 2.49 | 2.92 |        |
| 6                                | 2.55  | 2.74 | 3.21                                        | 3.57 | 4.73 | 3.40 | 6.17 | 3.04 | 3.03 | 2.54 | 2.49 | 2.88 |        |
| 7                                | 2.54  | 2.79 | 3.01                                        | 5.56 | 4.45 | 3.19 | 7.56 | 3.11 | 3.02 | 2.52 | 2.50 | 2.82 |        |
| 8                                | 2.59  | 2.79 | 2.97                                        | 6.54 | 5.43 | 3.38 | 6.51 | 3.41 | 3.24 | 2.48 | 2.48 | 2.97 |        |
| 9                                | 2.59  | 2.74 | 3.02                                        | 7.25 | 4.93 | 3.30 | 5.61 | 3.57 | 2.74 | 2.51 | 2.49 | 2.93 |        |
| 10                               | 2.56  | 2.74 | 3.03                                        | 7.24 | 5.04 | 3.13 | 4.86 | 3.34 | 2.74 | 2.54 | 2.46 | 2.99 |        |
| 11                               | 2.57  | 2.78 | 3.04                                        | 7.67 | 4.68 | 3.83 | 4.45 | 3.12 | 2.65 | 2.57 | 2.45 | 2.99 |        |
| 12                               | 2.55  | 2.80 | 3.72                                        | 6.71 | 4.26 | 4.56 | 4.07 | 3.10 | 2.74 | 2.54 | 2.46 | 2.90 |        |
| 13                               | 2.54  | 2.67 | 3.92                                        | 5.58 | 4.86 | 4.39 | 3.93 | 3.13 | 3.37 | 2.48 | 2.44 | 2.89 |        |
| 14                               | 2.58  | 2.59 | 4.59                                        | 4.63 | 5.39 | 6.60 | 4.14 | 3.92 | 2.86 | 2.48 | 2.44 | 2.88 |        |
| 15                               | 2.57  | 2.57 | 4.79                                        | 5.44 | 5.16 | 7.10 | 3.66 | 3.30 | 3.31 | 2.47 | 2.43 | 2.94 |        |
| 16                               | 2.60  | 2.54 | 4.53                                        | 5.44 | 4.95 | 6.31 | 5.47 | 3.13 | 3.14 | 2.46 | 2.42 | 2.93 |        |
| 17                               | 2.79  | 2.52 | 4.64                                        | 4.94 | 4.56 | 6.48 | 6.23 | 3.09 | 3.14 | 2.48 | 2.44 | 2.98 |        |
| 18                               | 2.86  | 2.54 | 5.07                                        | 4.21 | 4.14 | 5.49 | 4.83 | 3.02 | 2.69 | 2.50 | 2.45 | 2.95 |        |
| 19                               | 2.84  | 2.54 | 5.02                                        | 4.18 | 4.00 | 5.23 | 4.43 | 3.00 | 2.61 | 2.50 | 2.46 | 2.94 |        |
| 20                               | 2.79  | 2.54 | 4.84                                        | 4.41 | 3.86 | 5.71 | 3.98 | 2.99 | 2.54 | 2.52 | 2.50 | 2.91 |        |
| 21                               | 2.74  | 2.56 | 4.14                                        | 4.56 | 3.97 | 5.63 | 3.89 | 3.14 | 2.70 | 2.58 | 2.94 | 3.02 |        |
| 22                               | 2.74  | 2.60 | 4.17                                        | 4.21 | 3.22 | 5.02 | 3.78 | 3.09 | 3.11 | 2.53 | 2.94 | 3.04 |        |
| 23                               | 2.84  | 2.79 | 5.74                                        | 7.41 | 3.34 | 4.79 | 3.55 | 2.98 | 2.74 | 2.55 | 2.93 | 3.05 |        |
| 24                               | 2.81  | 2.92 | 6.33                                        | 8.27 | 3.60 | 4.52 | 3.47 | 2.93 | 2.74 | 2.51 | 2.86 | 3.06 |        |
| 25                               | 2.74  | 2.86 | 5.91                                        | 7.26 | 3.69 | 4.25 | 3.32 | 3.22 | 2.74 | 2.54 | 2.88 | 3.04 |        |
| 26                               | 2.76  | 2.74 | 4.94                                        | 6.74 | 3.52 | 4.21 | 3.30 | 3.04 | 2.72 | 2.55 | 2.88 | 3.03 |        |
| 27                               | 2.77  | 2.69 | 5.41                                        | 5.43 | 3.44 | 4.68 | 3.63 | 2.97 | 2.60 | 2.53 | 2.88 | 3.03 |        |
| 28                               | 2.73  | 2.70 | 4.65                                        | 5.05 | 3.79 | 4.90 | 3.35 | 2.92 | 2.59 | 2.54 | 2.88 | 3.00 |        |
| 29                               | 2.54  | 2.69 | 4.21                                        | 4.61 | 4.05 | 4.83 | 3.36 | 2.89 | 2.56 | 2.51 |      | 3.03 |        |
| 30                               | 2.53  | 2.70 | 4.07                                        | 4.47 | 4.24 | 5.32 | 3.29 | 2.89 | 2.56 | 2.54 |      | 3.01 |        |
| 31                               |       | 2.72 |                                             | 6.15 | 3.97 |      | 3.17 |      | 2.54 | 2.51 |      | 2.96 |        |
| Mean                             | 2.65  | 2.72 | 4.12                                        | 5.36 | 4.54 | 4.60 | 4.55 | 3.12 | 2.87 | 2.54 | 2.60 | 2.96 |        |
| Max                              | 2.86  | 2.92 | 6.33                                        | 8.27 | 6.33 | 7.10 | 7.56 | 3.92 | 3.37 | 2.83 | 2.94 | 3.06 | 8.27   |
| Min                              | 2.53  | 2.52 | 2.74                                        | 3.46 | 3.22 | 3.13 | 3.17 | 2.89 | 2.54 | 2.46 | 2.42 | 2.82 | 2.42   |
| Annual Max Momentary Gage Height | 8.44  |      | m. (MSL.) , at 12.00 Hours, on Jul 24, 2013 |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 1.74  |      | m. (MSL.) , River Bed -1.58 m. (MSL.)       |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 9.47  |      | m. (MSL.) ,                                 |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 10.21 |      | m. (MSL.) , Drainage Area Square Kilometers |      |      |      |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun     | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar  | Annual          |
|----------------|----------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|------|-----------------|
| 1              | 13.29                                                          | 23.98                    | 20.28   | 74.54                | 222.16  | 86.27   | 195.59  | 35.90                    | 39.19  | 11.23  | 12.47  | 0.00 |                 |
| 2              | 12.88                                                          | 27.27                    | 19.87   | 74.03                | 168.34  | 54.14   | 145.42  | 33.43                    | 35.08  | 23.57  | 11.64  | 0.00 |                 |
| 3              | 12.88                                                          | 27.27                    | 20.69   | 59.75                | 207.17  | 50.06   | 146.64  | 33.84                    | 36.31  | 20.28  | 11.23  | 0.00 |                 |
| 4              | 14.11                                                          | 23.57                    | 30.14   | 56.69                | 220.12  | 45.36   | 136.11  | 32.61                    | 26.86  | 14.11  | 9.00   | 0.00 |                 |
| 5              | 12.88                                                          | 23.98                    | 43.30   | 50.06                | 154.96  | 44.94   | 178.56  | 30.56                    | 33.43  | 13.29  | 9.67   | 0.00 |                 |
| 6              | 12.06                                                          | 19.87                    | 39.19   | 55.67                | 118.65  | 47.00   | 211.26  | 32.20                    | 31.79  | 11.64  | 9.67   | 0.00 |                 |
| 7              | 11.64                                                          | 21.92                    | 30.97   | 169.70               | 102.35  | 38.37   | 309.28  | 35.08                    | 31.38  | 10.82  | 10.00  | 0.00 |                 |
| 8              | 13.70                                                          | 21.92                    | 29.32   | 236.47               | 160.84  | 46.18   | 234.43  | 47.51                    | 40.42  | 9.33   | 9.33   | 0.00 |                 |
| 9              | 13.70                                                          | 19.87                    | 31.38   | 286.06               | 130.29  | 42.89   | 173.11  | 55.67                    | 19.87  | 10.41  | 9.67   | 0.00 |                 |
| 10             | 12.47                                                          | 19.87                    | 31.79   | 285.34               | 136.69  | 35.90   | 126.21  | 44.53                    | 19.87  | 11.64  | 8.67   | 0.00 |                 |
| 11             | 12.88                                                          | 21.51                    | 32.20   | 317.86               | 115.74  | 68.93   | 102.35  | 35.49                    | 16.17  | 12.88  | 8.33   | 0.00 |                 |
| 12             | 12.06                                                          | 22.33                    | 63.32   | 248.05               | 91.29   | 108.75  | 81.17   | 34.67                    | 19.87  | 11.64  | 8.67   | 0.00 |                 |
| 13             | 11.64                                                          | 16.99                    | 73.52   | 171.06               | 126.21  | 98.86   | 74.03   | 35.90                    | 45.77  | 9.33   | 8.00   | 0.00 |                 |
| 14             | 13.29                                                          | 13.70                    | 110.50  | 112.83               | 158.16  | 240.56  | 84.74   | 73.52                    | 24.80  | 9.33   | 8.00   | 0.00 |                 |
| 15             | 12.88                                                          | 12.88                    | 122.14  | 161.53               | 143.67  | 275.32  | 60.26   | 42.89                    | 43.30  | 9.00   | 7.67   | 0.00 |                 |
| 16             | 14.11                                                          | 11.64                    | 107.01  | 161.53               | 131.45  | 220.80  | 163.57  | 35.90                    | 36.31  | 8.67   | 7.33   | 0.00 |                 |
| 17             | 21.92                                                          | 10.82                    | 113.41  | 130.87               | 108.75  | 232.38  | 215.35  | 34.26                    | 36.31  | 9.33   | 8.00   | 0.00 |                 |
| 18             | 24.80                                                          | 11.64                    | 138.43  | 88.38                | 84.74   | 164.93  | 124.47  | 31.38                    | 17.81  | 10.00  | 8.33   | 0.00 |                 |
| 19             | 23.98                                                          | 11.64                    | 135.52  | 86.78                | 77.60   | 147.92  | 101.19  | 30.56                    | 14.52  | 10.00  | 8.67   | 0.00 |                 |
| 20             | 21.92                                                          | 11.64                    | 125.05  | 100.02               | 70.46   | 179.92  | 76.58   | 30.14                    | 11.64  | 10.82  | 0.00   | 0.00 |                 |
| 21             | 19.87                                                          | 12.47                    | 84.74   | 108.75               | 76.07   | 174.47  | 71.99   | 36.31                    | 18.22  | 13.29  | 0.00   | 0.00 |                 |
| 22             | 19.87                                                          | 14.11                    | 86.27   | 88.38                | 39.60   | 135.52  | 66.38   | 34.26                    | 35.08  | 11.23  | 0.00   | 0.00 |                 |
| 23             | 23.98                                                          | 21.92                    | 181.97  | 297.58               | 44.53   | 122.14  | 54.65   | 29.73                    | 19.87  | 12.06  | 0.00   | 0.00 |                 |
| 24             | 22.74                                                          | 27.27                    | 222.16  | 364.66               | 57.20   | 106.42  | 50.57   | 27.68                    | 19.87  | 10.41  | 0.00   | 0.00 |                 |
| 25             | 19.87                                                          | 24.80                    | 193.55  | 286.78               | 61.79   | 90.71   | 43.71   | 39.60                    | 19.87  | 11.64  | 0.00   | 0.00 |                 |
| 26             | 20.69                                                          | 19.87                    | 130.87  | 250.10               | 53.12   | 88.38   | 42.89   | 32.20                    | 19.04  | 12.06  | 0.00   | 0.00 |                 |
| 27             | 21.10                                                          | 17.81                    | 159.48  | 160.84               | 49.04   | 115.74  | 58.73   | 29.32                    | 14.11  | 11.23  | 0.00   | 0.00 |                 |
| 28             | 19.46                                                          | 18.22                    | 113.99  | 137.27               | 66.89   | 128.54  | 44.94   | 27.27                    | 13.70  | 11.64  | 0.00   | 0.00 |                 |
| 29             | 11.64                                                          | 17.81                    | 88.38   | 111.66               | 80.15   | 124.47  | 45.36   | 26.03                    | 12.47  | 10.41  |        | 0.00 |                 |
| 30             | 11.23                                                          | 18.22                    | 81.17   | 103.51               | 90.13   | 153.68  | 42.48   | 26.03                    | 12.47  | 11.64  |        | 0.00 |                 |
| 31             |                                                                | 19.04                    |         | 209.90               | 76.07   |         | 37.54   |                          | 11.64  | 10.41  |        | 0.00 |                 |
| Total          | 489.54                                                         | 585.85                   | 2660.61 | 5046.65              | 3424.23 | 3469.55 | 3499.56 | 1074.47                  | 777.04 | 363.34 | 174.35 | 0.00 | 21565.19 CMSDAY |
| Mean           | 16.32                                                          | 18.90                    | 88.69   | 162.80               | 110.46  | 115.65  | 112.89  | 35.82                    | 25.07  | 11.72  | 6.23   | 0.00 | 59.08 CMS       |
| Max            | 24.80                                                          | 27.27                    | 222.16  | 364.66               | 222.16  | 275.32  | 309.28  | 73.52                    | 45.77  | 23.57  | 12.47  | 0.00 | 364.66 CMS      |
| Min            | 11.23                                                          | 10.82                    | 19.87   | 50.06                | 39.60   | 35.90   | 37.54   | 26.03                    | 11.64  | 8.67   | 0.00   | 0.00 | 0.00 CMS        |
| Runoff         | 42.30                                                          | 50.62                    | 229.88  | 436.03               | 295.85  | 299.77  | 302.36  | 92.83                    | 67.14  | 31.39  | 15.06  | 0.00 | 1863.23 MCM     |
| Momentary Peak | 377.92 CMS, at 8.44 m. (MSL.), at 12.00 Hours, on Jul 24, 2013 |                          |         |                      |         |         |         |                          |        |        |        |      |                 |
| Runoff Yield   | *****                                                          | Liters/Second/Square KM. |         | Momentary Peak Yield |         |         | *****   | Liters/Second/Square KM. |        |        |        |      |                 |

**WATER YEAR : 2013****EAST COAST - GULF BASIN****Khlong Thung Plae at Ban Ta Bok Tia , Chanthaburi (Z.56)**

Lat 12 - 49 - 09 N Long 102 - 14 - 20 E

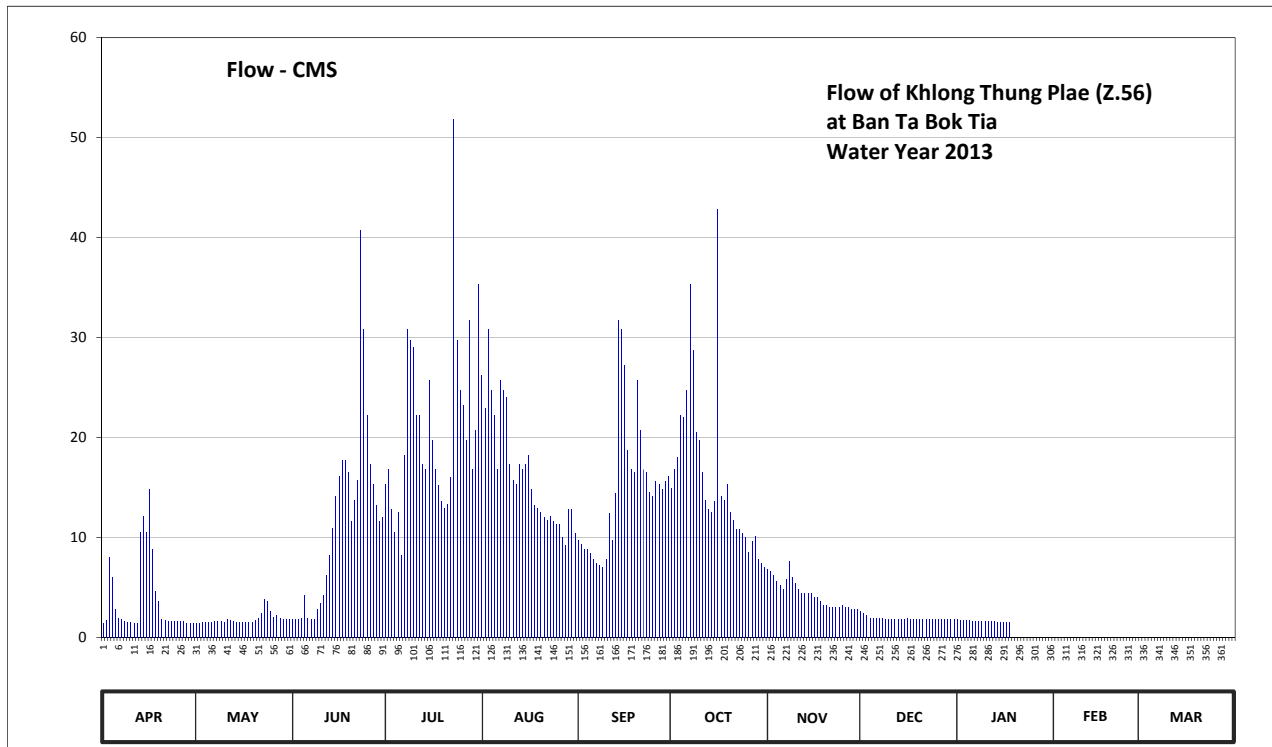
Location : on left bank at the bridge on highway.

|                                         |                                                                                           |                   |               |               |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------------|---------------|---------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Ta Bok Tia</b> | <b>Amphoe</b> | <b>Makham</b> | <b>Changwat</b>  | <b>Chanthaburi</b> |
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.            |               |               |                  |                    |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                   |               |               |                  |                    |
| <b>Zero Gage at Bottom</b>              | +24.743                                                                                   | m. (MSL.)         |               |               |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                   |               |               |                  |                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |                   |               |               | <b>Elevation</b> | +31.739 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 3-time daily readings at 06.00, 12.00 and 18.00 hours.                                    |                   |               |               |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 3 readings                                                             |                   |               |               |                  |                    |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |                   |               |               |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                   |               |               |                  |                    |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |                   |               |               |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                   |               |               |                  |                    |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |                   |               |               |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                   |               |               |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                   |               |               |                  |                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 16 discharge measurements made in 2013. |                   |               |               |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                         | Jul   | Aug           | Sep   | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------|-------|---------------|-------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 24.74 | 24.74 | 24.94                                       | 25.67 | 26.13         | 25.39 | 25.65 | 25.24             | 25.03 | 24.90 | 25.24 | 24.93 |        |
| 2                                | 24.87 | 24.74 | 24.94                                       | 25.74 | 26.00         | 25.37 | 25.74 | 25.23             | 25.02 | 24.89 | 25.16 | 24.90 |        |
| 3                                | 25.30 | 24.76 | 24.94                                       | 25.54 | 26.31         | 25.34 | 25.80 | 25.21             | 25.01 | 24.89 | 25.26 | 24.87 |        |
| 4                                | 25.20 | 24.76 | 24.97                                       | 25.43 | 26.07         | 25.34 | 25.97 | 25.18             | 24.98 | 24.87 | 25.25 | 24.87 |        |
| 5                                | 25.04 | 24.77 | 25.11                                       | 25.53 | 25.97         | 25.32 | 25.96 | 25.16             | 24.97 | 24.86 | 25.17 | 24.86 |        |
| 6                                | 24.98 | 24.75 | 24.97                                       | 25.31 | 25.74         | 25.29 | 26.07 | 25.14             | 24.96 | 24.85 | 25.03 | 24.84 |        |
| 7                                | 24.91 | 24.84 | 24.94                                       | 25.81 | 26.11         | 25.27 | 26.46 | 25.19             | 24.96 | 24.84 | 25.18 | 24.84 |        |
| 8                                | 24.85 | 24.85 | 24.94                                       | 26.31 | 26.07         | 25.26 | 26.23 | 25.28             | 24.95 | 24.84 | 25.23 | 24.82 |        |
| 9                                | 24.77 | 24.83 | 25.04                                       | 26.27 | 26.04         | 25.25 | 25.90 | 25.20             | 24.94 | 24.83 | 25.21 | 24.84 |        |
| 10                               | 24.75 | 24.79 | 25.07                                       | 26.24 | 25.77         | 25.29 | 25.87 | 25.17             | 24.94 | 24.83 | 25.21 | 24.85 |        |
| 11                               | 24.74 | 24.93 | 25.11                                       | 25.97 | 25.69         | 25.52 | 25.73 | 25.14             | 24.94 | 24.82 | 25.20 | 24.85 |        |
| 12                               | 24.74 | 24.89 | 25.21                                       | 25.97 | 25.67         | 25.39 | 25.59 | 25.12             | 24.94 | 24.82 | 25.21 | 24.86 |        |
| 13                               | 25.43 | 24.83 | 25.31                                       | 25.77 | 25.77         | 25.62 | 25.54 | 25.12             | 24.94 | 24.80 | 25.21 | 24.86 |        |
| 14                               | 25.51 | 24.78 | 25.45                                       | 25.74 | 25.74         | 26.34 | 25.53 | 25.12             | 24.93 | 24.78 | 25.22 | 24.85 |        |
| 15                               | 25.43 | 24.76 | 25.61                                       | 26.11 | 25.77         | 26.31 | 25.58 | 25.12             | 24.94 | 24.78 | 25.21 | 24.81 |        |
| 16                               | 25.64 | 24.75 | 25.71                                       | 25.87 | 25.81         | 26.17 | 26.71 | 25.10             | 24.96 | 24.78 | 25.20 | 24.83 |        |
| 17                               | 25.34 | 24.75 | 25.79                                       | 25.74 | 25.64         | 25.83 | 25.61 | 25.10             | 24.94 | 24.78 | 25.23 | 24.80 |        |
| 18                               | 25.13 | 24.76 | 25.79                                       | 25.66 | 25.56         | 25.74 | 25.59 | 25.08             | 24.94 | 24.77 | 25.23 | 24.79 |        |
| 19                               | 25.08 | 24.77 | 25.73                                       | 25.58 | 25.55         | 25.73 | 25.67 | 25.06             | 24.94 | 24.96 | 25.23 | 24.88 |        |
| 20                               | 24.93 | 24.89 | 25.48                                       | 25.55 | 25.53         | 26.11 | 25.53 | 25.06             | 24.93 | 25.34 | 25.24 | 25.11 |        |
| 21                               | 24.86 | 24.98 | 25.59                                       | 25.57 | 25.50         | 25.91 | 25.49 | 25.05             | 24.92 | 25.34 | 25.17 | 25.24 |        |
| 22                               | 24.84 | 25.02 | 25.69                                       | 25.70 | 25.49         | 25.74 | 25.44 | 25.05             | 24.92 | 25.31 | 25.04 | 25.28 |        |
| 23                               | 24.84 | 25.09 | 26.64                                       | 27.01 | 25.51         | 25.73 | 25.44 | 25.05             | 24.91 | 25.31 | 24.95 | 25.18 |        |
| 24                               | 24.84 | 25.08 | 26.31                                       | 26.27 | 25.48         | 25.63 | 25.42 | 25.05             | 24.91 | 25.32 | 24.94 | 24.98 |        |
| 25                               | 24.84 | 25.03 | 25.97                                       | 26.07 | 25.47         | 25.61 | 25.40 | 25.06             | 24.91 | 25.33 | 24.94 | 24.91 |        |
| 26                               | 24.84 | 25.00 | 25.77                                       | 26.01 | 25.47         | 25.68 | 25.33 | 25.05             | 24.91 | 25.32 | 24.93 | 24.88 |        |
| 27                               | 24.83 | 25.01 | 25.67                                       | 25.87 | 25.40         | 25.67 | 25.38 | 25.05             | 24.91 | 25.32 | 24.90 | 24.85 |        |
| 28                               | 24.74 | 24.96 | 25.56                                       | 26.34 | 25.36         | 25.64 | 25.41 | 25.04             | 24.90 | 25.29 | 24.86 | 24.84 |        |
| 29                               | 24.74 | 24.94 | 25.48                                       | 25.74 | 25.54         | 25.68 | 25.29 | 25.04             | 24.90 | 25.28 |       | 24.84 |        |
| 30                               | 24.74 | 24.94 | 25.50                                       | 25.91 | 25.54         | 25.71 | 25.27 | 25.04             | 24.90 | 25.28 |       | 24.84 |        |
| 31                               |       | 24.94 |                                             | 26.46 | 25.42         |       | 25.25 |                   | 24.90 | 25.24 |       | 24.84 |        |
| Mean                             | 24.98 | 24.87 | 25.44                                       | 25.90 | 25.71         | 25.63 | 25.67 | 25.12             | 24.94 | 25.02 | 25.14 | 24.90 |        |
| Max                              | 25.64 | 25.09 | 26.64                                       | 27.01 | 26.31         | 26.34 | 26.71 | 25.28             | 25.03 | 25.34 | 25.26 | 25.28 | 27.01  |
| Min                              | 24.74 | 24.74 | 24.94                                       | 25.31 | 25.36         | 25.25 | 25.25 | 25.04             | 24.90 | 24.77 | 24.86 | 24.79 | 24.74  |
| Annual Max Momentary Gage Height | 28.54 |       | m. (MSL.) , at 06.00 Hours, on Jul 23, 2013 |       |               |       |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 24.74 |       | m. (MSL.) ,                                 |       | River Bed     |       | 26.46 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 32.40 |       | m. (MSL.) ,                                 |       |               |       |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 32.39 |       | m. (MSL.) ,                                 |       | Drainage Area |       |       | Square Kilometers |       |       |       |       |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov    | Dec                      | Jan   | Feb  | Mar  | Annual  |
|----------------|-----------------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|--------|--------------------------|-------|------|------|---------|
| 1              | 1.48                                                            | 1.48                     | 1.88   | 15.40  | 26.25                | 9.80   | 15.00  | 6.80   | 2.60                     | 1.80  | 0.00 | 0.00 |         |
| 2              | 1.74                                                            | 1.48                     | 1.88   | 16.80  | 23.00                | 9.40   | 16.80  | 6.60   | 2.40                     | 1.78  | 0.00 | 0.00 |         |
| 3              | 8.00                                                            | 1.52                     | 1.88   | 12.80  | 30.80                | 8.80   | 18.00  | 6.20   | 2.20                     | 1.78  | 0.00 | 0.00 |         |
| 4              | 6.00                                                            | 1.52                     | 1.94   | 10.60  | 24.75                | 8.80   | 22.25  | 5.60   | 1.96                     | 1.74  | 0.00 | 0.00 |         |
| 5              | 2.80                                                            | 1.54                     | 4.20   | 12.60  | 22.25                | 8.40   | 22.00  | 5.20   | 1.94                     | 1.72  | 0.00 | 0.00 |         |
| 6              | 1.96                                                            | 1.50                     | 1.94   | 8.20   | 16.80                | 7.80   | 24.75  | 4.80   | 1.92                     | 1.70  | 0.00 | 0.00 |         |
| 7              | 1.82                                                            | 1.68                     | 1.88   | 18.25  | 25.75                | 7.40   | 35.30  | 5.80   | 1.92                     | 1.68  | 0.00 | 0.00 |         |
| 8              | 1.70                                                            | 1.70                     | 1.88   | 30.80  | 24.75                | 7.20   | 28.75  | 7.60   | 1.90                     | 1.68  | 0.00 | 0.00 |         |
| 9              | 1.54                                                            | 1.66                     | 2.80   | 29.75  | 24.00                | 7.00   | 20.50  | 6.00   | 1.88                     | 1.66  | 0.00 | 0.00 |         |
| 10             | 1.50                                                            | 1.58                     | 3.40   | 29.00  | 17.40                | 7.80   | 19.75  | 5.40   | 1.88                     | 1.66  | 0.00 | 0.00 |         |
| 11             | 1.48                                                            | 1.86                     | 4.20   | 22.25  | 15.80                | 12.40  | 16.60  | 4.80   | 1.88                     | 1.64  | 0.00 | 0.00 |         |
| 12             | 1.48                                                            | 1.78                     | 6.20   | 22.25  | 15.40                | 9.80   | 13.80  | 4.40   | 1.88                     | 1.64  | 0.00 | 0.00 |         |
| 13             | 10.60                                                           | 1.66                     | 8.20   | 17.40  | 17.40                | 14.40  | 12.80  | 4.40   | 1.88                     | 1.60  | 0.00 | 0.00 |         |
| 14             | 12.20                                                           | 1.56                     | 11.00  | 16.80  | 16.80                | 31.70  | 12.60  | 4.40   | 1.86                     | 1.56  | 0.00 | 0.00 |         |
| 15             | 10.60                                                           | 1.52                     | 14.20  | 25.75  | 17.40                | 30.80  | 13.60  | 4.40   | 1.88                     | 1.56  | 0.00 | 0.00 |         |
| 16             | 14.80                                                           | 1.50                     | 16.20  | 19.75  | 18.25                | 27.25  | 42.80  | 4.00   | 1.92                     | 1.56  | 0.00 | 0.00 |         |
| 17             | 8.80                                                            | 1.50                     | 17.80  | 16.80  | 14.80                | 18.75  | 14.20  | 4.00   | 1.88                     | 1.56  | 0.00 | 0.00 |         |
| 18             | 4.60                                                            | 1.52                     | 17.80  | 15.20  | 13.20                | 16.80  | 13.80  | 3.60   | 1.88                     | 1.54  | 0.00 | 0.00 |         |
| 19             | 3.60                                                            | 1.54                     | 16.60  | 13.60  | 13.00                | 16.60  | 15.40  | 3.20   | 1.88                     | 0.00  | 0.00 | 0.00 |         |
| 20             | 1.86                                                            | 1.78                     | 11.60  | 13.00  | 12.60                | 25.75  | 12.60  | 3.20   | 1.86                     | 0.00  | 0.00 | 0.00 |         |
| 21             | 1.72                                                            | 1.96                     | 13.80  | 13.40  | 12.00                | 20.75  | 11.80  | 3.00   | 1.84                     | 0.00  | 0.00 | 0.00 |         |
| 22             | 1.68                                                            | 2.40                     | 15.80  | 16.00  | 11.80                | 16.80  | 10.80  | 3.00   | 1.84                     | 0.00  | 0.00 | 0.00 |         |
| 23             | 1.68                                                            | 3.80                     | 40.70  | 51.85  | 12.20                | 16.60  | 10.80  | 3.00   | 1.82                     | 0.00  | 0.00 | 0.00 |         |
| 24             | 1.68                                                            | 3.60                     | 30.80  | 29.75  | 11.60                | 14.60  | 10.40  | 3.00   | 1.82                     | 0.00  | 0.00 | 0.00 |         |
| 25             | 1.68                                                            | 2.60                     | 22.25  | 24.75  | 11.40                | 14.20  | 10.00  | 3.20   | 1.82                     | 0.00  | 0.00 | 0.00 |         |
| 26             | 1.68                                                            | 2.00                     | 17.40  | 23.25  | 11.40                | 15.60  | 8.60   | 3.00   | 1.82                     | 0.00  | 0.00 | 0.00 |         |
| 27             | 1.66                                                            | 2.20                     | 15.40  | 19.75  | 10.00                | 15.40  | 9.60   | 3.00   | 1.82                     | 0.00  | 0.00 | 0.00 |         |
| 28             | 1.48                                                            | 1.92                     | 13.20  | 31.70  | 9.20                 | 14.80  | 10.20  | 2.80   | 1.80                     | 0.00  | 0.00 | 0.00 |         |
| 29             | 1.48                                                            | 1.88                     | 11.60  | 16.80  | 12.80                | 15.60  | 7.80   | 2.80   | 1.80                     | 0.00  |      | 0.00 |         |
| 30             | 1.48                                                            | 1.88                     | 12.00  | 20.75  | 12.80                | 16.20  | 7.40   | 2.80   | 1.80                     | 0.00  |      | 0.00 |         |
| 31             |                                                                 | 1.88                     |        | 35.30  | 10.40                |        | 7.00   |        | 1.80                     | 0.00  |      | 0.00 |         |
| Total          | 114.78                                                          | 58.00                    | 340.43 | 650.30 | 516.00               | 447.20 | 495.70 | 130.00 | 59.38                    | 29.86 | 0.00 | 0.00 | 2841.65 |
| Mean           | 3.83                                                            | 1.87                     | 11.35  | 20.98  | 16.65                | 14.91  | 15.99  | 4.33   | 1.92                     | 0.96  | 0.00 | 0.00 | 7.79    |
| Max            | 14.80                                                           | 3.80                     | 40.70  | 51.85  | 30.80                | 31.70  | 42.80  | 7.60   | 2.60                     | 1.80  | 0.00 | 0.00 | 51.85   |
| Min            | 1.48                                                            | 1.48                     | 1.88   | 8.20   | 9.20                 | 7.00   | 7.00   | 2.80   | 1.80                     | 0.00  | 0.00 | 0.00 | 0.00    |
| Runoff         | 9.92                                                            | 5.01                     | 29.41  | 56.19  | 44.58                | 38.64  | 42.83  | 11.23  | 5.13                     | 2.58  | 0.00 | 0.00 | 245.52  |
| Momentary Peak | 109.20 CMS, at 28.54 m. (MSL.), at 06.00 Hours, on Jul 23, 2013 |                          |        |        |                      |        |        |        |                          |       |      |      |         |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | *****  | Liters/Second/Square KM. |       |      |      |         |

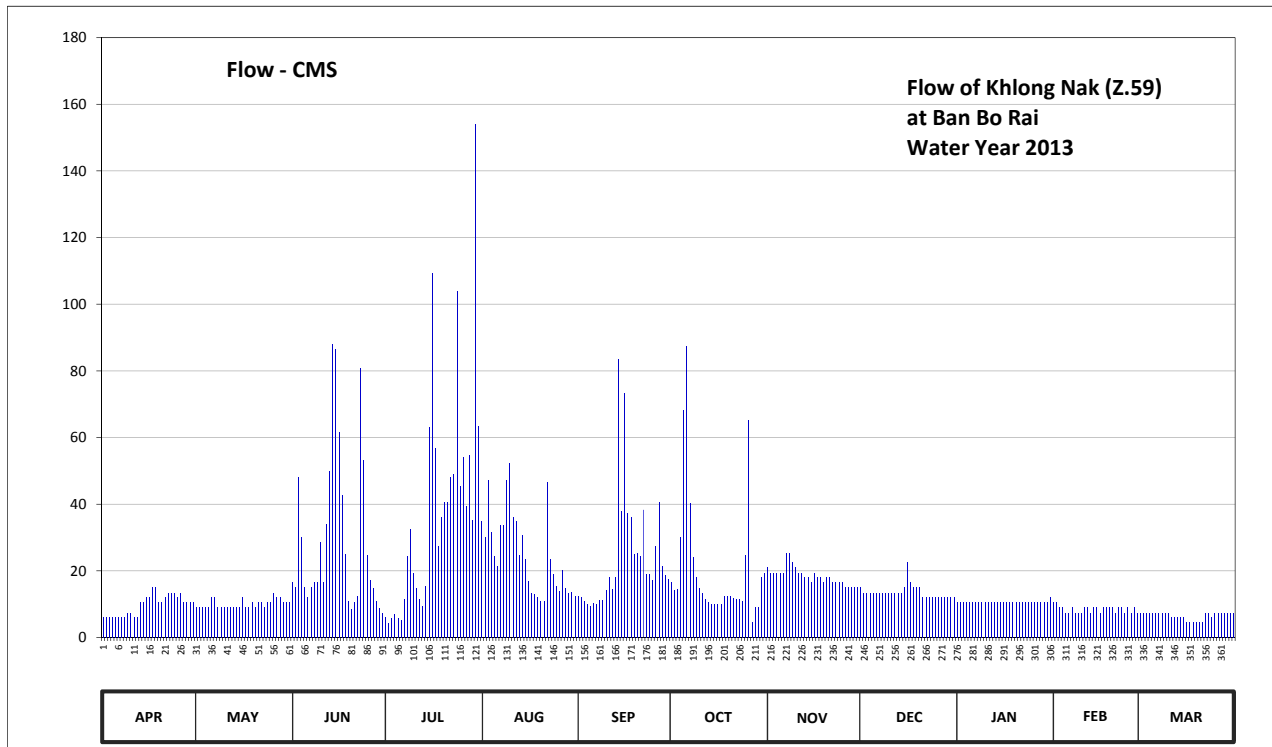
Lat 12 - 21 - 45 N    Long 102 - 32 - 38 E

**Location :** on left bank at the bridge on highway.

|                                         | Ban Bo Rai                                                                                | Amphoe Bo Rai | Changwat Trat                      |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|------------------------------------|
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.        |                                    |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |               |                                    |
| <b>Zero Gage at Bottom</b>              | +16.570                                                                                   | m. (MSL.)     |                                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |                                    |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |               | <b>Elevation</b> +25.570 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |               |                                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |               |                                    |
| <b>Period of Available Gage Records</b> | 2010 to date                                                                              |               |                                    |
| <b>Rating Operation</b>                 |                                                                                           |               |                                    |
| <b>Period of Rating</b>                 | 2010 to date                                                                              |               |                                    |
| <b>Rated by Flot</b>                    | -                                                                                         |               |                                    |
| <b>Rated by Current Meter</b>           | 2010 to date                                                                              |               |                                    |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |               |                                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |                                    |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 14 discharge measurements made in 2013. |               |                                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                         | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|---------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 21.84 | 21.86 | 21.91                                       | 19.89 | 20.92 | 20.19 | 20.38 | 21.94 | 21.90 | 21.87 | 21.87 | 21.85 |        |
| 2                                | 21.84 | 21.86 | 21.90                                       | 19.81 | 20.80 | 20.17 | 20.27 | 21.93 | 21.89 | 21.87 | 21.87 | 21.85 |        |
| 3                                | 21.84 | 21.86 | 22.09                                       | 19.88 | 21.22 | 20.12 | 20.28 | 21.93 | 21.89 | 21.87 | 21.86 | 21.85 |        |
| 4                                | 21.84 | 21.86 | 22.00                                       | 19.94 | 20.84 | 20.08 | 20.80 | 21.93 | 21.89 | 21.87 | 21.86 | 21.85 |        |
| 5                                | 21.84 | 21.86 | 21.90                                       | 19.88 | 20.63 | 20.05 | 21.68 | 21.93 | 21.89 | 21.87 | 21.85 | 21.85 |        |
| 6                                | 21.84 | 21.88 | 21.88                                       | 19.85 | 20.54 | 20.09 | 22.06 | 21.93 | 21.89 | 21.87 | 21.85 | 21.85 |        |
| 7                                | 21.84 | 21.88 | 21.90                                       | 20.14 | 20.89 | 20.07 | 21.05 | 21.97 | 21.89 | 21.87 | 21.86 | 21.85 |        |
| 8                                | 21.84 | 21.86 | 21.91                                       | 20.63 | 20.89 | 20.13 | 20.62 | 21.97 | 21.89 | 21.87 | 21.85 | 21.85 |        |
| 9                                | 21.85 | 21.86 | 21.91                                       | 20.86 | 21.22 | 20.13 | 20.43 | 21.95 | 21.89 | 21.87 | 21.85 | 21.85 |        |
| 10                               | 21.85 | 21.86 | 21.99                                       | 20.47 | 21.34 | 20.27 | 20.30 | 21.94 | 21.89 | 21.87 | 21.85 | 21.85 |        |
| 11                               | 21.84 | 21.86 | 21.91                                       | 20.30 | 20.95 | 20.44 | 20.23 | 21.93 | 21.89 | 21.87 | 21.86 | 21.84 |        |
| 12                               | 21.84 | 21.86 | 22.02                                       | 20.14 | 20.92 | 20.28 | 20.14 | 21.93 | 21.89 | 21.87 | 21.86 | 21.84 |        |
| 13                               | 21.87 | 21.86 | 22.10                                       | 20.04 | 20.64 | 20.43 | 20.10 | 21.92 | 21.89 | 21.87 | 21.85 | 21.84 |        |
| 14                               | 21.87 | 21.86 | 22.07                                       | 20.33 | 20.82 | 21.98 | 20.08 | 21.92 | 21.89 | 21.87 | 21.86 | 21.84 |        |
| 15                               | 21.88 | 21.86 | 22.04                                       | 21.58 | 20.60 | 20.99 | 20.08 | 21.91 | 21.90 | 21.87 | 21.86 | 21.84 |        |
| 16                               | 21.88 | 21.88 | 21.55                                       | 22.49 | 20.39 | 21.78 | 20.07 | 21.93 | 21.95 | 21.87 | 21.85 | 21.83 |        |
| 17                               | 21.90 | 21.86 | 21.11                                       | 21.45 | 20.23 | 20.98 | 20.08 | 21.92 | 21.91 | 21.87 | 21.86 | 21.83 |        |
| 18                               | 21.90 | 21.86 | 20.65                                       | 20.72 | 20.21 | 20.95 | 20.19 | 21.92 | 21.90 | 21.87 | 21.86 | 21.83 |        |
| 19                               | 21.87 | 21.87 | 20.11                                       | 20.95 | 20.17 | 20.65 | 20.19 | 21.91 | 21.90 | 21.87 | 21.86 | 21.83 |        |
| 20                               | 21.87 | 21.86 | 20.01                                       | 21.06 | 20.11 | 20.66 | 20.19 | 21.92 | 21.90 | 21.87 | 21.86 | 21.83 |        |
| 21                               | 21.88 | 21.87 | 20.10                                       | 21.06 | 20.12 | 20.63 | 20.16 | 21.92 | 21.88 | 21.87 | 21.85 | 21.83 |        |
| 22                               | 21.89 | 21.87 | 20.19                                       | 21.24 | 21.20 | 21.00 | 20.15 | 21.91 | 21.88 | 21.87 | 21.86 | 21.85 |        |
| 23                               | 21.89 | 21.86 | 21.93                                       | 21.26 | 20.60 | 20.46 | 20.14 | 21.91 | 21.88 | 21.87 | 21.86 | 21.85 |        |
| 24                               | 21.89 | 21.87 | 21.36                                       | 22.38 | 20.46 | 20.46 | 20.12 | 21.91 | 21.88 | 21.87 | 21.85 | 21.84 |        |
| 25                               | 21.88 | 21.87 | 20.64                                       | 21.17 | 20.33 | 20.41 | 20.64 | 21.91 | 21.88 | 21.87 | 21.86 | 21.85 |        |
| 26                               | 21.89 | 21.89 | 20.41                                       | 21.38 | 20.26 | 20.72 | 21.62 | 21.90 | 21.88 | 21.87 | 21.85 | 21.85 |        |
| 27                               | 21.87 | 21.88 | 20.30                                       | 21.03 | 20.50 | 21.06 | 21.83 | 21.90 | 21.88 | 21.87 | 21.86 | 21.85 |        |
| 28                               | 21.87 | 21.88 | 20.11                                       | 21.40 | 20.30 | 20.54 | 21.86 | 21.90 | 21.88 | 21.87 | 21.85 | 21.85 |        |
| 29                               | 21.87 | 21.87 | 20.02                                       | 20.93 | 20.23 | 20.45 | 21.86 | 21.90 | 21.88 | 21.87 |       | 21.85 |        |
| 30                               | 21.87 | 21.87 | 19.95                                       | 23.25 | 20.24 | 20.42 | 21.92 | 21.90 | 21.88 | 21.87 |       | 21.85 |        |
| 31                               |       | 21.87 |                                             | 21.59 | 20.19 |       | 21.93 |       | 21.88 | 21.88 |       | 21.85 |        |
| Mean                             | 21.86 | 21.87 | 21.27                                       | 20.87 | 20.61 | 20.55 | 20.69 | 21.92 | 21.89 | 21.87 | 21.86 | 21.84 |        |
| Max                              | 21.90 | 21.89 | 22.10                                       | 23.25 | 21.34 | 21.98 | 22.06 | 21.97 | 21.95 | 21.88 | 21.87 | 21.85 | 23.25  |
| Min                              | 21.84 | 21.86 | 19.95                                       | 19.81 | 20.11 | 20.05 | 20.07 | 21.90 | 21.88 | 21.87 | 21.85 | 21.83 | 19.81  |
| Annual Max Momentary Gage Height | 24.65 |       | m. (MSL.) , at 06.00 Hours, on Jul 30, 2013 |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 16.57 |       | m. (MSL.) , River Bed 16.64 m. (MSL.)       |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 25.26 |       | m. (MSL.) ,                                 |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 25.30 |       | m. (MSL.) , Drainage Area Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul     | Aug                  | Sep    | Oct    | Nov    | Dec                      | Jan    | Feb    | Mar    | Annual  |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|---------|----------------------|--------|--------|--------|--------------------------|--------|--------|--------|---------|--------|
| 1              | 6.00                                                            | 9.00                     | 16.50  | 6.07    | 34.97                | 12.50  | 16.57  | 21.00  | 15.00                    | 10.50  | 10.50  | 7.50   |         |        |
| 2              | 6.00                                                            | 9.00                     | 15.00  | 4.36    | 30.00                | 12.07  | 14.21  | 19.50  | 13.50                    | 10.50  | 10.50  | 7.50   |         |        |
| 3              | 6.00                                                            | 9.00                     | 48.00  | 5.86    | 47.40                | 11.00  | 14.43  | 19.50  | 13.50                    | 10.50  | 9.00   | 7.50   |         |        |
| 4              | 6.00                                                            | 9.00                     | 30.00  | 7.14    | 31.66                | 10.14  | 30.00  | 19.50  | 13.50                    | 10.50  | 9.00   | 7.50   |         |        |
| 5              | 6.00                                                            | 9.00                     | 15.00  | 5.86    | 24.47                | 9.50   | 68.15  | 19.50  | 13.50                    | 10.50  | 7.50   | 7.50   |         |        |
| 6              | 6.00                                                            | 12.00                    | 12.00  | 5.21    | 21.55                | 10.36  | 87.47  | 19.50  | 13.50                    | 10.50  | 7.50   | 7.50   |         |        |
| 7              | 6.00                                                            | 12.00                    | 15.00  | 11.43   | 33.73                | 9.93   | 40.36  | 25.50  | 13.50                    | 10.50  | 9.00   | 7.50   |         |        |
| 8              | 6.00                                                            | 9.00                     | 16.50  | 24.47   | 33.73                | 11.21  | 24.15  | 25.50  | 13.50                    | 10.50  | 7.50   | 7.50   |         |        |
| 9              | 7.50                                                            | 9.00                     | 16.50  | 32.49   | 47.40                | 11.21  | 17.98  | 22.50  | 13.50                    | 10.50  | 7.50   | 7.50   |         |        |
| 10             | 7.50                                                            | 9.00                     | 28.50  | 19.27   | 52.37                | 14.21  | 14.86  | 21.00  | 13.50                    | 10.50  | 7.50   | 7.50   |         |        |
| 11             | 6.00                                                            | 9.00                     | 16.50  | 14.86   | 36.21                | 18.30  | 13.36  | 19.50  | 13.50                    | 10.50  | 9.00   | 6.00   |         |        |
| 12             | 6.00                                                            | 9.00                     | 34.00  | 11.43   | 34.97                | 14.43  | 11.43  | 19.50  | 13.50                    | 10.50  | 9.00   | 6.00   |         |        |
| 13             | 10.50                                                           | 9.00                     | 50.00  | 9.29    | 24.80                | 17.98  | 10.57  | 18.00  | 13.50                    | 10.50  | 7.50   | 6.00   |         |        |
| 14             | 10.50                                                           | 9.00                     | 87.97  | 15.50   | 30.83                | 83.40  | 10.14  | 18.00  | 13.50                    | 10.50  | 9.00   | 6.00   |         |        |
| 15             | 12.00                                                           | 9.00                     | 86.45  | 63.07   | 23.50                | 37.87  | 10.14  | 16.50  | 15.00                    | 10.50  | 9.00   | 6.00   |         |        |
| 16             | 12.00                                                           | 12.00                    | 61.54  | 109.32  | 16.79                | 73.23  | 9.93   | 19.50  | 22.50                    | 10.50  | 7.50   | 4.50   |         |        |
| 17             | 15.00                                                           | 9.00                     | 42.84  | 56.93   | 13.36                | 37.46  | 10.14  | 18.00  | 16.50                    | 10.50  | 9.00   | 4.50   |         |        |
| 18             | 15.00                                                           | 9.00                     | 25.13  | 27.40   | 12.93                | 36.21  | 12.50  | 18.00  | 15.00                    | 10.50  | 9.00   | 4.50   |         |        |
| 19             | 10.50                                                           | 10.50                    | 10.79  | 36.21   | 12.07                | 25.13  | 12.50  | 16.50  | 15.00                    | 10.50  | 9.00   | 4.50   |         |        |
| 20             | 10.50                                                           | 9.00                     | 8.64   | 40.77   | 10.79                | 25.45  | 12.50  | 18.00  | 15.00                    | 10.50  | 9.00   | 4.50   |         |        |
| 21             | 12.00                                                           | 10.50                    | 10.57  | 40.77   | 11.00                | 24.47  | 11.86  | 18.00  | 12.00                    | 10.50  | 7.50   | 4.50   |         |        |
| 22             | 13.50                                                           | 10.50                    | 12.50  | 48.23   | 46.57                | 38.29  | 11.64  | 16.50  | 12.00                    | 10.50  | 9.00   | 7.50   |         |        |
| 23             | 13.50                                                           | 9.00                     | 80.86  | 49.06   | 23.50                | 18.95  | 11.43  | 16.50  | 12.00                    | 10.50  | 9.00   | 7.50   |         |        |
| 24             | 13.50                                                           | 10.50                    | 53.20  | 103.73  | 18.95                | 18.95  | 11.00  | 16.50  | 12.00                    | 10.50  | 7.50   | 6.00   |         |        |
| 25             | 12.00                                                           | 10.50                    | 24.80  | 45.33   | 15.50                | 17.33  | 24.80  | 16.50  | 12.00                    | 10.50  | 9.00   | 7.50   |         |        |
| 26             | 13.50                                                           | 13.50                    | 17.33  | 54.03   | 14.00                | 27.40  | 65.10  | 15.00  | 12.00                    | 10.50  | 7.50   | 7.50   |         |        |
| 27             | 10.50                                                           | 12.00                    | 14.86  | 39.53   | 20.25                | 40.77  | 4.50   | 15.00  | 12.00                    | 10.50  | 9.00   | 7.50   |         |        |
| 28             | 10.50                                                           | 12.00                    | 10.79  | 54.86   | 14.86                | 21.55  | 9.00   | 15.00  | 12.00                    | 10.50  | 7.50   | 7.50   |         |        |
| 29             | 10.50                                                           | 10.50                    | 8.86   | 35.39   | 13.36                | 18.63  | 9.00   | 15.00  | 12.00                    | 10.50  |        | 7.50   |         |        |
| 30             | 10.50                                                           | 10.50                    | 7.36   | 153.92  | 13.57                | 17.65  | 18.00  | 15.00  | 12.00                    | 10.50  |        | 7.50   |         |        |
| 31             |                                                                 | 10.50                    |        | 63.58   | 12.50                |        | 19.50  |        | 12.00                    | 12.00  |        | 7.50   |         |        |
| Total          | 291.00                                                          | 310.50                   | 877.99 | 1195.37 | 777.59               | 725.58 | 637.22 | 553.50 | 421.50                   | 327.00 | 238.50 | 205.50 | 6561.25 | CMSDAY |
| Mean           | 9.70                                                            | 10.02                    | 29.27  | 38.56   | 25.08                | 24.19  | 20.56  | 18.45  | 13.60                    | 10.55  | 8.52   | 6.63   | 17.98   | CMS    |
| Max            | 15.00                                                           | 13.50                    | 87.97  | 153.92  | 52.37                | 83.40  | 87.47  | 25.50  | 22.50                    | 12.00  | 10.50  | 7.50   | 153.92  | CMS    |
| Min            | 6.00                                                            | 9.00                     | 7.36   | 4.36    | 10.79                | 9.50   | 4.50   | 15.00  | 12.00                    | 10.50  | 7.50   | 4.50   | 4.36    | CMS    |
| Runoff         | 25.14                                                           | 26.83                    | 75.86  | 103.28  | 67.18                | 62.69  | 55.06  | 47.82  | 36.42                    | 28.25  | 20.61  | 17.76  | 566.89  | MCM    |
| Momentary Peak | 255.00 CMS, at 24.65 m. (MSL.), at 06.00 Hours, on Jul 30, 2013 |                          |        |         |                      |        |        |        |                          |        |        |        |         |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |        |         | Momentary Peak Yield |        |        | *****  | Liters/Second/Square KM. |        |        |        |         |        |

**WATER YEAR : 2013**

## EAST COAST - GULF BASIN

### Khlong Phra at Ban Plai Khlong , Trat (Z.60)

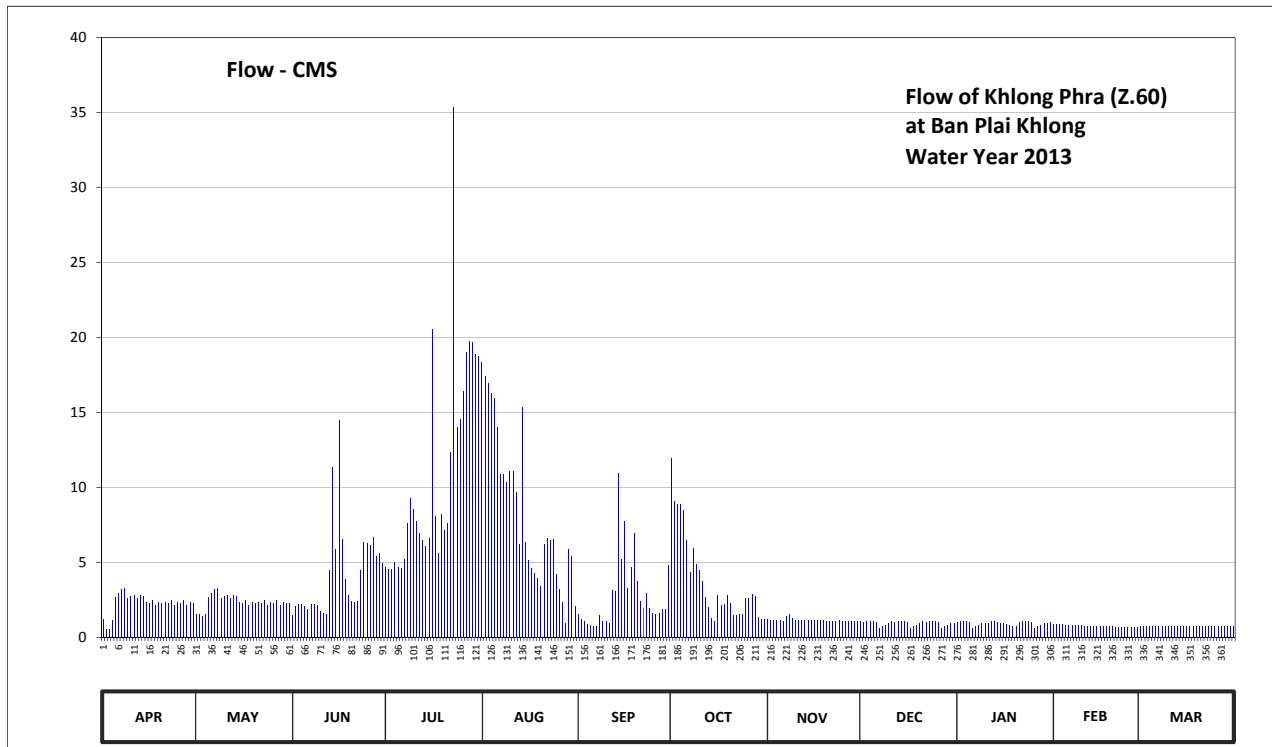
Lat 12 - 15 - 36 N    Long 102 - 27 - 54 E

**Location :** on right bank at the bridge on highway

|                                         |                                                                                           |                  |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Plai Khlong      | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Trat              |
| <b>Drainage Area</b>                    | -                                                                                         | sq.km.           |               |        |                  |                   |
| <b>Type of Gage</b>                     | Water                                                                                     | - stage recorder |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)        |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.                                                                                      | -H.D.            |               |        |                  |                   |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |                  |               |        | <b>Elevation</b> | +34.960 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                  |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                  |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                              |                  |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2013 to date                                                                              |                  |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                              |                  |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |                  |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +7.150 m.(MSL.) and is including overbank flow.         |                  |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 11 discharge measurements made in 2013. |                  |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                         | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|---------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 2.99 | 3.06 | 3.05                                        | 3.67 | 5.32 | 3.07 | 4.62 | 2.98 | 2.94 | 2.93 | 2.90 | 2.87 |        |
| 2                                | 2.82 | 3.07 | 3.20                                        | 3.65 | 5.22 | 2.99 | 4.30 | 2.97 | 2.93 | 2.94 | 2.90 | 2.87 |        |
| 3                                | 2.82 | 3.03 | 3.23                                        | 3.65 | 5.17 | 2.94 | 4.27 | 2.97 | 2.94 | 2.94 | 2.90 | 2.87 |        |
| 4                                | 2.96 | 3.06 | 3.23                                        | 3.72 | 5.10 | 2.90 | 4.27 | 2.96 | 2.94 | 2.94 | 2.90 | 2.87 |        |
| 5                                | 3.34 | 3.34 | 3.20                                        | 3.67 | 5.06 | 2.88 | 4.21 | 2.96 | 2.94 | 2.93 | 2.89 | 2.87 |        |
| 6                                | 3.40 | 3.40 | 3.15                                        | 3.66 | 4.85 | 2.87 | 3.93 | 2.95 | 2.93 | 2.84 | 2.89 | 2.87 |        |
| 7                                | 3.45 | 3.45 | 3.23                                        | 3.75 | 4.50 | 2.86 | 3.62 | 3.04 | 2.84 | 2.87 | 2.89 | 2.87 |        |
| 8                                | 3.46 | 3.46 | 3.23                                        | 4.09 | 4.50 | 3.05 | 3.85 | 3.06 | 2.87 | 2.88 | 2.88 | 2.87 |        |
| 9                                | 3.33 | 3.33 | 3.22                                        | 4.32 | 4.44 | 2.95 | 3.70 | 3.00 | 2.88 | 2.91 | 2.88 | 2.87 |        |
| 10                               | 3.35 | 3.35 | 3.12                                        | 4.22 | 4.52 | 2.94 | 3.64 | 2.97 | 2.91 | 2.91 | 2.88 | 2.87 |        |
| 11                               | 3.37 | 3.37 | 3.09                                        | 4.11 | 4.52 | 2.92 | 3.54 | 2.96 | 2.94 | 2.92 | 2.87 | 2.87 |        |
| 12                               | 3.32 | 3.32 | 3.07                                        | 3.99 | 4.37 | 3.43 | 3.34 | 2.96 | 2.93 | 2.94 | 2.87 | 2.87 |        |
| 13                               | 3.36 | 3.36 | 3.64                                        | 3.93 | 3.89 | 3.42 | 3.18 | 2.96 | 2.94 | 2.94 | 2.87 | 2.87 |        |
| 14                               | 3.35 | 3.35 | 4.55                                        | 3.87 | 5.00 | 4.51 | 3.00 | 2.96 | 2.94 | 2.93 | 2.86 | 2.87 |        |
| 15                               | 3.27 | 3.27 | 3.84                                        | 3.95 | 3.91 | 3.75 | 2.94 | 2.96 | 2.94 | 2.92 | 2.86 | 2.87 |        |
| 16                               | 3.25 | 3.25 | 4.90                                        | 5.52 | 3.74 | 4.11 | 3.37 | 2.96 | 2.93 | 2.91 | 2.86 | 2.87 |        |
| 17                               | 3.30 | 3.30 | 3.94                                        | 4.16 | 3.66 | 3.46 | 3.21 | 2.97 | 2.84 | 2.90 | 2.86 | 2.87 |        |
| 18                               | 3.22 | 3.22 | 3.56                                        | 3.80 | 3.61 | 3.67 | 3.24 | 2.96 | 2.87 | 2.88 | 2.86 | 2.87 |        |
| 19                               | 3.27 | 3.27 | 3.37                                        | 4.18 | 3.57 | 4.00 | 3.37 | 2.96 | 2.88 | 2.87 | 2.86 | 2.87 |        |
| 20                               | 3.25 | 3.25 | 3.28                                        | 4.02 | 3.49 | 3.54 | 3.25 | 2.95 | 2.91 | 2.87 | 2.86 | 2.87 |        |
| 21                               | 3.27 | 3.27 | 3.27                                        | 4.09 | 3.89 | 3.29 | 3.05 | 2.95 | 2.94 | 2.93 | 2.85 | 2.87 |        |
| 22                               | 3.25 | 3.25 | 3.28                                        | 4.66 | 3.95 | 3.17 | 3.05 | 2.95 | 2.93 | 2.94 | 2.85 | 2.87 |        |
| 23                               | 3.30 | 3.30 | 3.64                                        | 6.77 | 3.93 | 3.40 | 3.06 | 2.95 | 2.94 | 2.94 | 2.85 | 2.87 |        |
| 24                               | 3.22 | 3.22 | 3.91                                        | 4.85 | 3.94 | 3.16 | 3.06 | 2.97 | 2.94 | 2.94 | 2.85 | 2.87 |        |
| 25                               | 3.27 | 3.27 | 3.90                                        | 4.91 | 3.60 | 3.09 | 3.33 | 2.94 | 2.94 | 2.93 | 2.85 | 2.87 |        |
| 26                               | 3.25 | 3.25 | 3.88                                        | 5.11 | 3.44 | 3.06 | 3.33 | 2.94 | 2.93 | 2.84 | 2.85 | 2.87 |        |
| 27                               | 3.30 | 3.30 | 3.96                                        | 5.38 | 3.27 | 3.08 | 3.38 | 2.94 | 2.84 | 2.87 | 2.85 | 2.87 |        |
| 28                               | 3.22 | 3.22 | 3.78                                        | 5.45 | 2.91 | 3.15 | 3.35 | 2.94 | 2.87 | 2.88 | 2.85 | 2.87 |        |
| 29                               | 3.27 | 3.27 | 3.80                                        | 5.44 | 3.84 | 3.15 | 3.01 | 2.94 | 2.88 | 2.91 |      | 2.87 |        |
| 30                               | 3.25 | 3.25 | 3.71                                        | 5.37 | 3.78 | 3.69 | 2.99 | 2.94 | 2.91 | 2.91 |      | 2.87 |        |
| 31                               |      | 3.25 |                                             | 5.36 | 3.20 |      | 2.98 |      | 2.91 | 2.93 |      | 2.87 |        |
| Mean                             | 3.25 | 3.27 | 3.54                                        | 4.43 | 4.14 | 3.28 | 3.47 | 2.96 | 2.91 | 2.91 | 2.87 | 2.87 |        |
| Max                              | 3.46 | 3.46 | 4.90                                        | 6.77 | 5.32 | 4.51 | 4.62 | 3.06 | 2.94 | 2.94 | 2.90 | 2.87 | 6.77   |
| Min                              | 2.82 | 3.03 | 3.05                                        | 3.65 | 2.91 | 2.86 | 2.94 | 2.94 | 2.84 | 2.84 | 2.85 | 2.87 | 2.82   |
| Annual Max Momentary Gage Height | 7.36 |      | m. (MSL.) , at 13.00 Hours, on Jul 23, 2013 |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (MSL.) , River Bed 1.67 m. (MSL.)        |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 7.18 |      | m. (MSL.) ,                                 |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 7.14 |      | m. (MSL.) , Drainage Area Square Kilometers |      |      |      |      |      |      |      |      |      |        |



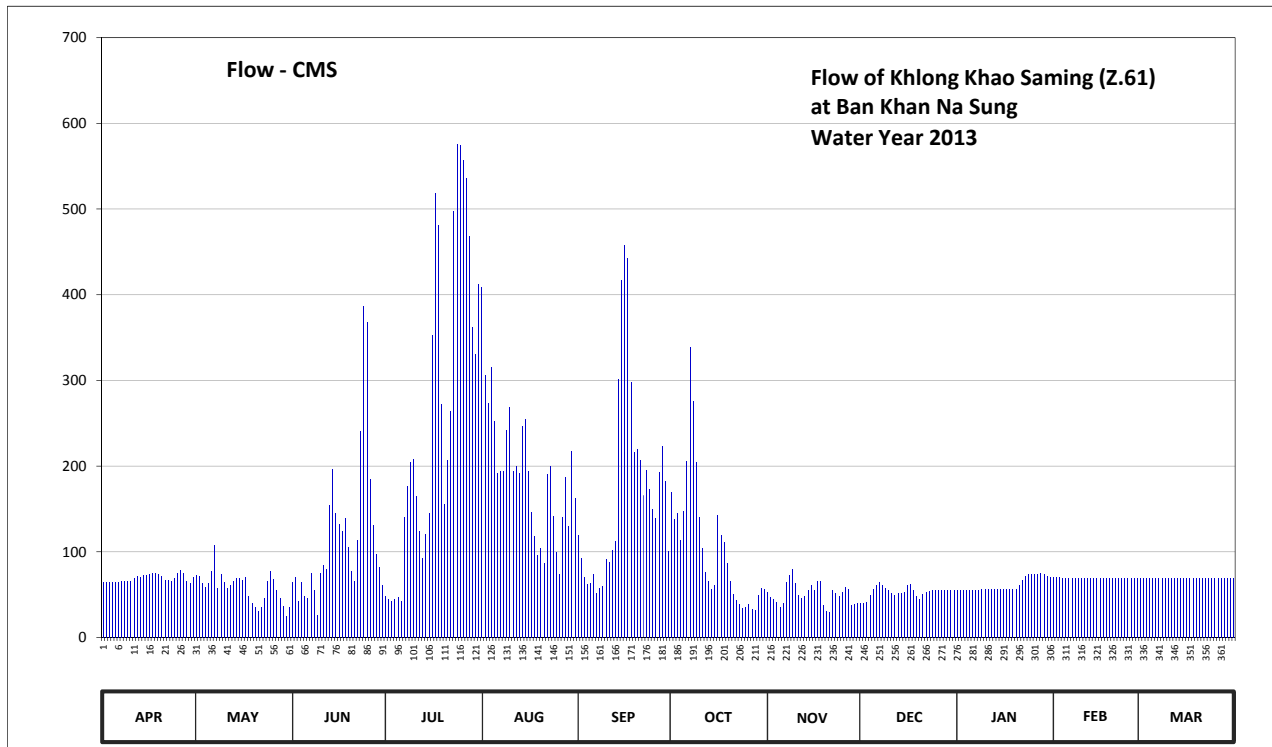
Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                     | Jun    | Jul    | Aug                  | Sep   | Oct    | Nov   | Dec                      | Jan   | Feb   | Mar   | Annual         |
|----------------|-------|---------------------------------------------------------|--------|--------|----------------------|-------|--------|-------|--------------------------|-------|-------|-------|----------------|
| 1              | 1.26  | 1.54                                                    | 1.50   | 4.69   | 18.32                | 1.58  | 11.98  | 1.22  | 1.06                     | 1.02  | 0.90  | 0.78  |                |
| 2              | 0.58  | 1.58                                                    | 2.10   | 4.55   | 17.38                | 1.26  | 9.10   | 1.18  | 1.02                     | 1.06  | 0.90  | 0.78  |                |
| 3              | 0.58  | 1.42                                                    | 2.22   | 4.55   | 16.93                | 1.06  | 8.89   | 1.18  | 1.06                     | 1.06  | 0.90  | 0.78  |                |
| 4              | 1.14  | 1.54                                                    | 2.22   | 5.04   | 16.30                | 0.90  | 8.89   | 1.14  | 1.06                     | 1.06  | 0.90  | 0.78  |                |
| 5              | 2.70  | 2.70                                                    | 2.10   | 4.69   | 15.94                | 0.82  | 8.47   | 1.14  | 1.06                     | 1.02  | 0.86  | 0.78  |                |
| 6              | 3.00  | 3.00                                                    | 1.90   | 4.62   | 14.05                | 0.78  | 6.51   | 1.10  | 1.02                     | 0.66  | 0.86  | 0.78  |                |
| 7              | 3.25  | 3.25                                                    | 2.22   | 5.25   | 10.90                | 0.74  | 4.34   | 1.46  | 0.66                     | 0.78  | 0.86  | 0.78  |                |
| 8              | 3.30  | 3.30                                                    | 2.22   | 7.63   | 10.90                | 1.50  | 5.95   | 1.54  | 0.78                     | 0.82  | 0.82  | 0.78  |                |
| 9              | 2.65  | 2.65                                                    | 2.18   | 9.28   | 10.36                | 1.10  | 4.90   | 1.30  | 0.82                     | 0.94  | 0.82  | 0.78  |                |
| 10             | 2.75  | 2.75                                                    | 1.78   | 8.54   | 11.08                | 1.06  | 4.48   | 1.18  | 0.94                     | 0.94  | 0.82  | 0.78  |                |
| 11             | 2.85  | 2.85                                                    | 1.66   | 7.77   | 11.08                | 0.98  | 3.78   | 1.14  | 1.06                     | 0.98  | 0.78  | 0.78  |                |
| 12             | 2.60  | 2.60                                                    | 1.58   | 6.93   | 9.73                 | 3.15  | 2.70   | 1.14  | 1.02                     | 1.06  | 0.78  | 0.78  |                |
| 13             | 2.80  | 2.80                                                    | 4.48   | 6.51   | 6.23                 | 3.10  | 2.02   | 1.14  | 1.06                     | 1.06  | 0.78  | 0.78  |                |
| 14             | 2.75  | 2.75                                                    | 11.35  | 6.09   | 15.40                | 10.99 | 1.30   | 1.14  | 1.06                     | 1.02  | 0.74  | 0.78  |                |
| 15             | 2.38  | 2.38                                                    | 5.88   | 6.65   | 6.37                 | 5.25  | 1.06   | 1.14  | 1.06                     | 0.98  | 0.74  | 0.78  |                |
| 16             | 2.30  | 2.30                                                    | 14.50  | 20.52  | 5.18                 | 7.77  | 2.85   | 1.14  | 1.02                     | 0.94  | 0.74  | 0.78  |                |
| 17             | 2.50  | 2.50                                                    | 6.58   | 8.12   | 4.62                 | 3.30  | 2.14   | 1.18  | 0.66                     | 0.90  | 0.74  | 0.78  |                |
| 18             | 2.18  | 2.18                                                    | 3.92   | 5.60   | 4.27                 | 4.69  | 2.26   | 1.14  | 0.78                     | 0.82  | 0.74  | 0.78  |                |
| 19             | 2.38  | 2.38                                                    | 2.85   | 8.26   | 3.99                 | 7.00  | 2.85   | 1.14  | 0.82                     | 0.78  | 0.74  | 0.78  |                |
| 20             | 2.30  | 2.30                                                    | 2.42   | 7.14   | 3.45                 | 3.78  | 2.30   | 1.10  | 0.94                     | 0.78  | 0.74  | 0.78  |                |
| 21             | 2.38  | 2.38                                                    | 2.38   | 7.63   | 6.23                 | 2.46  | 1.50   | 1.10  | 1.06                     | 1.02  | 0.70  | 0.78  |                |
| 22             | 2.30  | 2.30                                                    | 2.42   | 12.34  | 6.65                 | 1.98  | 1.50   | 1.10  | 1.02                     | 1.06  | 0.70  | 0.78  |                |
| 23             | 2.50  | 2.50                                                    | 4.48   | 35.38  | 6.51                 | 3.00  | 1.54   | 1.10  | 1.06                     | 1.06  | 0.70  | 0.78  |                |
| 24             | 2.18  | 2.18                                                    | 6.37   | 14.05  | 6.58                 | 1.94  | 1.54   | 1.18  | 1.06                     | 1.06  | 0.70  | 0.78  |                |
| 25             | 2.38  | 2.38                                                    | 6.30   | 14.59  | 4.20                 | 1.66  | 2.65   | 1.06  | 1.06                     | 1.02  | 0.70  | 0.78  |                |
| 26             | 2.30  | 2.30                                                    | 6.16   | 16.39  | 3.20                 | 1.54  | 2.65   | 1.06  | 1.02                     | 0.66  | 0.70  | 0.78  |                |
| 27             | 2.50  | 2.50                                                    | 6.72   | 18.98  | 2.38                 | 1.62  | 2.90   | 1.06  | 0.66                     | 0.78  | 0.70  | 0.78  |                |
| 28             | 2.18  | 2.18                                                    | 5.46   | 19.75  | 0.94                 | 1.90  | 2.75   | 1.06  | 0.78                     | 0.82  | 0.70  | 0.78  |                |
| 29             | 2.38  | 2.38                                                    | 5.60   | 19.64  | 5.88                 | 1.90  | 1.34   | 1.06  | 0.82                     | 0.94  |       | 0.78  |                |
| 30             | 2.30  | 2.30                                                    | 4.97   | 18.87  | 5.46                 | 4.83  | 1.26   | 1.06  | 0.94                     | 0.94  |       | 0.78  |                |
| 31             |       | 2.30                                                    |        | 18.76  | 2.10                 |       | 1.22   |       | 0.94                     | 1.02  |       | 0.78  |                |
| Total          | 69.65 | 74.47                                                   | 126.52 | 338.81 | 262.61               | 83.64 | 117.62 | 34.68 | 29.38                    | 29.06 | 21.76 | 24.18 | 1212.38 CMSDAY |
| Mean           | 2.32  | 2.40                                                    | 4.22   | 10.93  | 8.47                 | 2.79  | 3.79   | 1.16  | 0.95                     | 0.94  | 0.78  | 0.78  | 3.32 CMS       |
| Max            | 3.30  | 3.30                                                    | 14.50  | 35.38  | 18.32                | 10.99 | 11.98  | 1.54  | 1.06                     | 1.06  | 0.90  | 0.78  | 35.38 CMS      |
| Min            | 0.58  | 1.42                                                    | 1.50   | 4.55   | 0.94                 | 0.74  | 1.06   | 1.06  | 0.66                     | 0.66  | 0.70  | 0.78  | 0.58 CMS       |
| Runoff         | 6.02  | 6.43                                                    | 10.93  | 29.27  | 22.69                | 7.23  | 10.16  | 3.00  | 2.54                     | 2.51  | 1.88  | 2.09  | 104.75 MCM     |
| Momentary Peak | 43.64 | CMS, at 7.36 m. (MSL.), at 13.00 Hours, on Jul 23, 2013 |        |        |                      |       |        |       |                          |       |       |       |                |
| Runoff Yield   | ***** | Liters/Second/Square KM.                                |        |        | Momentary Peak Yield |       |        | ***** | Liters/Second/Square KM. |       |       |       |                |

Lat 12 - 26 - 39 N    Long 102 - 26 - 28 E

|                                         |            |                                                                                           |               |             |                  |                  |
|-----------------------------------------|------------|-------------------------------------------------------------------------------------------|---------------|-------------|------------------|------------------|
|                                         | <b>Ban</b> | Khan Na Sung                                                                              | <b>Amphoe</b> | Khao Samung | <b>Changwat</b>  | Trat             |
| <b>Drainage Area</b>                    | -          | sq.km.                                                                                    |               |             |                  |                  |
| <b>Type of Gage</b>                     |            | Water - stage recorder                                                                    |               |             |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000     | m. (MSL.)                                                                                 |               |             |                  |                  |
| <b>Bench Mark</b>                       |            | B.M.-H.D.                                                                                 |               |             |                  |                  |
| <b>Location BM</b>                      |            | On right bank near the gage site.                                                         |               |             | <b>Elevation</b> | +4.000 m. (MSL.) |
| <b>Gage Reading Frequency</b>           |            | Recording                                                                                 |               |             |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  |            | Arithmetic mean of 24 readings                                                            |               |             |                  |                  |
| <b>Period of Available Gage Records</b> |            | 2013 to date                                                                              |               |             |                  |                  |
| <b>Rating Operation</b>                 |            |                                                                                           |               |             |                  |                  |
| <b>Period of Rating</b>                 |            | 2013 to date                                                                              |               |             |                  |                  |
| <b>Rated by Flot</b>                    |            | -                                                                                         |               |             |                  |                  |
| <b>Rated by Current Meter</b>           |            | 2013 to date                                                                              |               |             |                  |                  |
| <b>Stability of Channel Regimes</b>     |            | Rather unstable.                                                                          |               |             |                  |                  |
| <b>Overbank Flow Conditions</b>         |            | Overbank flow starts at elevation +11.740 m.(MSL.) and is including overbank flow.        |               |             |                  |                  |
| <b>General Description</b>              |            | Records good. Stage-discharge relation defined by 12 discharge measurements made in 2013. |               |             |                  |                  |

| Date | Apr  | May  | Jun   | Jul   | Aug   | Sep   | Oct  | Nov  | Dec  | Jan    | Feb  | Mar  | Annual |
|------|------|------|-------|-------|-------|-------|------|------|------|--------|------|------|--------|
| 1    | 5.53 | 5.70 | 5.54  | 5.18  | 10.54 | 6.64  | 7.57 | 5.27 | 4.99 | 5.33   | 5.65 | 5.62 |        |
| 2    | 5.53 | 5.67 | 5.64  | 5.10  | 9.49  | 6.09  | 7.01 | 5.16 | 4.98 | 5.33   | 5.65 | 5.62 |        |
| 3    | 5.54 | 5.50 | 5.03  | 5.03  | 9.08  | 5.64  | 7.15 | 5.09 | 5.02 | 5.33   | 5.65 | 5.62 |        |
| 4    | 5.54 | 5.41 | 5.54  | 5.10  | 9.59  | 5.48  | 6.52 | 5.00 | 5.21 | 5.33   | 5.63 | 5.62 |        |
| 5    | 5.53 | 5.50 | 5.17  | 5.16  | 8.82  | 5.51  | 7.20 | 4.86 | 5.37 | 5.33   | 5.62 | 5.62 |        |
| 6    | 5.53 | 5.78 | 5.13  | 5.03  | 7.93  | 5.71  | 8.16 | 4.99 | 5.46 | 5.33   | 5.63 | 5.62 |        |
| 7    | 5.55 | 6.40 | 5.75  | 7.04  | 7.98  | 5.26  | 9.84 | 5.53 | 5.54 | 5.33   | 5.62 | 5.62 |        |
| 8    | 5.56 | 5.38 | 5.33  | 7.67  | 7.98  | 5.38  | 9.10 | 5.69 | 5.47 | 5.34   | 5.62 | 5.62 |        |
| 9    | 5.57 | 5.72 | 4.64  | 8.14  | 8.68  | 5.44  | 8.14 | 5.84 | 5.39 | 5.35   | 5.62 | 5.62 |        |
| 10   | 5.56 | 5.54 | 5.74  | 8.19  | 9.02  | 6.06  | 7.04 | 5.50 | 5.32 | 5.35   | 5.62 | 5.62 |        |
| 11   | 5.62 | 5.38 | 5.92  | 7.49  | 7.97  | 5.99  | 6.33 | 5.21 | 5.24 | 5.35   | 5.62 | 5.62 |        |
| 12   | 5.67 | 5.46 | 5.84  | 6.72  | 8.07  | 6.29  | 5.76 | 5.13 | 5.19 | 5.35   | 5.62 | 5.62 |        |
| 13   | 5.64 | 5.55 | 7.30  | 6.10  | 7.94  | 6.48  | 5.56 | 5.18 | 5.24 | 5.35   | 5.62 | 5.62 |        |
| 14   | 5.69 | 5.63 | 8.00  | 6.66  | 8.74  | 9.42  | 5.37 | 5.34 | 5.26 | 5.35   | 5.62 | 5.62 |        |
| 15   | 5.69 | 5.63 | 7.14  | 7.15  | 8.85  | 10.63 | 5.45 | 5.46 | 5.29 | 5.35   | 5.62 | 5.62 |        |
| 16   | 5.73 | 5.58 | 6.89  | 9.98  | 7.98  | 11.01 | 7.09 | 5.32 | 5.45 | 5.35   | 5.62 | 5.62 |        |
| 17   | 5.74 | 5.65 | 6.73  | 11.57 | 7.18  | 10.88 | 6.63 | 5.57 | 5.48 | 5.35   | 5.62 | 5.62 |        |
| 18   | 5.74 | 5.17 | 7.02  | 11.22 | 6.62  | 9.39  | 6.47 | 5.55 | 5.34 | 5.35   | 5.62 | 5.62 |        |
| 19   | 5.72 | 4.98 | 6.35  | 9.06  | 6.17  | 8.30  | 5.97 | 4.93 | 5.18 | 5.35   | 5.62 | 5.62 |        |
| 20   | 5.67 | 4.86 | 5.80  | 7.33  | 6.32  | 8.35  | 5.57 | 4.76 | 5.10 | 5.35   | 5.62 | 5.62 |        |
| 21   | 5.59 | 4.76 | 5.57  | 8.17  | 5.97  | 8.17  | 5.23 | 4.72 | 5.22 | 5.47   | 5.62 | 5.62 |        |
| 22   | 5.59 | 4.86 | 6.52  | 8.96  | 7.91  | 7.50  | 5.07 | 5.33 | 5.28 | 5.59   | 5.62 | 5.62 |        |
| 23   | 5.57 | 5.13 | 8.65  | 11.37 | 8.07  | 7.99  | 4.96 | 5.25 | 5.31 | 5.68   | 5.62 | 5.62 |        |
| 24   | 5.62 | 5.56 | 10.33 | 12.09 | 7.07  | 7.62  | 4.84 | 5.18 | 5.33 | 5.71   | 5.62 | 5.62 |        |
| 25   | 5.74 | 5.78 | 10.14 | 12.08 | 6.23  | 7.24  | 4.85 | 5.27 | 5.33 | 5.72   | 5.62 | 5.62 |        |
| 26   | 5.81 | 5.61 | 7.81  | 11.91 | 5.72  | 7.03  | 4.95 | 5.42 | 5.33 | 5.72   | 5.62 | 5.62 |        |
| 27   | 5.75 | 5.34 | 6.86  | 11.72 | 7.04  | 7.96  | 4.79 | 5.37 | 5.33 | 5.72   | 5.62 | 5.62 |        |
| 28   | 5.57 | 5.13 | 6.19  | 11.11 | 7.86  | 8.41  | 4.78 | 4.92 | 5.33 | 5.75   | 5.62 | 5.62 |        |
| 29   | 5.50 | 4.90 | 5.88  | 10.08 | 6.84  | 7.77  | 5.20 | 4.94 | 5.33 | 5.71   |      | 5.62 |        |
| 30   | 5.64 | 4.59 | 5.46  | 9.76  | 8.33  | 6.25  | 5.38 | 4.98 | 5.33 | 5.68   |      | 5.62 |        |
| 31   |      | 4.86 |       | 10.58 | 7.45  |       | 5.37 |      | 5.33 | 5.66   |      | 5.62 |        |
| Mean | 5.62 | 5.39 | 6.46  | 8.48  | 7.85  | 7.33  | 6.24 | 5.23 | 5.29 | 5.46   | 5.62 | 5.62 |        |
| Max  | 5.81 | 6.40 | 10.33 | 12.09 | 10.54 | 11.01 | 9.84 | 5.84 | 5.54 | 5.75</ |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug     | Sep                        | Oct     | Nov     | Dec     | Jan                      | Feb     | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|---------|----------------------------|---------|---------|---------|--------------------------|---------|---------|----------|--------|
| 1              | 64.50                                                           | 73.00                    | 65.00   | 48.60   | 408.00  | 120.00                     | 170.20  | 52.65   | 40.60   | 55.35                    | 70.50   | 69.00   |          |        |
| 2              | 64.50                                                           | 71.50                    | 70.00   | 45.00   | 306.20  | 92.50                      | 138.50  | 47.70   | 40.20   | 55.35                    | 70.50   | 69.00   |          |        |
| 3              | 65.00                                                           | 63.00                    | 42.20   | 42.20   | 273.40  | 70.00                      | 145.50  | 44.60   | 41.80   | 55.35                    | 70.50   | 69.00   |          |        |
| 4              | 65.00                                                           | 58.95                    | 65.00   | 45.00   | 315.10  | 62.10                      | 114.00  | 41.00   | 49.95   | 55.35                    | 69.50   | 69.00   |          |        |
| 5              | 64.50                                                           | 63.00                    | 48.15   | 47.70   | 252.60  | 63.50                      | 148.00  | 35.40   | 57.15   | 55.35                    | 69.00   | 69.00   |          |        |
| 6              | 64.50                                                           | 77.00                    | 46.35   | 42.20   | 191.80  | 73.50                      | 206.20  | 40.60   | 61.20   | 55.35                    | 69.50   | 69.00   |          |        |
| 7              | 65.50                                                           | 108.00                   | 75.50   | 140.00  | 194.80  | 52.20                      | 338.00  | 64.50   | 65.00   | 55.35                    | 69.00   | 69.00   |          |        |
| 8              | 66.00                                                           | 57.60                    | 55.35   | 176.20  | 194.80  | 57.60                      | 275.00  | 72.50   | 61.65   | 55.80                    | 69.00   | 69.00   |          |        |
| 9              | 66.50                                                           | 74.00                    | 26.60   | 204.80  | 242.60  | 60.30                      | 204.80  | 80.00   | 58.05   | 56.25                    | 69.00   | 69.00   |          |        |
| 10             | 66.00                                                           | 65.00                    | 75.00   | 208.30  | 268.60  | 91.00                      | 140.00  | 63.00   | 54.90   | 56.25                    | 69.00   | 69.00   |          |        |
| 11             | 69.00                                                           | 57.60                    | 84.00   | 165.40  | 194.20  | 87.50                      | 104.50  | 49.95   | 51.30   | 56.25                    | 69.00   | 69.00   |          |        |
| 12             | 71.50                                                           | 61.20                    | 80.00   | 124.00  | 200.20  | 102.50                     | 76.00   | 46.35   | 49.05   | 56.25                    | 69.00   | 69.00   |          |        |
| 13             | 70.00                                                           | 65.50                    | 154.00  | 93.00   | 192.40  | 112.00                     | 66.00   | 48.60   | 51.30   | 56.25                    | 69.00   | 69.00   |          |        |
| 14             | 72.50                                                           | 69.50                    | 196.00  | 121.00  | 246.80  | 300.60                     | 57.15   | 55.80   | 52.20   | 56.25                    | 69.00   | 69.00   |          |        |
| 15             | 72.50                                                           | 69.50                    | 145.00  | 145.50  | 255.00  | 417.00                     | 60.75   | 61.20   | 53.55   | 56.25                    | 69.00   | 69.00   |          |        |
| 16             | 74.50                                                           | 67.00                    | 132.50  | 352.00  | 194.80  | 457.10                     | 142.50  | 54.90   | 60.75   | 56.25                    | 69.00   | 69.00   |          |        |
| 17             | 75.00                                                           | 70.50                    | 124.50  | 518.70  | 147.00  | 442.80                     | 119.50  | 66.50   | 62.10   | 56.25                    | 69.00   | 69.00   |          |        |
| 18             | 75.00                                                           | 48.15                    | 139.00  | 480.20  | 119.00  | 298.20                     | 111.50  | 65.50   | 55.80   | 56.25                    | 69.00   | 69.00   |          |        |
| 19             | 74.00                                                           | 40.20                    | 105.50  | 271.80  | 96.50   | 216.00                     | 86.50   | 38.20   | 48.60   | 56.25                    | 69.00   | 69.00   |          |        |
| 20             | 71.50                                                           | 35.40                    | 78.00   | 155.80  | 104.00  | 219.50                     | 66.50   | 31.40   | 45.00   | 56.25                    | 69.00   | 69.00   |          |        |
| 21             | 67.50                                                           | 31.40                    | 66.50   | 206.90  | 86.50   | 206.90                     | 50.85   | 29.80   | 50.40   | 61.65                    | 69.00   | 69.00   |          |        |
| 22             | 67.50                                                           | 35.40                    | 114.00  | 263.80  | 190.60  | 166.00                     | 43.80   | 55.35   | 53.10   | 67.50                    | 69.00   | 69.00   |          |        |
| 23             | 66.50                                                           | 46.35                    | 240.50  | 496.70  | 200.20  | 195.40                     | 39.40   | 51.75   | 54.45   | 72.00                    | 69.00   | 69.00   |          |        |
| 24             | 69.00                                                           | 66.00                    | 387.00  | 575.90  | 141.50  | 173.20                     | 34.60   | 48.60   | 55.35   | 73.50                    | 69.00   | 69.00   |          |        |
| 25             | 75.00                                                           | 77.00                    | 368.00  | 574.80  | 99.50   | 150.40                     | 35.00   | 52.65   | 55.35   | 74.00                    | 69.00   | 69.00   |          |        |
| 26             | 78.50                                                           | 68.50                    | 184.60  | 556.10  | 74.00   | 139.50                     | 39.00   | 59.40   | 55.35   | 74.00                    | 69.00   | 69.00   |          |        |
| 27             | 75.50                                                           | 55.80                    | 131.00  | 535.20  | 140.00  | 193.60                     | 32.60   | 57.15   | 55.35   | 74.00                    | 69.00   | 69.00   |          |        |
| 28             | 66.50                                                           | 46.35                    | 97.50   | 468.10  | 187.60  | 223.70                     | 32.20   | 37.80   | 55.35   | 75.50                    | 69.00   | 69.00   |          |        |
| 29             | 63.00                                                           | 37.00                    | 82.00   | 362.00  | 130.00  | 182.20                     | 49.50   | 38.60   | 55.35   | 73.50                    |         | 69.00   |          |        |
| 30             | 70.00                                                           | 24.60                    | 61.20   | 330.40  | 218.10  | 100.50                     | 57.60   | 40.20   | 55.35   | 72.00                    |         | 69.00   |          |        |
| 31             |                                                                 | 35.40                    |         | 412.00  | 163.00  |                            | 57.15   |         | 55.35   | 71.00                    |         | 69.00   |          |        |
| Total          | 2076.50                                                         | 1819.40                  | 3539.95 | 8209.30 | 6028.80 | 5127.30                    | 3242.80 | 1531.65 | 1660.90 | 1906.90                  | 1937.50 | 2139.00 | 39220.00 | CMSDAY |
| Mean           | 69.22                                                           | 58.69                    | 118.00  | 264.82  | 194.48  | 170.91                     | 104.61  | 51.06   | 53.58   | 61.51                    | 69.20   | 69.00   | 107.45   | CMS    |
| Max            | 78.50                                                           | 108.00                   | 387.00  | 575.90  | 408.00  | 457.10                     | 338.00  | 80.00   | 65.00   | 75.50                    | 70.50   | 69.00   | 575.90   | CMS    |
| Min            | 63.00                                                           | 24.60                    | 26.60   | 42.20   | 74.00   | 52.20                      | 32.20   | 29.80   | 40.20   | 55.35                    | 69.00   | 69.00   | 24.60    | CMS    |
| Runoff         | 179.41                                                          | 157.20                   | 305.85  | 709.28  | 520.89  | 443.00                     | 280.18  | 132.34  | 143.50  | 164.76                   | 167.40  | 184.81  | 3388.61  | MCM    |
| Momentary Peak | 586.60 CMS, at 12.18 m. (MSL.), at 12.00 Hours, on Jul 24, 2013 |                          |         |         |         |                            |         |         |         |                          |         |         |          |        |
| Runoff Yield   | *****                                                           | Liters/Second/Square KM. |         |         |         | Momentary Peak Yield ***** |         |         |         | Liters/Second/Square KM. |         |         |          |        |

**WATER YEAR : 2013**

## PHETCHABURI RIVER BASIN

## Phetchaburi River at Ban Song Phi Nong , Phetchaburi (B.3A)

Lat 12 - 51 - 47 N    Long 99 - 40 - 42 E

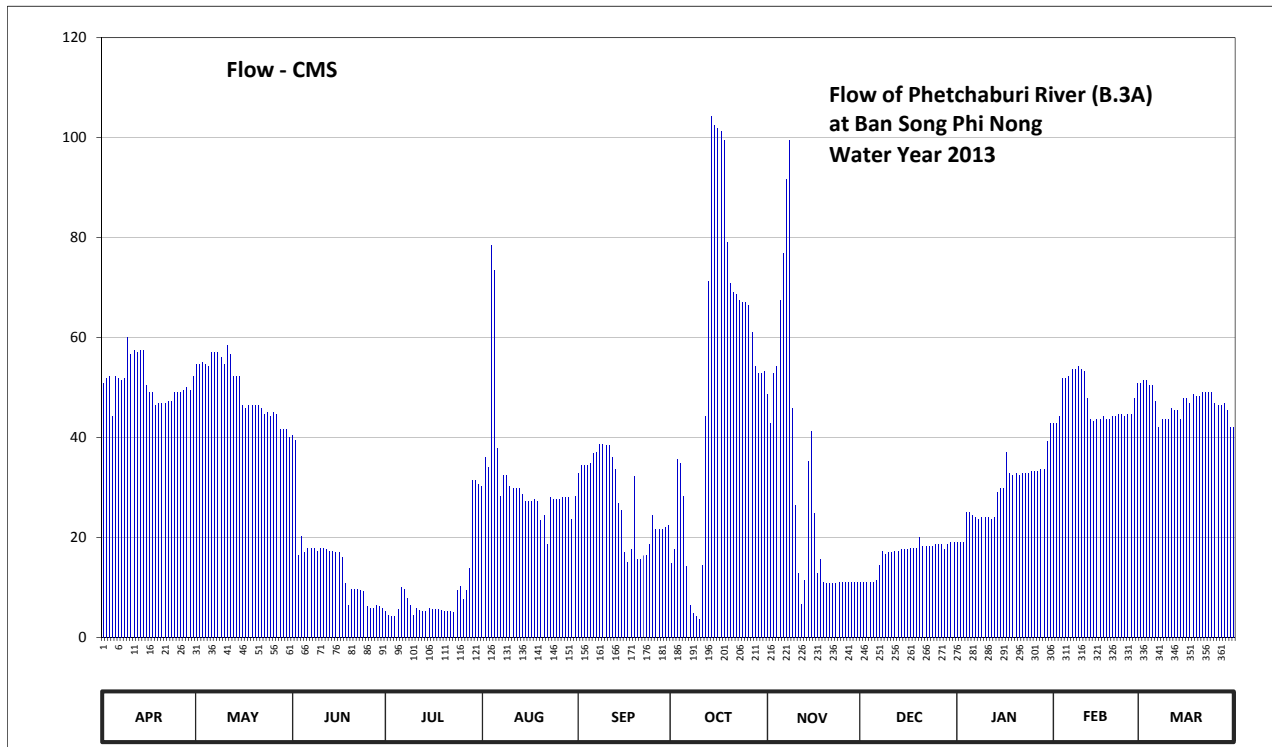
**Location : on left bank at Ban Song Phi Nong**

|                                         |                                                                             |               |               |               |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|---------------|---------------|---------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Song Phi Nong | <b>Amphoe</b> | Kaeng Krachan | <b>Changwat</b>  | Phetchaburi       |
| <b>Drainage Area</b>                    | 2,220                                                                       | sq.km.        |               |               |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |               |               |               |                  |                   |
| <b>Zero Gage at Bottom</b>              | +40.998                                                                     | m. (MSL.)     |               |               |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |               |               |               |                  |                   |
| <b>Location BM</b>                      | On left bank about 24 meters from the top staff gage.                       |               |               |               | <b>Elevation</b> | +50.534 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |               |               |               |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |               |               |               |                  |                   |
| <b>Period of Available Gage Records</b> | 1930 - 1942 , 1954 to date                                                  |               |               |               |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |               |               |               |                  |                   |
| <b>Period of Rating</b>                 | 1954 - 1959 , 1968 to date                                                  |               |               |               |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |               |               |               |                  |                   |
| <b>Rated by Current Meter</b>           | 1954 - 1959 , 1968 to date                                                  |               |               |               |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |               |               |               |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |               |               |               |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by Kaeng Krachan Reservoir.                    |               |               |               |                  |                   |
|                                         | Stage-discharge relation defined by 33 discharge measurements made in 2013. |               |               |               |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 42.95 | 43.03 | 42.71                                            | 41.64 | 42.45 | 42.52 | 42.00 | 42.90 | 41.87 | 42.13 | 42.77 | 42.95 |        |
| 2                                | 42.97 | 43.03 | 42.69                                            | 41.61 | 42.60 | 42.56 | 42.09 | 42.77 | 41.87 | 42.13 | 42.77 | 42.96 |        |
| 3                                | 42.98 | 43.04 | 42.05                                            | 41.60 | 42.55 | 42.56 | 42.59 | 42.99 | 41.87 | 42.13 | 42.80 | 42.96 |        |
| 4                                | 42.80 | 43.03 | 42.17                                            | 41.60 | 43.49 | 42.56 | 42.57 | 43.02 | 41.87 | 42.31 | 42.97 | 42.94 |        |
| 5                                | 42.98 | 43.02 | 42.07                                            | 41.66 | 43.40 | 42.57 | 42.40 | 43.29 | 41.87 | 42.31 | 42.97 | 42.94 |        |
| 6                                | 42.97 | 43.08 | 42.10                                            | 41.83 | 42.65 | 42.62 | 41.98 | 43.46 | 41.88 | 42.29 | 42.98 | 42.87 |        |
| 7                                | 42.96 | 43.08 | 42.10                                            | 41.82 | 42.40 | 42.63 | 41.69 | 43.72 | 41.99 | 42.28 | 43.01 | 42.75 |        |
| 8                                | 42.97 | 43.08 | 42.10                                            | 41.75 | 42.51 | 42.67 | 41.62 | 43.85 | 42.08 | 42.27 | 43.01 | 42.79 |        |
| 9                                | 43.14 | 43.06 | 42.08                                            | 41.69 | 42.51 | 42.67 | 41.60 | 42.84 | 42.06 | 42.28 | 43.02 | 42.79 |        |
| 10                               | 43.07 | 43.03 | 42.10                                            | 41.61 | 42.45 | 42.66 | 41.57 | 42.35 | 42.07 | 42.28 | 43.01 | 42.79 |        |
| 11                               | 43.09 | 43.11 | 42.10                                            | 41.67 | 42.44 | 42.66 | 41.99 | 41.93 | 42.07 | 42.28 | 43.00 | 42.84 |        |
| 12                               | 43.08 | 43.07 | 42.09                                            | 41.65 | 42.44 | 42.60 | 42.80 | 41.70 | 42.08 | 42.27 | 42.88 | 42.83 |        |
| 13                               | 43.09 | 42.98 | 42.08                                            | 41.64 | 42.44 | 42.54 | 43.36 | 41.88 | 42.08 | 42.28 | 42.79 | 42.83 |        |
| 14                               | 43.09 | 42.98 | 42.08                                            | 41.64 | 42.41 | 42.36 | 43.93 | 42.58 | 42.09 | 42.42 | 42.78 | 42.79 |        |
| 15                               | 42.94 | 42.98 | 42.07                                            | 41.67 | 42.37 | 42.32 | 43.90 | 42.73 | 42.09 | 42.44 | 42.79 | 42.88 |        |
| 16                               | 42.91 | 42.85 | 42.07                                            | 41.66 | 42.37 | 42.07 | 43.89 | 42.30 | 42.09 | 42.44 | 42.79 | 42.88 |        |
| 17                               | 42.91 | 42.84 | 42.04                                            | 41.66 | 42.37 | 42.01 | 43.88 | 41.93 | 42.10 | 42.63 | 42.80 | 42.86 |        |
| 18                               | 42.85 | 42.85 | 41.86                                            | 41.66 | 42.38 | 42.09 | 43.85 | 42.03 | 42.10 | 42.52 | 42.79 | 42.90 |        |
| 19                               | 42.86 | 42.85 | 41.69                                            | 41.65 | 42.37 | 42.50 | 43.50 | 41.87 | 42.10 | 42.51 | 42.79 | 42.89 |        |
| 20                               | 42.86 | 42.85 | 41.82                                            | 41.64 | 42.26 | 42.03 | 43.35 | 41.86 | 42.16 | 42.52 | 42.80 | 42.89 |        |
| 21                               | 42.86 | 42.85 | 41.82                                            | 41.64 | 42.29 | 42.03 | 43.32 | 41.86 | 42.11 | 42.51 | 42.80 | 42.91 |        |
| 22                               | 42.87 | 42.84 | 41.82                                            | 41.64 | 42.12 | 42.05 | 43.31 | 41.86 | 42.11 | 42.52 | 42.81 | 42.91 |        |
| 23                               | 42.87 | 42.81 | 41.81                                            | 41.63 | 42.39 | 42.05 | 43.29 | 41.86 | 42.11 | 42.52 | 42.81 | 42.91 |        |
| 24                               | 42.91 | 42.82 | 41.80                                            | 41.81 | 42.38 | 42.12 | 43.28 | 41.87 | 42.11 | 42.52 | 42.80 | 42.91 |        |
| 25                               | 42.91 | 42.80 | 41.68                                            | 41.84 | 42.38 | 42.29 | 43.28 | 41.87 | 42.12 | 42.53 | 42.81 | 42.86 |        |
| 26                               | 42.91 | 42.82 | 41.67                                            | 41.74 | 42.38 | 42.21 | 43.27 | 41.87 | 42.12 | 42.53 | 42.81 | 42.85 |        |
| 27                               | 42.92 | 42.81 | 41.67                                            | 41.81 | 42.39 | 42.21 | 43.16 | 41.87 | 42.12 | 42.53 | 42.88 | 42.85 |        |
| 28                               | 42.93 | 42.74 | 41.69                                            | 41.97 | 42.39 | 42.21 | 43.02 | 41.87 | 42.09 | 42.54 | 42.95 | 42.86 |        |
| 29                               | 42.92 | 42.74 | 41.68                                            | 42.48 | 42.39 | 42.22 | 42.99 | 41.87 | 42.12 | 42.54 |       | 42.83 |        |
| 30                               | 42.98 | 42.74 | 41.67                                            | 42.48 | 42.27 | 42.23 | 42.99 | 41.87 | 42.13 | 42.68 |       | 42.75 |        |
| 31                               |       | 42.70 |                                                  | 42.46 | 42.40 |       | 43.00 |       | 42.13 | 42.77 |       | 42.75 |        |
| Mean                             | 42.95 | 42.92 | 41.98                                            | 41.77 | 42.47 | 42.36 | 42.89 | 42.36 | 42.05 | 42.42 | 42.86 | 42.86 |        |
| Max                              | 43.14 | 43.11 | 42.71                                            | 42.48 | 43.49 | 42.67 | 43.93 | 43.85 | 42.16 | 42.77 | 43.02 | 42.96 | 43.9   |
| Min                              | 42.80 | 42.70 | 41.67                                            | 41.60 | 42.12 | 42.01 | 41.57 | 41.70 | 41.87 | 42.13 | 42.77 | 42.75 | 41.5   |
| Annual Max Momentary Gage Height |       | 44.07 | m. (MSL.) , at 16.00 Hours , on Nov 8 , 2013     |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 41.00 | m. (MSL.) , River Bed 40.59 m. (MSL.)            |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 48.93 | m. (MSL.) ,                                      |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 48.90 | m. (MSL.) , Drainage Area 2220 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun    | Jul    | Aug    | Sep                  | Oct     | Nov    | Dec                      | Jan    | Feb     | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|--------|--------|----------------------|---------|--------|--------------------------|--------|---------|---------|----------|--------|
| 1              | 50.90                                                           | 54.64                    | 40.42  | 5.26   | 30.30  | 32.96                | 14.80   | 48.60  | 11.16                    | 19.02  | 42.94   | 50.90   |          |        |
| 2              | 51.82                                                           | 54.64                    | 39.60  | 4.54   | 36.00  | 34.48                | 17.68   | 42.94  | 11.16                    | 19.02  | 42.94   | 51.36   |          |        |
| 3              | 52.28                                                           | 55.12                    | 16.40  | 4.30   | 34.10  | 34.48                | 35.62   | 52.74  | 11.16                    | 19.02  | 44.20   | 51.36   |          |        |
| 4              | 44.20                                                           | 54.64                    | 20.38  | 4.30   | 78.45  | 34.48                | 34.86   | 54.16  | 11.16                    | 25.16  | 51.82   | 50.44   |          |        |
| 5              | 52.28                                                           | 54.16                    | 17.04  | 5.74   | 73.50  | 34.86                | 28.40   | 67.50  | 11.16                    | 25.16  | 51.82   | 50.44   |          |        |
| 6              | 51.82                                                           | 57.04                    | 18.00  | 10.04  | 38.00  | 36.80                | 14.24   | 76.80  | 11.44                    | 24.46  | 52.28   | 47.28   |          |        |
| 7              | 51.36                                                           | 57.04                    | 18.00  | 9.76   | 28.40  | 37.20                | 6.46    | 91.70  | 14.52                    | 24.12  | 53.68   | 42.10   |          |        |
| 8              | 51.82                                                           | 57.04                    | 18.00  | 7.95   | 32.58  | 38.80                | 4.78    | 99.50  | 17.36                    | 23.78  | 53.68   | 43.78   |          |        |
| 9              | 60.00                                                           | 56.08                    | 17.36  | 6.46   | 32.58  | 38.80                | 4.30    | 45.96  | 16.72                    | 24.12  | 54.16   | 43.78   |          |        |
| 10             | 56.56                                                           | 54.64                    | 18.00  | 4.54   | 30.30  | 38.40                | 3.61    | 26.60  | 17.04                    | 24.12  | 53.68   | 43.78   |          |        |
| 11             | 57.52                                                           | 58.50                    | 18.00  | 5.98   | 29.92  | 38.40                | 14.52   | 12.84  | 17.04                    | 24.12  | 53.20   | 45.96   |          |        |
| 12             | 57.04                                                           | 56.56                    | 17.68  | 5.50   | 29.92  | 36.00                | 44.20   | 6.70   | 17.36                    | 23.78  | 47.72   | 45.52   |          |        |
| 13             | 57.52                                                           | 52.28                    | 17.36  | 5.26   | 29.92  | 33.72                | 71.30   | 11.44  | 17.36                    | 24.12  | 43.78   | 45.52   |          |        |
| 14             | 57.52                                                           | 52.28                    | 17.36  | 5.26   | 28.78  | 26.96                | 104.30  | 35.24  | 17.68                    | 29.16  | 43.36   | 43.78   |          |        |
| 15             | 50.44                                                           | 52.28                    | 17.04  | 5.98   | 27.32  | 25.52                | 102.50  | 41.26  | 17.68                    | 29.92  | 43.78   | 47.72   |          |        |
| 16             | 49.06                                                           | 46.40                    | 17.04  | 5.74   | 27.32  | 17.04                | 101.90  | 24.80  | 17.68                    | 29.92  | 43.78   | 47.72   |          |        |
| 17             | 49.06                                                           | 45.96                    | 16.08  | 5.74   | 27.32  | 15.12                | 101.30  | 12.84  | 18.00                    | 37.20  | 44.20   | 46.84   |          |        |
| 18             | 46.40                                                           | 46.40                    | 10.88  | 5.74   | 27.68  | 17.68                | 99.50   | 15.76  | 18.00                    | 32.96  | 43.78   | 48.60   |          |        |
| 19             | 46.84                                                           | 46.40                    | 6.46   | 5.50   | 27.32  | 32.20                | 79.00   | 11.16  | 18.00                    | 32.58  | 43.78   | 48.16   |          |        |
| 20             | 46.84                                                           | 46.40                    | 9.76   | 5.26   | 23.44  | 15.76                | 70.75   | 10.88  | 20.04                    | 32.96  | 44.20   | 48.16   |          |        |
| 21             | 46.84                                                           | 46.40                    | 9.76   | 5.26   | 24.46  | 15.76                | 69.10   | 10.88  | 18.34                    | 32.58  | 44.20   | 49.06   |          |        |
| 22             | 47.28                                                           | 45.96                    | 9.76   | 5.26   | 18.68  | 16.40                | 68.55   | 10.88  | 18.34                    | 32.96  | 44.64   | 49.06   |          |        |
| 23             | 47.28                                                           | 44.64                    | 9.48   | 5.02   | 28.04  | 16.40                | 67.50   | 10.88  | 18.34                    | 32.96  | 44.64   | 49.06   |          |        |
| 24             | 49.06                                                           | 45.08                    | 9.20   | 9.48   | 27.68  | 18.68                | 67.00   | 11.16  | 18.34                    | 32.96  | 44.20   | 49.06   |          |        |
| 25             | 49.06                                                           | 44.20                    | 6.22   | 10.32  | 27.68  | 24.46                | 67.00   | 11.16  | 18.68                    | 33.34  | 44.64   | 46.84   |          |        |
| 26             | 49.06                                                           | 45.08                    | 5.98   | 7.70   | 27.68  | 21.74                | 66.50   | 11.16  | 18.68                    | 33.34  | 44.64   | 46.40   |          |        |
| 27             | 49.52                                                           | 44.64                    | 5.98   | 9.48   | 28.04  | 21.74                | 61.00   | 11.16  | 18.68                    | 33.34  | 47.72   | 46.40   |          |        |
| 28             | 49.98                                                           | 41.68                    | 6.46   | 13.96  | 28.04  | 21.74                | 54.16   | 11.16  | 17.68                    | 33.72  | 50.90   | 46.84   |          |        |
| 29             | 49.52                                                           | 41.68                    | 6.22   | 31.44  | 28.04  | 22.08                | 52.74   | 11.16  | 18.68                    | 33.72  |         | 45.52   |          |        |
| 30             | 52.28                                                           | 41.68                    | 5.98   | 31.44  | 23.78  | 22.42                | 52.74   | 11.16  | 19.02                    | 39.20  |         | 42.10   |          |        |
| 31             |                                                                 | 40.00                    |        | 30.68  | 28.40  |                      | 53.20   |        | 19.02                    | 42.94  |         | 42.10   |          |        |
| Total          | 1531.16                                                         | 1539.54                  | 445.90 | 278.89 | 983.67 | 821.08               | 1633.51 | 900.18 | 515.52                   | 905.76 | 1318.36 | 1455.64 | 12329.21 | CMSDAY |
| Mean           | 51.04                                                           | 49.66                    | 14.86  | 9.00   | 31.73  | 27.37                | 52.69   | 30.01  | 16.63                    | 29.22  | 47.08   | 46.96   | 33.78    | CMS    |
| Max            | 60.00                                                           | 58.50                    | 40.42  | 31.44  | 78.45  | 38.80                | 104.30  | 99.50  | 20.04                    | 42.94  | 54.16   | 51.36   | 104.30   | CMS    |
| Min            | 44.20                                                           | 40.00                    | 5.98   | 4.30   | 18.68  | 15.12                | 3.61    | 6.70   | 11.16                    | 19.02  | 42.94   | 42.10   | 3.61     | CMS    |
| Runoff         | 132.29                                                          | 133.02                   | 38.53  | 24.10  | 84.99  | 70.94                | 141.14  | 77.78  | 44.54                    | 78.26  | 113.91  | 125.77  | 1065.24  | MCM    |
| Momentary Peak | 112.70 CMS. at 44.07 m. (MSL.) at 16.00 Hours , on Nov 8 , 2013 |                          |        |        |        |                      |         |        |                          |        |         |         |          |        |
| Runoff Yield   | 15.22                                                           | Liters/Second/Square KM. |        |        |        | Momentary Peak Yield |         | 50.766 | Liters/Second/Square KM. |        |         |         |          |        |

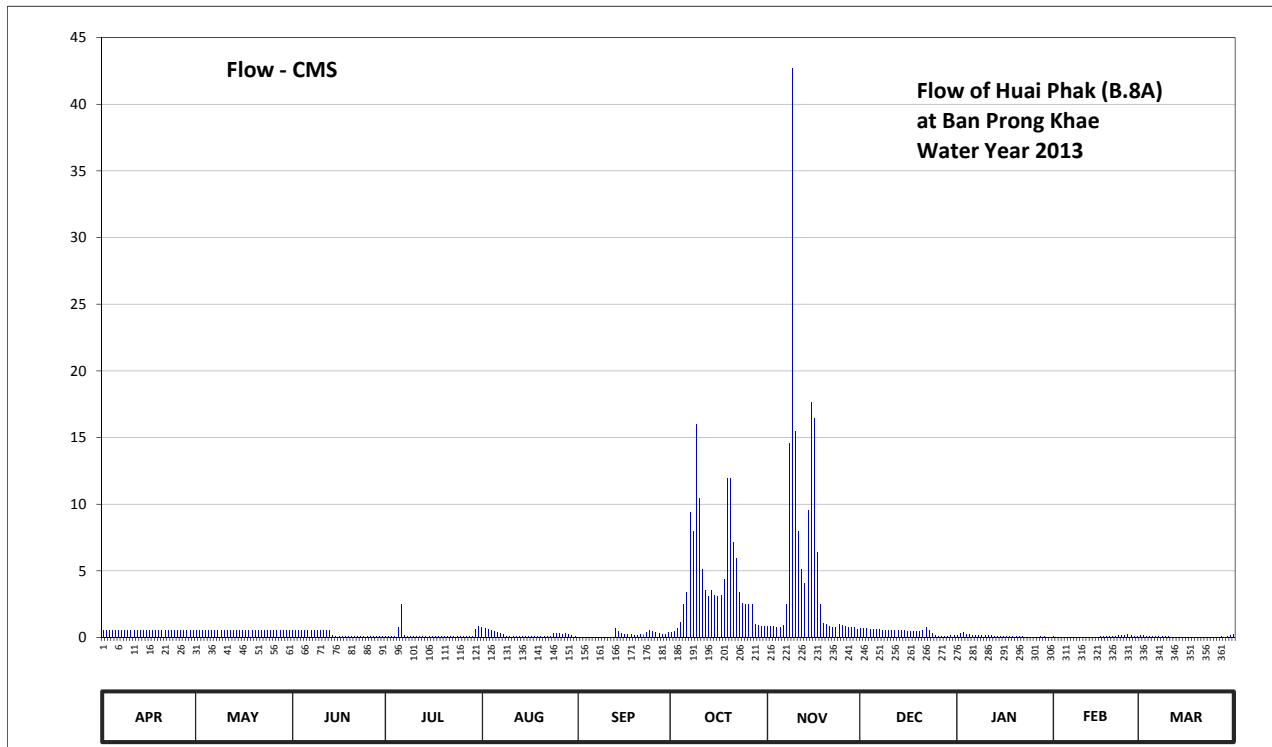
Lat 12 - 48 - 50 N    Long 99 - 42 - 16 E

**Location :** on left bank at Ban Prong Khae.

|                                         |                                                                                           |            |               |          |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Prong Khae | <b>Amphoe</b> | Tha Yang | <b>Changwat</b>  | Phetchaburi       |
| <b>Drainage Area</b>                    | 301                                                                                       | sq.km.     |               |          |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |               |          |                  |                   |
| <b>Zero Gage at Bottom</b>              | +39.177                                                                                   | m. (MSL.)  |               |          |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |          |                  |                   |
| <b>Location BM</b>                      | In front of gage observer's house.                                                        |            |               |          | <b>Elevation</b> | +47.485 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |               |          |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |               |          |                  |                   |
| <b>Period of Available Gage Records</b> | 1973 to date                                                                              |            |               |          |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |          |                  |                   |
| <b>Period of Rating</b>                 | 1973 to date                                                                              |            |               |          |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |          |                  |                   |
| <b>Rated by Current Meter</b>           | 1973 to date                                                                              |            |               |          |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |            |               |          |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |          |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 1913. |            |               |          |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.81 | 39.60 | 39.72 | 39.83 | 39.79 | 39.66 | 39.64 | 39.65 |        |
| 2                                | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.79 | 39.55 | 39.74 | 39.83 | 39.79 | 39.69 | 39.62 | 39.65 |        |
| 3                                | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.77 | 39.54 | 39.79 | 39.82 | 39.79 | 39.71 | 39.62 | 39.64 |        |
| 4                                | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.75 | 39.54 | 39.89 | 39.81 | 39.78 | 39.68 | 39.61 | 39.63 |        |
| 5                                | 39.75 | 39.75 | 39.75                                           | 39.81 | 39.73 | 39.54 | 40.02 | 39.80 | 39.78 | 39.67 | 39.61 | 39.63 |        |
| 6                                | 39.75 | 39.75 | 39.75                                           | 39.94 | 39.71 | 39.54 | 40.21 | 39.84 | 39.77 | 39.66 | 39.62 | 39.63 |        |
| 7                                | 39.75 | 39.75 | 39.75                                           | 39.65 | 39.69 | 39.54 | 40.74 | 40.10 | 39.77 | 39.65 | 39.62 | 39.63 |        |
| 8                                | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.67 | 39.54 | 40.64 | 41.07 | 39.76 | 39.65 | 39.62 | 39.63 |        |
| 9                                | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.64 | 39.62 | 41.15 | 42.03 | 39.76 | 39.65 | 39.62 | 39.63 |        |
| 10                               | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.63 | 39.61 | 40.81 | 41.12 | 39.76 | 39.65 | 39.62 | 39.63 |        |
| 11                               | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.63 | 39.61 | 40.39 | 40.64 | 39.76 | 39.65 | 39.61 | 39.62 |        |
| 12                               | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.63 | 39.61 | 40.23 | 40.39 | 39.76 | 39.65 | 39.61 | 39.62 |        |
| 13                               | 39.75 | 39.75 | 39.75                                           | 39.63 | 39.63 | 39.79 | 40.18 | 40.29 | 39.75 | 39.64 | 39.62 | 39.62 |        |
| 14                               | 39.75 | 39.75 | 39.66                                           | 39.63 | 39.63 | 39.74 | 40.23 | 40.75 | 39.75 | 39.64 | 39.62 | 39.62 |        |
| 15                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.70 | 40.19 | 41.23 | 39.75 | 39.64 | 39.62 | 39.62 |        |
| 16                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.68 | 40.18 | 41.17 | 39.74 | 39.64 | 39.63 | 39.62 |        |
| 17                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.68 | 40.19 | 40.51 | 39.74 | 39.64 | 39.64 | 39.62 |        |
| 18                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.67 | 40.32 | 40.10 | 39.74 | 39.64 | 39.63 | 39.62 |        |
| 19                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.66 | 40.91 | 39.88 | 39.74 | 39.63 | 39.63 | 39.62 |        |
| 20                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.66 | 40.91 | 39.86 | 39.74 | 39.63 | 39.64 | 39.62 |        |
| 21                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.67 | 40.57 | 39.83 | 39.75 | 39.64 | 39.63 | 39.62 |        |
| 22                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.67 | 40.47 | 39.81 | 39.80 | 39.63 | 39.65 | 39.62 |        |
| 23                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.64 | 39.72 | 40.21 | 39.81 | 39.76 | 39.62 | 39.65 | 39.62 |        |
| 24                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.70 | 39.75 | 40.11 | 39.86 | 39.69 | 39.62 | 39.66 | 39.62 |        |
| 25                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.70 | 39.73 | 40.07 | 39.85 | 39.65 | 39.62 | 39.67 | 39.62 |        |
| 26                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.69 | 39.71 | 40.01 | 39.83 | 39.63 | 39.62 | 39.65 | 39.62 |        |
| 27                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.68 | 39.69 | 39.93 | 39.81 | 39.63 | 39.62 | 39.63 | 39.63 |        |
| 28                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.69 | 39.68 | 39.86 | 39.80 | 39.63 | 39.63 | 39.64 | 39.62 |        |
| 29                               | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.67 | 39.67 | 39.84 | 39.80 | 39.64 | 39.63 |       | 39.64 |        |
| 30                               | 39.75 | 39.75 | 39.63                                           | 39.77 | 39.66 | 39.72 | 39.82 | 39.78 | 39.65 | 39.62 |       | 39.66 |        |
| 31                               |       | 39.75 |                                                 | 39.83 | 39.64 |       | 39.82 |       | 39.65 | 39.62 |       | 39.67 |        |
| Mean                             | 39.75 | 39.75 | 39.68                                           | 39.66 | 39.67 | 39.65 | 40.23 | 40.21 | 39.73 | 39.64 | 39.63 | 39.63 |        |
| Max                              | 39.75 | 39.75 | 39.75                                           | 39.94 | 39.81 | 39.79 | 41.15 | 42.03 | 39.80 | 39.71 | 39.67 | 39.67 | 42.03  |
| Min                              | 39.75 | 39.75 | 39.63                                           | 39.63 | 39.63 | 39.54 | 39.72 | 39.78 | 39.63 | 39.62 | 39.61 | 39.62 | 39.54  |
| Annual Max Momentary Gage Height | 42.37 |       | m. (MSL.) , at 04.00 Hours , on Nov 9 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 39.18 |       | m. (MSL.) , River Bed 39.59 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 45.13 |       | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 45.23 |       | m. (MSL.) , Drainage Area 301 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun  | Jul                  | Aug  | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual        |
|----------------|----------------------------------------------------------------|--------------------------|------|----------------------|------|---------|--------------------------|--------|-------|------|------|------|---------------|
| 1              | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.80 | 0.00    | 0.43                     | 0.89   | 0.71  | 0.21 | 0.14 | 0.18 |               |
| 2              | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.71 | 0.00    | 0.51                     | 0.89   | 0.71  | 0.31 | 0.07 | 0.18 |               |
| 3              | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.63 | 0.00    | 0.71                     | 0.84   | 0.71  | 0.39 | 0.07 | 0.14 |               |
| 4              | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.55 | 0.00    | 1.15                     | 0.80   | 0.67  | 0.28 | 0.04 | 0.11 |               |
| 5              | 0.55                                                           | 0.55                     | 0.55 | 0.80                 | 0.47 | 0.00    | 2.50                     | 0.75   | 0.67  | 0.24 | 0.04 | 0.11 |               |
| 6              | 0.55                                                           | 0.55                     | 0.55 | 2.50                 | 0.39 | 0.00    | 3.39                     | 0.93   | 0.63  | 0.21 | 0.07 | 0.11 |               |
| 7              | 0.55                                                           | 0.55                     | 0.55 | 0.18                 | 0.31 | 0.00    | 9.40                     | 2.50   | 0.63  | 0.18 | 0.07 | 0.11 |               |
| 8              | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.24 | 0.00    | 8.02                     | 14.59  | 0.59  | 0.18 | 0.07 | 0.11 |               |
| 9              | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.14 | 0.07    | 16.05                    | 42.71  | 0.59  | 0.18 | 0.07 | 0.11 |               |
| 10             | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.11 | 0.04    | 10.45                    | 15.48  | 0.59  | 0.18 | 0.07 | 0.11 |               |
| 11             | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.11 | 0.04    | 5.10                     | 8.02   | 0.59  | 0.18 | 0.04 | 0.07 |               |
| 12             | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.11 | 0.04    | 3.57                     | 5.10   | 0.59  | 0.18 | 0.04 | 0.07 |               |
| 13             | 0.55                                                           | 0.55                     | 0.55 | 0.11                 | 0.11 | 0.71    | 3.14                     | 4.11   | 0.55  | 0.14 | 0.07 | 0.07 |               |
| 14             | 0.55                                                           | 0.55                     | 0.21 | 0.11                 | 0.11 | 0.51    | 3.57                     | 9.55   | 0.55  | 0.14 | 0.07 | 0.07 |               |
| 15             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.35    | 3.22                     | 17.63  | 0.55  | 0.14 | 0.07 | 0.07 |               |
| 16             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.28    | 3.14                     | 16.43  | 0.51  | 0.14 | 0.11 | 0.07 |               |
| 17             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.28    | 3.22                     | 6.42   | 0.51  | 0.14 | 0.14 | 0.07 |               |
| 18             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.24    | 4.40                     | 2.50   | 0.51  | 0.14 | 0.11 | 0.07 |               |
| 19             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.21    | 11.96                    | 1.11   | 0.51  | 0.11 | 0.11 | 0.07 |               |
| 20             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.21    | 11.96                    | 1.02   | 0.51  | 0.11 | 0.14 | 0.07 |               |
| 21             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.24    | 7.14                     | 0.89   | 0.55  | 0.14 | 0.11 | 0.07 |               |
| 22             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.24    | 5.97                     | 0.80   | 0.75  | 0.11 | 0.18 | 0.07 |               |
| 23             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.14 | 0.43    | 3.39                     | 0.80   | 0.59  | 0.07 | 0.18 | 0.07 |               |
| 24             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.35 | 0.55    | 2.58                     | 1.02   | 0.31  | 0.07 | 0.21 | 0.07 |               |
| 25             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.35 | 0.47    | 2.50                     | 0.97   | 0.18  | 0.07 | 0.24 | 0.07 |               |
| 26             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.31 | 0.39    | 2.50                     | 0.89   | 0.11  | 0.07 | 0.18 | 0.07 |               |
| 27             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.28 | 0.31    | 2.50                     | 0.80   | 0.11  | 0.07 | 0.11 | 0.11 |               |
| 28             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.31 | 0.28    | 1.02                     | 0.75   | 0.11  | 0.11 | 0.14 | 0.07 |               |
| 29             | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.24 | 0.24    | 0.93                     | 0.75   | 0.14  | 0.11 |      | 0.14 |               |
| 30             | 0.55                                                           | 0.55                     | 0.11 | 0.63                 | 0.21 | 0.43    | 0.84                     | 0.67   | 0.18  | 0.07 |      | 0.21 |               |
| 31             |                                                                | 0.55                     |      | 0.89                 | 0.14 |         | 0.84                     |        | 0.18  | 0.07 |      | 0.24 |               |
| Total          | 16.50                                                          | 17.05                    | 9.12 | 7.86                 | 8.00 | 6.56    | 136.10                   | 160.61 | 15.09 | 4.74 | 2.96 | 3.16 | 387.75 CMSDAY |
| Mean           | 0.55                                                           | 0.55                     | 0.30 | 0.25                 | 0.26 | 0.22    | 4.39                     | 5.35   | 0.49  | 0.15 | 0.11 | 0.10 | 1.06 CMS      |
| Max            | 0.55                                                           | 0.55                     | 0.55 | 2.50                 | 0.80 | 0.71    | 16.05                    | 42.71  | 0.75  | 0.39 | 0.24 | 0.24 | 42.71 CMS     |
| Min            | 0.55                                                           | 0.55                     | 0.11 | 0.11                 | 0.11 | 0.00    | 0.43                     | 0.67   | 0.11  | 0.07 | 0.04 | 0.07 | 0.00 CMS      |
| Runoff         | 1.43                                                           | 1.47                     | 0.79 | 0.68                 | 0.69 | 0.57    | 11.76                    | 13.88  | 1.30  | 0.41 | 0.26 | 0.27 | 33.50 MCM     |
| Momentary Peak | 60.80 CMS. at 42.37 m. (MSL.) at 04.00 Hours , on Nov 9 , 2013 |                          |      |                      |      |         |                          |        |       |      |      |      |               |
| Runoff Yield   | 3.53                                                           | Liters/Second/Square KM. |      | Momentary Peak Yield |      | 201.993 | Liters/Second/Square KM. |        |       |      |      |      |               |

**WATER YEAR : 2013**

## PHETCHABURI RIVER BASIN

## Phetchaburi River at Ban Sarahed , Phetchaburi (B.9)

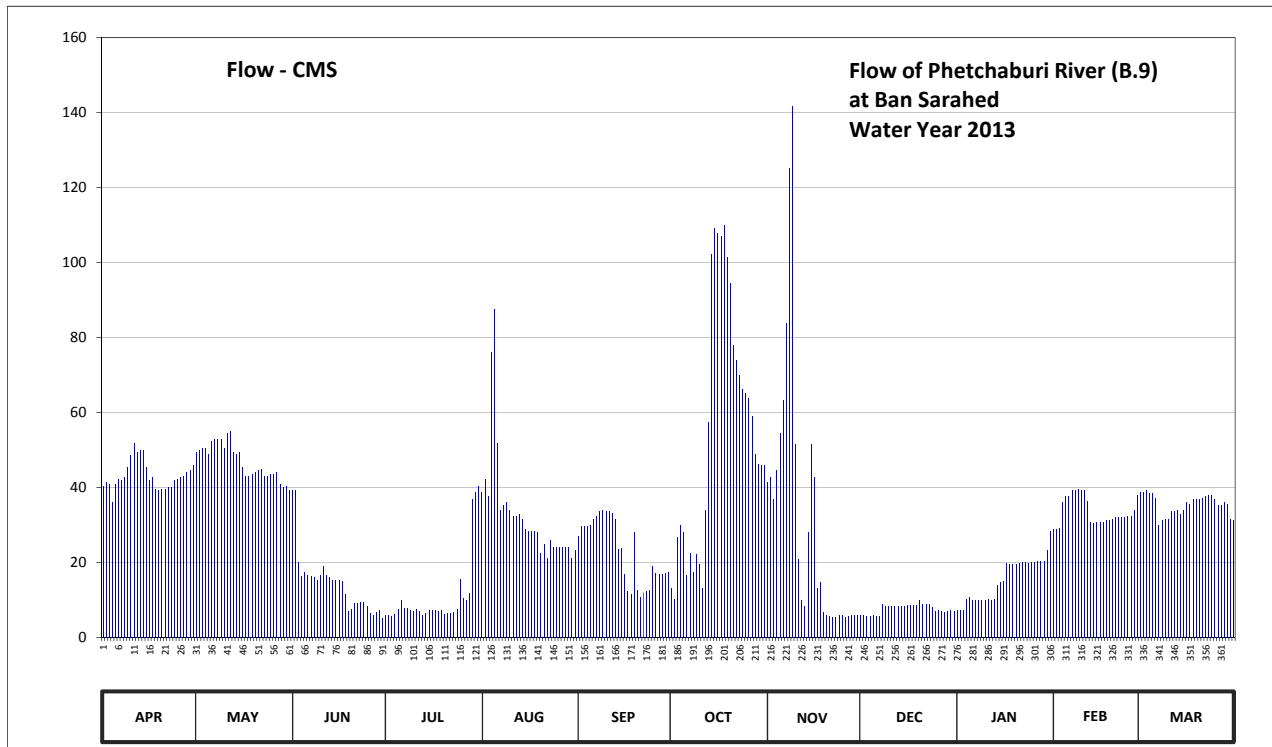
Lat 12 - 48 - 18 N    Long 99 - 46 - 27 E

**Location :** on left bank at Ban Sarahed.

|                                         |                                                                                           |           |               |          |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Sarahed   | <b>Amphoe</b> | Tha Yang | <b>Changwat</b>  | Phetchaburi       |
| <b>Drainage Area</b>                    | 2,617                                                                                     | sq.km.    |               |          |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |          |                  |                   |
| <b>Zero Gage at Bottom</b>              | +25.317                                                                                   | m. (MSL.) |               |          |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |          |                  |                   |
| <b>Location BM</b>                      | Near the automatic gage building.                                                         |           |               |          | <b>Elevation</b> | +32.512 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |          |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |          |                  |                   |
| <b>Period of Available Gage Records</b> | 2003 to date                                                                              |           |               |          |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                   |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |           |               |          |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                   |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |           |               |          |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |          |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |          |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 31 discharge measurements made in 2013. |           |               |          |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 28.20 | 28.40 | 28.17       | 27.03 | 28.16                            | 27.86 | 27.41             | 28.22 | 27.03 | 27.12 | 27.91 | 28.16 |        |
| 2                                | 28.22 | 28.41 | 28.17       | 27.03 | 28.24                            | 27.93 | 27.29             | 28.25 | 27.03 | 27.12 | 27.91 | 28.16 |        |
| 3                                | 28.21 | 28.42 | 27.64       | 27.02 | 28.13                            | 27.93 | 27.85             | 28.11 | 27.02 | 27.12 | 27.92 | 28.17 |        |
| 4                                | 28.09 | 28.42 | 27.51       | 27.05 | 28.90                            | 27.93 | 27.94             | 28.29 | 27.02 | 27.29 | 28.09 | 28.15 |        |
| 5                                | 28.21 | 28.39 | 27.55       | 27.14 | 29.09                            | 27.94 | 27.89             | 28.50 | 27.03 | 27.31 | 28.13 | 28.15 |        |
| 6                                | 28.24 | 28.46 | 27.52       | 27.27 | 28.45                            | 27.98 | 27.52             | 28.67 | 27.02 | 27.28 | 28.13 | 28.12 |        |
| 7                                | 28.23 | 28.47 | 27.51       | 27.16 | 28.04                            | 28.00 | 27.72             | 29.03 | 27.02 | 27.28 | 28.17 | 27.94 |        |
| 8                                | 28.25 | 28.47 | 27.50       | 27.15 | 28.07                            | 28.03 | 27.55             | 29.63 | 27.22 | 27.28 | 28.17 | 27.97 |        |
| 9                                | 28.31 | 28.47 | 27.48       | 27.12 | 28.09                            | 28.04 | 27.71             | 29.84 | 27.20 | 27.28 | 28.18 | 27.98 |        |
| 10                               | 28.38 | 28.42 | 27.52       | 27.11 | 28.04                            | 28.03 | 27.62             | 28.44 | 27.20 | 27.28 | 28.17 | 27.98 |        |
| 11                               | 28.45 | 28.50 | 27.60       | 27.13 | 28.00                            | 28.03 | 27.41             | 27.66 | 27.20 | 27.29 | 28.17 | 28.03 |        |
| 12                               | 28.40 | 28.51 | 27.52       | 27.11 | 28.00                            | 28.02 | 28.04             | 27.27 | 27.20 | 27.28 | 28.10 | 28.03 |        |
| 13                               | 28.41 | 28.40 | 27.50       | 27.04 | 28.01                            | 27.98 | 28.56             | 27.19 | 27.20 | 27.29 | 27.96 | 28.04 |        |
| 14                               | 28.41 | 28.39 | 27.48       | 27.06 | 27.98                            | 27.75 | 29.31             | 27.89 | 27.20 | 27.43 | 27.95 | 28.01 |        |
| 15                               | 28.31 | 28.40 | 27.48       | 27.12 | 27.91                            | 27.76 | 29.41             | 28.44 | 27.20 | 27.46 | 27.96 | 28.04 |        |
| 16                               | 28.23 | 28.31 | 27.48       | 27.12 | 27.90                            | 27.53 | 29.39             | 28.25 | 27.21 | 27.47 | 27.96 | 28.09 |        |
| 17                               | 28.25 | 28.26 | 27.47       | 27.12 | 27.90                            | 27.38 | 29.38             | 27.41 | 27.21 | 27.63 | 27.96 | 28.08 |        |
| 18                               | 28.18 | 28.26 | 27.34       | 27.11 | 27.90                            | 27.34 | 29.42             | 27.46 | 27.21 | 27.62 | 27.97 | 28.11 |        |
| 19                               | 28.17 | 28.27 | 27.11       | 27.12 | 27.89                            | 27.89 | 29.30             | 27.09 | 27.21 | 27.62 | 27.97 | 28.11 |        |
| 20                               | 28.18 | 28.28 | 27.14       | 27.05 | 27.72                            | 27.39 | 29.20             | 27.04 | 27.27 | 27.62 | 27.98 | 28.11 |        |
| 21                               | 28.18 | 28.29 | 27.23       | 27.06 | 27.80                            | 27.31 | 28.93             | 27.01 | 27.22 | 27.63 | 27.99 | 28.12 |        |
| 22                               | 28.19 | 28.30 | 27.24       | 27.07 | 27.67                            | 27.36 | 28.86             | 27.00 | 27.22 | 27.64 | 27.99 | 28.13 |        |
| 23                               | 28.19 | 28.26 | 27.25       | 27.08 | 27.83                            | 27.38 | 28.79             | 26.99 | 27.22 | 27.64 | 27.99 | 28.14 |        |
| 24                               | 28.23 | 28.26 | 27.25       | 27.14 | 27.77                            | 27.39 | 28.72             | 27.03 | 27.18 | 27.63 | 27.99 | 28.14 |        |
| 25                               | 28.24 | 28.27 | 27.19       | 27.49 | 27.77                            | 27.60 | 28.70             | 27.03 | 27.11 | 27.64 | 28.00 | 28.11 |        |
| 26                               | 28.25 | 28.27 | 27.06       | 27.30 | 27.77                            | 27.54 | 28.68             | 27.00 | 27.12 | 27.64 | 28.00 | 28.07 |        |
| 27                               | 28.26 | 28.28 | 27.04       | 27.27 | 27.77                            | 27.53 | 28.59             | 27.02 | 27.11 | 27.65 | 28.04 | 28.07 |        |
| 28                               | 28.28 | 28.21 | 27.08       | 27.36 | 27.77                            | 27.53 | 28.39             | 27.04 | 27.08 | 27.65 | 28.14 | 28.09 |        |
| 29                               | 28.29 | 28.19 | 27.12       | 28.11 | 27.77                            | 27.54 | 28.33             | 27.04 | 27.11 | 27.65 |       | 28.08 |        |
| 30                               | 28.32 | 28.20 | 26.98       | 28.16 | 27.67                            | 27.55 | 28.32             | 27.03 | 27.12 | 27.74 |       | 27.98 |        |
| 31                               |       | 28.17 |             | 28.20 | 27.74                            |       | 28.32             |       | 27.11 | 27.90 |       | 27.97 |        |
| Mean                             | 28.26 | 28.34 | 27.40       | 27.24 | 27.99                            | 27.72 | 28.40             | 27.76 | 27.15 | 27.47 | 28.03 | 28.08 |        |
| Max                              | 28.45 | 28.51 | 28.17       | 28.20 | 29.09                            | 28.04 | 29.42             | 29.84 | 27.27 | 27.90 | 28.18 | 28.17 | 29.84  |
| Min                              | 28.09 | 28.17 | 26.98       | 27.02 | 27.67                            | 27.31 | 27.29             | 26.99 | 27.02 | 27.12 | 27.91 | 27.94 | 26.98  |
| Annual Max Momentary Gage Height |       | 30.37 | m. (MSL.) , |       | at 03.00 Hours , on Nov 8 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 25.32 | m. (MSL.) , |       | River Bed                        | 24.92 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 30.97 | m. (MSL.) , |       |                                  |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 32.37 | m. (MSL.) , |       | Drainage Area                    | 2617  | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug     | Sep    | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|---------|--------|--------------------------|--------|--------|--------|--------|---------|----------|--------|
| 1              | 40.50                                                           | 49.50                    | 39.30  | 5.95                 | 38.90   | 27.10  | 13.30                    | 41.40  | 5.95   | 7.30   | 28.90  | 38.90   |          |        |
| 2              | 41.40                                                           | 50.00                    | 39.30  | 5.95                 | 42.30   | 29.70  | 10.30                    | 42.75  | 5.95   | 7.30   | 28.90  | 38.90   |          |        |
| 3              | 40.95                                                           | 50.50                    | 20.20  | 5.80                 | 37.70   | 29.70  | 26.75                    | 36.90  | 5.80   | 7.30   | 29.30  | 39.30   |          |        |
| 4              | 36.10                                                           | 50.50                    | 16.30  | 6.25                 | 76.00   | 29.70  | 30.10                    | 44.55  | 5.80   | 10.30  | 36.10  | 38.50   |          |        |
| 5              | 40.95                                                           | 49.05                    | 17.50  | 7.60                 | 87.40   | 30.10  | 28.15                    | 54.50  | 5.95   | 10.75  | 37.70  | 38.50   |          |        |
| 6              | 42.30                                                           | 52.50                    | 16.60  | 9.90                 | 52.00   | 31.70  | 16.60                    | 63.35  | 5.80   | 10.10  | 37.70  | 37.30   |          |        |
| 7              | 41.85                                                           | 53.00                    | 16.30  | 7.90                 | 34.10   | 32.50  | 22.60                    | 83.80  | 5.80   | 10.10  | 39.30  | 30.10   |          |        |
| 8              | 42.75                                                           | 53.00                    | 16.00  | 7.75                 | 35.30   | 33.70  | 17.50                    | 125.25 | 8.90   | 10.10  | 39.30  | 31.30   |          |        |
| 9              | 45.45                                                           | 53.00                    | 15.40  | 7.30                 | 36.10   | 34.10  | 22.30                    | 141.70 | 8.50   | 10.10  | 39.70  | 31.70   |          |        |
| 10             | 48.60                                                           | 50.50                    | 16.60  | 7.15                 | 34.10   | 33.70  | 19.60                    | 51.50  | 8.50   | 10.10  | 39.30  | 31.70   |          |        |
| 11             | 52.00                                                           | 54.50                    | 19.00  | 7.45                 | 32.50   | 33.70  | 13.30                    | 20.80  | 8.50   | 10.30  | 39.30  | 33.70   |          |        |
| 12             | 49.50                                                           | 55.00                    | 16.60  | 7.15                 | 32.50   | 33.30  | 34.10                    | 9.90   | 8.50   | 10.10  | 36.50  | 33.70   |          |        |
| 13             | 50.00                                                           | 49.50                    | 16.00  | 6.10                 | 32.90   | 31.70  | 57.50                    | 8.35   | 8.50   | 10.30  | 30.90  | 34.10   |          |        |
| 14             | 50.00                                                           | 49.05                    | 15.40  | 6.40                 | 31.70   | 23.50  | 102.20                   | 28.15  | 8.50   | 13.90  | 30.50  | 32.90   |          |        |
| 15             | 45.45                                                           | 49.50                    | 15.40  | 7.30                 | 28.90   | 23.80  | 109.20                   | 51.50  | 8.50   | 14.80  | 30.90  | 34.10   |          |        |
| 16             | 41.85                                                           | 45.45                    | 15.40  | 7.30                 | 28.50   | 16.90  | 107.80                   | 42.75  | 8.70   | 15.10  | 30.90  | 36.10   |          |        |
| 17             | 42.75                                                           | 43.20                    | 15.10  | 7.30                 | 28.50   | 12.50  | 107.10                   | 13.30  | 8.70   | 19.90  | 30.90  | 35.70   |          |        |
| 18             | 39.70                                                           | 43.20                    | 11.50  | 7.15                 | 28.50   | 11.50  | 109.90                   | 14.80  | 8.70   | 19.60  | 31.30  | 36.90   |          |        |
| 19             | 39.30                                                           | 43.65                    | 7.15   | 7.30                 | 28.15   | 28.15  | 101.50                   | 6.85   | 8.70   | 19.60  | 31.30  | 36.90   |          |        |
| 20             | 39.70                                                           | 44.10                    | 7.60   | 6.25                 | 22.60   | 12.75  | 94.50                    | 6.10   | 9.90   | 19.60  | 31.70  | 36.90   |          |        |
| 21             | 39.70                                                           | 44.55                    | 9.10   | 6.40                 | 25.00   | 10.75  | 77.80                    | 5.65   | 8.90   | 19.90  | 32.10  | 37.30   |          |        |
| 22             | 40.10                                                           | 45.00                    | 9.30   | 6.55                 | 21.10   | 12.00  | 73.80                    | 5.50   | 8.90   | 20.20  | 32.10  | 37.70   |          |        |
| 23             | 40.10                                                           | 43.20                    | 9.50   | 6.70                 | 26.05   | 12.50  | 69.95                    | 5.35   | 8.90   | 20.20  | 32.10  | 38.10   |          |        |
| 24             | 41.85                                                           | 43.20                    | 9.50   | 7.60                 | 24.10   | 12.75  | 66.10                    | 5.95   | 8.20   | 19.90  | 32.10  | 38.10   |          |        |
| 25             | 42.30                                                           | 43.65                    | 8.35   | 15.70                | 24.10   | 19.00  | 65.00                    | 5.95   | 7.15   | 20.20  | 32.50  | 36.90   |          |        |
| 26             | 42.75                                                           | 43.65                    | 6.40   | 10.50                | 24.10   | 17.20  | 63.90                    | 5.50   | 7.30   | 20.20  | 32.50  | 35.30   |          |        |
| 27             | 43.20                                                           | 44.10                    | 6.10   | 9.90                 | 24.10   | 16.90  | 59.00                    | 5.80   | 7.15   | 20.50  | 34.10  | 35.30   |          |        |
| 28             | 44.10                                                           | 40.95                    | 6.70   | 12.00                | 24.10   | 16.90  | 49.05                    | 6.10   | 6.70   | 20.50  | 38.10  | 36.10   |          |        |
| 29             | 44.55                                                           | 40.10                    | 7.30   | 36.90                | 24.10   | 17.20  | 46.35                    | 6.10   | 7.15   | 20.50  |        | 35.70   |          |        |
| 30             | 45.90                                                           | 40.50                    | 5.20   | 38.90                | 21.10   | 17.50  | 45.90                    | 5.95   | 7.30   | 23.20  |        | 31.70   |          |        |
| 31             |                                                                 | 39.30                    |        | 40.50                | 23.20   |        | 45.90                    |        | 7.15   | 28.50  |        | 31.30   |          |        |
| Total          | 1295.65                                                         | 1456.90                  | 430.10 | 332.90               | 1029.70 | 692.50 | 1707.05                  | 946.05 | 238.95 | 480.45 | 946.00 | 1100.70 | 10656.95 | CMSDAY |
| Mean           | 43.19                                                           | 47.00                    | 14.34  | 10.74                | 33.22   | 23.08  | 55.07                    | 31.53  | 7.71   | 15.50  | 33.79  | 35.51   | 29.20    | CMS    |
| Max            | 52.00                                                           | 55.00                    | 39.30  | 40.50                | 87.40   | 34.10  | 109.90                   | 141.70 | 9.90   | 28.50  | 39.70  | 39.30   | 141.70   | CMS    |
| Min            | 36.10                                                           | 39.30                    | 5.20   | 5.80                 | 21.10   | 10.75  | 10.30                    | 5.35   | 5.80   | 7.30   | 28.90  | 30.10   | 5.20     | CMS    |
| Runoff         | 111.94                                                          | 125.88                   | 37.16  | 28.76                | 88.97   | 59.83  | 147.49                   | 81.74  | 20.65  | 41.51  | 81.73  | 95.10   | 920.76   | MCM    |
| Momentary Peak | 184.69 CMS. at 30.37 m. (MSL.) at 23.00 Hours , on Nov 8 , 2013 |                          |        |                      |         |        |                          |        |        |        |        |         |          |        |
| Runoff Yield   | 11.16                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |         | 70.573 | Liters/Second/Square KM. |        |        |        |        |         |          |        |

## WATER YEAR : 2013

## PHETCHABURI RIVER BASIN

### Phetchaburi River at Ban Tha Yang , Phetchaburi (B.10

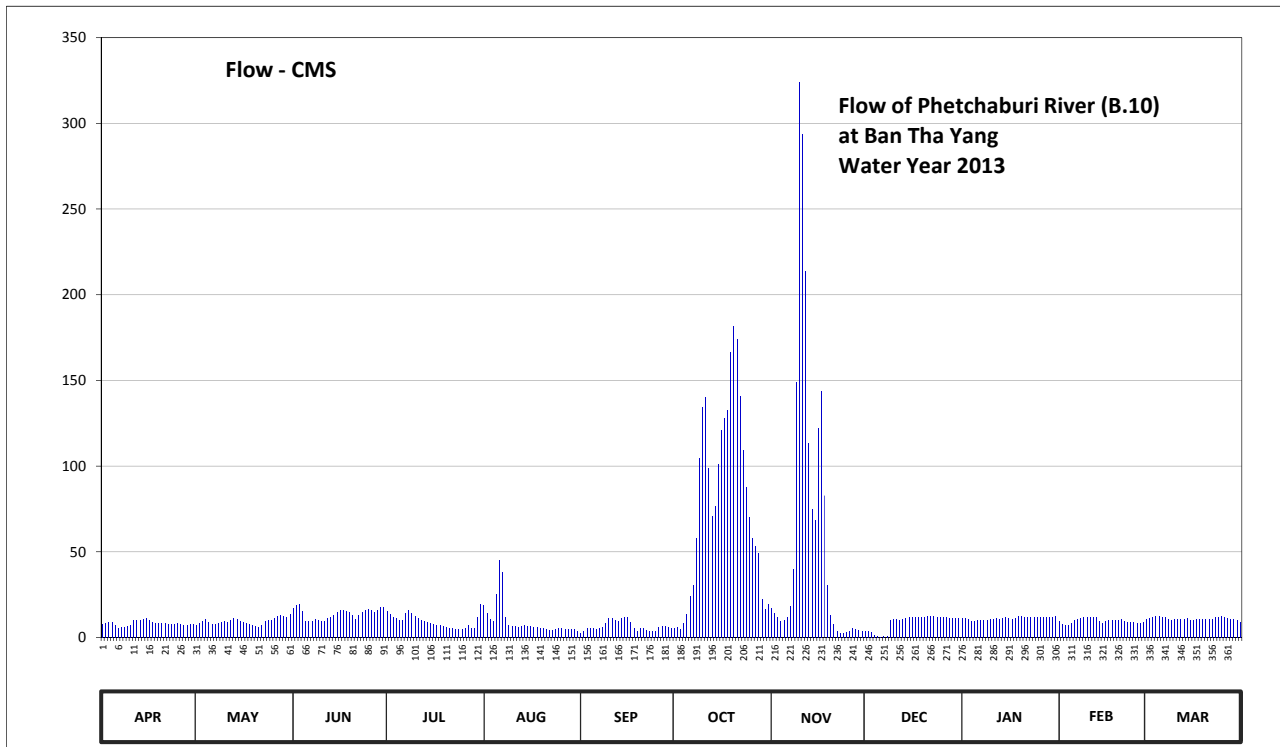
Lat 12 - 58 - 21 N    Long 99 - 53 - 07 E

**Location :** on left bank at the bridge of Ban Tha Yang

|                                         |                                                                             |           |               |          |                  |                   |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------|---------------|----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                  | Tha Yang  | <b>Amphoe</b> | Tha Yang | <b>Changwat</b>  | Phetchaburi       |
| <b>Drainage Area</b>                    | 4,076                                                                       | sq.km.    |               |          |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                      |           |               |          |                  |                   |
| <b>Zero Gage at Bottom</b>              | +5.625                                                                      | m. (MSL.) |               |          |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                   |           |               |          |                  |                   |
| <b>Location BM</b>                      | On right bank about 2 meters from the top staff gage.                       |           |               |          | <b>Elevation</b> | +15.068 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                   |           |               |          |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                              |           |               |          |                  |                   |
| <b>Period of Available Gage Records</b> | 1983 to date                                                                |           |               |          |                  |                   |
| <b>Rating Operation</b>                 |                                                                             |           |               |          |                  |                   |
| <b>Period of Rating</b>                 | 1985 to date                                                                |           |               |          |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                           |           |               |          |                  |                   |
| <b>Rated by Current Meter</b>           | 1985 to date                                                                |           |               |          |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                     |           |               |          |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                           |           |               |          |                  |                   |
| <b>General Description</b>              | Records good. Flow regulated by Phet Dam.                                   |           |               |          |                  |                   |
|                                         | Stage-discharge relation defined by 34 discharge measurements made in 1913. |           |               |          |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May   | Jun  | Jul         | Aug  | Sep                               | Oct   | Nov               | Dec       | Jan  | Feb  | Mar  | Annual |  |
|----------------------------------|------|-------|------|-------------|------|-----------------------------------|-------|-------------------|-----------|------|------|------|--------|--|
| 1                                | 7.01 | 6.97  | 7.60 | 7.51        | 7.69 | 6.54                              | 6.85  | 7.62              | 6.66      | 6.43 | 6.32 | 6.38 |        |  |
| 2                                | 7.09 | 7.05  | 7.71 | 7.41        | 7.45 | 6.67                              | 6.89  | 7.45              | 6.62      | 6.43 | 6.19 | 6.44 |        |  |
| 3                                | 7.11 | 7.14  | 7.73 | 7.32        | 7.23 | 6.83                              | 6.80  | 7.29              | 6.55      | 6.39 | 6.16 | 6.47 |        |  |
| 4                                | 7.12 | 7.23  | 7.51 | 7.25        | 7.14 | 6.86                              | 7.08  | 7.14              | 6.46      | 6.29 | 6.15 | 6.49 |        |  |
| 5                                | 6.98 | 7.10  | 7.16 | 7.18        | 8.01 | 6.82                              | 7.43  | 7.18              | 6.42      | 6.31 | 6.24 | 6.49 |        |  |
| 6                                | 6.82 | 7.03  | 7.15 | 7.19        | 8.73 | 6.80                              | 7.95  | 7.31              | 6.35      | 6.36 | 6.35 | 6.48 |        |  |
| 7                                | 6.87 | 7.01  | 7.17 | 7.44        | 8.49 | 6.81                              | 8.22  | 7.68              | 6.29      | 6.36 | 6.39 | 6.46 |        |  |
| 8                                | 6.91 | 7.08  | 7.22 | 7.54        | 7.29 | 6.87                              | 9.11  | 8.54              | 6.27      | 6.34 | 6.43 | 6.38 |        |  |
| 9                                | 6.94 | 7.12  | 7.20 | 7.44        | 7.00 | 7.05                              | 10.24 | 11.07             | 6.36      | 6.36 | 6.45 | 6.36 |        |  |
| 10                               | 7.00 | 7.14  | 7.16 | 7.35        | 6.94 | 7.26                              | 10.81 | 13.67             | 6.40      | 6.38 | 6.47 | 6.37 |        |  |
| 11                               | 7.21 | 7.13  | 7.16 | 7.26        | 6.94 | 7.28                              | 10.91 | 13.27             | 6.39      | 6.39 | 6.47 | 6.37 |        |  |
| 12                               | 7.21 | 7.19  | 7.27 | 7.20        | 6.89 | 7.21                              | 10.13 | 12.13             | 6.35      | 6.41 | 6.48 | 6.40 |        |  |
| 13                               | 7.20 | 7.27  | 7.32 | 7.16        | 6.92 | 7.17                              | 9.47  | 10.42             | 6.38      | 6.40 | 6.45 | 6.40 |        |  |
| 14                               | 7.22 | 7.23  | 7.38 | 7.12        | 6.97 | 7.26                              | 9.62  | 9.57              | 6.42      | 6.42 | 6.30 | 6.41 |        |  |
| 15                               | 7.25 | 7.15  | 7.50 | 7.07        | 6.95 | 7.29                              | 10.18 | 9.42              | 6.45      | 6.46 | 6.24 | 6.36 |        |  |
| 16                               | 7.20 | 7.12  | 7.56 | 7.01        | 6.93 | 7.33                              | 10.56 | 10.59             | 6.45      | 6.42 | 6.30 | 6.34 |        |  |
| 17                               | 7.10 | 7.08  | 7.55 | 6.98        | 6.89 | 7.10                              | 10.69 | 10.97             | 6.45      | 6.37 | 6.35 | 6.38 |        |  |
| 18                               | 7.07 | 7.03  | 7.52 | 6.96        | 6.87 | 6.82                              | 10.78 | 9.77              | 6.47      | 6.43 | 6.35 | 6.37 |        |  |
| 19                               | 7.08 | 6.98  | 7.49 | 6.93        | 6.83 | 6.64                              | 11.37 | 8.22              | 6.48      | 6.51 | 6.36 | 6.38 |        |  |
| 20                               | 7.06 | 6.93  | 7.37 | 6.87        | 6.86 | 6.81                              | 11.62 | 7.39              | 6.47      | 6.49 | 6.36 | 6.40 |        |  |
| 21                               | 7.05 | 6.89  | 7.24 | 6.83        | 6.78 | 6.86                              | 11.50 | 7.04              | 6.50      | 6.47 | 6.37 | 6.40 |        |  |
| 22                               | 7.04 | 6.97  | 7.38 | 6.81        | 6.72 | 6.73                              | 10.92 | 6.66              | 6.50      | 6.47 | 6.31 | 6.40 |        |  |
| 23                               | 7.02 | 7.17  | 7.50 | 6.79        | 6.71 | 6.68                              | 10.34 | 6.52              | 6.49      | 6.46 | 6.27 | 6.45 |        |  |
| 24                               | 7.03 | 7.20  | 7.56 | 6.78        | 6.76 | 6.66                              | 9.89  | 6.53              | 6.48      | 6.46 | 6.27 | 6.47 |        |  |
| 25                               | 7.07 | 7.21  | 7.57 | 6.76        | 6.85 | 6.68                              | 9.45  | 6.56              | 6.46      | 6.45 | 6.26 | 6.49 |        |  |
| 26                               | 7.02 | 7.27  | 7.56 | 6.82        | 6.82 | 6.88                              | 9.11  | 6.66              | 6.45      | 6.46 | 6.24 | 6.47 |        |  |
| 27                               | 6.99 | 7.34  | 7.49 | 6.97        | 6.80 | 6.95                              | 8.98  | 6.81              | 6.45      | 6.46 | 6.24 | 6.42 |        |  |
| 28                               | 6.99 | 7.37  | 7.55 | 6.86        | 6.79 | 6.94                              | 8.85  | 6.74              | 6.44      | 6.47 | 6.28 | 6.39 |        |  |
| 29                               | 7.03 | 7.35  | 7.65 | 6.82        | 6.80 | 6.87                              | 7.86  | 6.70              | 6.43      | 6.47 |      | 6.37 |        |  |
| 30                               | 7.01 | 7.31  | 7.63 | 7.31        | 6.76 | 6.84                              | 7.59  | 6.68              | 6.41      | 6.48 |      | 6.36 |        |  |
| 31                               |      | 7.42  |      | 7.72        | 6.67 |                                   | 7.73  |                   | 6.42      | 6.51 |      | 6.28 |        |  |
| Mean                             | 7.06 | 7.14  | 7.43 | 7.12        | 7.08 | 6.92                              | 9.32  | 8.45              | 6.44      | 6.42 | 6.32 | 6.41 |        |  |
| Max                              | 7.25 | 7.42  | 7.73 | 7.72        | 8.73 | 7.33                              | 11.62 | 13.67             | 6.66      | 6.51 | 6.48 | 6.49 | 13.67  |  |
| Min                              | 6.82 | 6.89  | 7.15 | 6.76        | 6.67 | 6.54                              | 6.80  | 6.52              | 6.27      | 6.29 | 6.15 | 6.28 | 6.15   |  |
| Annual Max Momentary Gage Height |      | 13.83 |      | m. (MSL.) , |      | at 15.00 Hours , on Nov 10 , 2013 |       |                   |           |      |      |      |        |  |
| Zero Gage at Bottom Elevation    |      | 5.63  |      | m. (MSL.) , |      | River Bed                         | 4.66  |                   | m. (MSL.) |      |      |      |        |  |
| Left Bank Elevation              |      | 15.21 |      | m. (MSL.) , |      |                                   |       |                   |           |      |      |      |        |  |
| Right Bank Elevation             |      | 15.29 |      | m. (MSL.) , |      | Drainage Area                     | 4076  | Square Kilometers |           |      |      |      |        |  |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

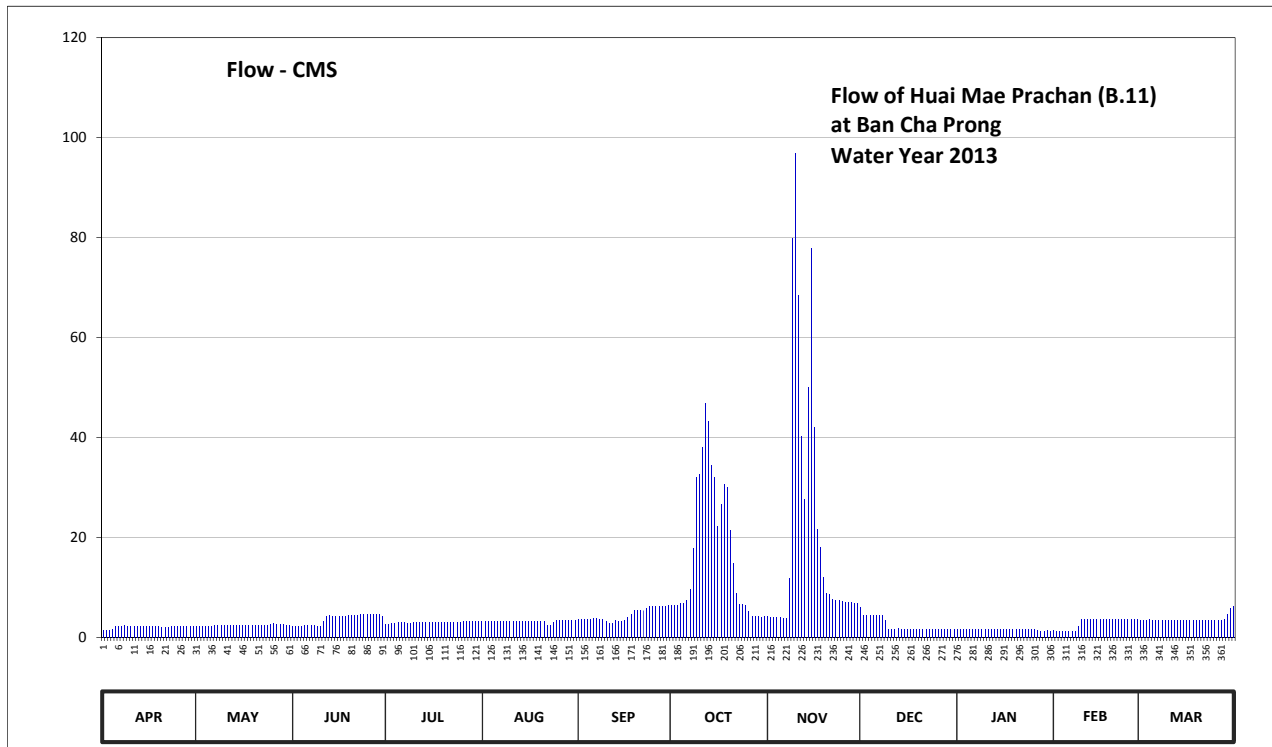
| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep    | Oct                      | Nov     | Dec    | Jan    | Feb    | Mar    | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|--------|--------------------------|---------|--------|--------|--------|--------|----------------|
| 1              | 7.63                                                             | 7.11                     | 17.00  | 15.20                | 18.80  | 2.88   | 5.70                     | 17.40   | 3.84   | 11.45  | 9.80   | 10.70  |                |
| 2              | 8.67                                                             | 8.15                     | 19.20  | 13.47                | 14.15  | 3.93   | 6.10                     | 14.15   | 3.48   | 11.45  | 7.85   | 11.60  |                |
| 3              | 8.95                                                             | 9.40                     | 19.60  | 12.10                | 10.75  | 5.50   | 5.20                     | 11.65   | 2.95   | 10.85  | 7.40   | 12.05  |                |
| 4              | 9.10                                                             | 10.75                    | 15.20  | 11.05                | 9.40   | 5.80   | 8.54                     | 9.40    | 1.64   | 9.35   | 7.25   | 12.35  |                |
| 5              | 7.24                                                             | 8.80                     | 9.70   | 10.00                | 25.55  | 5.40   | 13.81                    | 10.00   | 0.68   | 9.65   | 8.60   | 12.35  |                |
| 6              | 5.40                                                             | 7.89                     | 9.55   | 10.15                | 45.40  | 5.20   | 24.15                    | 11.95   | 0.40   | 10.40  | 10.25  | 12.20  |                |
| 7              | 5.90                                                             | 7.63                     | 9.85   | 13.98                | 38.20  | 5.30   | 30.80                    | 18.60   | 0.64   | 10.40  | 10.85  | 11.90  |                |
| 8              | 6.33                                                             | 8.54                     | 10.60  | 15.80                | 11.65  | 5.90   | 57.85                    | 39.70   | 0.72   | 10.10  | 11.45  | 10.70  |                |
| 9              | 6.72                                                             | 9.10                     | 10.30  | 13.98                | 7.50   | 8.15   | 104.50                   | 148.85  | 10.40  | 10.40  | 11.75  | 10.40  |                |
| 10             | 7.50                                                             | 9.40                     | 9.70   | 12.55                | 6.72   | 11.20  | 134.55                   | 323.75  | 11.00  | 10.70  | 12.05  | 10.55  |                |
| 11             | 10.45                                                            | 9.25                     | 9.70   | 11.20                | 6.72   | 11.50  | 140.05                   | 293.75  | 10.85  | 10.85  | 12.05  | 10.55  |                |
| 12             | 10.45                                                            | 10.15                    | 11.35  | 10.30                | 6.10   | 10.45  | 99.00                    | 213.45  | 10.25  | 11.15  | 12.20  | 11.00  |                |
| 13             | 10.30                                                            | 11.35                    | 12.10  | 9.70                 | 6.46   | 9.85   | 70.80                    | 113.50  | 10.70  | 11.00  | 11.75  | 11.00  |                |
| 14             | 10.60                                                            | 10.75                    | 13.00  | 9.10                 | 7.11   | 11.20  | 76.80                    | 74.80   | 11.30  | 11.30  | 9.50   | 11.15  |                |
| 15             | 11.05                                                            | 9.55                     | 15.00  | 8.41                 | 6.85   | 11.65  | 101.50                   | 68.80   | 11.75  | 11.90  | 8.60   | 10.40  |                |
| 16             | 10.30                                                            | 9.10                     | 16.20  | 7.63                 | 6.59   | 12.25  | 120.80                   | 122.45  | 11.75  | 11.30  | 9.50   | 10.10  |                |
| 17             | 8.80                                                             | 8.54                     | 16.00  | 7.24                 | 6.10   | 8.80   | 127.95                   | 143.35  | 11.75  | 10.55  | 10.25  | 10.70  |                |
| 18             | 8.41                                                             | 7.89                     | 15.40  | 6.98                 | 5.90   | 5.40   | 132.90                   | 82.80   | 12.05  | 11.45  | 10.25  | 10.55  |                |
| 19             | 8.54                                                             | 7.24                     | 14.83  | 6.59                 | 5.50   | 3.66   | 166.20                   | 30.80   | 12.20  | 12.65  | 10.40  | 10.70  |                |
| 20             | 8.28                                                             | 6.59                     | 12.85  | 5.90                 | 5.80   | 5.30   | 181.20                   | 13.15   | 12.05  | 12.35  | 10.40  | 11.00  |                |
| 21             | 8.15                                                             | 6.10                     | 10.90  | 5.50                 | 5.00   | 5.80   | 174.00                   | 8.02    | 12.50  | 12.05  | 10.55  | 11.00  |                |
| 22             | 8.02                                                             | 7.11                     | 13.00  | 5.30                 | 4.40   | 4.50   | 140.60                   | 3.84    | 12.50  | 12.05  | 9.65   | 11.00  |                |
| 23             | 7.76                                                             | 9.85                     | 15.00  | 5.10                 | 4.30   | 4.02   | 109.50                   | 2.74    | 12.35  | 11.90  | 9.05   | 11.75  |                |
| 24             | 7.89                                                             | 10.30                    | 16.20  | 5.00                 | 4.80   | 3.84   | 88.05                    | 2.81    | 12.20  | 11.90  | 9.05   | 12.05  |                |
| 25             | 8.41                                                             | 10.45                    | 16.40  | 4.80                 | 5.70   | 4.02   | 70.00                    | 3.02    | 11.90  | 11.75  | 8.90   | 12.35  |                |
| 26             | 7.76                                                             | 11.35                    | 16.20  | 5.40                 | 5.40   | 6.00   | 57.85                    | 3.84    | 11.75  | 11.90  | 8.60   | 12.05  |                |
| 27             | 7.37                                                             | 12.40                    | 14.83  | 7.11                 | 5.20   | 6.85   | 53.30                    | 5.30    | 11.75  | 11.90  | 8.60   | 11.30  |                |
| 28             | 7.37                                                             | 12.85                    | 16.00  | 5.80                 | 5.10   | 6.72   | 49.00                    | 4.60    | 11.60  | 12.05  | 9.20   | 10.85  |                |
| 29             | 7.89                                                             | 12.55                    | 18.00  | 5.40                 | 5.20   | 5.90   | 22.20                    | 4.20    | 11.45  | 12.05  |        | 10.55  |                |
| 30             | 7.63                                                             | 11.95                    | 17.60  | 11.95                | 4.80   | 5.60   | 16.80                    | 4.02    | 11.15  | 12.20  |        | 10.40  |                |
| 31             |                                                                  | 13.64                    |        | 19.40                | 3.93   |        | 19.60                    |         | 11.30  | 12.65  |        | 9.20   |                |
| Total          | 248.87                                                           | 295.73                   | 421.26 | 292.09               | 305.08 | 202.57 | 2409.30                  | 1804.69 | 280.85 | 351.65 | 275.75 | 344.45 | 7232.29 CMSDAY |
| Mean           | 8.30                                                             | 9.54                     | 14.04  | 9.42                 | 9.84   | 6.75   | 77.72                    | 60.16   | 9.06   | 11.34  | 9.85   | 11.11  | 19.81 CMS      |
| Max            | 11.05                                                            | 13.64                    | 19.60  | 19.40                | 45.40  | 12.25  | 181.20                   | 323.75  | 12.50  | 12.65  | 12.20  | 12.35  | 323.75 CMS     |
| Min            | 5.40                                                             | 6.10                     | 9.55   | 4.80                 | 3.93   | 2.88   | 5.20                     | 2.74    | 0.40   | 9.35   | 7.25   | 9.20   | 0.40 CMS       |
| Runoff         | 21.50                                                            | 25.55                    | 36.40  | 25.24                | 26.36  | 17.50  | 208.16                   | 155.93  | 24.27  | 30.38  | 23.83  | 29.76  | 624.87 MCM     |
| Momentary Peak | 335.90 CMS. at 13.83 m. (MSL.) at 15.00 Hours , on Nov 10 , 2013 |                          |        |                      |        |        |                          |         |        |        |        |        |                |
| Runoff Yield   | 4.86                                                             | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 82.409 | Liters/Second/Square KM. |         |        |        |        |        |                |

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|                                         |                                                                                           |           |               |               |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Cha Prong | <b>Amphoe</b> | Nong Ya Plong | <b>Changwat</b>  | Phetchaburi       |
| <b>Drainage Area</b>                    | 460                                                                                       | sq.km.    |               |               |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |               |                  |                   |
| <b>Zero Gage at Bottom</b>              | +72.272                                                                                   | m. (MSL.) |               |               |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |               |                  |                   |
| <b>Location BM</b>                      | On right bank about 45 meters from the top staff gage.                                    |           |               |               | <b>Elevation</b> | +78.722 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |               |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |               |                  |                   |
| <b>Period of Available Gage Records</b> | 2000 to date                                                                              |           |               |               |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |               |                  |                   |
| <b>Period of Rating</b>                 | 2000 to date                                                                              |           |               |               |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |               |                  |                   |
| <b>Rated by Current Meter</b>           | 2000 to date                                                                              |           |               |               |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |           |               |               |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |               |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2013. |           |               |               |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 71.24 | 71.31 | 71.31 | 71.34 | 71.37 | 71.40 | 71.55 | 71.44 | 71.53 | 71.26   | 71.24 | 71.39 |        |
| 2    | 71.24 | 71.31 | 71.31 | 71.34 | 71.37 | 71.40 | 71.55 | 71.43 | 71.45 | 71.26   | 71.23 | 71.39 |        |
| 3    | 71.24 | 71.31 | 71.31 | 71.35 | 71.37 | 71.40 | 71.55 | 71.43 | 71.45 | 71.26   | 71.23 | 71.39 |        |
| 4    | 71.25 | 71.31 | 71.31 | 71.35 | 71.37 | 71.40 | 71.57 | 71.43 | 71.45 | 71.26   | 71.23 | 71.40 |        |
| 5    | 71.31 | 71.31 | 71.32 | 71.36 | 71.37 | 71.41 | 71.57 | 71.43 | 71.45 | 71.26   | 71.23 | 71.39 |        |
| 6    | 71.31 | 71.31 | 71.32 | 71.36 | 71.37 | 71.42 | 71.60 | 71.42 | 71.45 | 71.26   | 71.23 | 71.39 |        |
| 7    | 71.31 | 71.32 | 71.32 | 71.36 | 71.37 | 71.42 | 71.70 | 71.42 | 71.45 | 71.26   | 71.23 | 71.39 |        |
| 8    | 71.32 | 71.32 | 71.32 | 71.35 | 71.37 | 71.41 | 72.02 | 71.79 | 71.45 | 71.26   | 71.23 | 71.39 |        |
| 9    | 71.31 | 71.32 | 71.31 | 71.35 | 71.37 | 71.41 | 72.49 | 73.63 | 71.39 | 71.26   | 71.31 | 71.39 |        |
| 10   | 71.31 | 71.32 | 71.31 | 71.36 | 71.37 | 71.38 | 72.51 | 73.97 | 71.26 | 71.26   | 71.40 | 71.39 |        |
| 11   | 71.30 | 71.32 | 71.38 | 71.36 | 71.37 | 71.35 | 72.66 | 73.39 | 71.25 | 71.26   | 71.41 | 71.39 |        |
| 12   | 71.30 | 71.32 | 71.44 | 71.36 | 71.38 | 71.35 | 72.89 | 72.72 | 71.26 | 71.25   | 71.41 | 71.39 |        |
| 13   | 71.30 | 71.32 | 71.45 | 71.36 | 71.38 | 71.39 | 72.80 | 72.36 | 71.27 | 71.25   | 71.41 | 71.39 |        |
| 14   | 71.30 | 71.32 | 71.44 | 71.36 | 71.38 | 71.37 | 72.56 | 72.97 | 71.26 | 71.25   | 71.41 | 71.39 |        |
| 15   | 71.30 | 71.32 | 71.44 | 71.36 | 71.38 | 71.37 | 72.49 | 73.59 | 71.26 | 71.25   | 71.41 | 71.39 |        |
| 16   | 71.30 | 71.32 | 71.44 | 71.36 | 71.37 | 71.39 | 72.18 | 72.77 | 71.26 | 71.25   | 71.41 | 71.39 |        |
| 17   | 71.30 | 71.32 | 71.44 | 71.36 | 71.37 | 71.43 | 72.33 | 72.16 | 71.26 | 71.25   | 71.41 | 71.39 |        |
| 18   | 71.30 | 71.32 | 71.44 | 71.36 | 71.37 | 71.46 | 72.45 | 72.03 | 71.25 | 71.25   | 71.41 | 71.39 |        |
| 19   | 71.30 | 71.32 | 71.45 | 71.36 | 71.37 | 71.50 | 72.43 | 71.80 | 71.25 | 71.25   | 71.40 | 71.39 |        |
| 20   | 71.29 | 71.32 | 71.45 | 71.36 | 71.37 | 71.50 | 72.15 | 71.66 | 71.25 | 71.25   | 71.40 | 71.39 |        |
| 21   | 71.29 | 71.32 | 71.45 | 71.36 | 71.37 | 71.50 | 71.91 | 71.65 | 71.25 | 71.25   | 71.40 | 71.39 |        |
| 22   | 71.29 | 71.32 | 71.45 | 71.36 | 71.32 | 71.50 | 71.66 | 71.61 | 71.25 | 71.25   | 71.40 | 71.39 |        |
| 23   | 71.30 | 71.32 | 71.46 | 71.36 | 71.32 | 71.52 | 71.56 | 71.60 | 71.25 | 71.25   | 71.40 | 71.39 |        |
| 24   | 71.30 | 71.32 | 71.46 | 71.36 | 71.36 | 71.54 | 71.56 | 71.60 | 71.26 | 71.25   | 71.40 | 71.39 |        |
| 25   | 71.30 | 71.33 | 71.46 | 71.36 | 71.39 | 71.54 | 71.55 | 71.59 | 71.26 | 71.25   | 71.40 | 71.39 |        |
| 26   | 71.30 | 71.35 | 71.46 | 71.37 | 71.39 | 71.54 | 71.49 | 71.58 | 71.26 | 71.25   | 71.40 | 71.39 |        |
| 27   | 71.30 | 71.34 | 71.46 | 71.37 | 71.39 | 71.54 | 71.44 | 71.58 | 71.26 | 71.24   | 71.40 | 71.39 |        |
| 28   | 71.30 | 71.34 | 71.46 | 71.37 | 71.39 | 71.54 | 71.44 | 71.58 | 71.26 | 71.23   | 71.40 | 71.41 |        |
| 29   | 71.31 | 71.34 | 71.46 | 71.37 | 71.39 | 71.54 | 71.44 | 71.57 | 71.26 | 71.23   |       | 71.46 |        |
| 30   | 71.31 | 71.32 | 71.44 | 71.37 | 71.39 | 71.55 | 71.43 | 71.57 | 71.26 | 71.24</ |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar    | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|-------|---------|--------------------------|--------|-------|-------|-------|--------|----------------|
| 1              | 1.48                                                            | 2.34                     | 2.34   | 2.76                 | 3.18  | 3.60    | 6.45                     | 4.32   | 6.03  | 1.72  | 1.48  | 3.46   |                |
| 2              | 1.48                                                            | 2.34                     | 2.34   | 2.76                 | 3.18  | 3.60    | 6.45                     | 4.14   | 4.50  | 1.72  | 1.36  | 3.46   |                |
| 3              | 1.48                                                            | 2.34                     | 2.34   | 2.90                 | 3.18  | 3.60    | 6.45                     | 4.14   | 4.50  | 1.72  | 1.36  | 3.46   |                |
| 4              | 1.60                                                            | 2.34                     | 2.34   | 2.90                 | 3.18  | 3.60    | 6.87                     | 4.14   | 4.50  | 1.72  | 1.36  | 3.60   |                |
| 5              | 2.34                                                            | 2.34                     | 2.48   | 3.04                 | 3.18  | 3.78    | 6.87                     | 4.14   | 4.50  | 1.72  | 1.36  | 3.46   |                |
| 6              | 2.34                                                            | 2.34                     | 2.48   | 3.04                 | 3.18  | 3.96    | 7.50                     | 3.96   | 4.50  | 1.72  | 1.36  | 3.46   |                |
| 7              | 2.34                                                            | 2.48                     | 2.48   | 3.04                 | 3.18  | 3.96    | 9.80                     | 3.96   | 4.50  | 1.72  | 1.36  | 3.46   |                |
| 8              | 2.48                                                            | 2.48                     | 2.48   | 2.90                 | 3.18  | 3.78    | 17.84                    | 11.96  | 4.50  | 1.72  | 1.36  | 3.46   |                |
| 9              | 2.34                                                            | 2.48                     | 2.34   | 2.90                 | 3.18  | 3.78    | 32.06                    | 79.80  | 3.46  | 1.72  | 2.34  | 3.46   |                |
| 10             | 2.34                                                            | 2.48                     | 2.34   | 3.04                 | 3.18  | 3.32    | 32.75                    | 96.80  | 1.72  | 1.72  | 3.60  | 3.46   |                |
| 11             | 2.20                                                            | 2.48                     | 3.32   | 3.04                 | 3.18  | 2.90    | 38.06                    | 68.35  | 1.60  | 1.72  | 3.78  | 3.46   |                |
| 12             | 2.20                                                            | 2.48                     | 4.32   | 3.04                 | 3.32  | 2.90    | 46.90                    | 40.26  | 1.72  | 1.60  | 3.78  | 3.46   |                |
| 13             | 2.20                                                            | 2.48                     | 4.50   | 3.04                 | 3.32  | 3.46    | 43.30                    | 27.72  | 1.84  | 1.60  | 3.78  | 3.46   |                |
| 14             | 2.20                                                            | 2.48                     | 4.32   | 3.04                 | 3.32  | 3.18    | 34.50                    | 50.10  | 1.72  | 1.60  | 3.78  | 3.46   |                |
| 15             | 2.20                                                            | 2.48                     | 4.32   | 3.04                 | 3.32  | 3.18    | 32.06                    | 77.80  | 1.72  | 1.60  | 3.78  | 3.46   |                |
| 16             | 2.20                                                            | 2.48                     | 4.32   | 3.04                 | 3.18  | 3.46    | 22.24                    | 42.16  | 1.72  | 1.60  | 3.78  | 3.46   |                |
| 17             | 2.20                                                            | 2.48                     | 4.32   | 3.04                 | 3.18  | 4.14    | 26.76                    | 21.68  | 1.72  | 1.60  | 3.78  | 3.46   |                |
| 18             | 2.20                                                            | 2.48                     | 4.32   | 3.04                 | 3.18  | 4.68    | 30.70                    | 18.11  | 1.60  | 1.60  | 3.78  | 3.46   |                |
| 19             | 2.20                                                            | 2.48                     | 4.50   | 3.04                 | 3.18  | 5.40    | 30.02                    | 12.20  | 1.60  | 1.60  | 3.60  | 3.46   |                |
| 20             | 2.08                                                            | 2.48                     | 4.50   | 3.04                 | 3.18  | 5.40    | 21.40                    | 8.88   | 1.60  | 1.60  | 3.60  | 3.46   |                |
| 21             | 2.08                                                            | 2.48                     | 4.50   | 3.04                 | 3.18  | 5.40    | 14.96                    | 8.65   | 1.60  | 1.60  | 3.60  | 3.46   |                |
| 22             | 2.08                                                            | 2.48                     | 4.50   | 3.04                 | 2.48  | 5.40    | 8.88                     | 7.73   | 1.60  | 1.60  | 3.60  | 3.46   |                |
| 23             | 2.20                                                            | 2.48                     | 4.68   | 3.04                 | 2.48  | 5.82    | 6.66                     | 7.50   | 1.60  | 1.60  | 3.60  | 3.46   |                |
| 24             | 2.20                                                            | 2.48                     | 4.68   | 3.04                 | 3.04  | 6.24    | 6.66                     | 7.50   | 1.72  | 1.60  | 3.60  | 3.46   |                |
| 25             | 2.20                                                            | 2.62                     | 4.68   | 3.04                 | 3.46  | 6.24    | 6.45                     | 7.29   | 1.72  | 1.60  | 3.60  | 3.46   |                |
| 26             | 2.20                                                            | 2.90                     | 4.68   | 3.18                 | 3.46  | 6.24    | 5.22                     | 7.08   | 1.72  | 1.60  | 3.60  | 3.46   |                |
| 27             | 2.20                                                            | 2.76                     | 4.68   | 3.18                 | 3.46  | 6.24    | 4.32                     | 7.08   | 1.72  | 1.48  | 3.60  | 3.46   |                |
| 28             | 2.20                                                            | 2.76                     | 4.68   | 3.18                 | 3.46  | 6.24    | 4.32                     | 7.08   | 1.72  | 1.36  | 3.60  | 3.78   |                |
| 29             | 2.34                                                            | 2.76                     | 4.68   | 3.18                 | 3.46  | 6.24    | 4.32                     | 6.87   | 1.72  | 1.36  |       | 4.68   |                |
| 30             | 2.34                                                            | 2.48                     | 4.32   | 3.18                 | 3.46  | 6.45    | 4.14                     | 6.87   | 1.72  | 1.48  |       | 5.82   |                |
| 31             |                                                                 | 2.48                     |        | 3.18                 | 3.46  |         | 4.32                     |        | 1.72  | 1.36  |       | 6.24   |                |
| Total          | 64.14                                                           | 77.44                    | 112.78 | 93.96                | 99.56 | 136.19  | 529.23                   | 658.27 | 78.11 | 49.96 | 83.18 | 114.08 | 2096.90 CMSDAY |
| Mean           | 2.14                                                            | 2.50                     | 3.76   | 3.03                 | 3.21  | 4.54    | 17.07                    | 21.94  | 2.52  | 1.61  | 2.97  | 3.68   | 5.74 CMS       |
| Max            | 2.48                                                            | 2.90                     | 4.68   | 3.18                 | 3.46  | 6.45    | 46.90                    | 96.80  | 6.03  | 1.72  | 3.78  | 6.24   | 96.80 CMS      |
| Min            | 1.48                                                            | 2.34                     | 2.34   | 2.76                 | 2.48  | 2.90    | 4.14                     | 3.96   | 1.60  | 1.36  | 1.36  | 3.46   | 1.36 CMS       |
| Runoff         | 5.54                                                            | 6.69                     | 9.74   | 8.12                 | 8.60  | 11.77   | 45.73                    | 56.88  | 6.75  | 4.32  | 7.19  | 9.86   | 181.17 MCM     |
| Momentary Peak | 107.80 CMS. at 74.19 m. (MSL.) at 21.00 Hours , on Nov 9 , 2013 |                          |        |                      |       |         |                          |        |       |       |       |        |                |
| Runoff Yield   | 12.49                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |       | 234,348 | Liters/Second/Square KM. |        |       |       |       |        |                |

**WATER YEAR : 2013****WEST COAST - GULF BASIN****Khlong Thap Sakae at Ban Klang , Prachuap Khiri Khan (Gt.9)**

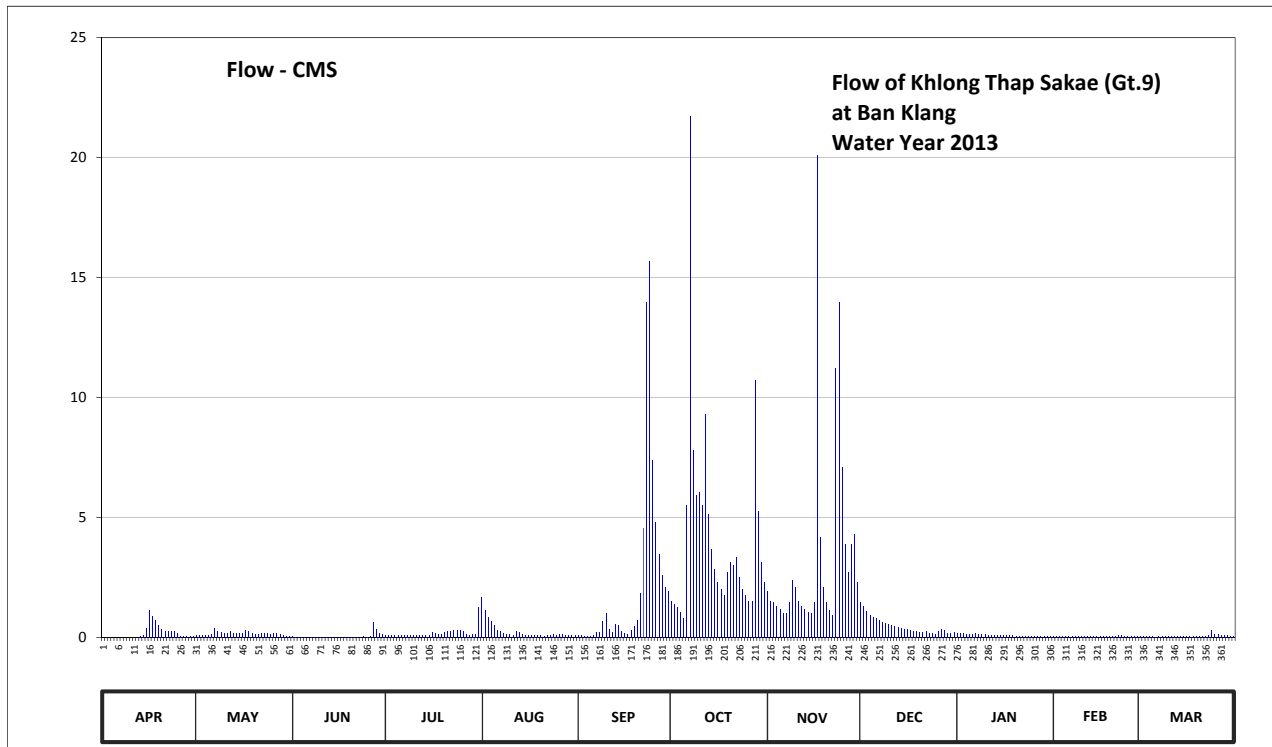
Lat 11 - 29 - 40 N Long 99 - 36 - 20 E

Location : on right bank at Ban Klang.

|                                         |                                                                                           |                |               |                   |                  |                            |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-------------------|------------------|----------------------------|
|                                         | <b>Ban</b>                                                                                | <b>Klang</b>   | <b>Amphoe</b> | <b>Thap Sakae</b> | <b>Changwat</b>  | <b>Prachuap Khiri Khan</b> |
| <b>Drainage Area</b>                    | 125                                                                                       | sq.km.         |               |                   |                  |                            |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage           |               |                   |                  |                            |
| <b>Zero Gage at Bottom</b>              | +6.843                                                                                    | m. (MSL.)      |               |                   |                  |                            |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |                   |                  |                            |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |                |               |                   | <b>Elevation</b> | +12.220 m. (MSL.)          |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                |               |                   |                  |                            |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                |               |                   |                  |                            |
| <b>Period of Available Gage Records</b> | 1979 to date                                                                              |                |               |                   |                  |                            |
| <b>Rating Operation</b>                 |                                                                                           |                |               |                   |                  |                            |
| <b>Period of Rating</b>                 | 1980 to date                                                                              |                |               |                   |                  |                            |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |                   |                  |                            |
| <b>Rated by Current Meter</b>           | 1980 to date                                                                              |                |               |                   |                  |                            |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |                   |                  |                            |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |                   |                  |                            |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 31 discharge measurements made in 2013. |                |               |                   |                  |                            |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug  | Sep                              | Oct  | Nov  | Dec               | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|------|----------------------------------|------|------|-------------------|------|------|------|--------|
| 1                                | 7.19  | 7.35 | 7.26        | 7.34 | 7.75 | 7.34                             | 7.73 | 7.78 | 7.72              | 7.42 | 7.27 | 7.27 |        |
| 2                                | 7.18  | 7.36 | 7.25        | 7.33 | 7.67 | 7.32                             | 7.71 | 7.73 | 7.70              | 7.41 | 7.27 | 7.26 |        |
| 3                                | 7.18  | 7.35 | 7.24        | 7.32 | 7.61 | 7.31                             | 7.69 | 7.72 | 7.66              | 7.41 | 7.26 | 7.26 |        |
| 4                                | 7.18  | 7.35 | 7.24        | 7.32 | 7.57 | 7.31                             | 7.65 | 7.70 | 7.63              | 7.40 | 7.27 | 7.26 |        |
| 5                                | 7.17  | 7.36 | 7.24        | 7.33 | 7.53 | 7.31                             | 7.60 | 7.68 | 7.61              | 7.40 | 7.26 | 7.26 |        |
| 6                                | 7.17  | 7.37 | 7.24        | 7.32 | 7.47 | 7.32                             | 8.11 | 7.64 | 7.60              | 7.39 | 7.26 | 7.25 |        |
| 7                                | 7.17  | 7.50 | 7.24        | 7.33 | 7.44 | 7.43                             | 9.03 | 7.64 | 7.58              | 7.41 | 7.27 | 7.26 |        |
| 8                                | 7.17  | 7.45 | 7.23        | 7.32 | 7.41 | 7.43                             | 8.28 | 7.72 | 7.56              | 7.40 | 7.27 | 7.28 |        |
| 9                                | 7.17  | 7.43 | 7.23        | 7.35 | 7.37 | 7.57                             | 8.14 | 7.83 | 7.55              | 7.38 | 7.27 | 7.27 |        |
| 10                               | 7.16  | 7.42 | 7.23        | 7.34 | 7.37 | 7.64                             | 8.15 | 7.80 | 7.54              | 7.38 | 7.26 | 7.26 |        |
| 11                               | 7.16  | 7.41 | 7.23        | 7.36 | 7.36 | 7.49                             | 8.11 | 7.73 | 7.53              | 7.36 | 7.27 | 7.26 |        |
| 12                               | 7.16  | 7.44 | 7.23        | 7.34 | 7.45 | 7.43                             | 8.38 | 7.70 | 7.52              | 7.34 | 7.28 | 7.26 |        |
| 13                               | 7.31  | 7.42 | 7.23        | 7.33 | 7.43 | 7.54                             | 8.08 | 7.68 | 7.51              | 7.34 | 7.28 | 7.26 |        |
| 14                               | 7.34  | 7.42 | 7.23        | 7.33 | 7.39 | 7.53                             | 7.95 | 7.65 | 7.50              | 7.35 | 7.29 | 7.26 |        |
| 15                               | 7.50  | 7.41 | 7.23        | 7.34 | 7.36 | 7.45                             | 7.87 | 7.64 | 7.49              | 7.34 | 7.28 | 7.26 |        |
| 16                               | 7.67  | 7.41 | 7.23        | 7.43 | 7.36 | 7.41                             | 7.82 | 7.72 | 7.48              | 7.34 | 7.28 | 7.27 |        |
| 17                               | 7.62  | 7.47 | 7.22        | 7.42 | 7.34 | 7.40                             | 7.79 | 8.96 | 7.47              | 7.34 | 7.27 | 7.27 |        |
| 18                               | 7.58  | 7.44 | 7.22        | 7.39 | 7.34 | 7.46                             | 7.76 | 8.00 | 7.45              | 7.35 | 7.27 | 7.28 |        |
| 19                               | 7.53  | 7.41 | 7.22        | 7.38 | 7.32 | 7.52                             | 7.86 | 7.80 | 7.45              | 7.32 | 7.27 | 7.29 |        |
| 20                               | 7.49  | 7.40 | 7.24        | 7.43 | 7.32 | 7.58                             | 7.90 | 7.72 | 7.43              | 7.30 | 7.26 | 7.27 |        |
| 21                               | 7.45  | 7.40 | 7.25        | 7.44 | 7.31 | 7.77                             | 7.89 | 7.67 | 7.43              | 7.30 | 7.30 | 7.26 |        |
| 22                               | 7.45  | 7.41 | 7.24        | 7.44 | 7.34 | 8.03                             | 7.92 | 7.63 | 7.44              | 7.30 | 7.34 | 7.29 |        |
| 23                               | 7.44  | 7.41 | 7.24        | 7.47 | 7.34 | 8.66                             | 7.84 | 8.50 | 7.41              | 7.30 | 7.32 | 7.33 |        |
| 24                               | 7.44  | 7.41 | 7.26        | 7.47 | 7.38 | 8.75                             | 7.79 | 8.66 | 7.42              | 7.29 | 7.31 | 7.46 |        |
| 25                               | 7.41  | 7.40 | 7.25        | 7.47 | 7.36 | 8.25                             | 7.76 | 8.23 | 7.40              | 7.29 | 7.29 | 7.40 |        |
| 26                               | 7.30  | 7.41 | 7.29        | 7.44 | 7.37 | 8.05                             | 7.73 | 7.97 | 7.44              | 7.30 | 7.28 | 7.37 |        |
| 27                               | 7.26  | 7.41 | 7.56        | 7.39 | 7.37 | 7.93                             | 7.73 | 7.86 | 7.48              | 7.29 | 7.27 | 7.34 |        |
| 28                               | 7.26  | 7.39 | 7.48        | 7.36 | 7.36 | 7.85                             | 8.47 | 7.97 | 7.46              | 7.28 | 7.27 | 7.33 |        |
| 29                               | 7.27  | 7.32 | 7.42        | 7.37 | 7.34 | 7.80                             | 8.09 | 8.01 | 7.42              | 7.28 |      | 7.32 |        |
| 30                               | 7.27  | 7.29 | 7.38        | 7.37 | 7.34 | 7.78                             | 7.90 | 7.82 | 7.42              | 7.29 |      | 7.30 |        |
| 31                               |       | 7.29 |             | 7.69 | 7.34 |                                  | 7.82 |      | 7.43              | 7.28 |      | 7.28 |        |
| Mean                             | 7.32  | 7.40 | 7.27        | 7.39 | 7.41 | 7.66                             | 7.95 | 7.87 | 7.51              | 7.34 | 7.28 | 7.29 |        |
| Max                              | 7.67  | 7.50 | 7.56        | 7.69 | 7.75 | 8.75                             | 9.03 | 8.96 | 7.72              | 7.42 | 7.34 | 7.46 | 9.03   |
| Min                              | 7.16  | 7.29 | 7.22        | 7.32 | 7.31 | 7.31                             | 7.60 | 7.63 | 7.40              | 7.28 | 7.26 | 7.25 | 7.16   |
| Annual Max Momentary Gage Height | 9.65  |      | m. (MSL.) , |      |      | at 09.00 Hours , on Nov 17, 2013 |      |      |                   |      |      |      |        |
| Zero Gage at Bottom Elevation    | 6.84  |      | m. (MSL.) , |      |      | River Bed                        | 6.97 |      | m. (MSL.)         |      |      |      |        |
| Left Bank Elevation              | 11.27 |      | m. (MSL.) , |      |      |                                  |      |      |                   |      |      |      |        |
| Right Bank Elevation             | 11.34 |      | m. (MSL.) , |      |      | Drainage Area                    | 125  |      | Square Kilometers |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                           | May                      | Jun  | Jul                  | Aug  | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual        |
|----------------|---------------------------------------------------------------|--------------------------|------|----------------------|------|---------|--------------------------|--------|-------|------|------|------|---------------|
| 1              | 0.00                                                          | 0.11                     | 0.05 | 0.11                 | 1.70 | 0.11    | 1.54                     | 1.94   | 1.46  | 0.20 | 0.05 | 0.05 |               |
| 2              | 0.00                                                          | 0.12                     | 0.04 | 0.10                 | 1.15 | 0.09    | 1.38                     | 1.54   | 1.30  | 0.17 | 0.05 | 0.05 |               |
| 3              | 0.00                                                          | 0.11                     | 0.03 | 0.09                 | 0.85 | 0.08    | 1.25                     | 1.46   | 1.10  | 0.17 | 0.05 | 0.05 |               |
| 4              | 0.00                                                          | 0.11                     | 0.03 | 0.09                 | 0.68 | 0.08    | 1.05                     | 1.30   | 0.95  | 0.15 | 0.05 | 0.05 |               |
| 5              | 0.00                                                          | 0.12                     | 0.03 | 0.10                 | 0.52 | 0.08    | 0.80                     | 1.20   | 0.85  | 0.15 | 0.05 | 0.05 |               |
| 6              | 0.00                                                          | 0.13                     | 0.03 | 0.09                 | 0.32 | 0.09    | 5.53                     | 1.00   | 0.80  | 0.14 | 0.05 | 0.04 |               |
| 7              | 0.00                                                          | 0.40                     | 0.03 | 0.10                 | 0.25 | 0.22    | 21.72                    | 1.00   | 0.72  | 0.17 | 0.05 | 0.05 |               |
| 8              | 0.00                                                          | 0.27                     | 0.02 | 0.09                 | 0.17 | 0.22    | 7.82                     | 1.46   | 0.64  | 0.15 | 0.05 | 0.06 |               |
| 9              | 0.00                                                          | 0.22                     | 0.02 | 0.11                 | 0.13 | 0.68    | 5.92                     | 2.41   | 0.60  | 0.14 | 0.05 | 0.05 |               |
| 10             | 0.00                                                          | 0.20                     | 0.02 | 0.11                 | 0.13 | 1.00    | 6.05                     | 2.10   | 0.56  | 0.14 | 0.05 | 0.05 |               |
| 11             | 0.00                                                          | 0.17                     | 0.02 | 0.12                 | 0.12 | 0.37    | 5.53                     | 1.54   | 0.52  | 0.12 | 0.05 | 0.05 |               |
| 12             | 0.00                                                          | 0.25                     | 0.02 | 0.11                 | 0.27 | 0.22    | 9.30                     | 1.30   | 0.48  | 0.11 | 0.06 | 0.05 |               |
| 13             | 0.08                                                          | 0.20                     | 0.02 | 0.10                 | 0.22 | 0.56    | 5.16                     | 1.20   | 0.44  | 0.11 | 0.06 | 0.05 |               |
| 14             | 0.11                                                          | 0.20                     | 0.02 | 0.10                 | 0.14 | 0.52    | 3.67                     | 1.05   | 0.40  | 0.11 | 0.07 | 0.05 |               |
| 15             | 0.40                                                          | 0.17                     | 0.02 | 0.11                 | 0.12 | 0.27    | 2.83                     | 1.00   | 0.37  | 0.11 | 0.06 | 0.05 |               |
| 16             | 1.15                                                          | 0.17                     | 0.02 | 0.22                 | 0.12 | 0.17    | 2.31                     | 1.46   | 0.35  | 0.11 | 0.06 | 0.05 |               |
| 17             | 0.90                                                          | 0.32                     | 0.01 | 0.20                 | 0.11 | 0.15    | 2.02                     | 20.08  | 0.32  | 0.11 | 0.05 | 0.05 |               |
| 18             | 0.72                                                          | 0.25                     | 0.01 | 0.14                 | 0.11 | 0.30    | 1.78                     | 4.20   | 0.27  | 0.11 | 0.05 | 0.06 |               |
| 19             | 0.52                                                          | 0.17                     | 0.01 | 0.14                 | 0.09 | 0.48    | 2.73                     | 2.10   | 0.27  | 0.09 | 0.05 | 0.07 |               |
| 20             | 0.37                                                          | 0.15                     | 0.03 | 0.22                 | 0.09 | 0.72    | 3.15                     | 1.46   | 0.22  | 0.08 | 0.05 | 0.05 |               |
| 21             | 0.27                                                          | 0.15                     | 0.04 | 0.25                 | 0.08 | 1.86    | 3.04                     | 1.15   | 0.22  | 0.08 | 0.08 | 0.05 |               |
| 22             | 0.27                                                          | 0.17                     | 0.03 | 0.25                 | 0.11 | 4.56    | 3.36                     | 0.95   | 0.25  | 0.08 | 0.11 | 0.07 |               |
| 23             | 0.25                                                          | 0.17                     | 0.03 | 0.32                 | 0.11 | 13.98   | 2.52                     | 11.20  | 0.17  | 0.08 | 0.09 | 0.10 |               |
| 24             | 0.25                                                          | 0.17                     | 0.05 | 0.32                 | 0.14 | 15.65   | 2.02                     | 13.98  | 0.20  | 0.07 | 0.08 | 0.30 |               |
| 25             | 0.17                                                          | 0.15                     | 0.04 | 0.32                 | 0.12 | 7.40    | 1.78                     | 7.12   | 0.15  | 0.07 | 0.07 | 0.15 |               |
| 26             | 0.08                                                          | 0.17                     | 0.07 | 0.25                 | 0.13 | 4.80    | 1.54                     | 3.88   | 0.25  | 0.08 | 0.06 | 0.13 |               |
| 27             | 0.05                                                          | 0.17                     | 0.64 | 0.14                 | 0.13 | 3.46    | 1.54                     | 2.73   | 0.35  | 0.07 | 0.05 | 0.11 |               |
| 28             | 0.05                                                          | 0.14                     | 0.35 | 0.12                 | 0.12 | 2.62    | 10.72                    | 3.88   | 0.30  | 0.06 | 0.05 | 0.10 |               |
| 29             | 0.05                                                          | 0.09                     | 0.20 | 0.13                 | 0.11 | 2.10    | 5.28                     | 4.32   | 0.20  | 0.06 |      | 0.09 |               |
| 30             | 0.05                                                          | 0.07                     | 0.14 | 0.13                 | 0.11 | 1.94    | 3.15                     | 2.31   | 0.20  | 0.07 |      | 0.08 |               |
| 31             |                                                               | 0.07                     |      | 1.25                 | 0.11 |         | 2.31                     |        | 0.22  | 0.06 |      | 0.06 |               |
| Total          | 5.74                                                          | 5.36                     | 2.07 | 5.93                 | 8.56 | 64.78   | 128.80                   | 102.32 | 15.13 | 3.42 | 1.65 | 2.27 | 346.03 CMSDAY |
| Mean           | 0.19                                                          | 0.17                     | 0.07 | 0.19                 | 0.28 | 2.16    | 4.15                     | 3.41   | 0.49  | 0.11 | 0.06 | 0.07 | 0.95 CMS      |
| Max            | 1.15                                                          | 0.40                     | 0.64 | 1.25                 | 1.70 | 15.65   | 21.72                    | 20.08  | 1.46  | 0.20 | 0.11 | 0.30 | 21.72 CMS     |
| Min            | 0.00                                                          | 0.07                     | 0.01 | 0.09                 | 0.08 | 0.08    | 0.80                     | 0.95   | 0.15  | 0.06 | 0.05 | 0.04 | 0.00 CMS      |
| Runoff         | 0.50                                                          | 0.46                     | 0.18 | 0.51                 | 0.74 | 5.60    | 11.13                    | 8.84   | 1.31  | 0.30 | 0.14 | 0.20 | 29.90 MCM     |
| Momentary Peak | 39.20 CMS. at 9.65 m. (MSL.) at 09.00 Hours , on Nov 17, 2013 |                          |      |                      |      |         |                          |        |       |      |      |      |               |
| Runoff Yield   | 7.58                                                          | Liters/Second/Square KM. |      | Momentary Peak Yield |      | 313.600 | Liters/Second/Square KM. |        |       |      |      |      |               |

## WATER YEAR : 2013

## WEST COAST - GULF BASIN

### Khlong Krut at Ban Nong Ya Plong , Prachuap Khiri Khan (Gt.10

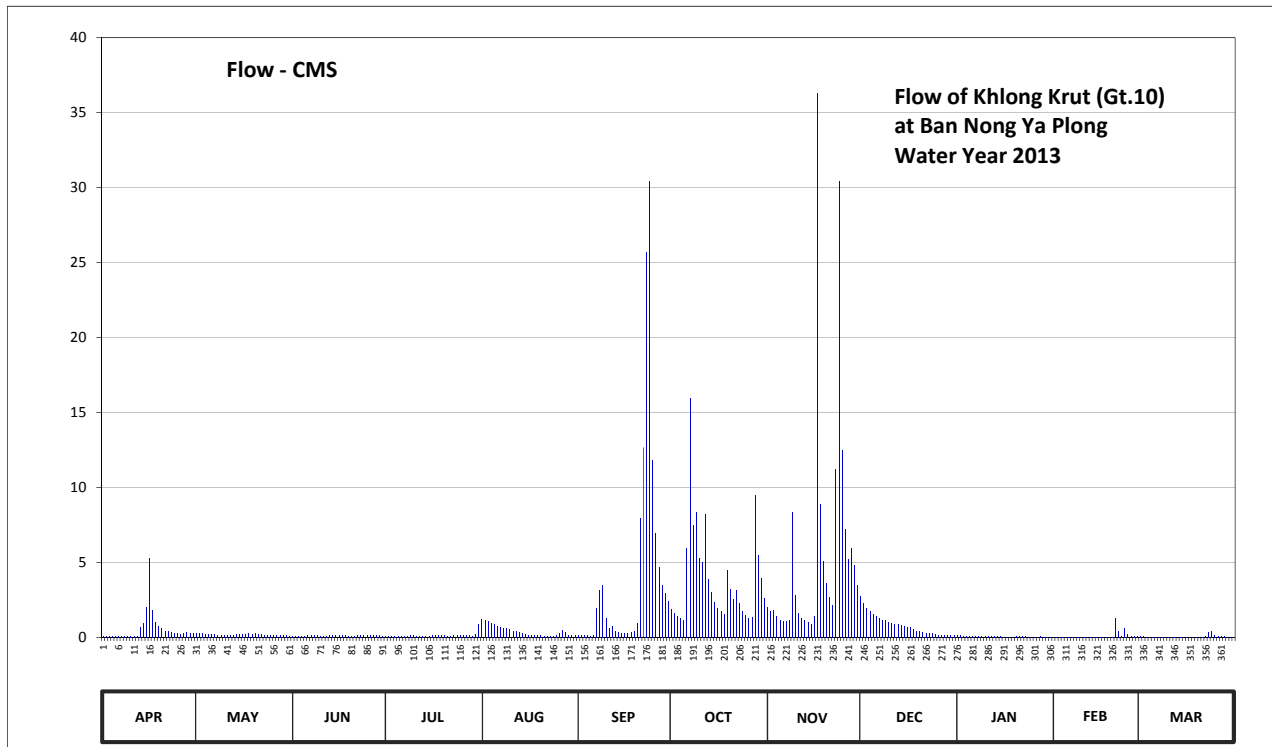
Lat 11 - 24 - 08 N      Long 99 - 31 - 18 E

**Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 379**

|                                         |                                                                                           |               |               |             |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|-------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Nong Ya Plong | <b>Amphoe</b> | Bang Saphan | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainage Area</b>                    | 113                                                                                       | sq.km.        |               |             |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |               |               |             |                  |                     |
| <b>Zero Gage at Bottom</b>              | +25.364                                                                                   | m. (MSL.)     |               |             |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |               |             |                  |                     |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |               |               |             | <b>Elevation</b> | +30.364 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |               |               |             |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |               |               |             |                  |                     |
| <b>Period of Available Gage Records</b> | 1979 to date                                                                              |               |               |             |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |               |               |             |                  |                     |
| <b>Period of Rating</b>                 | 1980 to date                                                                              |               |               |             |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |             |                  |                     |
| <b>Rated by Current Meter</b>           | 1980 to date                                                                              |               |               |             |                  |                     |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |               |               |             |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |             |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 25 discharge measurements made in 2013. |               |               |             |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 23.87 | 24.03 | 23.88                                           | 23.90 | 24.34 | 23.95 | 24.47 | 24.50 | 24.61 | 23.93 | 23.78 | 23.81 |        |
|                                  | 2  | 23.87 | 24.03 | 23.88                                           | 23.89 | 24.33 | 23.93 | 24.42 | 24.45 | 24.54 | 23.91 | 23.77 | 23.80 |        |
|                                  | 3  | 23.87 | 24.04 | 23.88                                           | 23.89 | 24.31 | 23.91 | 24.38 | 24.46 | 24.49 | 23.89 | 23.77 | 23.78 |        |
|                                  | 4  | 23.86 | 24.02 | 23.89                                           | 23.88 | 24.28 | 23.91 | 24.35 | 24.39 | 24.45 | 23.89 | 23.77 | 23.78 |        |
|                                  | 5  | 23.86 | 24.01 | 23.89                                           | 23.88 | 24.25 | 23.88 | 24.32 | 24.33 | 24.41 | 23.89 | 23.77 | 23.78 |        |
|                                  | 6  | 23.86 | 24.01 | 23.91                                           | 23.88 | 24.22 | 23.96 | 24.96 | 24.31 | 24.39 | 23.88 | 23.76 | 23.77 |        |
|                                  | 7  | 23.85 | 24.01 | 23.91                                           | 23.88 | 24.20 | 24.48 | 25.61 | 24.31 | 24.36 | 23.89 | 23.76 | 23.76 |        |
|                                  | 8  | 23.84 | 23.98 | 23.99                                           | 23.90 | 24.18 | 24.66 | 25.09 | 24.33 | 24.33 | 23.87 | 23.77 | 23.76 |        |
|                                  | 9  | 23.84 | 23.96 | 23.94                                           | 23.97 | 24.17 | 24.70 | 25.16 | 25.16 | 24.32 | 23.86 | 23.77 | 23.76 |        |
|                                  | 10 | 23.83 | 23.93 | 23.88                                           | 23.92 | 24.15 | 24.36 | 24.90 | 24.62 | 24.30 | 23.85 | 23.75 | 23.75 |        |
|                                  | 11 | 23.83 | 23.92 | 23.88                                           | 23.90 | 24.12 | 24.18 | 24.87 | 24.42 | 24.28 | 23.85 | 23.75 | 23.76 |        |
|                                  | 12 | 23.87 | 23.95 | 23.90                                           | 23.89 | 24.11 | 24.21 | 25.15 | 24.36 | 24.26 | 23.83 | 23.75 | 23.75 |        |
|                                  | 13 | 24.19 | 23.99 | 23.94                                           | 23.88 | 24.07 | 24.12 | 24.75 | 24.32 | 24.25 | 23.82 | 23.75 | 23.75 |        |
|                                  | 14 | 24.28 | 24.02 | 23.95                                           | 23.88 | 24.04 | 24.08 | 24.64 | 24.29 | 24.23 | 23.81 | 23.75 | 23.75 |        |
|                                  | 15 | 24.50 | 24.01 | 23.92                                           | 23.88 | 24.01 | 24.04 | 24.55 | 24.26 | 24.22 | 23.80 | 23.75 | 23.75 |        |
|                                  | 16 | 24.90 | 24.01 | 23.92                                           | 23.95 | 23.99 | 24.04 | 24.49 | 24.38 | 24.20 | 23.79 | 23.75 | 23.75 |        |
|                                  | 17 | 24.46 | 24.02 | 23.91                                           | 23.94 | 23.99 | 24.05 | 24.45 | 26.37 | 24.19 | 23.79 | 23.75 | 23.74 |        |
|                                  | 18 | 24.29 | 24.03 | 23.91                                           | 23.93 | 23.99 | 24.07 | 24.41 | 25.20 | 24.16 | 23.79 | 23.75 | 23.75 |        |
|                                  | 19 | 24.22 | 24.02 | 23.90                                           | 23.92 | 23.98 | 24.11 | 24.82 | 24.88 | 24.12 | 23.79 | 23.75 | 23.74 |        |
|                                  | 20 | 24.17 | 24.04 | 23.90                                           | 23.91 | 23.97 | 24.28 | 24.67 | 24.72 | 24.10 | 23.80 | 23.74 | 23.74 |        |
|                                  | 21 | 24.11 | 24.01 | 23.90                                           | 23.90 | 23.90 | 25.13 | 24.58 | 24.60 | 24.09 | 23.80 | 24.36 | 23.73 |        |
|                                  | 22 | 24.10 | 24.00 | 23.91                                           | 23.90 | 23.89 | 25.44 | 24.66 | 24.52 | 24.06 | 23.80 | 24.10 | 23.88 |        |
|                                  | 23 | 24.08 | 23.99 | 23.92                                           | 23.91 | 23.88 | 26.03 | 24.54 | 25.35 | 24.05 | 23.80 | 23.90 | 24.09 |        |
|                                  | 24 | 24.05 | 23.96 | 23.92                                           | 23.92 | 23.88 | 26.19 | 24.45 | 26.19 | 24.04 | 23.79 | 24.18 | 24.12 |        |
|                                  | 25 | 24.03 | 23.94 | 23.94                                           | 23.96 | 23.93 | 25.39 | 24.40 | 25.43 | 24.02 | 23.79 | 24.01 | 23.96 |        |
|                                  | 26 | 24.02 | 23.93 | 23.96                                           | 23.94 | 24.06 | 25.05 | 24.36 | 25.07 | 23.99 | 23.79 | 23.88 | 23.86 |        |
|                                  | 27 | 24.03 | 23.93 | 23.94                                           | 23.92 | 24.13 | 24.84 | 24.37 | 24.89 | 23.98 | 23.79 | 23.84 | 23.82 |        |
|                                  | 28 | 24.07 | 23.92 | 23.93                                           | 23.91 | 24.07 | 24.70 | 25.24 | 24.96 | 23.97 | 23.80 | 23.82 | 23.80 |        |
|                                  | 29 | 24.06 | 23.91 | 23.91                                           | 23.90 | 23.99 | 24.63 | 24.92 | 24.85 | 23.96 | 23.79 |       | 23.79 |        |
|                                  | 30 | 24.04 | 23.92 | 23.90                                           | 24.02 | 23.98 | 24.56 | 24.76 | 24.70 | 23.94 | 23.79 |       | 23.79 |        |
|                                  | 31 |       | 23.89 |                                                 | 24.25 | 23.98 |       | 24.59 |       | 23.94 | 23.78 |       | 23.78 |        |
| Mean                             |    | 24.06 | 23.98 | 23.91                                           | 23.92 | 24.08 | 24.50 | 24.69 | 24.75 | 24.20 | 23.83 | 23.83 | 23.80 |        |
| Max                              |    | 24.90 | 24.04 | 23.99                                           | 24.25 | 24.34 | 26.19 | 25.61 | 26.37 | 24.61 | 23.93 | 24.36 | 24.12 | 26.37  |
| Min                              |    | 23.83 | 23.89 | 23.88                                           | 23.88 | 23.88 | 23.88 | 24.32 | 24.26 | 23.94 | 23.78 | 23.74 | 23.73 | 23.73  |
| Annual Max Momentary Gage Height |    |       | 27.44 | m. (MSL.) , at 07.00 Hours , on Nov 17 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 25.36 | m. (MSL.) , River Bed 23.68 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 29.29 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 29.56 | m. (MSL.) , Drainage Area 113 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                      | Jun  | Jul  | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan  | Feb  | Mar  | Annual        |
|----------------|-------|----------------------------------------------------------|------|------|----------------------|--------|--------|---------|--------------------------|------|------|------|---------------|
| 1              | 0.11  | 0.26                                                     | 0.12 | 0.13 | 1.23                 | 0.17   | 1.88   | 2.05    | 2.78                     | 0.15 | 0.05 | 0.07 |               |
| 2              | 0.11  | 0.26                                                     | 0.12 | 0.13 | 1.19                 | 0.15   | 1.61   | 1.78    | 2.31                     | 0.14 | 0.05 | 0.07 |               |
| 3              | 0.11  | 0.28                                                     | 0.12 | 0.13 | 1.10                 | 0.14   | 1.41   | 1.83    | 1.99                     | 0.13 | 0.05 | 0.05 |               |
| 4              | 0.11  | 0.24                                                     | 0.13 | 0.12 | 0.98                 | 0.14   | 1.28   | 1.45    | 1.78                     | 0.13 | 0.05 | 0.05 |               |
| 5              | 0.11  | 0.22                                                     | 0.13 | 0.12 | 0.88                 | 0.12   | 1.14   | 1.19    | 1.56                     | 0.13 | 0.05 | 0.05 |               |
| 6              | 0.11  | 0.22                                                     | 0.14 | 0.12 | 0.77                 | 0.17   | 5.96   | 1.10    | 1.45                     | 0.12 | 0.04 | 0.05 |               |
| 7              | 0.10  | 0.22                                                     | 0.14 | 0.12 | 0.70                 | 1.94   | 15.94  | 1.10    | 1.32                     | 0.13 | 0.04 | 0.04 |               |
| 8              | 0.09  | 0.19                                                     | 0.19 | 0.13 | 0.64                 | 3.18   | 7.48   | 1.19    | 1.19                     | 0.11 | 0.05 | 0.04 |               |
| 9              | 0.09  | 0.17                                                     | 0.16 | 0.18 | 0.61                 | 3.50   | 8.38   | 8.38    | 1.14                     | 0.11 | 0.05 | 0.04 |               |
| 10             | 0.09  | 0.15                                                     | 0.12 | 0.15 | 0.55                 | 1.32   | 5.30   | 2.86    | 1.05                     | 0.10 | 0.03 | 0.03 |               |
| 11             | 0.09  | 0.15                                                     | 0.12 | 0.13 | 0.46                 | 0.64   | 5.00   | 1.61    | 0.98                     | 0.10 | 0.03 | 0.04 |               |
| 12             | 0.11  | 0.17                                                     | 0.13 | 0.13 | 0.43                 | 0.73   | 8.25   | 1.32    | 0.91                     | 0.09 | 0.03 | 0.03 |               |
| 13             | 0.67  | 0.19                                                     | 0.16 | 0.12 | 0.34                 | 0.46   | 3.90   | 1.14    | 0.88                     | 0.08 | 0.03 | 0.03 |               |
| 14             | 0.98  | 0.24                                                     | 0.17 | 0.12 | 0.28                 | 0.36   | 3.02   | 1.02    | 0.80                     | 0.07 | 0.03 | 0.03 |               |
| 15             | 2.05  | 0.22                                                     | 0.15 | 0.12 | 0.22                 | 0.28   | 2.37   | 0.91    | 0.77                     | 0.07 | 0.03 | 0.03 |               |
| 16             | 5.30  | 0.22                                                     | 0.15 | 0.17 | 0.19                 | 0.28   | 1.99   | 1.41    | 0.70                     | 0.06 | 0.03 | 0.03 |               |
| 17             | 1.83  | 0.24                                                     | 0.14 | 0.16 | 0.19                 | 0.30   | 1.78   | 36.28   | 0.67                     | 0.06 | 0.03 | 0.03 |               |
| 18             | 1.02  | 0.26                                                     | 0.14 | 0.15 | 0.19                 | 0.34   | 1.56   | 8.90    | 0.58                     | 0.06 | 0.03 | 0.03 |               |
| 19             | 0.77  | 0.24                                                     | 0.13 | 0.15 | 0.19                 | 0.43   | 4.50   | 5.10    | 0.46                     | 0.06 | 0.03 | 0.03 |               |
| 20             | 0.61  | 0.28                                                     | 0.13 | 0.14 | 0.18                 | 0.98   | 3.26   | 3.66    | 0.40                     | 0.07 | 0.03 | 0.03 |               |
| 21             | 0.43  | 0.22                                                     | 0.13 | 0.13 | 0.13                 | 7.99   | 2.57   | 2.70    | 0.38                     | 0.07 | 1.32 | 0.02 |               |
| 22             | 0.40  | 0.20                                                     | 0.14 | 0.13 | 0.13                 | 12.68  | 3.18   | 2.18    | 0.32                     | 0.07 | 0.40 | 0.12 |               |
| 23             | 0.36  | 0.19                                                     | 0.15 | 0.14 | 0.12                 | 25.67  | 2.31   | 11.20   | 0.30                     | 0.07 | 0.13 | 0.38 |               |
| 24             | 0.30  | 0.17                                                     | 0.15 | 0.15 | 0.12                 | 30.40  | 1.78   | 30.40   | 0.28                     | 0.06 | 0.64 | 0.46 |               |
| 25             | 0.26  | 0.16                                                     | 0.16 | 0.17 | 0.15                 | 11.84  | 1.50   | 12.51   | 0.24                     | 0.06 | 0.22 | 0.17 |               |
| 26             | 0.24  | 0.15                                                     | 0.17 | 0.16 | 0.32                 | 7.00   | 1.32   | 7.24    | 0.19                     | 0.06 | 0.12 | 0.11 |               |
| 27             | 0.26  | 0.15                                                     | 0.16 | 0.15 | 0.49                 | 4.70   | 1.37   | 5.20    | 0.19                     | 0.06 | 0.09 | 0.08 |               |
| 28             | 0.34  | 0.15                                                     | 0.15 | 0.14 | 0.34                 | 3.50   | 9.50   | 5.96    | 0.18                     | 0.07 | 0.08 | 0.07 |               |
| 29             | 0.32  | 0.14                                                     | 0.14 | 0.13 | 0.19                 | 2.94   | 5.52   | 4.80    | 0.17                     | 0.06 |      | 0.06 |               |
| 30             | 0.28  | 0.15                                                     | 0.13 | 0.24 | 0.19                 | 2.44   | 3.98   | 3.50    | 0.16                     | 0.06 |      | 0.06 |               |
| 31             |       | 0.13                                                     |      | 0.88 | 0.19                 |        | 2.63   |         | 0.16                     | 0.05 |      | 0.05 |               |
| Total          | 17.65 | 6.23                                                     | 4.27 | 5.14 | 13.69                | 124.79 | 121.67 | 169.97  | 26.29                    | 2.66 | 3.76 | 2.38 | 498.50 CMSDAY |
| Mean           | 0.59  | 0.20                                                     | 0.14 | 0.17 | 0.44                 | 4.16   | 3.92   | 5.67    | 0.85                     | 0.09 | 0.13 | 0.08 | 1.37 CMS      |
| Max            | 5.30  | 0.28                                                     | 0.19 | 0.88 | 1.23                 | 30.40  | 15.94  | 36.28   | 2.78                     | 0.15 | 1.32 | 0.46 | 36.28 CMS     |
| Min            | 0.09  | 0.13                                                     | 0.12 | 0.12 | 0.12                 | 0.12   | 1.14   | 0.91    | 0.16                     | 0.05 | 0.03 | 0.02 | 0.02 CMS      |
| Runoff         | 1.53  | 0.54                                                     | 0.37 | 0.44 | 1.18                 | 10.78  | 10.51  | 14.69   | 2.27                     | 0.23 | 0.33 | 0.21 | 43.07 MCM     |
| Momentary Peak | 81.08 | CMS. at 27.44 m. (MSL.) at 07.00 Hours , on Nov 17, 2013 |      |      |                      |        |        |         |                          |      |      |      |               |
| Runoff Yield   | 12.09 | Liters/Second/Square KM.                                 |      |      | Momentary Peak Yield |        |        | 717.522 | Liters/Second/Square KM. |      |      |      |               |

## WATER YEAR : 2013

## WEST COAST - GULF BASIN

**Khlong Yai at Ban Chang Laek , Prachuap Khiri Khan (Gt.11**

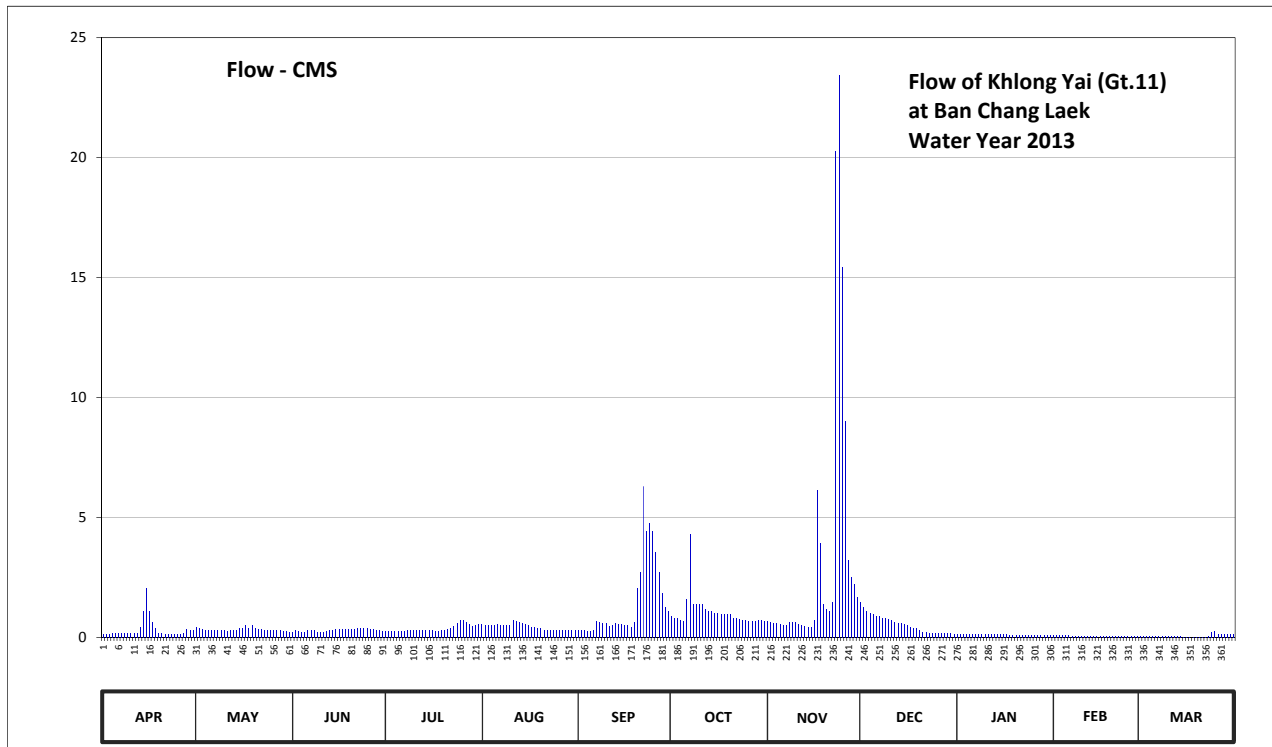
Lat 11 - 03 - 44 N    Long 99 - 22 - 30 E

**Location :** on right bank at the bridge of Phet Kasem Highway near the guidepost 423

|                                         |                                                                                           |                |               |                 |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Chang Laek     | <b>Amphoe</b> | Bang Saphan Noi | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainge Area</b>                     | 61                                                                                        | sq.km.         |               |                 |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |                |               |                 |                  |                     |
| <b>Zero Gage at Bottom</b>              | +36.375                                                                                   | m. (MSL.)      |               |                 |                  |                     |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | Highways Dept. |               |                 |                  |                     |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |                |               |                 | <b>Elevation</b> | +45.340 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                |               |                 |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                |               |                 |                  |                     |
| <b>Period of Available Gage Records</b> | 1979 to date                                                                              |                |               |                 |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |                |               |                 |                  |                     |
| <b>Period of Rating</b>                 | 1980 to date                                                                              |                |               |                 |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |                 |                  |                     |
| <b>Rated by Current Meter</b>           | 1980 to date                                                                              |                |               |                 |                  |                     |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |                |               |                 |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |                 |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |                |               |                 |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 37.06 | 37.18 | 37.11                                          | 37.12 | 37.22 | 37.13 | 37.30 | 37.25 | 37.38 | 37.05 | 36.99 | 36.97 |        |
| 2                                | 37.06 | 37.16 | 37.13                                          | 37.12 | 37.21 | 37.13 | 37.28 | 37.24 | 37.35 | 37.05 | 36.99 | 36.97 |        |
| 3                                | 37.06 | 37.15 | 37.12                                          | 37.12 | 37.21 | 37.13 | 37.28 | 37.23 | 37.33 | 37.05 | 36.99 | 36.97 |        |
| 4                                | 37.07 | 37.14 | 37.11                                          | 37.12 | 37.20 | 37.12 | 37.26 | 37.23 | 37.32 | 37.05 | 36.99 | 36.97 |        |
| 5                                | 37.08 | 37.13 | 37.11                                          | 37.12 | 37.20 | 37.12 | 37.25 | 37.22 | 37.31 | 37.05 | 36.99 | 36.96 |        |
| 6                                | 37.08 | 37.13 | 37.13                                          | 37.12 | 37.22 | 37.13 | 37.40 | 37.21 | 37.30 | 37.05 | 36.99 | 36.96 |        |
| 7                                | 37.08 | 37.13 | 37.14                                          | 37.12 | 37.21 | 37.25 | 37.65 | 37.21 | 37.30 | 37.04 | 36.98 | 36.96 |        |
| 8                                | 37.08 | 37.13 | 37.13                                          | 37.13 | 37.20 | 37.24 | 37.37 | 37.24 | 37.28 | 37.04 | 36.98 | 36.96 |        |
| 9                                | 37.08 | 37.13 | 37.11                                          | 37.14 | 37.20 | 37.23 | 37.37 | 37.24 | 37.28 | 37.05 | 36.98 | 36.95 |        |
| 10                               | 37.08 | 37.13 | 37.11                                          | 37.14 | 37.20 | 37.23 | 37.37 | 37.24 | 37.27 | 37.05 | 36.98 | 36.95 |        |
| 11                               | 37.08 | 37.12 | 37.11                                          | 37.14 | 37.26 | 37.19 | 37.37 | 37.22 | 37.26 | 37.05 | 36.98 | 36.95 |        |
| 12                               | 37.08 | 37.13 | 37.12                                          | 37.14 | 37.25 | 37.20 | 37.34 | 37.20 | 37.24 | 37.05 | 36.97 | 36.95 |        |
| 13                               | 37.18 | 37.13 | 37.13                                          | 37.14 | 37.24 | 37.23 | 37.33 | 37.19 | 37.23 | 37.05 | 36.97 | 36.95 |        |
| 14                               | 37.33 | 37.13 | 37.14                                          | 37.13 | 37.23 | 37.22 | 37.33 | 37.18 | 37.23 | 37.04 | 36.97 | 36.95 |        |
| 15                               | 37.45 | 37.16 | 37.15                                          | 37.13 | 37.22 | 37.22 | 37.32 | 37.18 | 37.22 | 37.04 | 36.97 | 36.94 |        |
| 16                               | 37.33 | 37.17 | 37.15                                          | 37.13 | 37.20 | 37.21 | 37.32 | 37.26 | 37.20 | 37.03 | 36.97 | 36.94 |        |
| 17                               | 37.24 | 37.20 | 37.15                                          | 37.12 | 37.18 | 37.20 | 37.31 | 37.79 | 37.18 | 37.03 | 36.97 | 36.94 |        |
| 18                               | 37.16 | 37.17 | 37.15                                          | 37.12 | 37.18 | 37.18 | 37.31 | 37.62 | 37.17 | 37.02 | 36.96 | 36.94 |        |
| 19                               | 37.10 | 37.20 | 37.15                                          | 37.13 | 37.17 | 37.24 | 37.31 | 37.37 | 37.16 | 37.01 | 36.96 | 36.94 |        |
| 20                               | 37.07 | 37.17 | 37.15                                          | 37.14 | 37.16 | 37.45 | 37.31 | 37.34 | 37.13 | 37.01 | 36.96 | 36.94 |        |
| 21                               | 37.06 | 37.15 | 37.15                                          | 37.15 | 37.14 | 37.52 | 37.28 | 37.33 | 37.11 | 37.01 | 36.96 | 36.94 |        |
| 22                               | 37.06 | 37.15 | 37.16                                          | 37.17 | 37.14 | 37.80 | 37.28 | 37.38 | 37.11 | 37.01 | 36.96 | 36.94 |        |
| 23                               | 37.06 | 37.14 | 37.16                                          | 37.19 | 37.14 | 37.66 | 37.27 | 38.53 | 37.10 | 37.00 | 36.96 | 36.95 |        |
| 24                               | 37.06 | 37.14 | 37.16                                          | 37.23 | 37.14 | 37.69 | 37.26 | 38.65 | 37.10 | 37.00 | 36.96 | 37.11 |        |
| 25                               | 37.06 | 37.14 | 37.16                                          | 37.26 | 37.13 | 37.66 | 37.26 | 38.32 | 37.09 | 37.00 | 36.96 | 37.12 |        |
| 26                               | 37.06 | 37.14 | 37.15                                          | 37.26 | 37.13 | 37.59 | 37.25 | 37.97 | 37.08 | 37.00 | 36.97 | 37.06 |        |
| 27                               | 37.08 | 37.14 | 37.15                                          | 37.24 | 37.13 | 37.52 | 37.25 | 37.56 | 37.08 | 36.99 | 36.97 | 37.05 |        |
| 28                               | 37.15 | 37.13 | 37.13                                          | 37.22 | 37.13 | 37.43 | 37.25 | 37.50 | 37.07 | 36.99 | 36.97 | 37.05 |        |
| 29                               | 37.14 | 37.12 | 37.13                                          | 37.19 | 37.14 | 37.35 | 37.26 | 37.47 | 37.07 | 36.99 |       | 37.04 |        |
| 30                               | 37.13 | 37.12 | 37.12                                          | 37.20 | 37.14 | 37.33 | 37.26 | 37.41 | 37.07 | 36.99 |       | 37.04 |        |
| 31                               |       | 37.11 |                                                | 37.22 | 37.13 |       | 37.25 |       | 37.06 | 36.99 |       | 37.03 |        |
| Mean                             | 37.12 | 37.14 | 37.14                                          | 37.16 | 37.18 | 37.32 | 37.31 | 37.46 | 37.20 | 37.03 | 36.97 | 36.98 |        |
| Max                              | 37.45 | 37.20 | 37.16                                          | 37.26 | 37.26 | 37.80 | 37.65 | 38.65 | 37.38 | 37.05 | 36.99 | 37.12 | 38.65  |
| Min                              | 37.06 | 37.11 | 37.11                                          | 37.12 | 37.13 | 37.12 | 37.25 | 37.18 | 37.06 | 36.99 | 36.96 | 36.94 | 36.94  |
| Annual Max Momentary Gage Height |       | 39.09 | m. (MSL.) , at 20.00 Hours , on Nov 23, 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 36.38 | m. (MSL.) , River Bed 36.84 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 44.70 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 43.42 | m. (MSL.) , Drainage Area 61 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun  | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual        |
|----------------|----------------------------------------------------------------|--------------------------|------|----------------------|-------|---------|--------------------------|--------|-------|------|------|------|---------------|
| 1              | 0.16                                                           | 0.44                     | 0.23 | 0.26                 | 0.58  | 0.29    | 0.90                     | 0.70   | 1.46  | 0.15 | 0.09 | 0.07 |               |
| 2              | 0.16                                                           | 0.38                     | 0.29 | 0.26                 | 0.54  | 0.29    | 0.82                     | 0.66   | 1.25  | 0.15 | 0.09 | 0.07 |               |
| 3              | 0.16                                                           | 0.35                     | 0.26 | 0.26                 | 0.54  | 0.29    | 0.82                     | 0.62   | 1.11  | 0.15 | 0.09 | 0.07 |               |
| 4              | 0.17                                                           | 0.32                     | 0.23 | 0.26                 | 0.50  | 0.26    | 0.74                     | 0.62   | 1.04  | 0.15 | 0.09 | 0.07 |               |
| 5              | 0.18                                                           | 0.29                     | 0.23 | 0.26                 | 0.50  | 0.26    | 0.70                     | 0.58   | 0.97  | 0.15 | 0.09 | 0.06 |               |
| 6              | 0.18                                                           | 0.29                     | 0.29 | 0.26                 | 0.58  | 0.29    | 1.60                     | 0.54   | 0.90  | 0.15 | 0.09 | 0.06 |               |
| 7              | 0.18                                                           | 0.29                     | 0.32 | 0.26                 | 0.54  | 0.70    | 4.30                     | 0.54   | 0.90  | 0.14 | 0.08 | 0.06 |               |
| 8              | 0.18                                                           | 0.29                     | 0.29 | 0.29                 | 0.50  | 0.66    | 1.39                     | 0.66   | 0.82  | 0.14 | 0.08 | 0.06 |               |
| 9              | 0.18                                                           | 0.29                     | 0.23 | 0.32                 | 0.50  | 0.62    | 1.39                     | 0.66   | 0.82  | 0.15 | 0.08 | 0.05 |               |
| 10             | 0.18                                                           | 0.29                     | 0.23 | 0.32                 | 0.50  | 0.62    | 1.39                     | 0.66   | 0.78  | 0.15 | 0.08 | 0.05 |               |
| 11             | 0.18                                                           | 0.26                     | 0.23 | 0.32                 | 0.74  | 0.47    | 1.39                     | 0.58   | 0.74  | 0.15 | 0.08 | 0.05 |               |
| 12             | 0.18                                                           | 0.29                     | 0.26 | 0.32                 | 0.70  | 0.50    | 1.18                     | 0.50   | 0.66  | 0.15 | 0.07 | 0.05 |               |
| 13             | 0.44                                                           | 0.29                     | 0.29 | 0.32                 | 0.66  | 0.62    | 1.11                     | 0.47   | 0.62  | 0.15 | 0.07 | 0.05 |               |
| 14             | 1.11                                                           | 0.29                     | 0.32 | 0.29                 | 0.62  | 0.58    | 1.11                     | 0.44   | 0.62  | 0.14 | 0.07 | 0.05 |               |
| 15             | 2.05                                                           | 0.38                     | 0.35 | 0.29                 | 0.58  | 0.58    | 1.04                     | 0.44   | 0.58  | 0.14 | 0.07 | 0.04 |               |
| 16             | 1.11                                                           | 0.41                     | 0.35 | 0.29                 | 0.50  | 0.54    | 1.04                     | 0.74   | 0.50  | 0.13 | 0.07 | 0.04 |               |
| 17             | 0.66                                                           | 0.50                     | 0.35 | 0.26                 | 0.44  | 0.50    | 0.97                     | 6.16   | 0.44  | 0.13 | 0.07 | 0.04 |               |
| 18             | 0.38                                                           | 0.41                     | 0.35 | 0.26                 | 0.44  | 0.44    | 0.97                     | 3.94   | 0.41  | 0.12 | 0.06 | 0.04 |               |
| 19             | 0.20                                                           | 0.50                     | 0.35 | 0.29                 | 0.41  | 0.66    | 0.97                     | 1.39   | 0.38  | 0.11 | 0.06 | 0.04 |               |
| 20             | 0.17                                                           | 0.41                     | 0.35 | 0.32                 | 0.38  | 2.05    | 0.97                     | 1.18   | 0.29  | 0.11 | 0.06 | 0.04 |               |
| 21             | 0.16                                                           | 0.35                     | 0.35 | 0.35                 | 0.32  | 2.74    | 0.82                     | 1.11   | 0.23  | 0.11 | 0.06 | 0.04 |               |
| 22             | 0.16                                                           | 0.35                     | 0.38 | 0.41                 | 0.32  | 6.30    | 0.82                     | 1.46   | 0.23  | 0.11 | 0.06 | 0.04 |               |
| 23             | 0.16                                                           | 0.32                     | 0.38 | 0.47                 | 0.32  | 4.42    | 0.78                     | 20.28  | 0.20  | 0.10 | 0.06 | 0.05 |               |
| 24             | 0.16                                                           | 0.32                     | 0.38 | 0.62                 | 0.32  | 4.78    | 0.74                     | 23.45  | 0.20  | 0.10 | 0.06 | 0.23 |               |
| 25             | 0.16                                                           | 0.32                     | 0.38 | 0.74                 | 0.29  | 4.42    | 0.74                     | 15.44  | 0.19  | 0.10 | 0.06 | 0.26 |               |
| 26             | 0.16                                                           | 0.32                     | 0.35 | 0.74                 | 0.29  | 3.58    | 0.70                     | 9.02   | 0.18  | 0.10 | 0.07 | 0.16 |               |
| 27             | 0.18                                                           | 0.32                     | 0.35 | 0.66                 | 0.29  | 2.74    | 0.70                     | 3.22   | 0.18  | 0.09 | 0.07 | 0.15 |               |
| 28             | 0.35                                                           | 0.29                     | 0.29 | 0.58                 | 0.29  | 1.87    | 0.70                     | 2.50   | 0.17  | 0.09 | 0.07 | 0.15 |               |
| 29             | 0.32                                                           | 0.26                     | 0.29 | 0.47                 | 0.32  | 1.25    | 0.74                     | 2.23   | 0.17  | 0.09 |      | 0.14 |               |
| 30             | 0.29                                                           | 0.26                     | 0.26 | 0.50                 | 0.32  | 1.11    | 0.74                     | 1.69   | 0.17  | 0.09 |      | 0.14 |               |
| 31             |                                                                | 0.23                     |      | 0.58                 | 0.29  |         | 0.70                     |        | 0.16  | 0.09 |      | 0.13 |               |
| Total          | 10.31                                                          | 10.31                    | 9.21 | 11.83                | 14.12 | 44.43   | 32.98                    | 102.48 | 17.37 | 3.88 | 2.05 | 2.55 | 261.52 CMSDAY |
| Mean           | 0.34                                                           | 0.33                     | 0.31 | 0.38                 | 0.46  | 1.48    | 1.06                     | 3.42   | 0.56  | 0.13 | 0.07 | 0.08 | 0.72 CMS      |
| Max            | 2.05                                                           | 0.50                     | 0.38 | 0.74                 | 0.74  | 6.30    | 4.30                     | 23.45  | 1.46  | 0.15 | 0.09 | 0.26 | 23.45 CMS     |
| Min            | 0.16                                                           | 0.23                     | 0.23 | 0.26                 | 0.29  | 0.26    | 0.70                     | 0.44   | 0.16  | 0.09 | 0.06 | 0.04 | 0.04 CMS      |
| Runoff         | 0.89                                                           | 0.89                     | 0.80 | 1.02                 | 1.22  | 3.84    | 2.85                     | 8.85   | 1.50  | 0.34 | 0.18 | 0.22 | 22.60 MCM     |
| Momentary Peak | 36.69 CMS. at 39.09 m. (MSL.) at 20.00 Hours , on Nov 23, 2013 |                          |      |                      |       |         |                          |        |       |      |      |      |               |
| Runoff Yield   | 11.75                                                          | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 601.475 | Liters/Second/Square KM. |        |       |      |      |      |               |

**WATER YEAR : 2013**  
**WEST COAST - GULF BASIN**

**Huai Sai at Ban Suan Son Huai Sai , Prachuap Khiri Khan (Gt.15)**

Lat 11 - 40 - 33 N Long 99 - 41 - 44 E

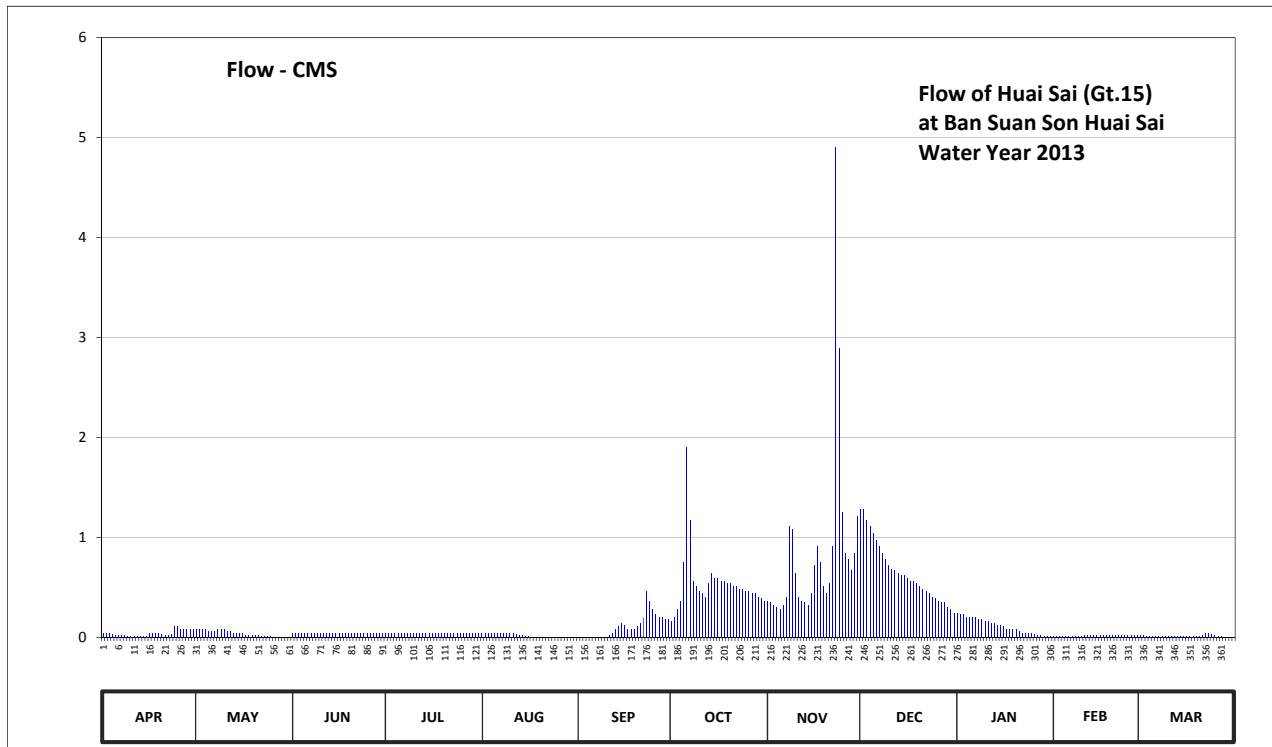
**Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 342, Huai Sai.**

|                                         |                                                                                           |                   |               |        |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------------|---------------|--------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Suan Son Huai Sai | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainage Area</b>                    | 25                                                                                        | sq.km.            |               |        |                  |                     |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage              |               |        |                  |                     |
| <b>Zero Gage at Bottom</b>              | +15.860                                                                                   | m. (MSL.)         |               |        |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                   |               |        |                  |                     |
| <b>Location BM</b>                      | On right bank at the footpath of the bridge.                                              |                   |               |        | <b>Elevation</b> | +22.383 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                   |               |        |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                   |               |        |                  |                     |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                              |                   |               |        |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |                   |               |        |                  |                     |
| <b>Period of Rating</b>                 | 1987 to date                                                                              |                   |               |        |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |                   |               |        |                  |                     |
| <b>Rated by Current Meter</b>           | 1987 to date                                                                              |                   |               |        |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable by some scouring.                                                           |                   |               |        |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                   |               |        |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 18 discharge measurements made in 2013. |                   |               |        |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep                              | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 15.66 | 15.71 | 15.66       | 15.67 | 15.68 | 15.52                            | 15.76 | 15.86             | 16.17 | 15.81 | 15.61 | 15.63 |        |
| 2                                | 15.66 | 15.71 | 15.66       | 15.67 | 15.68 | 15.52                            | 15.79 | 15.85             | 16.17 | 15.80 | 15.61 | 15.63 |        |
| 3                                | 15.66 | 15.71 | 15.66       | 15.67 | 15.68 | 15.52                            | 15.82 | 15.84             | 16.14 | 15.80 | 15.61 | 15.62 |        |
| 4                                | 15.65 | 15.71 | 15.66       | 15.67 | 15.68 | 15.52                            | 15.86 | 15.83             | 16.12 | 15.79 | 15.61 | 15.62 |        |
| 5                                | 15.64 | 15.70 | 15.66       | 15.67 | 15.68 | 15.52                            | 16.01 | 15.82             | 16.10 | 15.79 | 15.62 | 15.62 |        |
| 6                                | 15.64 | 15.70 | 15.66       | 15.67 | 15.68 | 15.53                            | 16.32 | 15.84             | 16.08 | 15.78 | 15.62 | 15.62 |        |
| 7                                | 15.63 | 15.70 | 15.66       | 15.67 | 15.68 | 15.54                            | 16.14 | 15.88             | 16.06 | 15.78 | 15.62 | 15.62 |        |
| 8                                | 15.63 | 15.71 | 15.66       | 15.66 | 15.68 | 15.56                            | 15.94 | 16.12             | 16.04 | 15.77 | 15.62 | 15.62 |        |
| 9                                | 15.62 | 15.71 | 15.66       | 15.66 | 15.67 | 15.58                            | 15.92 | 16.11             | 16.02 | 15.77 | 15.62 | 15.62 |        |
| 10                               | 15.62 | 15.71 | 15.66       | 15.66 | 15.67 | 15.60                            | 15.90 | 15.97             | 16.00 | 15.76 | 15.62 | 15.61 |        |
| 11                               | 15.62 | 15.70 | 15.67       | 15.66 | 15.66 | 15.64                            | 15.89 | 15.88             | 15.99 | 15.76 | 15.63 | 15.61 |        |
| 12                               | 15.61 | 15.70 | 15.67       | 15.66 | 15.65 | 15.68                            | 15.88 | 15.86             | 15.98 | 15.75 | 15.63 | 15.61 |        |
| 13                               | 15.61 | 15.69 | 15.68       | 15.67 | 15.64 | 15.71                            | 15.93 | 15.85             | 15.97 | 15.75 | 15.63 | 15.61 |        |
| 14                               | 15.61 | 15.68 | 15.68       | 15.67 | 15.63 | 15.73                            | 15.97 | 15.84             | 15.96 | 15.74 | 15.63 | 15.61 |        |
| 15                               | 15.61 | 15.67 | 15.69       | 15.68 | 15.62 | 15.75                            | 15.95 | 15.89             | 15.96 | 15.74 | 15.63 | 15.61 |        |
| 16                               | 15.67 | 15.66 | 15.69       | 15.68 | 15.61 | 15.74                            | 15.95 | 16.00             | 15.95 | 15.73 | 15.63 | 15.61 |        |
| 17                               | 15.67 | 15.64 | 15.68       | 15.68 | 15.60 | 15.72                            | 15.94 | 16.06             | 15.94 | 15.72 | 15.63 | 15.61 |        |
| 18                               | 15.66 | 15.64 | 15.68       | 15.68 | 15.59 | 15.72                            | 15.94 | 16.01             | 15.94 | 15.72 | 15.63 | 15.61 |        |
| 19                               | 15.66 | 15.64 | 15.68       | 15.68 | 15.58 | 15.72                            | 15.93 | 15.92             | 15.93 | 15.71 | 15.63 | 15.61 |        |
| 20                               | 15.65 | 15.63 | 15.68       | 15.68 | 15.57 | 15.73                            | 15.93 | 15.89             | 15.92 | 15.71 | 15.63 | 15.61 |        |
| 21                               | 15.64 | 15.63 | 15.68       | 15.68 | 15.56 | 15.75                            | 15.92 | 15.93             | 15.91 | 15.70 | 15.63 | 15.63 |        |
| 22                               | 15.64 | 15.62 | 15.67       | 15.68 | 15.56 | 15.78                            | 15.92 | 16.06             | 15.90 | 15.69 | 15.63 | 15.66 |        |
| 23                               | 15.65 | 15.62 | 15.67       | 15.68 | 15.56 | 15.90                            | 15.91 | 16.82             | 15.89 | 15.68 | 15.63 | 15.67 |        |
| 24                               | 15.73 | 15.61 | 15.67       | 15.68 | 15.55 | 15.86                            | 15.91 | 16.51             | 15.88 | 15.67 | 15.63 | 15.65 |        |
| 25                               | 15.73 | 15.61 | 15.67       | 15.68 | 15.55 | 15.82                            | 15.90 | 16.16             | 15.87 | 15.66 | 15.63 | 15.63 |        |
| 26                               | 15.72 | 15.60 | 15.67       | 15.68 | 15.54 | 15.80                            | 15.90 | 16.04             | 15.86 | 15.65 | 15.63 | 15.61 |        |
| 27                               | 15.72 | 15.60 | 15.68       | 15.68 | 15.54 | 15.79                            | 15.89 | 16.02             | 15.85 | 15.64 | 15.63 | 15.61 |        |
| 28                               | 15.72 | 15.59 | 15.68       | 15.68 | 15.53 | 15.78                            | 15.89 | 15.98             | 15.85 | 15.63 | 15.63 | 15.60 |        |
| 29                               | 15.72 | 15.58 | 15.69       | 15.68 | 15.53 | 15.77                            | 15.88 | 16.04             | 15.83 | 15.62 |       | 15.59 |        |
| 30                               | 15.71 | 15.57 | 15.69       | 15.68 | 15.52 | 15.77                            | 15.87 | 16.15             | 15.82 | 15.61 |       | 15.59 |        |
| 31                               |       | 15.56 |             | 15.68 | 15.52 |                                  | 15.86 |                   | 15.81 | 15.61 |       | 15.58 |        |
| Mean                             | 15.66 | 15.66 | 15.67       | 15.67 | 15.61 | 15.69                            | 15.92 | 16.00             | 15.96 | 15.72 | 15.63 | 15.62 |        |
| Max                              | 15.73 | 15.71 | 15.69       | 15.68 | 15.68 | 15.90                            | 16.32 | 16.82             | 16.17 | 15.81 | 15.63 | 15.67 | 16.82  |
| Min                              | 15.61 | 15.56 | 15.66       | 15.66 | 15.52 | 15.52                            | 15.76 | 15.82             | 15.81 | 15.61 | 15.61 | 15.58 | 15.52  |
| Annual Max Momentary Gage Height | 16.92 |       | m. (MSL.) , |       |       | at 09.00 Hours , on Nov 23, 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 15.86 |       | m. (MSL.) , |       |       | River Bed                        | 15.34 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 21.18 |       | m. (MSL.) , |       |       |                                  |       |                   |       |       |       |       |        |
| Right Bank Elevation             | 21.24 |       | m. (MSL.) , |       |       | Drainage Area                    | 25    | Square Kilometers |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                           | May                      | Jun  | Jul                  | Aug  | Sep     | Oct   | Nov                      | Dec   | Jan  | Feb  | Mar  | Annual       |
|----------------|---------------------------------------------------------------|--------------------------|------|----------------------|------|---------|-------|--------------------------|-------|------|------|------|--------------|
| 1              | 0.04                                                          | 0.08                     | 0.04 | 0.04                 | 0.05 | 0.00    | 0.16  | 0.37                     | 1.29  | 0.25 | 0.01 | 0.02 |              |
| 2              | 0.04                                                          | 0.08                     | 0.04 | 0.04                 | 0.05 | 0.00    | 0.21  | 0.35                     | 1.29  | 0.23 | 0.01 | 0.02 |              |
| 3              | 0.04                                                          | 0.08                     | 0.04 | 0.04                 | 0.05 | 0.00    | 0.28  | 0.32                     | 1.18  | 0.23 | 0.01 | 0.01 |              |
| 4              | 0.03                                                          | 0.08                     | 0.04 | 0.04                 | 0.05 | 0.00    | 0.37  | 0.30                     | 1.11  | 0.21 | 0.01 | 0.01 |              |
| 5              | 0.02                                                          | 0.06                     | 0.04 | 0.04                 | 0.05 | 0.00    | 0.75  | 0.28                     | 1.04  | 0.21 | 0.01 | 0.01 |              |
| 6              | 0.02                                                          | 0.06                     | 0.04 | 0.04                 | 0.05 | 0.00    | 1.91  | 0.32                     | 0.98  | 0.20 | 0.01 | 0.01 |              |
| 7              | 0.02                                                          | 0.06                     | 0.04 | 0.04                 | 0.05 | 0.00    | 1.18  | 0.41                     | 0.91  | 0.20 | 0.01 | 0.01 |              |
| 8              | 0.02                                                          | 0.08                     | 0.04 | 0.04                 | 0.05 | 0.00    | 0.56  | 1.11                     | 0.85  | 0.18 | 0.01 | 0.01 |              |
| 9              | 0.01                                                          | 0.08                     | 0.04 | 0.04                 | 0.04 | 0.00    | 0.51  | 1.08                     | 0.78  | 0.18 | 0.01 | 0.01 |              |
| 10             | 0.01                                                          | 0.08                     | 0.04 | 0.04                 | 0.04 | 0.00    | 0.46  | 0.64                     | 0.72  | 0.16 | 0.01 | 0.01 |              |
| 11             | 0.01                                                          | 0.06                     | 0.04 | 0.04                 | 0.04 | 0.02    | 0.44  | 0.41                     | 0.69  | 0.16 | 0.02 | 0.01 |              |
| 12             | 0.01                                                          | 0.06                     | 0.04 | 0.04                 | 0.03 | 0.05    | 0.41  | 0.37                     | 0.67  | 0.14 | 0.02 | 0.01 |              |
| 13             | 0.01                                                          | 0.05                     | 0.05 | 0.04                 | 0.02 | 0.08    | 0.54  | 0.35                     | 0.64  | 0.14 | 0.02 | 0.01 |              |
| 14             | 0.01                                                          | 0.05                     | 0.05 | 0.04                 | 0.02 | 0.11    | 0.64  | 0.32                     | 0.62  | 0.13 | 0.02 | 0.01 |              |
| 15             | 0.01                                                          | 0.04                     | 0.05 | 0.05                 | 0.01 | 0.14    | 0.59  | 0.44                     | 0.62  | 0.13 | 0.02 | 0.01 |              |
| 16             | 0.04                                                          | 0.04                     | 0.05 | 0.05                 | 0.01 | 0.13    | 0.59  | 0.72                     | 0.59  | 0.11 | 0.02 | 0.01 |              |
| 17             | 0.04                                                          | 0.02                     | 0.05 | 0.05                 | 0.00 | 0.09    | 0.56  | 0.91                     | 0.56  | 0.09 | 0.02 | 0.01 |              |
| 18             | 0.04                                                          | 0.02                     | 0.05 | 0.05                 | 0.00 | 0.09    | 0.56  | 0.75                     | 0.56  | 0.09 | 0.02 | 0.01 |              |
| 19             | 0.04                                                          | 0.02                     | 0.05 | 0.05                 | 0.00 | 0.09    | 0.54  | 0.51                     | 0.54  | 0.08 | 0.02 | 0.01 |              |
| 20             | 0.03                                                          | 0.02                     | 0.05 | 0.05                 | 0.00 | 0.11    | 0.54  | 0.44                     | 0.51  | 0.08 | 0.02 | 0.01 |              |
| 21             | 0.02                                                          | 0.02                     | 0.05 | 0.05                 | 0.00 | 0.14    | 0.51  | 0.54                     | 0.49  | 0.06 | 0.02 | 0.02 |              |
| 22             | 0.02                                                          | 0.01                     | 0.04 | 0.05                 | 0.00 | 0.20    | 0.51  | 0.91                     | 0.46  | 0.05 | 0.02 | 0.04 |              |
| 23             | 0.03                                                          | 0.01                     | 0.04 | 0.05                 | 0.00 | 0.46    | 0.49  | 4.90                     | 0.44  | 0.05 | 0.02 | 0.04 |              |
| 24             | 0.11                                                          | 0.01                     | 0.04 | 0.05                 | 0.00 | 0.37    | 0.49  | 2.89                     | 0.41  | 0.04 | 0.02 | 0.03 |              |
| 25             | 0.11                                                          | 0.01                     | 0.04 | 0.05                 | 0.00 | 0.28    | 0.46  | 1.26                     | 0.39  | 0.04 | 0.02 | 0.02 |              |
| 26             | 0.09                                                          | 0.00                     | 0.04 | 0.05                 | 0.00 | 0.23    | 0.46  | 0.85                     | 0.37  | 0.03 | 0.02 | 0.01 |              |
| 27             | 0.09                                                          | 0.00                     | 0.05 | 0.05                 | 0.00 | 0.21    | 0.44  | 0.78                     | 0.35  | 0.02 | 0.02 | 0.01 |              |
| 28             | 0.09                                                          | 0.00                     | 0.05 | 0.05                 | 0.00 | 0.20    | 0.44  | 0.67                     | 0.35  | 0.02 | 0.02 | 0.00 |              |
| 29             | 0.09                                                          | 0.00                     | 0.05 | 0.05                 | 0.00 | 0.18    | 0.41  | 0.85                     | 0.30  | 0.01 |      | 0.00 |              |
| 30             | 0.08                                                          | 0.00                     | 0.05 | 0.05                 | 0.00 | 0.18    | 0.39  | 1.22                     | 0.28  | 0.01 |      | 0.00 |              |
| 31             |                                                               | 0.00                     |      | 0.05                 | 0.00 |         | 0.37  |                          | 0.25  | 0.01 |      | 0.00 |              |
| Total          | 1.22                                                          | 1.18                     | 1.33 | 1.41                 | 0.61 | 3.36    | 16.77 | 25.27                    | 20.24 | 3.54 | 0.46 | 0.39 | 75.78 CMSDAY |
| Mean           | 0.04                                                          | 0.04                     | 0.04 | 0.05                 | 0.02 | 0.11    | 0.54  | 0.84                     | 0.65  | 0.11 | 0.02 | 0.01 | 0.21 CMS     |
| Max            | 0.11                                                          | 0.08                     | 0.05 | 0.05                 | 0.05 | 0.46    | 1.91  | 4.90                     | 1.29  | 0.25 | 0.02 | 0.04 | 4.90 CMS     |
| Min            | 0.01                                                          | 0.00                     | 0.04 | 0.04                 | 0.00 | 0.00    | 0.16  | 0.28                     | 0.25  | 0.01 | 0.01 | 0.00 | 0.00 CMS     |
| Runoff         | 0.11                                                          | 0.10                     | 0.12 | 0.12                 | 0.05 | 0.29    | 1.45  | 2.18                     | 1.75  | 0.31 | 0.04 | 0.03 | 6.55 MCM     |
| Momentary Peak | 5.63 CMS. at 16.92 m. (MSL.) at 09.00 Hours , on Nov 23, 2013 |                          |      |                      |      |         |       |                          |       |      |      |      |              |
| Runoff Yield   | 8.30                                                          | Liters/Second/Square KM. |      | Momentary Peak Yield |      | 225.200 |       | Liters/Second/Square KM. |       |      |      |      |              |

## WATER YEAR : 2013

## WEST COAST - GULF BASIN

**Khlong Hin Chuang at Ban Hin Chuang , Prachuap Khiri Khan (Gt.16**

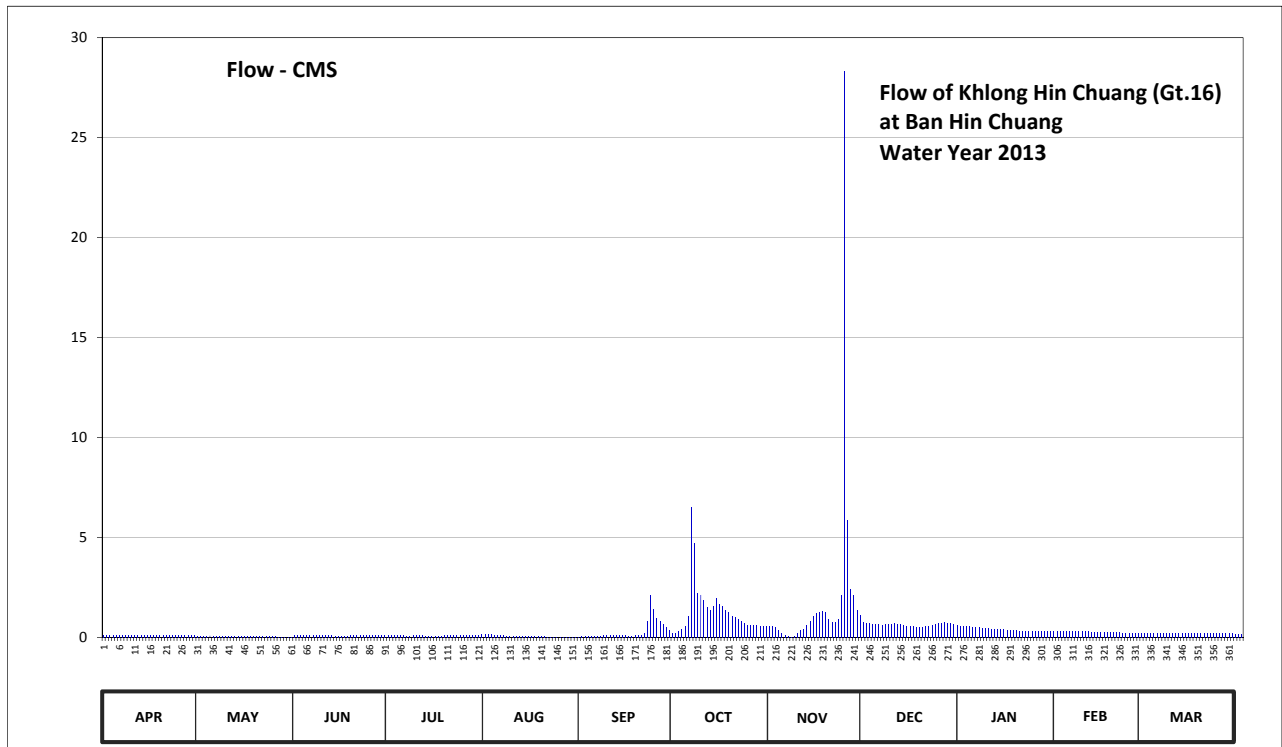
Lat 11 - 39 - 57 N    Long 99 - 41 - 18 E

**Location :** on right bank at the abutment of the bridge

|                                         |                                                                                          |            |               |        |                  |                     |
|-----------------------------------------|------------------------------------------------------------------------------------------|------------|---------------|--------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                               | Hin Chuang | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainage Area</b>                    | 48                                                                                       | sq.km.     |               |        |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                               |            |               |        |                  |                     |
| <b>Zero Gage at Bottom</b>              | +10.873                                                                                  | m. (MSL.)  |               |        |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |            |               |        |                  |                     |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                             |            |               |        | <b>Elevation</b> | +17.808 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                     |            |               |        |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                            |            |               |        |                  |                     |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                             |            |               |        |                  |                     |
| <b>Rating Operation</b>                 |                                                                                          |            |               |        |                  |                     |
| <b>Period of Rating</b>                 | 1987 to date                                                                             |            |               |        |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                        |            |               |        |                  |                     |
| <b>Rated by Current Meter</b>           | 1987 to date                                                                             |            |               |        |                  |                     |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |            |               |        |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |            |               |        |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013 |            |               |        |                  |                     |

Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014

| Date                             | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 11.46 | 11.44 | 11.45                                          | 11.47 | 11.50 | 11.39 | 11.53 | 11.63 | 11.66 | 11.63 | 11.55 | 11.53 |        |
| 2                                | 11.46 | 11.44 | 11.45                                          | 11.47 | 11.50 | 11.39 | 11.55 | 11.62 | 11.66 | 11.63 | 11.55 | 11.53 |        |
| 3                                | 11.46 | 11.44 | 11.45                                          | 11.46 | 11.50 | 11.40 | 11.59 | 11.58 | 11.65 | 11.63 | 11.55 | 11.53 |        |
| 4                                | 11.46 | 11.44 | 11.45                                          | 11.46 | 11.49 | 11.41 | 11.63 | 11.53 | 11.65 | 11.62 | 11.55 | 11.53 |        |
| 5                                | 11.46 | 11.44 | 11.45                                          | 11.45 | 11.48 | 11.42 | 11.73 | 11.47 | 11.65 | 11.62 | 11.55 | 11.53 |        |
| 6                                | 11.46 | 11.44 | 11.45                                          | 11.45 | 11.47 | 11.43 | 12.21 | 11.43 | 11.64 | 11.62 | 11.55 | 11.53 |        |
| 7                                | 11.45 | 11.44 | 11.45                                          | 11.44 | 11.45 | 11.44 | 12.09 | 11.38 | 11.65 | 11.61 | 11.55 | 11.53 |        |
| 8                                | 11.45 | 11.44 | 11.46                                          | 11.44 | 11.43 | 11.46 | 11.88 | 11.44 | 11.65 | 11.61 | 11.55 | 11.52 |        |
| 9                                | 11.45 | 11.44 | 11.46                                          | 11.45 | 11.43 | 11.46 | 11.87 | 11.53 | 11.65 | 11.61 | 11.55 | 11.52 |        |
| 10                               | 11.45 | 11.44 | 11.47                                          | 11.45 | 11.42 | 11.46 | 11.84 | 11.57 | 11.66 | 11.60 | 11.55 | 11.52 |        |
| 11                               | 11.45 | 11.44 | 11.47                                          | 11.45 | 11.42 | 11.47 | 11.80 | 11.60 | 11.65 | 11.60 | 11.54 | 11.52 |        |
| 12                               | 11.45 | 11.44 | 11.46                                          | 11.45 | 11.42 | 11.48 | 11.78 | 11.64 | 11.65 | 11.60 | 11.54 | 11.52 |        |
| 13                               | 11.46 | 11.44 | 11.45                                          | 11.44 | 11.41 | 11.49 | 11.81 | 11.69 | 11.64 | 11.59 | 11.54 | 11.52 |        |
| 14                               | 11.46 | 11.44 | 11.44                                          | 11.44 | 11.41 | 11.48 | 11.85 | 11.73 | 11.63 | 11.59 | 11.54 | 11.52 |        |
| 15                               | 11.46 | 11.44 | 11.44                                          | 11.44 | 11.41 | 11.46 | 11.82 | 11.75 | 11.63 | 11.58 | 11.54 | 11.52 |        |
| 16                               | 11.48 | 11.44 | 11.44                                          | 11.44 | 11.40 | 11.43 | 11.81 | 11.76 | 11.63 | 11.57 | 11.54 | 11.52 |        |
| 17                               | 11.48 | 11.44 | 11.44                                          | 11.44 | 11.40 | 11.42 | 11.78 | 11.77 | 11.62 | 11.57 | 11.54 | 11.52 |        |
| 18                               | 11.48 | 11.43 | 11.44                                          | 11.44 | 11.40 | 11.48 | 11.76 | 11.76 | 11.62 | 11.57 | 11.54 | 11.52 |        |
| 19                               | 11.47 | 11.43 | 11.45                                          | 11.45 | 11.39 | 11.49 | 11.73 | 11.70 | 11.62 | 11.56 | 11.54 | 11.52 |        |
| 20                               | 11.47 | 11.42 | 11.45                                          | 11.45 | 11.39 | 11.49 | 11.72 | 11.67 | 11.63 | 11.56 | 11.54 | 11.52 |        |
| 21                               | 11.47 | 11.42 | 11.46                                          | 11.45 | 11.38 | 11.52 | 11.70 | 11.67 | 11.63 | 11.56 | 11.53 | 11.52 |        |
| 22                               | 11.47 | 11.41 | 11.46                                          | 11.45 | 11.38 | 11.68 | 11.68 | 11.70 | 11.64 | 11.56 | 11.53 | 11.52 |        |
| 23                               | 11.46 | 11.40 | 11.47                                          | 11.46 | 11.38 | 11.87 | 11.66 | 11.87 | 11.65 | 11.56 | 11.53 | 11.52 |        |
| 24                               | 11.46 | 11.40 | 11.47                                          | 11.46 | 11.38 | 11.79 | 11.64 | 12.97 | 11.66 | 11.56 | 11.53 | 11.52 |        |
| 25                               | 11.46 | 11.39 | 11.48                                          | 11.46 | 11.38 | 11.71 | 11.64 | 12.17 | 11.66 | 11.56 | 11.53 | 11.52 |        |
| 26                               | 11.46 | 11.39 | 11.49                                          | 11.47 | 11.38 | 11.68 | 11.64 | 11.90 | 11.67 | 11.56 | 11.53 | 11.52 |        |
| 27                               | 11.45 | 11.38 | 11.49                                          | 11.47 | 11.38 | 11.65 | 11.64 | 11.87 | 11.66 | 11.55 | 11.53 | 11.52 |        |
| 28                               | 11.45 | 11.38 | 11.49                                          | 11.47 | 11.38 | 11.62 | 11.63 | 11.78 | 11.66 | 11.55 | 11.53 | 11.52 |        |
| 29                               | 11.45 | 11.37 | 11.47                                          | 11.48 | 11.38 | 11.57 | 11.63 | 11.74 | 11.65 | 11.55 |       | 11.51 |        |
| 30                               | 11.45 | 11.37 | 11.47                                          | 11.49 | 11.38 | 11.53 | 11.63 | 11.67 | 11.64 | 11.55 |       | 11.51 |        |
| 31                               |       | 11.36 |                                                | 11.50 | 11.38 |       | 11.63 |       | 11.63 | 11.55 |       | 11.50 |        |
| Mean                             | 11.46 | 11.42 | 11.46                                          | 11.46 | 11.42 | 11.52 | 11.74 | 11.72 | 11.64 | 11.58 | 11.54 | 11.52 |        |
| Max                              | 11.48 | 11.44 | 11.49                                          | 11.50 | 11.50 | 11.87 | 12.21 | 12.97 | 11.67 | 11.63 | 11.55 | 11.53 | 12.97  |
| Min                              | 11.45 | 11.36 | 11.44                                          | 11.44 | 11.38 | 11.39 | 11.53 | 11.38 | 11.62 | 11.55 | 11.53 | 11.50 | 11.36  |
| Annual Max Momentary Gage Height |       | 13.32 | m. (MSL.) , at 06.00 Hours , on Nov 24 , 2013  |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 10.87 | m. (MSL.) , River Bed 11.10 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 16.64 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 16.69 | m. (MSL.) , Drainage Area 48 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                      | Jun  | Jul  | Aug                  | Sep   | Oct     | Nov                      | Dec   | Jan   | Feb  | Mar  | Annual |
|----------------|-------|----------------------------------------------------------|------|------|----------------------|-------|---------|--------------------------|-------|-------|------|------|--------|
| 1              | 0.11  | 0.09                                                     | 0.10 | 0.12 | 0.15                 | 0.05  | 0.24    | 0.58                     | 0.72  | 0.58  | 0.30 | 0.24 |        |
| 2              | 0.11  | 0.09                                                     | 0.10 | 0.12 | 0.15                 | 0.05  | 0.30    | 0.54                     | 0.72  | 0.58  | 0.30 | 0.24 |        |
| 3              | 0.11  | 0.09                                                     | 0.10 | 0.11 | 0.15                 | 0.05  | 0.42    | 0.39                     | 0.67  | 0.58  | 0.30 | 0.24 |        |
| 4              | 0.11  | 0.09                                                     | 0.10 | 0.11 | 0.14                 | 0.06  | 0.58    | 0.24                     | 0.67  | 0.54  | 0.30 | 0.24 |        |
| 5              | 0.11  | 0.09                                                     | 0.10 | 0.10 | 0.13                 | 0.07  | 1.08    | 0.12                     | 0.67  | 0.54  | 0.30 | 0.24 |        |
| 6              | 0.11  | 0.09                                                     | 0.10 | 0.10 | 0.12                 | 0.08  | 6.53    | 0.08                     | 0.63  | 0.54  | 0.30 | 0.24 |        |
| 7              | 0.10  | 0.09                                                     | 0.10 | 0.09 | 0.10                 | 0.09  | 4.71    | 0.04                     | 0.67  | 0.49  | 0.30 | 0.24 |        |
| 8              | 0.10  | 0.09                                                     | 0.11 | 0.09 | 0.08                 | 0.11  | 2.22    | 0.09                     | 0.67  | 0.49  | 0.30 | 0.21 |        |
| 9              | 0.10  | 0.09                                                     | 0.11 | 0.10 | 0.08                 | 0.11  | 2.13    | 0.24                     | 0.67  | 0.49  | 0.30 | 0.21 |        |
| 10             | 0.10  | 0.09                                                     | 0.12 | 0.10 | 0.07                 | 0.11  | 1.86    | 0.36                     | 0.72  | 0.45  | 0.30 | 0.21 |        |
| 11             | 0.10  | 0.09                                                     | 0.12 | 0.10 | 0.07                 | 0.12  | 1.50    | 0.45                     | 0.67  | 0.45  | 0.27 | 0.21 |        |
| 12             | 0.10  | 0.09                                                     | 0.11 | 0.10 | 0.07                 | 0.13  | 1.38    | 0.63                     | 0.67  | 0.45  | 0.27 | 0.21 |        |
| 13             | 0.11  | 0.09                                                     | 0.10 | 0.09 | 0.06                 | 0.14  | 1.59    | 0.85                     | 0.63  | 0.42  | 0.27 | 0.21 |        |
| 14             | 0.11  | 0.09                                                     | 0.09 | 0.09 | 0.06                 | 0.13  | 1.95    | 1.08                     | 0.58  | 0.42  | 0.27 | 0.21 |        |
| 15             | 0.11  | 0.09                                                     | 0.09 | 0.09 | 0.06                 | 0.11  | 1.68    | 1.20                     | 0.58  | 0.39  | 0.27 | 0.21 |        |
| 16             | 0.13  | 0.09                                                     | 0.09 | 0.09 | 0.05                 | 0.08  | 1.59    | 1.26                     | 0.58  | 0.36  | 0.27 | 0.21 |        |
| 17             | 0.13  | 0.09                                                     | 0.09 | 0.09 | 0.05                 | 0.07  | 1.38    | 1.32                     | 0.54  | 0.36  | 0.27 | 0.21 |        |
| 18             | 0.13  | 0.08                                                     | 0.09 | 0.09 | 0.05                 | 0.13  | 1.26    | 1.26                     | 0.54  | 0.36  | 0.27 | 0.21 |        |
| 19             | 0.12  | 0.08                                                     | 0.10 | 0.10 | 0.05                 | 0.14  | 1.08    | 0.90                     | 0.54  | 0.33  | 0.27 | 0.21 |        |
| 20             | 0.12  | 0.07                                                     | 0.10 | 0.10 | 0.05                 | 0.14  | 1.02    | 0.77                     | 0.58  | 0.33  | 0.27 | 0.21 |        |
| 21             | 0.12  | 0.07                                                     | 0.11 | 0.10 | 0.04                 | 0.21  | 0.90    | 0.77                     | 0.58  | 0.33  | 0.24 | 0.21 |        |
| 22             | 0.12  | 0.06                                                     | 0.11 | 0.10 | 0.04                 | 0.81  | 0.81    | 0.90                     | 0.63  | 0.33  | 0.24 | 0.21 |        |
| 23             | 0.11  | 0.05                                                     | 0.12 | 0.11 | 0.04                 | 2.13  | 0.72    | 2.13                     | 0.67  | 0.33  | 0.24 | 0.21 |        |
| 24             | 0.11  | 0.05                                                     | 0.12 | 0.11 | 0.04                 | 1.44  | 0.63    | 28.33                    | 0.72  | 0.33  | 0.24 | 0.21 |        |
| 25             | 0.11  | 0.05                                                     | 0.13 | 0.11 | 0.04                 | 0.96  | 0.63    | 5.90                     | 0.72  | 0.33  | 0.24 | 0.21 |        |
| 26             | 0.11  | 0.05                                                     | 0.14 | 0.12 | 0.04                 | 0.81  | 0.63    | 2.40                     | 0.77  | 0.33  | 0.24 | 0.21 |        |
| 27             | 0.10  | 0.04                                                     | 0.14 | 0.12 | 0.04                 | 0.67  | 0.63    | 2.13                     | 0.72  | 0.30  | 0.24 | 0.21 |        |
| 28             | 0.10  | 0.04                                                     | 0.14 | 0.12 | 0.04                 | 0.54  | 0.58    | 1.38                     | 0.72  | 0.30  | 0.24 | 0.21 |        |
| 29             | 0.10  | 0.04                                                     | 0.12 | 0.13 | 0.04                 | 0.36  | 0.58    | 1.14                     | 0.67  | 0.30  |      | 0.18 |        |
| 30             | 0.10  | 0.04                                                     | 0.12 | 0.14 | 0.04                 | 0.24  | 0.58    | 0.77                     | 0.63  | 0.30  |      | 0.18 |        |
| 31             |       | 0.03                                                     |      | 0.15 | 0.04                 |       | 0.58    |                          | 0.58  | 0.30  |      | 0.15 |        |
| Total          | 3.30  | 2.28                                                     | 3.27 | 3.29 | 2.18                 | 10.14 | 41.77   | 58.25                    | 20.13 | 12.63 | 7.62 | 6.60 | 171.46 |
| Mean           | 0.11  | 0.07                                                     | 0.11 | 0.11 | 0.07                 | 0.34  | 1.35    | 1.94                     | 0.65  | 0.41  | 0.27 | 0.21 | 0.47   |
| Max            | 0.13  | 0.09                                                     | 0.14 | 0.15 | 0.15                 | 2.13  | 6.53    | 28.33                    | 0.77  | 0.58  | 0.30 | 0.24 | 28.33  |
| Min            | 0.10  | 0.03                                                     | 0.09 | 0.09 | 0.04                 | 0.05  | 0.24    | 0.04                     | 0.54  | 0.30  | 0.24 | 0.15 | 0.03   |
| Runoff         | 0.29  | 0.20                                                     | 0.28 | 0.28 | 0.19                 | 0.88  | 3.61    | 5.03                     | 1.74  | 1.09  | 0.66 | 0.57 | 14.81  |
| Momentary Peak | 43.00 | CMS. at 13.32 m. (MSL.) at 06.00 Hours , on Nov 24, 2013 |      |      |                      |       |         |                          |       |       |      |      |        |
| Runoff Yield   | 9.79  | Liters/Second/Square KM.                                 |      |      | Momentary Peak Yield |       | 895.833 | Liters/Second/Square KM. |       |       |      |      |        |

**WATER YEAR : 2013**

## WEST COAST - GULF BASIN

**Huai Yang at Ban Huai Yang , Prachuap Khiri Khan (Gt.17**

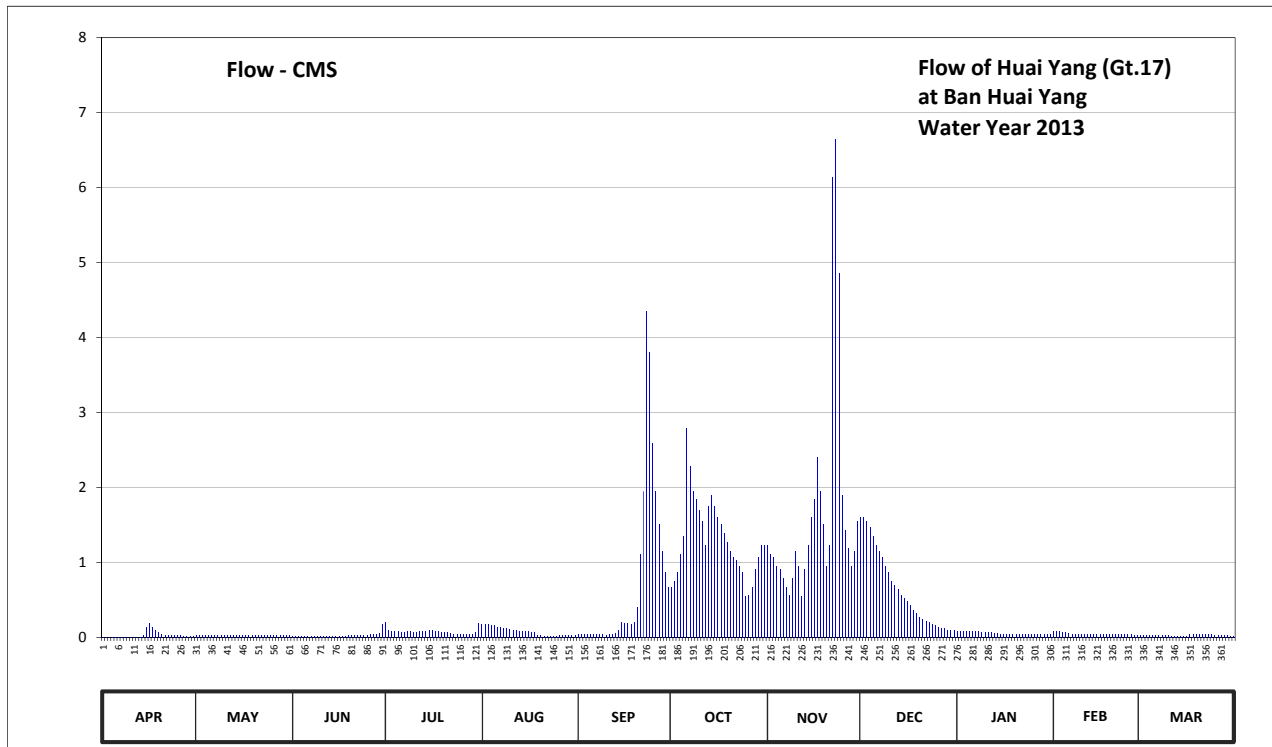
Lat 11 - 36 - 48 N    Long 99 - 40 - 09 W

**Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 349**

|                                         |                                                                                               |           |               |            |                  |                     |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                    | Huai Yang | <b>Amphoe</b> | Thap Sakae | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainage Area</b>                    | 48                                                                                            | sq.km.    |               |            |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                    |           |               |            |                  |                     |
| <b>Zero Gage at Bottom</b>              | +0.619                                                                                        | m. (MSL.) |               |            |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                     |           |               |            |                  |                     |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                                  |           |               |            | <b>Elevation</b> | +6.367 m. (MSL.)    |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                          |           |               |            |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                                 |           |               |            |                  |                     |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                                  |           |               |            |                  |                     |
| <b>Rating Operation</b>                 |                                                                                               |           |               |            |                  |                     |
| <b>Period of Rating</b>                 | 1987 to date                                                                                  |           |               |            |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                             |           |               |            |                  |                     |
| <b>Rated by Current Meter</b>           | 1987 to date                                                                                  |           |               |            |                  |                     |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                       |           |               |            |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                             |           |               |            |                  |                     |
| <b>General Description</b>              | Records good. Flow effected by the local weir about 200 meters downstream from the gage site. |           |               |            |                  |                     |
|                                         | Stage-discharge relation defined by 14 discharge measurements made in 1913.                   |           |               |            |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                            | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 1.16 | 1.22 | 1.19                                           | 1.47 | 1.45 | 1.30 | 1.67 | 1.82 | 1.91 | 1.38 | 1.37 | 1.24 |        |
| 2                                | 1.17 | 1.22 | 1.19                                           | 1.40 | 1.45 | 1.30 | 1.70 | 1.79 | 1.91 | 1.38 | 1.36 | 1.24 |        |
| 3                                | 1.17 | 1.22 | 1.19                                           | 1.37 | 1.45 | 1.30 | 1.73 | 1.78 | 1.90 | 1.37 | 1.35 | 1.23 |        |
| 4                                | 1.17 | 1.22 | 1.19                                           | 1.37 | 1.44 | 1.30 | 1.79 | 1.75 | 1.88 | 1.37 | 1.34 | 1.23 |        |
| 5                                | 1.17 | 1.22 | 1.20                                           | 1.36 | 1.44 | 1.29 | 1.85 | 1.74 | 1.85 | 1.36 | 1.33 | 1.23 |        |
| 6                                | 1.16 | 1.22 | 1.20                                           | 1.34 | 1.43 | 1.28 | 2.12 | 1.71 | 1.82 | 1.36 | 1.32 | 1.23 |        |
| 7                                | 1.16 | 1.22 | 1.20                                           | 1.34 | 1.43 | 1.27 | 2.04 | 1.67 | 1.80 | 1.35 | 1.31 | 1.23 |        |
| 8                                | 1.16 | 1.22 | 1.20                                           | 1.35 | 1.42 | 1.26 | 1.98 | 1.63 | 1.78 | 1.35 | 1.30 | 1.23 |        |
| 9                                | 1.16 | 1.22 | 1.20                                           | 1.35 | 1.42 | 1.25 | 1.96 | 1.71 | 1.75 | 1.34 | 1.28 | 1.22 |        |
| 10                               | 1.16 | 1.22 | 1.20                                           | 1.34 | 1.41 | 1.23 | 1.93 | 1.80 | 1.73 | 1.34 | 1.27 | 1.22 |        |
| 11                               | 1.17 | 1.22 | 1.20                                           | 1.34 | 1.40 | 1.26 | 1.90 | 1.75 | 1.70 | 1.33 | 1.26 | 1.21 |        |
| 12                               | 1.17 | 1.22 | 1.21                                           | 1.35 | 1.39 | 1.28 | 1.82 | 1.62 | 1.68 | 1.33 | 1.26 | 1.21 |        |
| 13                               | 1.17 | 1.22 | 1.21                                           | 1.36 | 1.38 | 1.32 | 1.94 | 1.74 | 1.66 | 1.32 | 1.26 | 1.21 |        |
| 14                               | 1.23 | 1.22 | 1.21                                           | 1.37 | 1.37 | 1.40 | 1.97 | 1.82 | 1.63 | 1.32 | 1.26 | 1.21 |        |
| 15                               | 1.43 | 1.22 | 1.21                                           | 1.40 | 1.36 | 1.47 | 1.94 | 1.91 | 1.61 | 1.31 | 1.26 | 1.21 |        |
| 16                               | 1.46 | 1.22 | 1.21                                           | 1.39 | 1.35 | 1.46 | 1.91 | 1.96 | 1.59 | 1.30 | 1.26 | 1.21 |        |
| 17                               | 1.43 | 1.22 | 1.21                                           | 1.38 | 1.34 | 1.46 | 1.89 | 2.06 | 1.57 | 1.29 | 1.25 | 1.25 |        |
| 18                               | 1.40 | 1.22 | 1.21                                           | 1.36 | 1.33 | 1.45 | 1.86 | 1.98 | 1.55 | 1.29 | 1.25 | 1.26 |        |
| 19                               | 1.33 | 1.22 | 1.22                                           | 1.34 | 1.22 | 1.47 | 1.83 | 1.89 | 1.53 | 1.28 | 1.25 | 1.26 |        |
| 20                               | 1.27 | 1.22 | 1.22                                           | 1.33 | 1.22 | 1.56 | 1.80 | 1.75 | 1.51 | 1.28 | 1.25 | 1.25 |        |
| 21                               | 1.24 | 1.22 | 1.22                                           | 1.33 | 1.21 | 1.79 | 1.78 | 1.82 | 1.50 | 1.28 | 1.25 | 1.27 |        |
| 22                               | 1.24 | 1.22 | 1.22                                           | 1.32 | 1.21 | 1.98 | 1.77 | 2.47 | 1.48 | 1.28 | 1.25 | 1.28 |        |
| 23                               | 1.23 | 1.22 | 1.22                                           | 1.31 | 1.21 | 2.31 | 1.75 | 2.51 | 1.47 | 1.28 | 1.25 | 1.26 |        |
| 24                               | 1.23 | 1.22 | 1.23                                           | 1.30 | 1.21 | 2.25 | 1.73 | 2.36 | 1.45 | 1.27 | 1.25 | 1.25 |        |
| 25                               | 1.23 | 1.22 | 1.24                                           | 1.30 | 1.21 | 2.09 | 1.62 | 1.97 | 1.44 | 1.27 | 1.25 | 1.23 |        |
| 26                               | 1.22 | 1.22 | 1.25                                           | 1.29 | 1.22 | 1.98 | 1.63 | 1.87 | 1.43 | 1.27 | 1.25 | 1.22 |        |
| 27                               | 1.21 | 1.22 | 1.26                                           | 1.29 | 1.22 | 1.89 | 1.67 | 1.81 | 1.42 | 1.27 | 1.24 | 1.22 |        |
| 28                               | 1.21 | 1.22 | 1.27                                           | 1.28 | 1.22 | 1.80 | 1.74 | 1.75 | 1.42 | 1.26 | 1.24 | 1.22 |        |
| 29                               | 1.20 | 1.22 | 1.32                                           | 1.31 | 1.23 | 1.73 | 1.78 | 1.80 | 1.40 | 1.26 |      | 1.22 |        |
| 30                               | 1.20 | 1.22 | 1.45                                           | 1.34 | 1.23 | 1.67 | 1.82 | 1.90 | 1.40 | 1.26 |      | 1.21 |        |
| 31                               |      | 1.22 |                                                | 1.46 | 1.23 |      | 1.82 |      | 1.39 | 1.26 |      | 1.21 |        |
| Mean                             | 1.23 | 1.22 | 1.23                                           | 1.35 | 1.33 | 1.55 | 1.83 | 1.87 | 1.62 | 1.31 | 1.28 | 1.23 |        |
| Max                              | 1.46 | 1.22 | 1.45                                           | 1.47 | 1.45 | 2.31 | 2.12 | 2.51 | 1.91 | 1.38 | 1.37 | 1.28 | 2.51   |
| Min                              | 1.16 | 1.22 | 1.19                                           | 1.28 | 1.21 | 1.23 | 1.62 | 1.62 | 1.39 | 1.26 | 1.24 | 1.21 | 1.16   |
| Annual Max Momentary Gage Height | 2.60 |      | m. (MSL.) , at 06.00 Hours , on Nov 23, 2013   |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.62 |      | m. (MSL.) , River Bed 1.06 m. (MSL.)           |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 5.23 |      | m. (MSL.) ,                                    |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 5.20 |      | m. (MSL.) , Drainage Area 48 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                          | May                      | Jun  | Jul                  | Aug  | Sep     | Oct                      | Nov   | Dec   | Jan  | Feb  | Mar  | Annual |        |
|----------------|--------------------------------------------------------------|--------------------------|------|----------------------|------|---------|--------------------------|-------|-------|------|------|------|--------|--------|
| 1              | 0.01                                                         | 0.03                     | 0.02 | 0.21                 | 0.18 | 0.05    | 0.67                     | 1.23  | 1.60  | 0.09 | 0.09 | 0.03 |        |        |
| 2              | 0.01                                                         | 0.03                     | 0.02 | 0.10                 | 0.18 | 0.05    | 0.75                     | 1.11  | 1.60  | 0.09 | 0.08 | 0.03 |        |        |
| 3              | 0.01                                                         | 0.03                     | 0.02 | 0.09                 | 0.18 | 0.05    | 0.87                     | 1.07  | 1.55  | 0.09 | 0.08 | 0.03 |        |        |
| 4              | 0.01                                                         | 0.03                     | 0.02 | 0.09                 | 0.16 | 0.05    | 1.11                     | 0.95  | 1.47  | 0.09 | 0.07 | 0.03 |        |        |
| 5              | 0.01                                                         | 0.03                     | 0.02 | 0.08                 | 0.16 | 0.05    | 1.35                     | 0.91  | 1.35  | 0.08 | 0.07 | 0.03 |        |        |
| 6              | 0.01                                                         | 0.03                     | 0.02 | 0.07                 | 0.14 | 0.04    | 2.79                     | 0.79  | 1.23  | 0.08 | 0.06 | 0.03 |        |        |
| 7              | 0.01                                                         | 0.03                     | 0.02 | 0.07                 | 0.14 | 0.04    | 2.29                     | 0.67  | 1.15  | 0.08 | 0.05 | 0.03 |        |        |
| 8              | 0.01                                                         | 0.03                     | 0.02 | 0.08                 | 0.13 | 0.04    | 1.95                     | 0.57  | 1.07  | 0.08 | 0.05 | 0.03 |        |        |
| 9              | 0.01                                                         | 0.03                     | 0.02 | 0.08                 | 0.13 | 0.04    | 1.85                     | 0.79  | 0.95  | 0.07 | 0.04 | 0.03 |        |        |
| 10             | 0.01                                                         | 0.03                     | 0.02 | 0.07                 | 0.11 | 0.03    | 1.70                     | 1.15  | 0.87  | 0.07 | 0.04 | 0.03 |        |        |
| 11             | 0.01                                                         | 0.03                     | 0.02 | 0.07                 | 0.10 | 0.04    | 1.55                     | 0.95  | 0.75  | 0.07 | 0.04 | 0.02 |        |        |
| 12             | 0.01                                                         | 0.03                     | 0.02 | 0.08                 | 0.10 | 0.04    | 1.23                     | 0.55  | 0.70  | 0.07 | 0.04 | 0.02 |        |        |
| 13             | 0.01                                                         | 0.03                     | 0.02 | 0.08                 | 0.09 | 0.06    | 1.75                     | 0.91  | 0.65  | 0.06 | 0.04 | 0.02 |        |        |
| 14             | 0.03                                                         | 0.03                     | 0.02 | 0.09                 | 0.09 | 0.10    | 1.90                     | 1.23  | 0.57  | 0.06 | 0.04 | 0.02 |        |        |
| 15             | 0.14                                                         | 0.03                     | 0.02 | 0.10                 | 0.08 | 0.21    | 1.75                     | 1.60  | 0.52  | 0.05 | 0.04 | 0.02 |        |        |
| 16             | 0.19                                                         | 0.03                     | 0.02 | 0.10                 | 0.08 | 0.19    | 1.60                     | 1.85  | 0.48  | 0.05 | 0.04 | 0.02 |        |        |
| 17             | 0.14                                                         | 0.03                     | 0.02 | 0.09                 | 0.07 | 0.19    | 1.51                     | 2.41  | 0.43  | 0.05 | 0.04 | 0.04 |        |        |
| 18             | 0.10                                                         | 0.03                     | 0.02 | 0.08                 | 0.07 | 0.18    | 1.39                     | 1.95  | 0.37  | 0.05 | 0.04 | 0.04 |        |        |
| 19             | 0.07                                                         | 0.03                     | 0.03 | 0.07                 | 0.03 | 0.21    | 1.27                     | 1.51  | 0.32  | 0.04 | 0.04 | 0.04 |        |        |
| 20             | 0.04                                                         | 0.03                     | 0.03 | 0.07                 | 0.03 | 0.40    | 1.15                     | 0.95  | 0.27  | 0.04 | 0.04 | 0.04 |        |        |
| 21             | 0.03                                                         | 0.03                     | 0.03 | 0.07                 | 0.02 | 1.11    | 1.07                     | 1.23  | 0.25  | 0.04 | 0.04 | 0.04 |        |        |
| 22             | 0.03                                                         | 0.03                     | 0.03 | 0.06                 | 0.02 | 1.95    | 1.03                     | 6.13  | 0.22  | 0.04 | 0.04 | 0.04 |        |        |
| 23             | 0.03                                                         | 0.03                     | 0.03 | 0.05                 | 0.02 | 4.35    | 0.95                     | 6.65  | 0.21  | 0.04 | 0.04 | 0.04 |        |        |
| 24             | 0.03                                                         | 0.03                     | 0.03 | 0.05                 | 0.02 | 3.80    | 0.87                     | 4.85  | 0.18  | 0.04 | 0.04 | 0.04 |        |        |
| 25             | 0.03                                                         | 0.03                     | 0.03 | 0.05                 | 0.02 | 2.59    | 0.55                     | 1.90  | 0.16  | 0.04 | 0.04 | 0.03 |        |        |
| 26             | 0.03                                                         | 0.03                     | 0.04 | 0.05                 | 0.03 | 1.95    | 0.57                     | 1.43  | 0.14  | 0.04 | 0.04 | 0.03 |        |        |
| 27             | 0.02                                                         | 0.03                     | 0.04 | 0.05                 | 0.03 | 1.51    | 0.67                     | 1.19  | 0.13  | 0.04 | 0.03 | 0.03 |        |        |
| 28             | 0.02                                                         | 0.03                     | 0.04 | 0.04                 | 0.03 | 1.15    | 0.91                     | 0.95  | 0.13  | 0.04 | 0.03 | 0.03 |        |        |
| 29             | 0.02                                                         | 0.03                     | 0.06 | 0.05                 | 0.03 | 0.87    | 1.07                     | 1.15  | 0.10  | 0.04 |      | 0.03 |        |        |
| 30             | 0.02                                                         | 0.03                     | 0.18 | 0.07                 | 0.03 | 0.67    | 1.23                     | 1.55  | 0.10  | 0.04 |      | 0.02 |        |        |
| 31             |                                                              | 0.03                     |      | 0.19                 | 0.03 |         | 1.23                     |       | 0.10  | 0.04 |      | 0.02 |        |        |
| Total          | 1.10                                                         | 0.93                     | 0.93 | 2.50                 | 2.53 | 22.01   | 40.58                    | 50.18 | 19.62 | 1.80 | 1.33 | 0.93 | 144.44 | CMSDAY |
| Mean           | 0.04                                                         | 0.03                     | 0.03 | 0.08                 | 0.08 | 0.73    | 1.31                     | 1.67  | 0.63  | 0.06 | 0.05 | 0.03 | 0.40   | CMS    |
| Max            | 0.19                                                         | 0.03                     | 0.18 | 0.21                 | 0.18 | 4.35    | 2.79                     | 6.65  | 1.60  | 0.09 | 0.09 | 0.04 | 6.65   | CMS    |
| Min            | 0.01                                                         | 0.03                     | 0.02 | 0.04                 | 0.02 | 0.03    | 0.55                     | 0.55  | 0.10  | 0.04 | 0.03 | 0.02 | 0.01   | CMS    |
| Runoff         | 0.10                                                         | 0.08                     | 0.08 | 0.22                 | 0.22 | 1.90    | 3.51                     | 4.34  | 1.70  | 0.16 | 0.12 | 0.08 | 12.48  | MCM    |
| Momentary Peak | 7.98 CMS. at 2.60 m. (MSL.) at 06.00 Hours , on Nov 23, 2013 |                          |      |                      |      |         |                          |       |       |      |      |      |        |        |
| Runoff Yield   | 8.24                                                         | Liters/Second/Square KM. |      | Momentary Peak Yield |      | 166.250 | Liters/Second/Square KM. |       |       |      |      |      |        |        |

## WATER YEAR : 2013

## WEST COAST - GULF BASIN

### Khlong Cha Kra at Ban Cha Kra Bon , Prachuap Khiri Khan (Gt.18

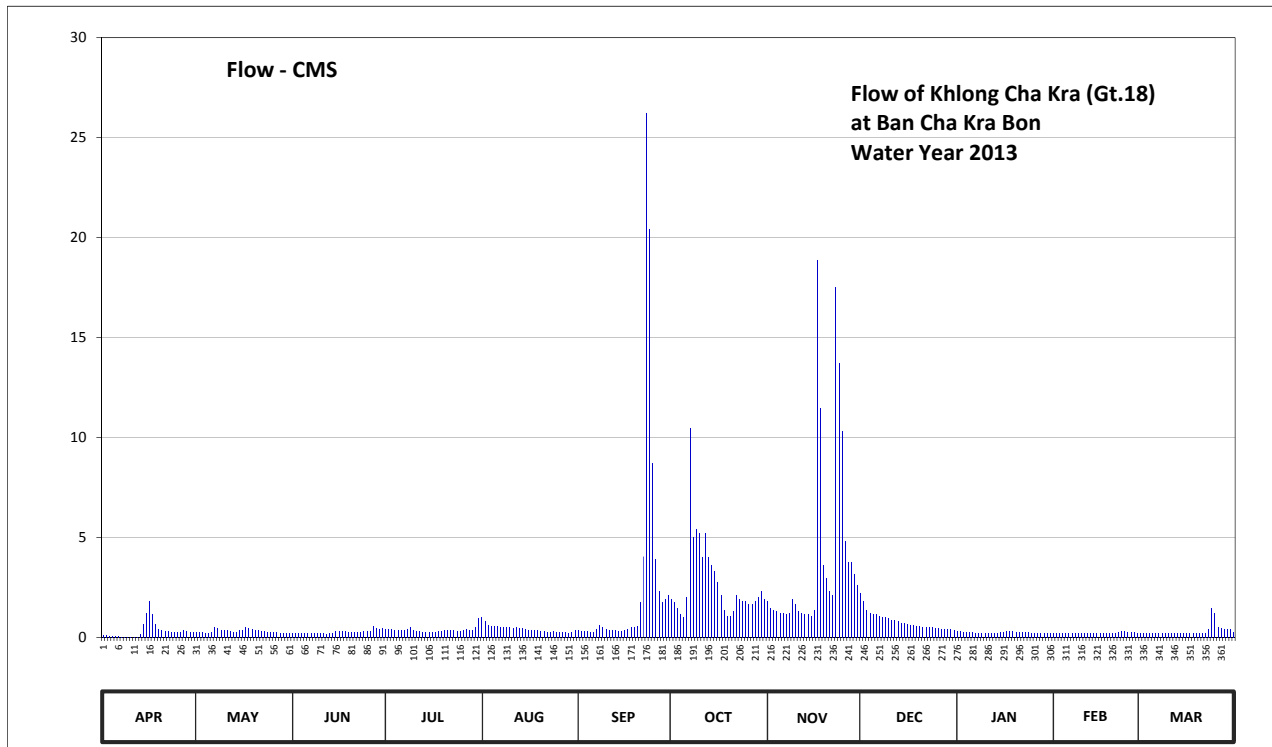
Lat 11 - 26 - 48 N      Long 99 - 34 - 09 W

**Location : on left bank at the bridge of Phet Kasem Highway**

|                                         |                                                                                           |             |               |            |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------|---------------|------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Cha Kra Bon | <b>Amphoe</b> | Thap Sakae | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainage Area</b>                    | 88                                                                                        | sq.km.      |               |            |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |             |               |            |                  |                     |
| <b>Zero Gage at Bottom</b>              | +11.715                                                                                   | m. (MSL.)   |               |            |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |             |               |            |                  |                     |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |             |               |            | <b>Elevation</b> | +17.228 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |             |               |            |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |             |               |            |                  |                     |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                              |             |               |            |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |             |               |            |                  |                     |
| <b>Period of Rating</b>                 | 1987 to date                                                                              |             |               |            |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |             |               |            |                  |                     |
| <b>Rated by Current Meter</b>           | 1987 to date                                                                              |             |               |            |                  |                     |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |             |               |            |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |             |               |            |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |             |               |            |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 12.61 | 12.69 | 12.66                                          | 12.75 | 12.86 | 12.72 | 12.97 | 12.96 | 13.00 | 12.71 | 12.65 | 12.67 |        |
|                                  | 2  | 12.60 | 12.68 | 12.66                                          | 12.75 | 12.83 | 12.71 | 12.95 | 12.92 | 12.96 | 12.70 | 12.65 | 12.67 |        |
|                                  | 3  | 12.59 | 12.68 | 12.65                                          | 12.74 | 12.80 | 12.70 | 12.92 | 12.91 | 12.91 | 12.69 | 12.65 | 12.66 |        |
|                                  | 4  | 12.58 | 12.67 | 12.66                                          | 12.73 | 12.79 | 12.70 | 12.88 | 12.90 | 12.89 | 12.69 | 12.65 | 12.66 |        |
|                                  | 5  | 12.56 | 12.67 | 12.67                                          | 12.73 | 12.79 | 12.69 | 12.86 | 12.89 | 12.88 | 12.68 | 12.66 | 12.66 |        |
|                                  | 6  | 12.55 | 12.68 | 12.66                                          | 12.72 | 12.79 | 12.69 | 12.98 | 12.89 | 12.88 | 12.68 | 12.66 | 12.66 |        |
|                                  | 7  | 12.54 | 12.78 | 12.66                                          | 12.73 | 12.78 | 12.75 | 13.51 | 12.88 | 12.87 | 12.67 | 12.66 | 12.66 |        |
|                                  | 8  | 12.53 | 12.76 | 12.65                                          | 12.74 | 12.78 | 12.80 | 13.21 | 12.89 | 12.86 | 12.67 | 12.66 | 12.65 |        |
|                                  | 9  | 12.53 | 12.73 | 12.65                                          | 12.77 | 12.77 | 12.78 | 13.23 | 12.97 | 12.86 | 12.67 | 12.67 | 12.65 |        |
|                                  | 10 | 12.52 | 12.72 | 12.65                                          | 12.72 | 12.77 | 12.74 | 13.22 | 12.94 | 12.85 | 12.66 | 12.67 | 12.65 |        |
|                                  | 11 | 12.51 | 12.72 | 12.65                                          | 12.71 | 12.76 | 12.73 | 13.15 | 12.90 | 12.84 | 12.65 | 12.67 | 12.66 |        |
|                                  | 12 | 12.51 | 12.70 | 12.64                                          | 12.70 | 12.78 | 12.72 | 13.22 | 12.89 | 12.84 | 12.66 | 12.67 | 12.66 |        |
|                                  | 13 | 12.64 | 12.69 | 12.65                                          | 12.69 | 12.76 | 12.72 | 13.15 | 12.88 | 12.83 | 12.66 | 12.66 | 12.66 |        |
|                                  | 14 | 12.81 | 12.69 | 12.65                                          | 12.68 | 12.76 | 12.70 | 13.12 | 12.88 | 12.82 | 12.67 | 12.66 | 12.66 |        |
|                                  | 15 | 12.89 | 12.72 | 12.70                                          | 12.68 | 12.75 | 12.70 | 13.10 | 12.87 | 12.82 | 12.68 | 12.66 | 12.66 |        |
|                                  | 16 | 12.96 | 12.72 | 12.70                                          | 12.68 | 12.73 | 12.72 | 13.05 | 12.91 | 12.81 | 12.69 | 12.65 | 12.66 |        |
|                                  | 17 | 12.88 | 12.77 | 12.70                                          | 12.69 | 12.73 | 12.75 | 12.99 | 14.33 | 12.80 | 12.70 | 12.65 | 12.65 |        |
|                                  | 18 | 12.81 | 12.76 | 12.70                                          | 12.70 | 12.72 | 12.77 | 12.91 | 13.68 | 12.80 | 12.70 | 12.65 | 12.65 |        |
|                                  | 19 | 12.74 | 12.75 | 12.69                                          | 12.70 | 12.72 | 12.77 | 12.87 | 13.12 | 12.79 | 12.70 | 12.65 | 12.65 |        |
|                                  | 20 | 12.72 | 12.73 | 12.68                                          | 12.72 | 12.70 | 12.79 | 12.87 | 13.07 | 12.79 | 12.69 | 12.65 | 12.65 |        |
|                                  | 21 | 12.70 | 12.72 | 12.68                                          | 12.72 | 12.70 | 12.95 | 12.90 | 13.01 | 12.78 | 12.69 | 12.66 | 12.65 |        |
|                                  | 22 | 12.70 | 12.70 | 12.68                                          | 12.73 | 12.69 | 13.15 | 12.99 | 12.99 | 12.78 | 12.68 | 12.68 | 12.66 |        |
|                                  | 23 | 12.69 | 12.70 | 12.69                                          | 12.72 | 12.69 | 14.70 | 12.97 | 14.24 | 12.77 | 12.68 | 12.70 | 12.74 |        |
|                                  | 24 | 12.68 | 12.69 | 12.70                                          | 12.71 | 12.70 | 14.42 | 12.96 | 13.94 | 12.77 | 12.68 | 12.70 | 12.92 |        |
|                                  | 25 | 12.68 | 12.69 | 12.70                                          | 12.71 | 12.69 | 13.36 | 12.96 | 13.48 | 12.76 | 12.67 | 12.69 | 12.89 |        |
|                                  | 26 | 12.69 | 12.68 | 12.70                                          | 12.72 | 12.69 | 13.14 | 12.94 | 13.20 | 12.76 | 12.67 | 12.68 | 12.77 |        |
|                                  | 27 | 12.72 | 12.68 | 12.79                                          | 12.75 | 12.68 | 13.01 | 12.94 | 13.13 | 12.75 | 12.66 | 12.68 | 12.76 |        |
|                                  | 28 | 12.70 | 12.67 | 12.76                                          | 12.73 | 12.68 | 12.95 | 12.96 | 13.13 | 12.75 | 12.66 | 12.67 | 12.75 |        |
|                                  | 29 | 12.69 | 12.67 | 12.75                                          | 12.72 | 12.67 | 12.97 | 12.98 | 13.09 | 12.74 | 12.66 |       | 12.75 |        |
|                                  | 30 | 12.69 | 12.67 | 12.76                                          | 12.77 | 12.69 | 12.99 | 13.01 | 13.04 | 12.74 | 12.65 |       | 12.74 |        |
|                                  | 31 |       | 12.66 |                                                | 12.85 | 12.72 |       | 12.97 |       | 12.72 | 12.65 |       | 12.69 |        |
| Mean                             |    | 12.67 | 12.70 | 12.68                                          | 12.72 | 12.74 | 12.94 | 13.02 | 13.13 | 12.82 | 12.68 | 12.66 | 12.69 |        |
| Max                              |    | 12.96 | 12.78 | 12.79                                          | 12.85 | 12.86 | 14.70 | 13.51 | 14.33 | 13.00 | 12.71 | 12.70 | 12.92 | 14.70  |
| Min                              |    | 12.51 | 12.66 | 12.64                                          | 12.68 | 12.67 | 12.69 | 12.86 | 12.87 | 12.72 | 12.65 | 12.65 | 12.65 | 12.51  |
| Annual Max Momentary Gage Height |    |       | 14.80 | m. (MSL.) , at 12.00 Hours , on Sep 23, 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 11.72 | m. (MSL.) , River Bed 12.36 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 16.18 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 16.25 | m. (MSL.) , Drainage Area 88 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun  | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan  | Feb  | Mar   | Annual        |
|----------------|----------------------------------------------------------------|--------------------------|------|----------------------|-------|---------|--------------------------|--------|-------|------|------|-------|---------------|
| 1              | 0.12                                                           | 0.28                     | 0.22 | 0.45                 | 1.02  | 0.36    | 1.93                     | 1.84   | 2.20  | 0.33 | 0.20 | 0.24  |               |
| 2              | 0.10                                                           | 0.26                     | 0.22 | 0.45                 | 0.81  | 0.33    | 1.75                     | 1.48   | 1.84  | 0.30 | 0.20 | 0.24  |               |
| 3              | 0.09                                                           | 0.26                     | 0.20 | 0.42                 | 0.60  | 0.30    | 1.48                     | 1.39   | 1.39  | 0.28 | 0.20 | 0.22  |               |
| 4              | 0.08                                                           | 0.24                     | 0.22 | 0.39                 | 0.57  | 0.30    | 1.16                     | 1.30   | 1.23  | 0.28 | 0.20 | 0.22  |               |
| 5              | 0.06                                                           | 0.24                     | 0.24 | 0.39                 | 0.57  | 0.28    | 1.02                     | 1.23   | 1.16  | 0.26 | 0.22 | 0.22  |               |
| 6              | 0.05                                                           | 0.26                     | 0.22 | 0.36                 | 0.57  | 0.28    | 2.02                     | 1.23   | 1.16  | 0.26 | 0.22 | 0.22  |               |
| 7              | 0.04                                                           | 0.54                     | 0.22 | 0.39                 | 0.54  | 0.45    | 10.45                    | 1.16   | 1.09  | 0.24 | 0.22 | 0.22  |               |
| 8              | 0.03                                                           | 0.48                     | 0.20 | 0.42                 | 0.54  | 0.60    | 5.00                     | 1.23   | 1.02  | 0.24 | 0.22 | 0.20  |               |
| 9              | 0.03                                                           | 0.39                     | 0.20 | 0.51                 | 0.51  | 0.54    | 5.40                     | 1.93   | 1.02  | 0.24 | 0.24 | 0.20  |               |
| 10             | 0.02                                                           | 0.36                     | 0.20 | 0.36                 | 0.51  | 0.42    | 5.20                     | 1.66   | 0.95  | 0.22 | 0.24 | 0.20  |               |
| 11             | 0.01                                                           | 0.36                     | 0.20 | 0.33                 | 0.48  | 0.39    | 4.05                     | 1.30   | 0.88  | 0.20 | 0.24 | 0.22  |               |
| 12             | 0.01                                                           | 0.30                     | 0.18 | 0.30                 | 0.54  | 0.36    | 5.20                     | 1.23   | 0.88  | 0.22 | 0.24 | 0.22  |               |
| 13             | 0.18                                                           | 0.28                     | 0.20 | 0.28                 | 0.48  | 0.36    | 4.05                     | 1.16   | 0.81  | 0.22 | 0.22 | 0.22  |               |
| 14             | 0.67                                                           | 0.28                     | 0.20 | 0.26                 | 0.48  | 0.30    | 3.60                     | 1.16   | 0.74  | 0.24 | 0.22 | 0.22  |               |
| 15             | 1.23                                                           | 0.36                     | 0.30 | 0.26                 | 0.45  | 0.30    | 3.30                     | 1.09   | 0.74  | 0.26 | 0.22 | 0.22  |               |
| 16             | 1.84                                                           | 0.36                     | 0.30 | 0.26                 | 0.39  | 0.36    | 2.75                     | 1.39   | 0.67  | 0.28 | 0.20 | 0.22  |               |
| 17             | 1.16                                                           | 0.51                     | 0.30 | 0.28                 | 0.39  | 0.45    | 2.11                     | 18.88  | 0.60  | 0.30 | 0.20 | 0.20  |               |
| 18             | 0.67                                                           | 0.48                     | 0.30 | 0.30                 | 0.36  | 0.51    | 1.39                     | 11.46  | 0.60  | 0.30 | 0.20 | 0.20  |               |
| 19             | 0.42                                                           | 0.45                     | 0.28 | 0.30                 | 0.36  | 0.51    | 1.09                     | 3.60   | 0.57  | 0.30 | 0.20 | 0.20  |               |
| 20             | 0.36                                                           | 0.39                     | 0.26 | 0.36                 | 0.30  | 0.57    | 1.09                     | 2.97   | 0.57  | 0.28 | 0.20 | 0.20  |               |
| 21             | 0.30                                                           | 0.36                     | 0.26 | 0.36                 | 0.30  | 1.75    | 1.30                     | 2.31   | 0.54  | 0.28 | 0.22 | 0.20  |               |
| 22             | 0.30                                                           | 0.30                     | 0.26 | 0.39                 | 0.28  | 4.05    | 2.11                     | 2.11   | 0.54  | 0.26 | 0.26 | 0.22  |               |
| 23             | 0.28                                                           | 0.30                     | 0.28 | 0.36                 | 0.28  | 26.20   | 1.93                     | 17.50  | 0.51  | 0.26 | 0.30 | 0.42  |               |
| 24             | 0.26                                                           | 0.28                     | 0.30 | 0.33                 | 0.30  | 20.38   | 1.84                     | 13.70  | 0.51  | 0.26 | 0.30 | 1.48  |               |
| 25             | 0.26                                                           | 0.28                     | 0.30 | 0.33                 | 0.28  | 8.72    | 1.84                     | 10.32  | 0.48  | 0.24 | 0.28 | 1.23  |               |
| 26             | 0.28                                                           | 0.26                     | 0.30 | 0.36                 | 0.28  | 3.90    | 1.66                     | 4.80   | 0.48  | 0.24 | 0.26 | 0.51  |               |
| 27             | 0.36                                                           | 0.26                     | 0.57 | 0.45                 | 0.26  | 2.31    | 1.66                     | 3.75   | 0.45  | 0.22 | 0.26 | 0.48  |               |
| 28             | 0.30                                                           | 0.24                     | 0.48 | 0.39                 | 0.26  | 1.75    | 1.84                     | 3.75   | 0.45  | 0.22 | 0.24 | 0.45  |               |
| 29             | 0.28                                                           | 0.24                     | 0.45 | 0.36                 | 0.24  | 1.93    | 2.02                     | 3.19   | 0.42  | 0.22 |      | 0.45  |               |
| 30             | 0.28                                                           | 0.24                     | 0.48 | 0.51                 | 0.28  | 2.11    | 2.31                     | 2.64   | 0.42  | 0.20 |      | 0.42  |               |
| 31             |                                                                | 0.22                     |      | 0.95                 | 0.36  |         | 1.93                     |        | 0.36  | 0.20 |      | 0.28  |               |
| Total          | 10.07                                                          | 10.06                    | 8.34 | 11.86                | 13.59 | 81.07   | 84.48                    | 122.76 | 25.28 | 7.85 | 6.42 | 10.44 | 392.22 CMSDAY |
| Mean           | 0.34                                                           | 0.32                     | 0.28 | 0.38                 | 0.44  | 2.70    | 2.73                     | 4.09   | 0.82  | 0.25 | 0.23 | 0.34  | 1.07 CMS      |
| Max            | 1.84                                                           | 0.54                     | 0.57 | 0.95                 | 1.02  | 26.20   | 10.45                    | 18.88  | 2.20  | 0.33 | 0.30 | 1.48  | 26.20 CMS     |
| Min            | 0.01                                                           | 0.22                     | 0.18 | 0.26                 | 0.24  | 0.28    | 1.02                     | 1.09   | 0.36  | 0.20 | 0.20 | 0.20  | 0.01 CMS      |
| Runoff         | 0.87                                                           | 0.87                     | 0.72 | 1.03                 | 1.17  | 7.00    | 7.30                     | 10.61  | 2.18  | 0.68 | 0.56 | 0.90  | 33.89 MCM     |
| Momentary Peak | 28.70 CMS. at 14.80 m. (MSL.) at 12.00 Hours , on Sep 23, 2013 |                          |      |                      |       |         |                          |        |       |      |      |       |               |
| Runoff Yield   | 12.21                                                          | Liters/Second/Square KM. |      | Momentary Peak Yield |       | 326.136 | Liters/Second/Square KM. |        |       |      |      |       |               |

**WATER YEAR : 2013**

## WEST COAST - GULF BASIN

### Khlong Ang Thong at Ban Ang Thong , Prachuap Khiri Khan (Gt.19)

Lat 11 - 26 - 10 N      Long 99 - 33 - 54 E

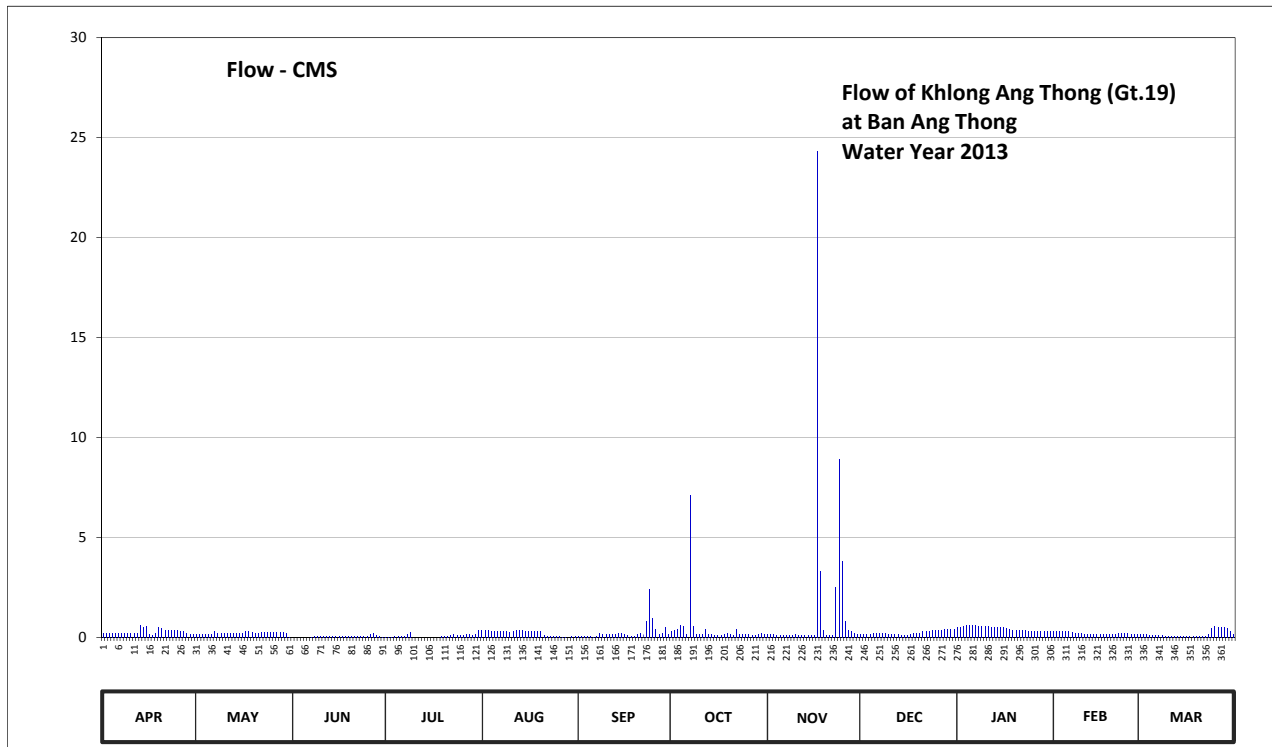
**Location : on left bank at the bridge of Phet Kasem Highway near the guidepost 373.**

|                                         |                                                                                           |           |               |            |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Ang Thong | <b>Amphoe</b> | Thap Sakae | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainge Area</b>                     | 61                                                                                        | sq.km.    |               |            |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |            |                  |                     |
| <b>Zero Gage at Bottom</b>              | +12.447                                                                                   | m. (MSL.) |               |            |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |            |                  |                     |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |           |               |            | <b>Elevation</b> | +17.599 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |            |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |            |                  |                     |
| <b>Period of Available Gage Records</b> | 1987 to date                                                                              |           |               |            |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |           |               |            |                  |                     |
| <b>Period of Rating</b>                 | 1987 - 1988, 1993 to date                                                                 |           |               |            |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |            |                  |                     |
| <b>Rated by Current Meter</b>           | 1987 - 1988, 1993 to date                                                                 |           |               |            |                  |                     |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |            |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |            |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 12 discharge measurements made in 2013. |           |               |            |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                          | Jul   | Aug           | Sep   | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|----------------------------------------------|-------|---------------|-------|-------|-------------------|-------|-------|-------|-------|--------|
|                                  | 1  | 13.08 | 13.06 | 13.00                                        | 13.01 | 13.13         | 13.03 | 13.26 | 13.37             | 13.39 | 13.22 | 13.10 | 13.05 |        |
|                                  | 2  | 13.08 | 13.05 | 13.00                                        | 13.01 | 13.12         | 13.03 | 13.25 | 13.36             | 13.39 | 13.22 | 13.10 | 13.05 |        |
|                                  | 3  | 13.08 | 13.05 | 13.00                                        | 13.01 | 13.12         | 13.02 | 13.23 | 13.35             | 13.39 | 13.21 | 13.10 | 13.05 |        |
|                                  | 4  | 13.08 | 13.05 | 12.99                                        | 13.02 | 13.11         | 13.02 | 13.20 | 13.34             | 13.39 | 13.20 | 13.10 | 13.04 |        |
|                                  | 5  | 13.08 | 13.05 | 13.00                                        | 13.02 | 13.11         | 13.02 | 13.19 | 13.33             | 13.40 | 13.20 | 13.10 | 13.04 |        |
|                                  | 6  | 13.07 | 13.05 | 13.00                                        | 13.02 | 13.11         | 13.01 | 13.29 | 13.32             | 13.40 | 13.20 | 13.10 | 13.04 |        |
|                                  | 7  | 13.07 | 13.10 | 13.01                                        | 13.03 | 13.10         | 13.03 | 14.07 | 13.31             | 13.41 | 13.20 | 13.09 | 13.04 |        |
|                                  | 8  | 13.07 | 13.08 | 13.03                                        | 13.05 | 13.10         | 13.07 | 13.47 | 13.31             | 13.40 | 13.19 | 13.08 | 13.04 |        |
|                                  | 9  | 13.07 | 13.08 | 13.02                                        | 13.09 | 13.10         | 13.05 | 13.39 | 13.34             | 13.40 | 13.19 | 13.08 | 13.03 |        |
|                                  | 10 | 13.07 | 13.07 | 13.02                                        | 13.00 | 13.09         | 13.05 | 13.35 | 13.35             | 13.38 | 13.19 | 13.07 | 13.03 |        |
|                                  | 11 | 13.07 | 13.07 | 13.02                                        | 12.99 | 13.11         | 13.06 | 13.35 | 13.33             | 13.38 | 13.19 | 13.06 | 13.03 |        |
|                                  | 12 | 13.07 | 13.07 | 13.03                                        | 12.99 | 13.12         | 13.06 | 13.44 | 13.33             | 13.37 | 13.18 | 13.06 | 13.03 |        |
|                                  | 13 | 13.20 | 13.07 | 13.03                                        | 12.99 | 13.12         | 13.06 | 13.37 | 13.32             | 13.36 | 13.18 | 13.06 | 13.03 |        |
|                                  | 14 | 13.17 | 13.08 | 13.02                                        | 12.99 | 13.12         | 13.07 | 13.35 | 13.31             | 13.34 | 13.18 | 13.06 | 13.03 |        |
|                                  | 15 | 13.21 | 13.08 | 13.02                                        | 12.99 | 13.11         | 13.07 | 13.33 | 13.31             | 13.32 | 13.18 | 13.06 | 13.03 |        |
|                                  | 16 | 13.35 | 13.08 | 13.02                                        | 12.99 | 13.11         | 13.05 | 13.31 | 13.31             | 13.30 | 13.17 | 13.05 | 13.03 |        |
|                                  | 17 | 13.33 | 13.10 | 13.02                                        | 13.00 | 13.11         | 13.04 | 13.30 | 14.75             | 13.29 | 13.16 | 13.05 | 13.02 |        |
|                                  | 18 | 13.28 | 13.10 | 13.02                                        | 13.00 | 13.10         | 13.03 | 13.29 | 13.80             | 13.28 | 13.14 | 13.05 | 13.02 |        |
|                                  | 19 | 13.22 | 13.09 | 13.02                                        | 13.02 | 13.10         | 13.03 | 13.28 | 13.43             | 13.28 | 13.13 | 13.05 | 13.02 |        |
|                                  | 20 | 13.16 | 13.08 | 13.02                                        | 13.03 | 13.10         | 13.06 | 13.29 | 13.34             | 13.27 | 13.12 | 13.05 | 13.02 |        |
|                                  | 21 | 13.13 | 13.08 | 13.03                                        | 13.03 | 13.04         | 13.07 | 13.31 | 13.33             | 13.26 | 13.12 | 13.05 | 13.02 |        |
|                                  | 22 | 13.13 | 13.09 | 13.03                                        | 13.04 | 13.03         | 13.35 | 13.45 | 13.32             | 13.26 | 13.12 | 13.07 | 13.02 |        |
|                                  | 23 | 13.13 | 13.09 | 13.03                                        | 13.05 | 13.03         | 13.52 | 13.39 | 13.72             | 13.26 | 13.12 | 13.08 | 13.05 |        |
|                                  | 24 | 13.12 | 13.09 | 13.03                                        | 13.04 | 13.02         | 13.71 | 13.36 | 14.17             | 13.25 | 13.11 | 13.08 | 13.16 |        |
|                                  | 25 | 13.12 | 13.09 | 13.03                                        | 13.04 | 13.02         | 13.54 | 13.35 | 13.84             | 13.25 | 13.11 | 13.07 | 13.19 |        |
|                                  | 26 | 13.11 | 13.09 | 13.05                                        | 13.04 | 13.02         | 13.44 | 13.35 | 13.52             | 13.25 | 13.11 | 13.06 | 13.18 |        |
|                                  | 27 | 13.10 | 13.09 | 13.07                                        | 13.05 | 13.01         | 13.36 | 13.33 | 13.43             | 13.25 | 13.10 | 13.05 | 13.18 |        |
|                                  | 28 | 13.08 | 13.09 | 13.04                                        | 13.05 | 13.01         | 13.27 | 13.32 | 13.42             | 13.24 | 13.10 | 13.05 | 13.17 |        |
|                                  | 29 | 13.06 | 13.09 | 13.03                                        | 13.04 | 13.00         | 13.18 | 13.37 | 13.40             | 13.23 | 13.10 |       | 13.16 |        |
|                                  | 30 | 13.06 | 13.08 | 13.01                                        | 13.06 | 13.02         | 13.29 | 13.40 | 13.39             | 13.23 | 13.10 |       | 13.10 |        |
|                                  | 31 |       | 13.01 |                                              | 13.12 | 13.03         |       | 13.37 |                   | 13.23 | 13.10 |       | 13.05 |        |
| Mean                             |    | 13.13 | 13.08 | 13.02                                        | 13.03 | 13.08         | 13.15 | 13.36 | 13.47             | 13.32 | 13.16 | 13.07 | 13.06 |        |
| Max                              |    | 13.35 | 13.10 | 13.07                                        | 13.12 | 13.13         | 13.71 | 14.07 | 14.75             | 13.41 | 13.22 | 13.10 | 13.19 | 14.75  |
| Min                              |    | 13.06 | 13.01 | 12.99                                        | 12.99 | 13.00         | 13.01 | 13.19 | 13.31             | 13.23 | 13.10 | 13.05 | 13.02 | 12.99  |
| Annual Max Momentary Gage Height |    |       | 14.83 | m. (MSL.) , at 09.00 Hours , on Nov 17, 2013 |       |               |       |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 12.45 | m. (MSL.) ,                                  |       | River Bed     |       | 12.74 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              |    |       | 16.74 | m. (MSL.) ,                                  |       |               |       |       |                   |       |       |       |       |        |
| Right Bank Elevation             |    |       | 16.72 | m. (MSL.) ,                                  |       | Drainage Area |       | 61    | Square Kilometers |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun  | Jul                  | Aug  | Sep     | Oct                      | Nov   | Dec  | Jan   | Feb  | Mar  | Annual        |
|----------------|----------------------------------------------------------------|--------------------------|------|----------------------|------|---------|--------------------------|-------|------|-------|------|------|---------------|
| 1              | 0.24                                                           | 0.18                     | 0.00 | 0.03                 | 0.39 | 0.09    | 0.30                     | 0.17  | 0.19 | 0.50  | 0.30 | 0.15 |               |
| 2              | 0.24                                                           | 0.15                     | 0.00 | 0.03                 | 0.36 | 0.09    | 0.35                     | 0.16  | 0.19 | 0.50  | 0.30 | 0.15 |               |
| 3              | 0.24                                                           | 0.15                     | 0.00 | 0.03                 | 0.36 | 0.06    | 0.45                     | 0.15  | 0.19 | 0.55  | 0.30 | 0.15 |               |
| 4              | 0.24                                                           | 0.15                     | 0.00 | 0.06                 | 0.33 | 0.06    | 0.60                     | 0.14  | 0.19 | 0.60  | 0.30 | 0.12 |               |
| 5              | 0.24                                                           | 0.15                     | 0.00 | 0.06                 | 0.33 | 0.06    | 0.57                     | 0.13  | 0.20 | 0.60  | 0.30 | 0.12 |               |
| 6              | 0.21                                                           | 0.15                     | 0.00 | 0.06                 | 0.33 | 0.03    | 0.15                     | 0.12  | 0.20 | 0.60  | 0.30 | 0.12 |               |
| 7              | 0.21                                                           | 0.30                     | 0.03 | 0.09                 | 0.30 | 0.09    | 7.12                     | 0.11  | 0.25 | 0.60  | 0.27 | 0.12 |               |
| 8              | 0.21                                                           | 0.24                     | 0.09 | 0.15                 | 0.30 | 0.21    | 0.55                     | 0.11  | 0.20 | 0.57  | 0.24 | 0.12 |               |
| 9              | 0.21                                                           | 0.24                     | 0.06 | 0.27                 | 0.30 | 0.15    | 0.19                     | 0.14  | 0.20 | 0.57  | 0.24 | 0.09 |               |
| 10             | 0.21                                                           | 0.21                     | 0.06 | 0.00                 | 0.27 | 0.15    | 0.15                     | 0.15  | 0.18 | 0.57  | 0.21 | 0.09 |               |
| 11             | 0.21                                                           | 0.21                     | 0.06 | 0.00                 | 0.33 | 0.18    | 0.15                     | 0.13  | 0.18 | 0.57  | 0.18 | 0.09 |               |
| 12             | 0.21                                                           | 0.21                     | 0.09 | 0.00                 | 0.36 | 0.18    | 0.40                     | 0.13  | 0.17 | 0.54  | 0.18 | 0.09 |               |
| 13             | 0.60                                                           | 0.21                     | 0.09 | 0.00                 | 0.36 | 0.18    | 0.17                     | 0.12  | 0.16 | 0.54  | 0.18 | 0.09 |               |
| 14             | 0.51                                                           | 0.24                     | 0.06 | 0.00                 | 0.36 | 0.21    | 0.15                     | 0.11  | 0.14 | 0.54  | 0.18 | 0.09 |               |
| 15             | 0.55                                                           | 0.24                     | 0.06 | 0.00                 | 0.33 | 0.21    | 0.13                     | 0.11  | 0.12 | 0.54  | 0.18 | 0.09 |               |
| 16             | 0.15                                                           | 0.24                     | 0.06 | 0.00                 | 0.33 | 0.15    | 0.11                     | 0.11  | 0.10 | 0.51  | 0.15 | 0.09 |               |
| 17             | 0.13                                                           | 0.30                     | 0.06 | 0.00                 | 0.33 | 0.12    | 0.10                     | 24.30 | 0.15 | 0.48  | 0.15 | 0.06 |               |
| 18             | 0.20                                                           | 0.30                     | 0.06 | 0.00                 | 0.30 | 0.09    | 0.15                     | 3.30  | 0.20 | 0.42  | 0.15 | 0.06 |               |
| 19             | 0.50                                                           | 0.27                     | 0.06 | 0.06                 | 0.30 | 0.09    | 0.20                     | 0.35  | 0.20 | 0.39  | 0.15 | 0.06 |               |
| 20             | 0.48                                                           | 0.24                     | 0.06 | 0.09                 | 0.30 | 0.18    | 0.15                     | 0.14  | 0.25 | 0.36  | 0.15 | 0.06 |               |
| 21             | 0.39                                                           | 0.24                     | 0.09 | 0.09                 | 0.12 | 0.21    | 0.11                     | 0.13  | 0.30 | 0.36  | 0.15 | 0.06 |               |
| 22             | 0.39                                                           | 0.27                     | 0.09 | 0.12                 | 0.09 | 0.15    | 0.45                     | 0.12  | 0.30 | 0.36  | 0.21 | 0.06 |               |
| 23             | 0.39                                                           | 0.27                     | 0.09 | 0.15                 | 0.09 | 0.83    | 0.19                     | 2.50  | 0.30 | 0.36  | 0.24 | 0.15 |               |
| 24             | 0.36                                                           | 0.27                     | 0.09 | 0.12                 | 0.06 | 2.40    | 0.16                     | 8.93  | 0.35 | 0.33  | 0.24 | 0.48 |               |
| 25             | 0.36                                                           | 0.27                     | 0.09 | 0.12                 | 0.06 | 0.96    | 0.15                     | 3.80  | 0.35 | 0.33  | 0.21 | 0.57 |               |
| 26             | 0.33                                                           | 0.27                     | 0.15 | 0.12                 | 0.06 | 0.40    | 0.15                     | 0.83  | 0.35 | 0.33  | 0.18 | 0.54 |               |
| 27             | 0.30                                                           | 0.27                     | 0.21 | 0.15                 | 0.03 | 0.16    | 0.13                     | 0.35  | 0.35 | 0.30  | 0.15 | 0.54 |               |
| 28             | 0.24                                                           | 0.27                     | 0.12 | 0.15                 | 0.03 | 0.25    | 0.12                     | 0.30  | 0.40 | 0.30  | 0.15 | 0.51 |               |
| 29             | 0.18                                                           | 0.27                     | 0.09 | 0.12                 | 0.00 | 0.54    | 0.17                     | 0.20  | 0.45 | 0.30  |      | 0.48 |               |
| 30             | 0.18                                                           | 0.24                     | 0.03 | 0.18                 | 0.06 | 0.15    | 0.20                     | 0.19  | 0.45 | 0.30  |      | 0.30 |               |
| 31             |                                                                | 0.03                     |      | 0.36                 | 0.09 |         | 0.17                     |       | 0.45 | 0.30  |      | 0.15 |               |
| Total          | 8.91                                                           | 7.05                     | 1.95 | 2.61                 | 7.26 | 8.63    | 14.14                    | 47.53 | 7.71 | 14.12 | 5.94 | 5.85 | 131.70 CMSDAY |
| Mean           | 0.30                                                           | 0.23                     | 0.07 | 0.08                 | 0.23 | 0.29    | 0.46                     | 1.58  | 0.25 | 0.46  | 0.21 | 0.19 | 0.36 CMS      |
| Max            | 0.60                                                           | 0.30                     | 0.21 | 0.36                 | 0.39 | 2.40    | 7.12                     | 24.30 | 0.45 | 0.60  | 0.30 | 0.57 | 24.30 CMS     |
| Min            | 0.13                                                           | 0.03                     | 0.00 | 0.00                 | 0.00 | 0.03    | 0.10                     | 0.11  | 0.10 | 0.30  | 0.15 | 0.06 | 0.00 CMS      |
| Runoff         | 0.77                                                           | 0.61                     | 0.17 | 0.23                 | 0.63 | 0.75    | 1.22                     | 4.11  | 0.67 | 1.22  | 0.51 | 0.51 | 11.38 MCM     |
| Momentary Peak | 27.30 CMS. at 14.83 m. (MSL.) at 09.00 Hours , on Nov 17, 2013 |                          |      |                      |      |         |                          |       |      |       |      |      |               |
| Runoff Yield   | 5.92                                                           | Liters/Second/Square KM. |      | Momentary Peak Yield |      | 447.541 | Liters/Second/Square KM. |       |      |       |      |      |               |

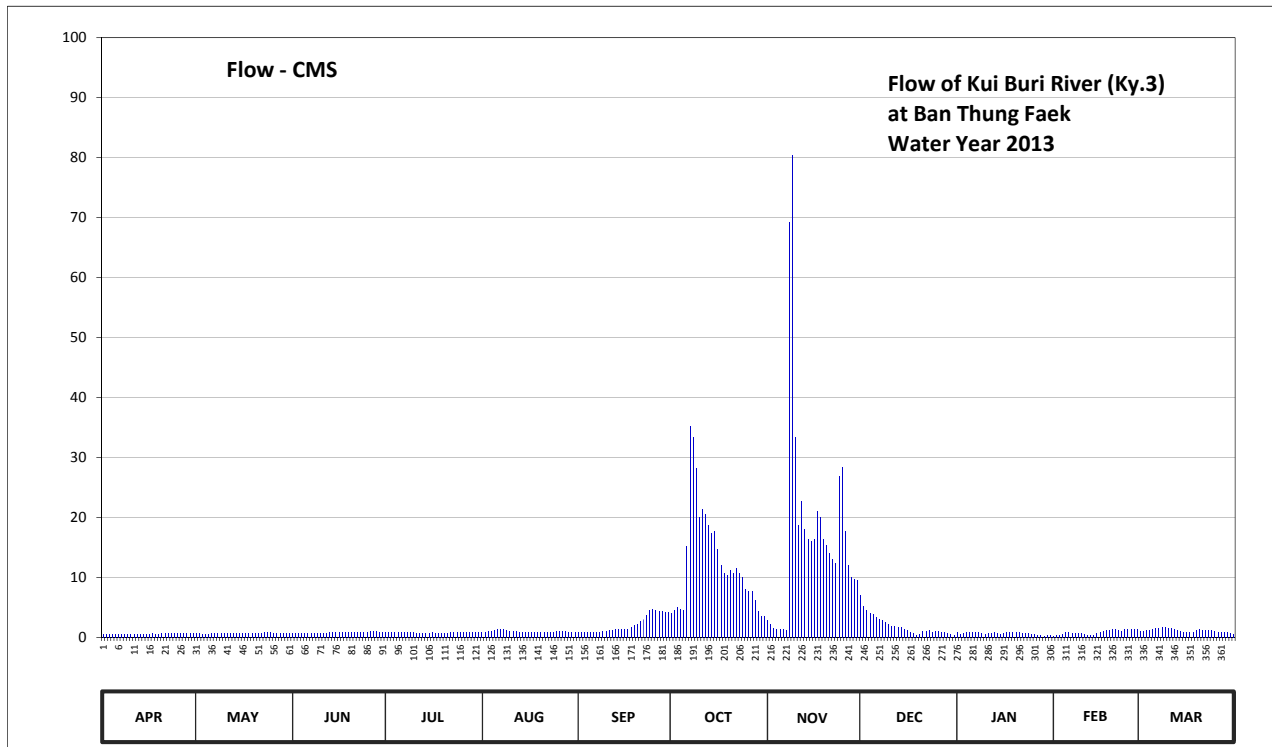
Lat 12 - 05 - 46 N    Long 99 - 47 - 26 E

**Location :** on left bank at Bunchuai Bamrungrat Bridge near Wat Udom Wararam.

|                                         |                                                                                           |            |               |          |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|----------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Thung Faek | <b>Amphoe</b> | Kui Buri | <b>Changwat</b>  | Prachuap Khiri Khan |
| <b>Drainage Area</b>                    | 537                                                                                       | sq.km.     |               |          |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |          |                  |                     |
| <b>Zero Gage at Bottom</b>              | +19.789                                                                                   | m. (MSL.)  |               |          |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |          |                  |                     |
| <b>Location BM</b>                      | On left bank about 1 meter from the top staff gage.                                       |            |               |          | <b>Elevation</b> | +25.925 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |            |               |          |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |            |               |          |                  |                     |
| <b>Period of Available Gage Records</b> | 1997 to date                                                                              |            |               |          |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |            |               |          |                  |                     |
| <b>Period of Rating</b>                 | 1997 to date                                                                              |            |               |          |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |          |                  |                     |
| <b>Rated by Current Meter</b>           | 1997 to date                                                                              |            |               |          |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable by some scouring.                                                           |            |               |          |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |          |                  |                     |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 12 discharge measurements made in 2013. |            |               |          |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                              | Sep   | Oct               | Nov       | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|----------------------------------|-------|-------------------|-----------|-------|-------|-------|-------|--------|
| 1                                | 21.14 | 21.15 | 21.15       | 21.19 | 21.19                            | 21.20 | 21.45             | 21.39     | 21.22 | 20.87 | 20.82 | 20.89 |        |
| 2                                | 21.14 | 21.15 | 21.16       | 21.19 | 21.20                            | 21.20 | 21.48             | 21.35     | 21.15 | 20.85 | 20.83 | 20.89 |        |
| 3                                | 21.14 | 21.14 | 21.15       | 21.19 | 21.22                            | 21.20 | 21.50             | 21.31     | 21.12 | 20.86 | 20.84 | 20.90 |        |
| 4                                | 21.13 | 21.14 | 21.16       | 21.19 | 21.23                            | 21.20 | 21.49             | 21.29     | 21.10 | 20.87 | 20.85 | 20.90 |        |
| 5                                | 21.13 | 21.14 | 21.16       | 21.20 | 21.25                            | 21.19 | 21.48             | 21.27     | 21.09 | 20.88 | 20.88 | 20.91 |        |
| 6                                | 21.14 | 21.15 | 21.16       | 21.20 | 21.27                            | 21.19 | 21.78             | 21.27     | 21.06 | 20.88 | 20.87 | 20.93 |        |
| 7                                | 21.14 | 21.15 | 21.17       | 21.19 | 21.27                            | 21.19 | 22.17             | 21.26     | 21.04 | 20.88 | 20.86 | 20.93 |        |
| 8                                | 21.14 | 21.16 | 21.17       | 21.19 | 21.27                            | 21.19 | 22.14             | 22.67     | 21.03 | 20.87 | 20.86 | 20.94 |        |
| 9                                | 21.14 | 21.16 | 21.16       | 21.19 | 21.26                            | 21.22 | 22.05             | 22.81     | 21.00 | 20.86 | 20.86 | 20.94 |        |
| 10                               | 21.14 | 21.16 | 21.16       | 21.19 | 21.24                            | 21.24 | 21.89             | 22.14     | 20.98 | 20.85 | 20.86 | 20.93 |        |
| 11                               | 21.14 | 21.16 | 21.16       | 21.18 | 21.22                            | 21.26 | 21.92             | 21.86     | 20.96 | 20.86 | 20.85 | 20.93 |        |
| 12                               | 21.14 | 21.16 | 21.18       | 21.18 | 21.22                            | 21.26 | 21.90             | 21.71     | 20.95 | 20.86 | 20.84 | 20.91 |        |
| 13                               | 21.14 | 21.15 | 21.21       | 21.18 | 21.21                            | 21.27 | 21.86             | 21.59     | 20.94 | 20.87 | 20.84 | 20.90 |        |
| 14                               | 21.14 | 21.16 | 21.21       | 21.18 | 21.21                            | 21.27 | 21.83             | 21.54     | 20.94 | 20.86 | 20.84 | 20.89 |        |
| 15                               | 21.14 | 21.16 | 21.21       | 21.18 | 21.20                            | 21.27 | 21.84             | 21.53     | 20.92 | 20.85 | 20.86 | 20.88 |        |
| 16                               | 21.14 | 21.15 | 21.21       | 21.19 | 21.20                            | 21.28 | 21.77             | 21.54     | 20.90 | 20.86 | 20.88 | 20.87 |        |
| 17                               | 21.15 | 21.15 | 21.21       | 21.18 | 21.20                            | 21.29 | 21.70             | 21.67     | 20.88 | 20.87 | 20.89 | 20.88 |        |
| 18                               | 21.14 | 21.15 | 21.21       | 21.18 | 21.20                            | 21.32 | 21.67             | 21.64     | 20.86 | 20.87 | 20.90 | 20.88 |        |
| 19                               | 21.14 | 21.15 | 21.21       | 21.18 | 21.19                            | 21.34 | 21.66             | 21.54     | 20.84 | 20.87 | 20.90 | 20.90 |        |
| 20                               | 21.15 | 21.16 | 21.19       | 21.18 | 21.19                            | 21.35 | 21.68             | 21.51     | 20.85 | 20.87 | 20.91 | 20.91 |        |
| 21                               | 21.15 | 21.17 | 21.20       | 21.18 | 21.19                            | 21.38 | 21.67             | 21.47     | 20.89 | 20.87 | 20.91 | 20.90 |        |
| 22                               | 21.15 | 21.18 | 21.20       | 21.20 | 21.19                            | 21.40 | 21.69             | 21.44     | 20.89 | 20.86 | 20.90 | 20.90 |        |
| 23                               | 21.16 | 21.19 | 21.20       | 21.20 | 21.21                            | 21.44 | 21.67             | 21.42     | 20.90 | 20.86 | 20.89 | 20.90 |        |
| 24                               | 21.17 | 21.19 | 21.20       | 21.20 | 21.21                            | 21.48 | 21.65             | 21.81     | 20.88 | 20.86 | 20.91 | 20.90 |        |
| 25                               | 21.17 | 21.19 | 21.20       | 21.20 | 21.22                            | 21.49 | 21.60             | 21.85     | 20.89 | 20.85 | 20.91 | 20.89 |        |
| 26                               | 21.17 | 21.18 | 21.22       | 21.20 | 21.23                            | 21.48 | 21.59             | 21.58     | 20.89 | 20.85 | 20.91 | 20.88 |        |
| 27                               | 21.16 | 21.18 | 21.24       | 21.19 | 21.22                            | 21.47 | 21.59             | 21.41     | 20.88 | 20.84 | 20.91 | 20.88 |        |
| 28                               | 21.15 | 21.17 | 21.22       | 21.19 | 21.22                            | 21.47 | 21.54             | 21.34     | 20.87 | 20.83 | 20.91 | 20.87 |        |
| 29                               | 21.15 | 21.16 | 21.20       | 21.19 | 21.21                            | 21.46 | 21.47             | 21.33     | 20.86 | 20.82 |       | 20.87 |        |
| 30                               | 21.15 | 21.16 | 21.19       | 21.19 | 21.21                            | 21.46 | 21.43             | 21.32     | 20.85 | 20.83 |       | 20.86 |        |
| 31                               |       | 21.16 |             | 21.19 | 21.20                            |       | 21.43             |           | 20.84 | 20.84 |       | 20.85 |        |
| Mean                             | 21.15 | 21.16 | 21.19       | 21.19 | 21.22                            | 21.32 | 21.70             | 21.60     | 20.95 | 20.86 | 20.87 | 20.90 |        |
| Max                              | 21.17 | 21.19 | 21.24       | 21.20 | 21.27                            | 21.49 | 22.17             | 22.81     | 21.22 | 20.88 | 20.91 | 20.94 | 22.81  |
| Min                              | 21.13 | 21.14 | 21.15       | 21.18 | 21.19                            | 21.19 | 21.43             | 21.26     | 20.84 | 20.82 | 20.82 | 20.85 | 20.82  |
| Annual Max Momentary Gage Height | 24.24 |       | m. (MSL.) , |       | at 21.00 Hours , on Nov 8 , 2013 |       |                   |           |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 19.79 |       | m. (MSL.) , |       | River Bed                        | 19.92 |                   | m. (MSL.) |       |       |       |       |        |
| Left Bank Elevation              | 25.95 |       | m. (MSL.) , |       |                                  |       |                   |           |       |       |       |       |        |
| Right Bank Elevation             | 26.11 |       | m. (MSL.) , |       | Drainage Area                    | 537   | Square Kilometers |           |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec   | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|--------|-------|-------|-------|-------|----------------|
| 1              | 0.63                                                            | 0.67                     | 0.67  | 0.85                 | 0.85  | 0.90    | 4.00                     | 2.85   | 7.00  | 0.84  | 0.24  | 1.08  |                |
| 2              | 0.63                                                            | 0.67                     | 0.72  | 0.85                 | 0.90  | 0.90    | 4.60                     | 2.25   | 5.25  | 0.60  | 0.36  | 1.08  |                |
| 3              | 0.63                                                            | 0.63                     | 0.67  | 0.85                 | 1.02  | 0.90    | 5.00                     | 1.65   | 4.50  | 0.72  | 0.48  | 1.20  |                |
| 4              | 0.58                                                            | 0.63                     | 0.72  | 0.85                 | 1.08  | 0.90    | 4.80                     | 1.44   | 4.00  | 0.84  | 0.60  | 1.20  |                |
| 5              | 0.58                                                            | 0.63                     | 0.72  | 0.90                 | 1.20  | 0.85    | 4.60                     | 1.32   | 3.85  | 0.96  | 0.96  | 1.33  |                |
| 6              | 0.63                                                            | 0.67                     | 0.72  | 0.90                 | 1.32  | 0.85    | 15.20                    | 1.32   | 3.40  | 0.96  | 0.84  | 1.59  |                |
| 7              | 0.63                                                            | 0.67                     | 0.76  | 0.85                 | 1.32  | 0.85    | 35.20                    | 1.26   | 3.10  | 0.96  | 0.72  | 1.59  |                |
| 8              | 0.63                                                            | 0.72                     | 0.76  | 0.85                 | 1.32  | 0.85    | 33.40                    | 69.25  | 2.95  | 0.84  | 0.72  | 1.72  |                |
| 9              | 0.63                                                            | 0.72                     | 0.72  | 0.85                 | 1.26  | 1.02    | 28.25                    | 80.40  | 2.50  | 0.72  | 0.72  | 1.72  |                |
| 10             | 0.63                                                            | 0.72                     | 0.72  | 0.85                 | 1.14  | 1.14    | 20.05                    | 33.40  | 2.24  | 0.60  | 0.72  | 1.59  |                |
| 11             | 0.63                                                            | 0.72                     | 0.72  | 0.81                 | 1.02  | 1.26    | 21.50                    | 18.70  | 1.98  | 0.72  | 0.60  | 1.59  |                |
| 12             | 0.63                                                            | 0.72                     | 0.81  | 0.81                 | 1.02  | 1.26    | 20.50                    | 22.72  | 1.85  | 0.72  | 0.48  | 1.33  |                |
| 13             | 0.63                                                            | 0.67                     | 0.96  | 0.81                 | 0.96  | 1.32    | 18.70                    | 18.15  | 1.72  | 0.84  | 0.48  | 1.20  |                |
| 14             | 0.63                                                            | 0.72                     | 0.96  | 0.81                 | 0.96  | 1.32    | 17.35                    | 16.40  | 1.72  | 0.72  | 0.48  | 1.08  |                |
| 15             | 0.63                                                            | 0.72                     | 0.96  | 0.81                 | 0.90  | 1.32    | 17.80                    | 16.05  | 1.46  | 0.60  | 0.72  | 0.96  |                |
| 16             | 0.63                                                            | 0.67                     | 0.96  | 0.85                 | 0.90  | 1.38    | 14.80                    | 16.40  | 1.20  | 0.72  | 0.96  | 0.84  |                |
| 17             | 0.67                                                            | 0.67                     | 0.96  | 0.81                 | 0.90  | 1.44    | 12.00                    | 21.16  | 0.96  | 0.84  | 1.08  | 0.96  |                |
| 18             | 0.63                                                            | 0.67                     | 0.96  | 0.81                 | 0.90  | 1.80    | 10.80                    | 20.02  | 0.72  | 0.84  | 1.20  | 0.96  |                |
| 19             | 0.63                                                            | 0.67                     | 0.96  | 0.81                 | 0.85  | 2.10    | 10.40                    | 16.40  | 0.48  | 0.84  | 1.20  | 1.20  |                |
| 20             | 0.67                                                            | 0.72                     | 0.85  | 0.81                 | 0.85  | 2.25    | 11.20                    | 15.35  | 0.60  | 0.84  | 1.33  | 1.33  |                |
| 21             | 0.67                                                            | 0.76                     | 0.90  | 0.81                 | 0.85  | 2.70    | 10.80                    | 14.01  | 1.08  | 0.84  | 1.33  | 1.20  |                |
| 22             | 0.67                                                            | 0.81                     | 0.90  | 0.90                 | 0.85  | 3.00    | 11.60                    | 13.02  | 1.08  | 0.72  | 1.20  | 1.20  |                |
| 23             | 0.72                                                            | 0.85                     | 0.90  | 0.90                 | 0.96  | 3.80    | 10.80                    | 12.36  | 1.20  | 0.72  | 1.08  | 1.20  |                |
| 24             | 0.76                                                            | 0.85                     | 0.90  | 0.90                 | 0.96  | 4.60    | 10.00                    | 26.90  | 0.96  | 0.72  | 1.33  | 1.20  |                |
| 25             | 0.76                                                            | 0.85                     | 0.90  | 0.90                 | 1.02  | 4.80    | 8.00                     | 28.50  | 1.08  | 0.60  | 1.33  | 1.08  |                |
| 26             | 0.76                                                            | 0.81                     | 1.02  | 0.90                 | 1.08  | 4.60    | 7.70                     | 17.80  | 1.08  | 0.60  | 1.33  | 0.96  |                |
| 27             | 0.72                                                            | 0.81                     | 1.14  | 0.85                 | 1.02  | 4.40    | 7.70                     | 12.03  | 0.96  | 0.48  | 1.33  | 0.96  |                |
| 28             | 0.67                                                            | 0.76                     | 1.02  | 0.85                 | 1.02  | 4.40    | 6.20                     | 10.08  | 0.84  | 0.36  | 1.33  | 0.84  |                |
| 29             | 0.67                                                            | 0.72                     | 0.90  | 0.85                 | 0.96  | 4.20    | 4.40                     | 9.81   | 0.72  | 0.24  |       | 0.84  |                |
| 30             | 0.67                                                            | 0.72                     | 0.85  | 0.85                 | 0.96  | 4.20    | 3.60                     | 9.54   | 0.60  | 0.36  |       | 0.72  |                |
| 31             |                                                                 | 0.72                     |       | 0.85                 | 0.90  |         | 3.60                     |        | 0.48  | 0.48  |       | 0.60  |                |
| Total          | 19.65                                                           | 22.34                    | 25.71 | 26.30                | 31.25 | 65.31   | 394.55                   | 530.54 | 61.56 | 21.84 | 25.15 | 36.35 | 1260.55 CMSDAY |
| Mean           | 0.66                                                            | 0.72                     | 0.86  | 0.85                 | 1.01  | 2.18    | 12.73                    | 17.68  | 1.99  | 0.70  | 0.90  | 1.17  | 3.45 CMS       |
| Max            | 0.76                                                            | 0.85                     | 1.14  | 0.90                 | 1.32  | 4.80    | 35.20                    | 80.40  | 7.00  | 0.96  | 1.33  | 1.72  | 80.40 CMS      |
| Min            | 0.58                                                            | 0.63                     | 0.67  | 0.81                 | 0.85  | 0.85    | 3.60                     | 1.26   | 0.48  | 0.24  | 0.24  | 0.60  | 0.24 CMS       |
| Runoff         | 1.70                                                            | 1.93                     | 2.22  | 2.27                 | 2.70  | 5.64    | 34.09                    | 45.84  | 5.32  | 1.89  | 2.17  | 3.14  | 108.91 MCM     |
| Momentary Peak | 259.90 CMS. at 24.24 m. (MSL.) at 21.00 Hours , on Nov 8 , 2013 |                          |       |                      |       |         |                          |        |       |       |       |       |                |
| Runoff Yield   | 6.43                                                            | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 483.985 | Liters/Second/Square KM. |        |       |       |       |       |                |

**WATER YEAR : 2013**  
**SOUTHERN PENINSULA EAST COAST**

**Khlong Chumphon at Ban Wang Phai , Chumphon (X.53A)**

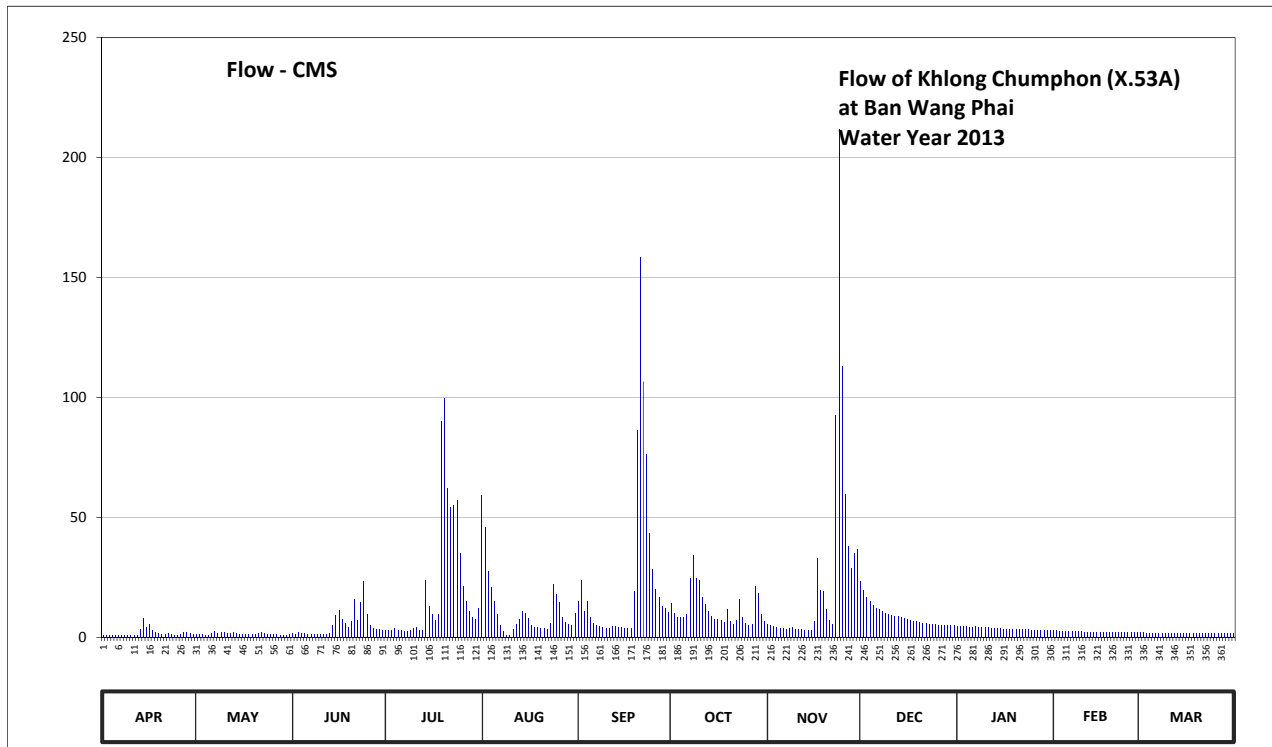
Lat 10 - 30 - 20 N Long 99 - 07 - 15 E

**Location : on left bank about 9.50 kilometers downstream from X.53 station.**

|                                         |                                                                                           |                      |                          |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------------|--------------------------|
|                                         | <b>Ban Wang Phai</b>                                                                      | <b>Amphoe Mueang</b> | <b>Changwat Chumphon</b> |
| <b>Drainage Area</b>                    | 296 sq.km.                                                                                |                      |                          |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |                      |                          |
| <b>Zero Gage at Bottom</b>              | +0.000 m. (MSL.)                                                                          |                      |                          |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                      |                          |
| <b>Location BM</b>                      | On left bank about 3.30 meters from the top staff gage.                                   | <b>Elevation</b>     | +10.624 m. (MSL.)        |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                      |                          |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                      |                          |
| <b>Period of Available Gage Records</b> | 1991 to date                                                                              |                      |                          |
| <b>Rating Operation</b>                 |                                                                                           |                      |                          |
| <b>Period of Rating</b>                 | 1991 to date                                                                              |                      |                          |
| <b>Rated by Flot</b>                    | -                                                                                         |                      |                          |
| <b>Rated by Current Meter</b>           | 1991 to date                                                                              |                      |                          |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                      |                          |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                      |                          |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |                      |                          |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun         | Jul  | Aug  | Sep                               | Oct  | Nov               | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------|------|------|-----------------------------------|------|-------------------|------|------|------|------|--------|
| 1                                | 2.15  | 2.19 | 2.22        | 2.40 | 5.83 | 3.52                              | 3.47 | 2.75              | 4.06 | 2.65 | 2.40 | 2.28 |        |
| 2                                | 2.15  | 2.18 | 2.21        | 2.43 | 5.25 | 4.09                              | 3.13 | 2.67              | 3.81 | 2.64 | 2.39 | 2.28 |        |
| 3                                | 2.14  | 2.17 | 2.30        | 2.39 | 4.30 | 3.20                              | 2.99 | 2.61              | 3.63 | 2.63 | 2.38 | 2.27 |        |
| 4                                | 2.16  | 2.16 | 2.25        | 2.52 | 3.91 | 3.51                              | 3.02 | 2.58              | 3.50 | 2.61 | 2.37 | 2.27 |        |
| 5                                | 2.15  | 2.15 | 2.23        | 2.43 | 3.52 | 2.99                              | 3.00 | 2.54              | 3.39 | 2.60 | 2.36 | 2.26 |        |
| 6                                | 2.13  | 2.22 | 2.20        | 2.40 | 3.11 | 2.80                              | 3.09 | 2.51              | 3.31 | 2.60 | 2.36 | 2.25 |        |
| 7                                | 2.12  | 2.37 | 2.20        | 2.38 | 2.70 | 2.68                              | 4.14 | 2.49              | 3.25 | 2.63 | 2.35 | 2.25 |        |
| 8                                | 2.12  | 2.27 | 2.20        | 2.36 | 2.35 | 2.61                              | 4.66 | 2.51              | 3.20 | 2.60 | 2.35 | 2.26 |        |
| 9                                | 2.12  | 2.32 | 2.18        | 2.39 | 2.11 | 2.56                              | 4.13 | 2.59              | 3.14 | 2.58 | 2.35 | 2.26 |        |
| 10                               | 2.12  | 2.29 | 2.17        | 2.51 | 2.14 | 2.53                              | 4.09 | 2.50              | 3.10 | 2.56 | 2.34 | 2.26 |        |
| 11                               | 2.12  | 2.25 | 2.17        | 2.56 | 2.45 | 2.51                              | 3.62 | 2.46              | 3.06 | 2.57 | 2.33 | 2.25 |        |
| 12                               | 2.12  | 2.26 | 2.20        | 2.42 | 2.75 | 2.62                              | 3.43 | 2.44              | 3.04 | 2.55 | 2.33 | 2.25 |        |
| 13                               | 2.44  | 2.29 | 2.27        | 2.40 | 2.93 | 2.65                              | 3.19 | 2.43              | 3.05 | 2.53 | 2.33 | 2.25 |        |
| 14                               | 2.96  | 2.23 | 2.70        | 4.09 | 3.21 | 2.60                              | 3.05 | 2.42              | 2.99 | 2.52 | 2.33 | 2.25 |        |
| 15                               | 2.59  | 2.20 | 3.08        | 3.36 | 3.15 | 2.56                              | 2.94 | 2.41              | 2.96 | 2.51 | 2.33 | 2.24 |        |
| 16                               | 2.73  | 2.19 | 3.24        | 3.09 | 2.97 | 2.52                              | 2.92 | 2.86              | 2.93 | 2.50 | 2.31 | 2.24 |        |
| 17                               | 2.41  | 2.17 | 2.92        | 2.89 | 2.68 | 2.54                              | 2.90 | 4.60              | 2.89 | 2.49 | 2.31 | 2.24 |        |
| 18                               | 2.30  | 2.17 | 2.79        | 3.11 | 2.59 | 2.55                              | 2.82 | 3.83              | 2.88 | 2.49 | 2.31 | 2.25 |        |
| 19                               | 2.24  | 2.18 | 2.57        | 7.05 | 2.56 | 3.80                              | 3.26 | 3.80              | 2.85 | 2.48 | 2.30 | 2.24 |        |
| 20                               | 2.20  | 2.18 | 2.87        | 7.39 | 2.53 | 6.91                              | 2.85 | 3.26              | 2.83 | 2.47 | 2.30 | 2.24 |        |
| 21                               | 2.18  | 2.25 | 3.56        | 5.97 | 2.51 | 8.91                              | 2.77 | 2.90              | 2.81 | 2.46 | 2.30 | 2.23 |        |
| 22                               | 2.25  | 2.30 | 2.90        | 5.61 | 2.50 | 7.62                              | 2.90 | 2.74              | 2.79 | 2.46 | 2.29 | 2.23 |        |
| 23                               | 2.21  | 2.25 | 3.49        | 5.66 | 2.81 | 6.54                              | 3.58 | 7.13              | 2.77 | 2.45 | 2.29 | 2.24 |        |
| 24                               | 2.16  | 2.21 | 4.06        | 5.74 | 3.98 | 5.13                              | 2.99 | 9.68              | 2.76 | 2.44 | 2.29 | 2.24 |        |
| 25                               | 2.15  | 2.18 | 3.09        | 4.70 | 3.71 | 4.35                              | 2.80 | 7.82              | 2.74 | 2.43 | 2.29 | 2.26 |        |
| 26                               | 2.17  | 2.17 | 2.69        | 3.92 | 3.49 | 3.84                              | 2.72 | 5.86              | 2.72 | 2.43 | 2.29 | 2.27 |        |
| 27                               | 2.31  | 2.17 | 2.55        | 3.50 | 3.01 | 3.61                              | 2.75 | 4.86              | 2.71 | 2.43 | 2.28 | 2.26 |        |
| 28                               | 2.33  | 2.15 | 2.46        | 3.20 | 2.82 | 3.36                              | 3.93 | 4.38              | 2.70 | 2.42 | 2.28 | 2.25 |        |
| 29                               | 2.24  | 2.16 | 2.47        | 3.01 | 2.74 | 3.30                              | 3.72 | 4.71              | 2.68 | 2.42 |      | 2.24 |        |
| 30                               | 2.19  | 2.16 | 2.41        | 2.93 | 2.72 | 3.18                              | 3.11 | 4.79              | 2.67 | 2.41 |      | 2.22 |        |
| 31                               |       | 2.17 |             | 3.31 | 3.14 |                                   | 2.88 |                   | 2.67 | 2.40 |      | 2.22 |        |
| Mean                             | 2.26  | 2.21 | 2.62        | 3.55 | 3.11 | 3.72                              | 3.25 | 3.70              | 3.03 | 2.51 | 2.33 | 2.25 |        |
| Max                              | 2.96  | 2.37 | 4.06        | 7.39 | 5.83 | 8.91                              | 4.66 | 9.68              | 4.06 | 2.65 | 2.40 | 2.28 | 9.68   |
| Min                              | 2.12  | 2.15 | 2.17        | 2.36 | 2.11 | 2.51                              | 2.72 | 2.41              | 2.67 | 2.40 | 2.28 | 2.22 | 2.11   |
| Annual Max Momentary Gage Height | 10.30 |      | m. (MSL.) , |      |      | at 24.00 Hours , on Nov 23 , 2013 |      |                   |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , |      |      | River Bed 1.84                    |      | m. (MSL.)         |      |      |      |      |        |
| Left Bank Elevation              | 10.40 |      | m. (MSL.) , |      |      |                                   |      |                   |      |      |      |      |        |
| Right Bank Elevation             | 10.41 |      | m. (MSL.) , |      |      | Drainage Area 296                 |      | Square Kilometers |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|--------|-------|-------|----------------|
| 1              | 1.13                                                             | 1.43                     | 1.65   | 3.00                 | 59.18  | 15.30   | 14.55                    | 5.63   | 23.55  | 4.88   | 3.00  | 2.10  |                |
| 2              | 1.13                                                             | 1.35                     | 1.58   | 3.23                 | 46.13  | 24.08   | 10.13                    | 5.03   | 19.65  | 4.80   | 2.93  | 2.10  |                |
| 3              | 1.05                                                             | 1.28                     | 2.25   | 2.93                 | 27.75  | 11.00   | 8.38                     | 4.57   | 16.95  | 4.73   | 2.85  | 2.03  |                |
| 4              | 1.20                                                             | 1.20                     | 1.88   | 3.90                 | 21.15  | 15.15   | 8.75                     | 4.35   | 15.00  | 4.57   | 2.77  | 2.03  |                |
| 5              | 1.13                                                             | 1.13                     | 1.73   | 3.23                 | 15.30  | 8.38    | 8.50                     | 4.05   | 13.38  | 4.50   | 2.70  | 1.95  |                |
| 6              | 0.98                                                             | 1.65                     | 1.50   | 3.00                 | 9.87   | 6.00    | 9.62                     | 3.83   | 12.37  | 4.50   | 2.70  | 1.88  |                |
| 7              | 0.90                                                             | 2.77                     | 1.50   | 2.85                 | 5.25   | 5.10    | 24.95                    | 3.68   | 11.63  | 4.73   | 2.62  | 1.88  |                |
| 8              | 0.90                                                             | 2.03                     | 1.50   | 2.70                 | 2.62   | 4.57    | 34.20                    | 3.83   | 11.00  | 4.50   | 2.62  | 1.95  |                |
| 9              | 0.90                                                             | 2.40                     | 1.35   | 2.93                 | 0.82   | 4.20    | 24.78                    | 4.42   | 10.25  | 4.35   | 2.62  | 1.95  |                |
| 10             | 0.90                                                             | 2.18                     | 1.28   | 3.83                 | 1.05   | 3.98    | 24.08                    | 3.75   | 9.75   | 4.20   | 2.55  | 1.95  |                |
| 11             | 0.90                                                             | 1.88                     | 1.28   | 4.20                 | 3.38   | 3.83    | 16.80                    | 3.45   | 9.25   | 4.27   | 2.47  | 1.88  |                |
| 12             | 0.90                                                             | 1.95                     | 1.50   | 3.15                 | 5.63   | 4.65    | 13.95                    | 3.30   | 9.00   | 4.13   | 2.47  | 1.88  |                |
| 13             | 3.30                                                             | 2.18                     | 2.03   | 3.00                 | 7.63   | 4.88    | 10.88                    | 3.23   | 9.12   | 3.98   | 2.47  | 1.88  |                |
| 14             | 8.00                                                             | 1.73                     | 5.25   | 24.08                | 11.13  | 4.50    | 9.12                     | 3.15   | 8.38   | 3.90   | 2.47  | 1.88  |                |
| 15             | 4.42                                                             | 1.50                     | 9.50   | 13.00                | 10.38  | 4.20    | 7.75                     | 3.08   | 8.00   | 3.83   | 2.47  | 1.80  |                |
| 16             | 5.48                                                             | 1.43                     | 11.50  | 9.62                 | 8.13   | 3.90    | 7.50                     | 6.75   | 7.63   | 3.75   | 2.32  | 1.80  |                |
| 17             | 3.08                                                             | 1.28                     | 7.50   | 7.13                 | 5.10   | 4.05    | 7.25                     | 33.00  | 7.13   | 3.68   | 2.32  | 1.80  |                |
| 18             | 2.25                                                             | 1.28                     | 5.93   | 9.87                 | 4.42   | 4.13    | 6.25                     | 19.95  | 7.00   | 3.68   | 2.32  | 1.88  |                |
| 19             | 1.80                                                             | 1.35                     | 4.27   | 90.38                | 4.20   | 19.50   | 11.75                    | 19.50  | 6.62   | 3.60   | 2.25  | 1.80  |                |
| 20             | 1.50                                                             | 1.35                     | 6.87   | 99.72                | 3.98   | 86.52   | 6.62                     | 11.75  | 6.37   | 3.53   | 2.25  | 1.80  |                |
| 21             | 1.35                                                             | 1.88                     | 15.90  | 62.32                | 3.83   | 158.50  | 5.78                     | 7.25   | 6.13   | 3.45   | 2.25  | 1.73  |                |
| 22             | 1.88                                                             | 2.25                     | 7.25   | 54.23                | 3.75   | 106.65  | 7.25                     | 5.55   | 5.93   | 3.45   | 2.18  | 1.73  |                |
| 23             | 1.58                                                             | 1.88                     | 14.85  | 55.35                | 6.13   | 76.50   | 16.20                    | 92.58  | 5.78   | 3.38   | 2.18  | 1.80  |                |
| 24             | 1.20                                                             | 1.58                     | 23.55  | 57.15                | 22.20  | 43.60   | 8.38                     | 211.60 | 5.70   | 3.30   | 2.18  | 1.80  |                |
| 25             | 1.13                                                             | 1.35                     | 9.62   | 35.00                | 18.15  | 28.62   | 6.00                     | 113.15 | 5.55   | 3.23   | 2.18  | 1.95  |                |
| 26             | 1.28                                                             | 1.28                     | 5.18   | 21.30                | 14.85  | 20.10   | 5.40                     | 59.85  | 5.40   | 3.23   | 2.18  | 2.03  |                |
| 27             | 2.32                                                             | 1.28                     | 4.13   | 15.00                | 8.63   | 16.65   | 5.63                     | 38.20  | 5.33   | 3.23   | 2.10  | 1.95  |                |
| 28             | 2.47                                                             | 1.13                     | 3.45   | 11.00                | 6.25   | 13.00   | 21.45                    | 29.15  | 5.25   | 3.15   | 2.10  | 1.88  |                |
| 29             | 1.80                                                             | 1.20                     | 3.53   | 8.63                 | 5.55   | 12.25   | 18.30                    | 35.20  | 5.10   | 3.15   |       | 1.80  |                |
| 30             | 1.43                                                             | 1.20                     | 3.08   | 7.63                 | 5.40   | 10.75   | 9.87                     | 36.80  | 5.03   | 3.08   |       | 1.65  |                |
| 31             |                                                                  | 1.28                     |        | 12.37                | 10.25  |         | 7.00                     |        | 5.03   | 3.00   |       | 1.65  |                |
| Total          | 58.29                                                            | 49.66                    | 162.39 | 635.73               | 358.09 | 724.54  | 377.07                   | 779.63 | 282.26 | 119.76 | 68.52 | 58.19 | 3674.13 CMSDAY |
| Mean           | 1.94                                                             | 1.60                     | 5.41   | 20.51                | 11.55  | 24.15   | 12.16                    | 25.99  | 9.11   | 3.86   | 2.45  | 1.88  | 10.07 CMS      |
| Max            | 8.00                                                             | 2.77                     | 23.55  | 99.72                | 59.18  | 158.50  | 34.20                    | 211.60 | 23.55  | 4.88   | 3.00  | 2.10  | 211.60 CMS     |
| Min            | 0.90                                                             | 1.13                     | 1.28   | 2.70                 | 0.82   | 3.83    | 5.40                     | 3.08   | 5.03   | 3.00   | 2.10  | 1.65  | 0.82 CMS       |
| Runoff         | 5.04                                                             | 4.29                     | 14.03  | 54.93                | 30.94  | 62.60   | 32.58                    | 67.36  | 24.39  | 10.35  | 5.92  | 5.03  | 317.45 MCM     |
| Momentary Peak | 288.20 CMS. at 10.30 m. (MSL.) at 24.00 Hours , on Nov 23 , 2013 |                          |        |                      |        |         |                          |        |        |        |       |       |                |
| Runoff Yield   | 33.98                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 972.991 | Liters/Second/Square KM. |        |        |        |       |       |                |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA EAST COAST

### Khlong Tha Di at Ban Tha Yai , Nakhon Si Thammarat (X.55)

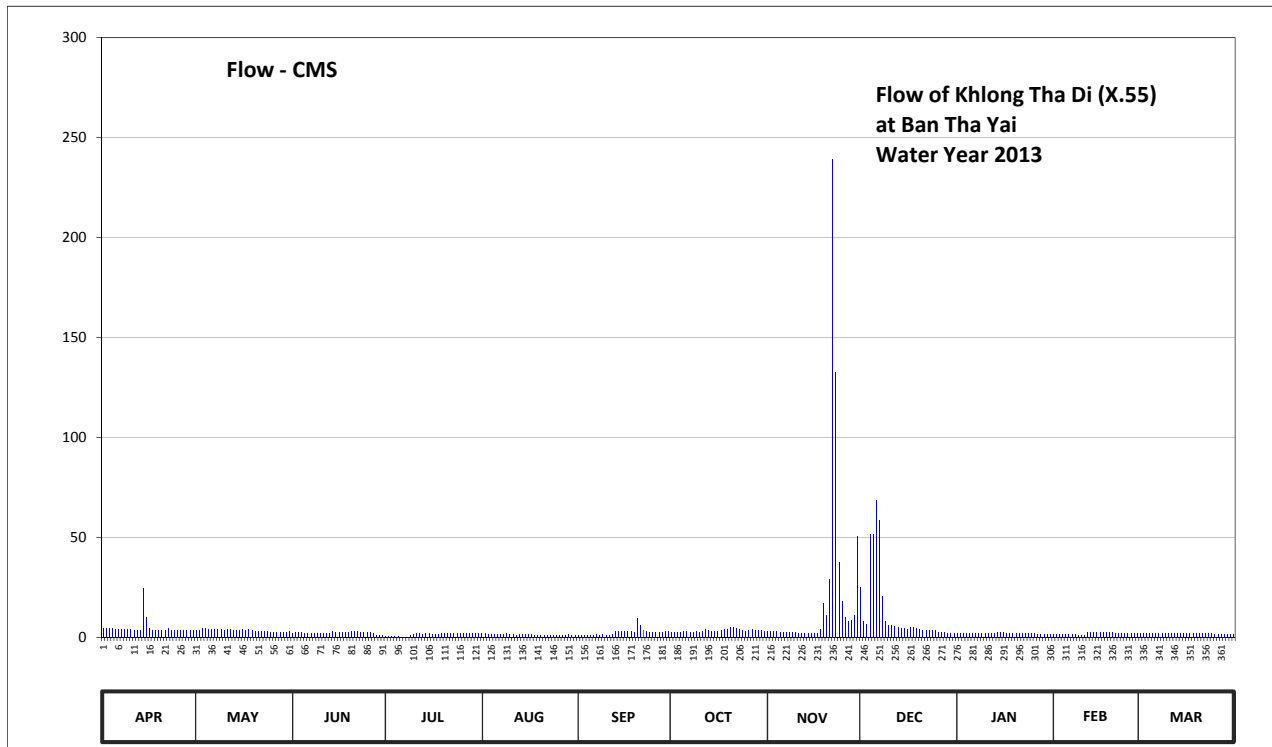
Lat 08 - 23 - 52 N    Long 99 - 50 - 14 E

**Location : on left bank at the bridge.**

|                                         |                                                                                           |           |               |          |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Tha Yai   | <b>Amphoe</b> | Lan Saka | <b>Changwat</b>  | Nakhon Si Thammarat |
| <b>Drainage Area</b>                    | 105                                                                                       | sq.km.    |               |          |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |          |                  |                     |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |          |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |          |                  |                     |
| <b>Location BM</b>                      | On left bank about 63.60 meters from fourth staff gage.                                   |           |               |          | <b>Elevation</b> | +24.748 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |          |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |          |                  |                     |
| <b>Period of Available Gage Records</b> | 1967 to date                                                                              |           |               |          |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                     |
| <b>Period of Rating</b>                 | 1967 - 1971 , 1989 to date                                                                |           |               |          |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                     |
| <b>Rated by Current Meter</b>           | 1967 - 1971 , 1989 to date                                                                |           |               |          |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |          |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |          |                  |                     |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2013. |           |               |          |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 18.18 | 18.10 | 18.03                                           | 17.89 | 18.00 | 17.93 | 18.05 | 18.07 | 18.88 | 18.03 | 17.96 | 18.01 |        |
|                                  | 2  | 18.18 | 18.12 | 18.05                                           | 17.87 | 18.00 | 17.93 | 18.05 | 18.07 | 18.33 | 18.03 | 17.95 | 18.01 |        |
|                                  | 3  | 18.18 | 18.18 | 18.04                                           | 17.88 | 17.99 | 17.92 | 18.04 | 18.07 | 18.27 | 18.03 | 17.95 | 18.01 |        |
|                                  | 4  | 18.18 | 18.18 | 18.04                                           | 17.87 | 17.99 | 17.91 | 18.05 | 18.07 | 19.47 | 18.01 | 17.95 | 18.01 |        |
|                                  | 5  | 18.14 | 18.16 | 18.03                                           | 17.86 | 17.98 | 17.91 | 18.08 | 18.06 | 19.47 | 18.00 | 17.95 | 18.01 |        |
|                                  | 6  | 18.15 | 18.16 | 18.03                                           | 17.84 | 17.97 | 17.93 | 18.07 | 18.05 | 19.80 | 18.00 | 17.95 | 18.01 |        |
|                                  | 7  | 18.15 | 18.15 | 18.03                                           | 17.81 | 17.97 | 17.95 | 18.04 | 18.05 | 19.61 | 18.00 | 17.95 | 18.01 |        |
|                                  | 8  | 18.16 | 18.15 | 18.01                                           | 17.80 | 17.96 | 17.94 | 18.06 | 18.05 | 18.77 | 18.00 | 17.95 | 18.01 |        |
|                                  | 9  | 18.15 | 18.13 | 18.00                                           | 17.92 | 18.00 | 17.95 | 18.08 | 18.04 | 18.32 | 18.00 | 17.94 | 18.01 |        |
|                                  | 10 | 18.15 | 18.11 | 18.00                                           | 17.97 | 17.98 | 17.94 | 18.06 | 18.04 | 18.26 | 18.02 | 17.94 | 18.01 |        |
|                                  | 11 | 18.12 | 18.16 | 18.00                                           | 18.00 | 17.97 | 17.94 | 18.09 | 18.03 | 18.25 | 18.02 | 17.94 | 18.01 |        |
|                                  | 12 | 18.12 | 18.13 | 18.00                                           | 18.00 | 17.94 | 17.95 | 18.15 | 18.03 | 18.23 | 18.02 | 18.04 | 18.01 |        |
|                                  | 13 | 18.12 | 18.12 | 18.02                                           | 17.99 | 17.97 | 18.09 | 18.11 | 18.03 | 18.20 | 18.03 | 18.06 | 18.01 |        |
|                                  | 14 | 18.87 | 18.12 | 18.08                                           | 18.00 | 17.96 | 18.08 | 18.08 | 18.02 | 18.19 | 18.04 | 18.06 | 18.01 |        |
|                                  | 15 | 18.41 | 18.12 | 18.05                                           | 18.00 | 17.96 | 18.07 | 18.08 | 18.00 | 18.18 | 18.04 | 18.05 | 18.01 |        |
|                                  | 16 | 18.17 | 18.14 | 18.05                                           | 17.99 | 17.95 | 18.07 | 18.09 | 18.00 | 18.16 | 18.04 | 18.05 | 18.02 |        |
|                                  | 17 | 18.12 | 18.11 | 18.06                                           | 17.99 | 17.95 | 18.07 | 18.12 | 18.02 | 18.21 | 18.03 | 18.05 | 18.02 |        |
|                                  | 18 | 18.11 | 18.13 | 18.04                                           | 17.99 | 17.94 | 18.07 | 18.13 | 18.13 | 18.20 | 18.02 | 18.05 | 18.02 |        |
|                                  | 19 | 18.11 | 18.10 | 18.04                                           | 18.03 | 17.93 | 18.06 | 18.15 | 18.67 | 18.17 | 18.02 | 18.04 | 18.01 |        |
|                                  | 20 | 18.11 | 18.08 | 18.08                                           | 18.00 | 17.93 | 18.39 | 18.21 | 18.44 | 18.13 | 18.01 | 18.04 | 18.01 |        |
|                                  | 21 | 18.12 | 18.08 | 18.07                                           | 18.00 | 17.93 | 18.24 | 18.21 | 18.98 | 18.12 | 18.00 | 18.03 | 18.00 |        |
|                                  | 22 | 18.17 | 18.08 | 18.07                                           | 18.00 | 17.93 | 18.12 | 18.17 | 21.85 | 18.12 | 18.00 | 18.02 | 18.00 |        |
|                                  | 23 | 18.12 | 18.07 | 18.06                                           | 18.02 | 17.93 | 18.09 | 18.15 | 20.72 | 18.12 | 18.00 | 18.02 | 18.00 |        |
|                                  | 24 | 18.12 | 18.07 | 18.06                                           | 18.03 | 17.92 | 18.05 | 18.12 | 19.17 | 18.12 | 18.00 | 18.02 | 18.00 |        |
|                                  | 25 | 18.12 | 18.06 | 18.06                                           | 18.02 | 17.92 | 18.05 | 18.09 | 18.69 | 18.10 | 18.00 | 18.02 | 17.99 |        |
|                                  | 26 | 18.11 | 18.05 | 18.06                                           | 18.01 | 17.92 | 18.05 | 18.10 | 18.42 | 18.06 | 18.00 | 18.02 | 17.99 |        |
|                                  | 27 | 18.10 | 18.04 | 18.03                                           | 18.00 | 17.94 | 18.04 | 18.14 | 18.33 | 18.05 | 17.99 | 18.01 | 17.99 |        |
|                                  | 28 | 18.12 | 18.04 | 17.91                                           | 18.00 | 17.93 | 18.05 | 18.12 | 18.35 | 18.04 | 17.98 | 18.01 | 17.99 |        |
|                                  | 29 | 18.11 | 18.04 | 17.90                                           | 18.00 | 17.99 | 18.07 | 18.11 | 18.45 | 18.03 | 17.97 |       | 17.98 |        |
|                                  | 30 | 18.10 | 18.05 | 17.90                                           | 18.00 | 17.92 | 18.07 | 18.10 | 19.46 | 18.03 | 17.98 |       | 17.99 |        |
|                                  | 31 |       | 18.07 |                                                 | 18.01 | 17.92 |       | 18.08 |       | 18.03 | 17.96 |       | 17.98 |        |
| Mean                             |    | 18.17 | 18.11 | 18.03                                           | 17.96 | 17.95 | 18.03 | 18.10 | 18.48 | 18.38 | 18.01 | 18.00 | 18.00 |        |
| Max                              |    | 18.87 | 18.18 | 18.08                                           | 18.03 | 18.00 | 18.39 | 18.21 | 21.85 | 19.80 | 18.04 | 18.06 | 18.02 | 21.85  |
| Min                              |    | 18.10 | 18.04 | 17.90                                           | 17.80 | 17.92 | 17.91 | 18.04 | 18.00 | 18.03 | 17.96 | 17.94 | 17.98 | 17.80  |
| Annual Max Momentary Gage Height |    |       | 22.36 | m. (MSL.) , at 12.00 Hours , on Nov 22 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 0.00  | m. (MSL.) , River Bed 17.40 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 25.20 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 25.57 | m. (MSL.) , Drainage Area 105 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



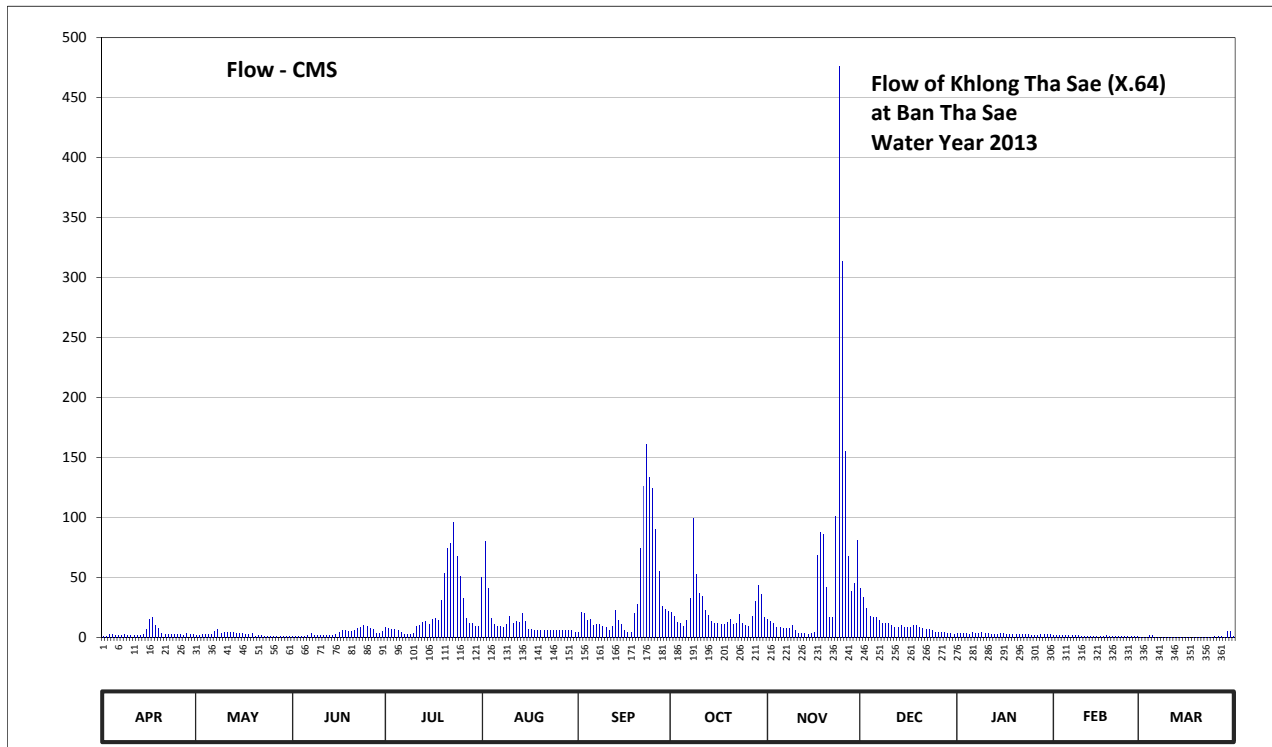
Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                       | Jun   | Jul   | Aug                  | Sep   | Oct    | Nov      | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|--------|-----------------------------------------------------------|-------|-------|----------------------|-------|--------|----------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 4.70   | 3.50                                                      | 2.45  | 0.90  | 2.00                 | 1.30  | 2.75   | 3.05     | 25.20                    | 2.45  | 1.60  | 2.15  |         |        |
| 2              | 4.70   | 3.80                                                      | 2.75  | 0.70  | 2.00                 | 1.30  | 2.75   | 3.05     | 8.25                     | 2.45  | 1.50  | 2.15  |         |        |
| 3              | 4.70   | 4.70                                                      | 2.60  | 0.80  | 1.90                 | 1.20  | 2.60   | 3.05     | 6.75                     | 2.45  | 1.50  | 2.15  |         |        |
| 4              | 4.70   | 4.70                                                      | 2.60  | 0.70  | 1.90                 | 1.10  | 2.75   | 3.05     | 51.50                    | 2.15  | 1.50  | 2.15  |         |        |
| 5              | 4.10   | 4.40                                                      | 2.45  | 0.60  | 1.80                 | 1.10  | 3.20   | 2.90     | 51.50                    | 2.00  | 1.50  | 2.15  |         |        |
| 6              | 4.25   | 4.40                                                      | 2.45  | 0.40  | 1.70                 | 1.30  | 3.05   | 2.75     | 69.00                    | 2.00  | 1.50  | 2.15  |         |        |
| 7              | 4.25   | 4.25                                                      | 2.45  | 0.10  | 1.70                 | 1.50  | 2.60   | 2.75     | 58.55                    | 2.00  | 1.50  | 2.15  |         |        |
| 8              | 4.40   | 4.25                                                      | 2.15  | 0.00  | 1.60                 | 1.40  | 2.90   | 2.75     | 20.95                    | 2.00  | 1.50  | 2.15  |         |        |
| 9              | 4.25   | 3.95                                                      | 2.00  | 1.20  | 2.00                 | 1.50  | 3.20   | 2.60     | 8.00                     | 2.00  | 1.40  | 2.15  |         |        |
| 10             | 4.25   | 3.65                                                      | 2.00  | 1.70  | 1.80                 | 1.40  | 2.90   | 2.60     | 6.50                     | 2.30  | 1.40  | 2.15  |         |        |
| 11             | 3.80   | 4.40                                                      | 2.00  | 2.00  | 1.70                 | 1.40  | 3.35   | 2.45     | 6.25                     | 2.30  | 1.40  | 2.15  |         |        |
| 12             | 3.80   | 3.95                                                      | 2.00  | 2.00  | 1.40                 | 1.50  | 4.25   | 2.45     | 5.75                     | 2.30  | 2.60  | 2.15  |         |        |
| 13             | 3.80   | 3.80                                                      | 2.30  | 1.90  | 1.70                 | 3.35  | 3.65   | 2.45     | 5.00                     | 2.45  | 2.90  | 2.15  |         |        |
| 14             | 24.80  | 3.80                                                      | 3.20  | 2.00  | 1.60                 | 3.20  | 3.20   | 2.30     | 4.85                     | 2.60  | 2.90  | 2.15  |         |        |
| 15             | 10.25  | 3.80                                                      | 2.75  | 2.00  | 1.60                 | 3.05  | 3.20   | 2.00     | 4.70                     | 2.60  | 2.75  | 2.15  |         |        |
| 16             | 4.55   | 4.10                                                      | 2.75  | 1.90  | 1.50                 | 3.05  | 3.35   | 2.00     | 4.40                     | 2.60  | 2.75  | 2.30  |         |        |
| 17             | 3.80   | 3.65                                                      | 2.90  | 1.90  | 1.50                 | 3.05  | 3.80   | 2.30     | 5.25                     | 2.45  | 2.75  | 2.30  |         |        |
| 18             | 3.65   | 3.95                                                      | 2.60  | 1.90  | 1.40                 | 3.05  | 3.95   | 3.95     | 5.00                     | 2.30  | 2.75  | 2.30  |         |        |
| 19             | 3.65   | 3.50                                                      | 2.60  | 2.45  | 1.30                 | 2.90  | 4.25   | 17.45    | 4.55                     | 2.30  | 2.60  | 2.15  |         |        |
| 20             | 3.65   | 3.20                                                      | 3.20  | 2.00  | 1.30                 | 9.75  | 5.25   | 11.00    | 3.95                     | 2.15  | 2.60  | 2.15  |         |        |
| 21             | 3.80   | 3.20                                                      | 3.05  | 2.00  | 1.30                 | 6.00  | 5.25   | 29.20    | 3.80                     | 2.00  | 2.45  | 2.00  |         |        |
| 22             | 4.55   | 3.20                                                      | 3.05  | 2.00  | 1.30                 | 3.80  | 4.55   | 239.25   | 3.80                     | 2.00  | 2.30  | 2.00  |         |        |
| 23             | 3.80   | 3.05                                                      | 2.90  | 2.30  | 1.30                 | 3.35  | 4.25   | 132.60   | 3.80                     | 2.00  | 2.30  | 2.00  |         |        |
| 24             | 3.80   | 3.05                                                      | 2.90  | 2.45  | 1.20                 | 2.75  | 3.80   | 37.65    | 3.80                     | 2.00  | 2.30  | 2.00  |         |        |
| 25             | 3.80   | 2.90                                                      | 2.90  | 2.30  | 1.20                 | 2.75  | 3.35   | 18.15    | 3.50                     | 2.00  | 2.30  | 1.90  |         |        |
| 26             | 3.65   | 2.75                                                      | 2.90  | 2.15  | 1.20                 | 2.75  | 3.50   | 10.50    | 2.90                     | 2.00  | 2.30  | 1.90  |         |        |
| 27             | 3.50   | 2.60                                                      | 2.45  | 2.00  | 1.40                 | 2.60  | 4.10   | 8.25     | 2.75                     | 1.90  | 2.15  | 1.90  |         |        |
| 28             | 3.80   | 2.60                                                      | 1.10  | 2.00  | 1.30                 | 2.75  | 3.80   | 8.75     | 2.60                     | 1.80  | 2.15  | 1.90  |         |        |
| 29             | 3.65   | 2.60                                                      | 1.00  | 2.00  | 1.90                 | 3.05  | 3.65   | 11.25    | 2.45                     | 1.70  |       | 1.80  |         |        |
| 30             | 3.50   | 2.75                                                      | 1.00  | 2.00  | 1.20                 | 3.05  | 3.50   | 51.00    | 2.45                     | 1.80  |       | 1.90  |         |        |
| 31             |        | 3.05                                                      |       | 2.15  | 1.20                 |       | 3.20   |          | 2.45                     | 1.60  |       | 1.80  |         |        |
| Total          | 147.90 | 111.50                                                    | 73.45 | 50.50 | 47.90                | 80.25 | 109.90 | 623.50   | 390.20                   | 66.65 | 59.15 | 64.55 | 1825.45 | CMSDAY |
| Mean           | 4.93   | 3.60                                                      | 2.45  | 1.63  | 1.55                 | 2.67  | 3.55   | 20.78    | 12.59                    | 2.15  | 2.11  | 2.08  | 5.00    | CMS    |
| Max            | 24.80  | 4.70                                                      | 3.20  | 2.45  | 2.00                 | 9.75  | 5.25   | 239.25   | 69.00                    | 2.60  | 2.90  | 2.30  | 239.25  | CMS    |
| Min            | 3.50   | 2.60                                                      | 1.00  | 0.00  | 1.20                 | 1.10  | 2.60   | 2.00     | 2.45                     | 1.60  | 1.40  | 1.80  | 0.00    | CMS    |
| Runoff         | 12.78  | 9.63                                                      | 6.35  | 4.36  | 4.14                 | 6.93  | 9.50   | 53.87    | 33.71                    | 5.76  | 5.11  | 5.58  | 157.72  | MCM    |
| Momentary Peak | 294.60 | CMS. at 22.36 m. (MSL.) at 12.00 Hours , on Nov 22 , 2013 |       |       |                      |       |        |          |                          |       |       |       |         |        |
| Runoff Yield   | 47.54  | Liters/Second/Square KM.                                  |       |       | Momentary Peak Yield |       |        | 2800.646 | Liters/Second/Square KM. |       |       |       |         |        |

**Location : on left bank near the Land Cooperation Office.**

| Date                             | Apr  | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|--------|
| 1                                | 7.75 | 7.84  | 7.73                                            | 8.32  | 10.16 | 8.05  | 9.04  | 8.78  | 9.84 | 7.95 | 7.83 | 7.68 |        |
| 2                                | 7.75 | 7.83  | 7.75                                            | 8.24  | 11.63 | 9.06  | 8.91  | 8.67  | 9.54 | 8.00 | 7.78 | 7.68 |        |
| 3                                | 7.85 | 7.87  | 7.74                                            | 8.19  | 9.85  | 9.00  | 8.61  | 8.56  | 9.17 | 8.00 | 7.78 | 7.67 |        |
| 4                                | 7.86 | 7.88  | 7.73                                            | 8.19  | 8.82  | 8.70  | 8.53  | 8.33  | 8.88 | 7.95 | 7.77 | 7.84 |        |
| 5                                | 7.83 | 7.86  | 7.75                                            | 8.16  | 8.46  | 8.76  | 8.39  | 8.30  | 8.84 | 7.90 | 7.77 | 7.84 |        |
| 6                                | 7.80 | 7.91  | 7.77                                            | 8.03  | 8.38  | 8.44  | 8.70  | 8.27  | 8.83 | 8.04 | 7.77 | 7.68 |        |
| 7                                | 7.81 | 8.08  | 7.94                                            | 7.88  | 8.36  | 8.46  | 9.51  | 8.27  | 8.72 | 8.00 | 7.77 | 7.68 |        |
| 8                                | 7.85 | 8.18  | 7.84                                            | 7.89  | 8.34  | 8.46  | 12.29 | 8.25  | 8.55 | 7.99 | 7.77 | 7.68 |        |
| 9                                | 7.83 | 8.00  | 7.81                                            | 7.90  | 8.48  | 8.37  | 10.35 | 8.42  | 8.54 | 8.04 | 7.77 | 7.68 |        |
| 10                               | 7.79 | 8.02  | 7.80                                            | 7.96  | 8.90  | 8.29  | 9.70  | 8.12  | 8.56 | 7.99 | 7.76 | 7.67 |        |
| 11                               | 7.81 | 8.03  | 7.80                                            | 8.38  | 8.55  | 8.15  | 9.59  | 8.01  | 8.44 | 7.95 | 7.76 | 7.66 |        |
| 12                               | 7.80 | 8.04  | 7.81                                            | 8.41  | 8.64  | 8.37  | 9.12  | 7.96  | 8.30 | 7.91 | 7.75 | 7.66 |        |
| 13                               | 7.82 | 8.02  | 7.83                                            | 8.59  | 8.59  | 9.10  | 8.93  | 7.95  | 8.34 | 7.88 | 7.75 | 7.66 |        |
| 14                               | 7.87 | 7.98  | 7.84                                            | 8.65  | 9.00  | 8.71  | 8.66  | 7.92  | 8.40 | 7.88 | 7.75 | 7.65 |        |
| 15                               | 8.18 | 7.94  | 7.86                                            | 8.47  | 8.64  | 8.50  | 8.52  | 7.95  | 8.32 | 7.94 | 7.75 | 7.64 |        |
| 16                               | 8.75 | 7.98  | 8.06                                            | 8.76  | 8.20  | 8.12  | 8.53  | 8.06  | 8.32 | 7.94 | 7.75 | 7.65 |        |
| 17                               | 8.87 | 7.90  | 8.12                                            | 8.80  | 8.18  | 8.05  | 8.49  | 11.10 | 8.34 | 7.92 | 7.76 | 7.65 |        |
| 18                               | 8.44 | 7.90  | 8.12                                            | 8.71  | 8.16  | 8.06  | 8.48  | 11.90 | 8.42 | 7.89 | 7.78 | 7.64 |        |
| 19                               | 8.27 | 7.94  | 8.10                                            | 9.44  | 8.15  | 9.01  | 8.59  | 11.85 | 8.40 | 7.86 | 7.76 | 7.64 |        |
| 20                               | 7.98 | 7.73  | 8.09                                            | 10.42 | 8.14  | 9.33  | 8.74  | 9.87  | 8.34 | 7.86 | 7.75 | 7.64 |        |
| 21                               | 7.90 | 7.80  | 8.16                                            | 11.36 | 8.13  | 11.36 | 8.48  | 8.83  | 8.25 | 7.89 | 7.73 | 7.64 |        |
| 22                               | 7.89 | 7.77  | 8.26                                            | 11.53 | 8.12  | 13.06 | 8.54  | 8.86  | 8.22 | 7.92 | 7.71 | 7.65 |        |
| 23                               | 7.88 | 7.71  | 8.29                                            | 12.18 | 8.14  | 13.86 | 8.99  | 12.33 | 8.19 | 7.89 | 7.70 | 7.65 |        |
| 24                               | 7.85 | 7.70  | 8.43                                            | 11.05 | 8.16  | 13.25 | 8.52  | 17.40 | 8.12 | 7.85 | 7.70 | 7.65 |        |
| 25                               | 7.92 | 7.73  | 8.37                                            | 10.22 | 8.16  | 13.01 | 8.42  | 16.07 | 8.05 | 7.82 | 7.72 | 7.75 |        |
| 26                               | 7.88 | 7.75  | 8.27                                            | 9.52  | 8.16  | 11.97 | 8.38  | 13.74 | 8.04 | 7.82 | 7.71 | 7.76 |        |
| 27                               | 7.80 | 7.74  | 8.18                                            | 8.79  | 8.15  | 10.49 | 8.91  | 11.07 | 8.04 | 7.80 | 7.70 | 7.76 |        |
| 28                               | 7.95 | 7.74  | 8.01                                            | 8.52  | 8.15  | 9.24  | 9.42  | 9.76  | 8.03 | 7.90 | 7.70 | 7.65 |        |
| 29                               | 7.90 | 7.73  | 7.95                                            | 8.53  | 8.15  | 9.13  | 9.93  | 9.99  | 7.99 | 7.89 |      | 8.07 |        |
| 30                               | 7.90 | 7.75  | 8.07                                            | 8.39  | 8.12  | 9.09  | 9.64  | 11.65 | 7.94 | 7.88 |      | 8.08 |        |
| 31                               |      | 7.73  |                                                 | 8.36  | 8.05  |       | 8.85  |       | 7.92 | 7.87 |      | 7.75 |        |
| Mean                             | 7.96 | 7.87  | 7.98                                            | 8.96  | 8.55  | 9.51  | 9.02  | 9.87  | 8.45 | 7.92 | 7.75 | 7.71 |        |
| Max                              | 8.87 | 8.18  | 8.43                                            | 12.18 | 11.63 | 13.86 | 12.29 | 17.40 | 9.84 | 8.04 | 7.83 | 8.08 | 17.40  |
| Min                              | 7.75 | 7.70  | 7.73                                            | 7.88  | 8.05  | 8.05  | 8.38  | 7.92  | 7.92 | 7.80 | 7.70 | 7.64 | 7.64   |
| Annual Max Momentary Gage Height |      | 17.64 | m. (MSL.) , at 05.00 Hours , on Nov 24 , 2013   |       |       |       |       |       |      |      |      |      |        |
| Zero Gage at Bottom Elevation    |      | 0.00  | m. (MSL.) , River Bed 6.16 m. (MSL.)            |       |       |       |       |       |      |      |      |      |        |
| Left Bank Elevation              |      | 19.25 | m. (MSL.) ,                                     |       |       |       |       |       |      |      |      |      |        |
| Right Bank Elevation             |      | 18.88 | m. (MSL.) , Drainage Area 946 Square Kilometers |       |       |       |       |       |      |      |      |      |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                       | Jun    | Jul    | Aug                  | Sep     | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|--------|-----------------------------------------------------------|--------|--------|----------------------|---------|--------|---------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 1.50   | 2.40                                                      | 1.30   | 8.80   | 50.60                | 4.75    | 21.00  | 15.70   | 41.20                    | 3.50  | 2.30  | 0.80  |         |        |
| 2              | 1.50   | 2.30                                                      | 1.50   | 7.60   | 80.75                | 21.50   | 18.20  | 14.05   | 33.50                    | 4.00  | 1.80  | 0.80  |         |        |
| 3              | 2.50   | 2.70                                                      | 1.40   | 6.85   | 41.50                | 20.00   | 13.15  | 12.40   | 24.25                    | 4.00  | 1.80  | 0.70  |         |        |
| 4              | 2.60   | 2.80                                                      | 1.30   | 6.85   | 16.40                | 14.50   | 11.95  | 8.95    | 17.60                    | 3.50  | 1.70  | 2.40  |         |        |
| 5              | 2.30   | 2.60                                                      | 1.50   | 6.40   | 10.90                | 15.40   | 9.85   | 8.50    | 16.80                    | 3.00  | 1.70  | 2.40  |         |        |
| 6              | 2.00   | 3.10                                                      | 1.70   | 4.45   | 9.70                 | 10.60   | 14.50  | 8.05    | 16.60                    | 4.60  | 1.70  | 0.80  |         |        |
| 7              | 2.10   | 5.20                                                      | 3.40   | 2.80   | 9.40                 | 10.90   | 32.75  | 8.05    | 14.80                    | 4.00  | 1.70  | 0.80  |         |        |
| 8              | 2.50   | 6.70                                                      | 2.40   | 2.90   | 9.10                 | 10.90   | 99.70  | 7.75    | 12.25                    | 3.90  | 1.70  | 0.80  |         |        |
| 9              | 2.30   | 4.00                                                      | 2.10   | 3.00   | 11.20                | 9.55    | 52.50  | 10.30   | 12.10                    | 4.60  | 1.70  | 0.80  |         |        |
| 10             | 1.90   | 4.30                                                      | 2.00   | 3.60   | 18.00                | 8.35    | 37.50  | 5.80    | 12.40                    | 3.90  | 1.60  | 0.70  |         |        |
| 11             | 2.10   | 4.45                                                      | 2.00   | 9.70   | 12.25                | 6.25    | 34.75  | 4.15    | 10.60                    | 3.50  | 1.60  | 0.60  |         |        |
| 12             | 2.00   | 4.60                                                      | 2.10   | 10.15  | 13.60                | 9.55    | 23.00  | 3.60    | 8.50                     | 3.10  | 1.50  | 0.60  |         |        |
| 13             | 2.20   | 4.30                                                      | 2.30   | 12.85  | 12.85                | 22.50   | 18.60  | 3.50    | 9.10                     | 2.80  | 1.50  | 0.60  |         |        |
| 14             | 2.70   | 3.80                                                      | 2.40   | 13.75  | 20.00                | 14.65   | 13.90  | 3.20    | 10.00                    | 2.80  | 1.50  | 0.50  |         |        |
| 15             | 6.70   | 3.40                                                      | 2.60   | 11.05  | 13.60                | 11.50   | 11.80  | 3.50    | 8.80                     | 3.40  | 1.50  | 0.40  |         |        |
| 16             | 15.25  | 3.80                                                      | 4.90   | 15.40  | 7.00                 | 5.80    | 11.95  | 4.90    | 8.80                     | 3.40  | 1.50  | 0.50  |         |        |
| 17             | 17.40  | 3.00                                                      | 5.80   | 16.00  | 6.70                 | 4.75    | 11.35  | 68.75   | 9.10                     | 3.20  | 1.60  | 0.50  |         |        |
| 18             | 10.60  | 3.00                                                      | 5.80   | 14.65  | 6.40                 | 4.90    | 11.20  | 88.00   | 10.30                    | 2.90  | 1.80  | 0.40  |         |        |
| 19             | 8.05   | 3.40                                                      | 5.50   | 31.00  | 6.25                 | 20.25   | 12.85  | 86.50   | 10.00                    | 2.60  | 1.60  | 0.40  |         |        |
| 20             | 3.80   | 1.30                                                      | 5.35   | 53.45  | 6.10                 | 28.25   | 15.10  | 42.10   | 9.10                     | 2.60  | 1.50  | 0.40  |         |        |
| 21             | 3.00   | 2.00                                                      | 6.40   | 74.60  | 5.95                 | 74.60   | 11.20  | 16.60   | 7.75                     | 2.90  | 1.30  | 0.40  |         |        |
| 22             | 2.90   | 1.70                                                      | 7.90   | 78.42  | 5.80                 | 126.25  | 12.10  | 17.20   | 7.30                     | 3.20  | 1.10  | 0.50  |         |        |
| 23             | 2.80   | 1.10                                                      | 8.35   | 96.40  | 6.10                 | 161.00  | 19.80  | 100.90  | 6.85                     | 2.90  | 1.00  | 0.50  |         |        |
| 24             | 2.50   | 1.00                                                      | 10.45  | 67.63  | 6.40                 | 133.63  | 11.80  | 476.00  | 5.80                     | 2.50  | 1.00  | 0.50  |         |        |
| 25             | 3.20   | 1.30                                                      | 9.55   | 51.20  | 6.40                 | 124.38  | 10.30  | 313.65  | 4.75                     | 2.20  | 1.20  | 1.50  |         |        |
| 26             | 2.80   | 1.50                                                      | 8.05   | 33.00  | 6.40                 | 90.10   | 9.70   | 155.30  | 4.60                     | 2.20  | 1.10  | 1.60  |         |        |
| 27             | 2.00   | 1.40                                                      | 6.70   | 15.85  | 6.25                 | 55.03   | 18.20  | 68.07   | 4.60                     | 2.00  | 1.00  | 1.60  |         |        |
| 28             | 3.50   | 1.40                                                      | 4.15   | 11.80  | 6.25                 | 26.00   | 30.50  | 39.00   | 4.45                     | 3.00  | 1.00  | 0.50  |         |        |
| 29             | 3.00   | 1.30                                                      | 3.50   | 11.95  | 6.25                 | 23.25   | 43.90  | 45.70   | 3.90                     | 2.90  |       | 5.05  |         |        |
| 30             | 3.00   | 1.50                                                      | 5.05   | 9.85   | 5.80                 | 22.25   | 36.00  | 81.25   | 3.40                     | 2.80  |       | 5.20  |         |        |
| 31             |        | 1.30                                                      |        | 9.40   | 4.75                 |         | 17.00  |         | 3.20                     | 2.70  |       | 1.50  |         |        |
| Total          | 120.70 | 86.65                                                     | 127.45 | 701.35 | 428.65               | 1091.34 | 696.10 | 1721.42 | 352.40                   | 98.60 | 42.00 | 34.75 | 5501.41 | CMSDAY |
| Mean           | 4.02   | 2.80                                                      | 4.25   | 22.62  | 13.83                | 36.38   | 22.45  | 57.38   | 11.37                    | 3.18  | 1.50  | 1.12  | 15.07   | CMS    |
| Max            | 17.40  | 6.70                                                      | 10.45  | 96.40  | 80.75                | 161.00  | 99.70  | 476.00  | 41.20                    | 4.60  | 2.30  | 5.20  | 476.00  | CMS    |
| Min            | 1.50   | 1.00                                                      | 1.30   | 2.80   | 4.75                 | 4.75    | 9.70   | 3.20    | 3.20                     | 2.00  | 1.00  | 0.40  | 0.40    | CMS    |
| Runoff         | 10.43  | 7.49                                                      | 11.01  | 60.60  | 37.04                | 94.29   | 60.14  | 148.73  | 30.45                    | 8.52  | 3.63  | 3.00  | 475.32  | MCM    |
| Momentary Peak | 514.00 | CMS. at 17.64 m. (MSL.) at 05.00 Hours , on Nov 24 , 2013 |        |        |                      |         |        |         |                          |       |       |       |         |        |
| Runoff Yield   | 15.94  | Liters/Second/Square KM.                                  |        |        | Momentary Peak Yield |         |        | 543.536 | Liters/Second/Square KM. |       |       |       |         |        |

## WATER YEAR : 2013

## SOUTHERN PENINSULA EAST COAST

### Khlong Ban Tan at Ban Wang Kong , Nakhon Si Thammarat (X.70

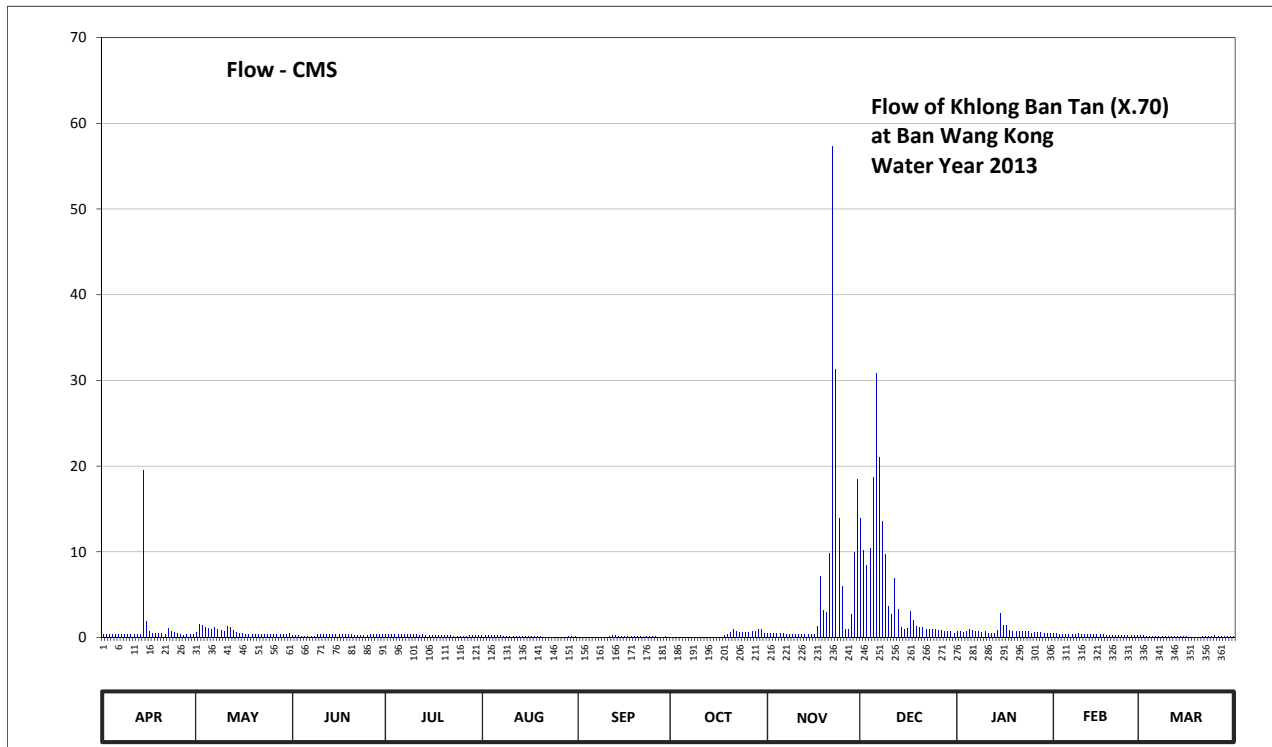
Lat 08 - 25 - 34 N      Long 99 - 51 - 47 E

**Location : on left bank upstream side of the bridge**

|                                         |                                                                                           |           |               |        |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Wang Kong | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Nakhon Si Thammarat |
| <b>Drainge Area</b>                     | 36                                                                                        | sq.km.    |               |        |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                     |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                     |
| <b>Location BM</b>                      | On left bank about 10 meters from the top staff gage.                                     |           |               |        | <b>Elevation</b> | +21.985 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |        |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |        |                  |                     |
| <b>Period of Available Gage Records</b> | 1967 to date                                                                              |           |               |        |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                     |
| <b>Period of Rating</b>                 | 1967 - 1971 , 1980 , 1989 to date                                                         |           |               |        |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                     |
| <b>Rated by Current Meter</b>           | 1967 - 1971 , 1980 , 1989 to date                                                         |           |               |        |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |        |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                     |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 24 discharge measurements made in 2013. |           |               |        |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 15.75 | 15.83 | 15.71                                          | 15.78 | 15.71 | 15.58 | 15.62 | 15.80 | 17.13 | 15.84 | 15.79 | 15.70 |        |
|                                  | 2  | 15.75 | 16.01 | 15.70                                          | 15.76 | 15.70 | 15.60 | 15.62 | 15.80 | 16.86 | 15.84 | 15.79 | 15.70 |        |
|                                  | 3  | 15.75 | 15.99 | 15.70                                          | 15.76 | 15.70 | 15.60 | 15.60 | 15.80 | 16.72 | 15.82 | 15.78 | 15.69 |        |
|                                  | 4  | 15.75 | 15.94 | 15.68                                          | 15.76 | 15.70 | 15.60 | 15.60 | 15.80 | 16.88 | 15.86 | 15.78 | 15.69 |        |
|                                  | 5  | 15.75 | 15.92 | 15.68                                          | 15.74 | 15.72 | 15.60 | 15.60 | 15.80 | 17.97 | 15.90 | 15.76 | 15.69 |        |
|                                  | 6  | 15.74 | 15.90 | 15.69                                          | 15.74 | 15.72 | 15.60 | 15.60 | 15.80 | 18.80 | 15.88 | 15.76 | 15.69 |        |
|                                  | 7  | 15.74 | 15.94 | 15.69                                          | 15.74 | 15.70 | 15.62 | 15.60 | 15.78 | 18.23 | 15.86 | 15.76 | 15.69 |        |
|                                  | 8  | 15.74 | 15.90 | 15.69                                          | 15.75 | 15.68 | 15.62 | 15.61 | 15.78 | 17.11 | 15.84 | 15.75 | 15.69 |        |
|                                  | 9  | 15.74 | 15.87 | 15.74                                          | 15.75 | 15.68 | 15.64 | 15.61 | 15.78 | 16.82 | 15.82 | 15.79 | 15.68 |        |
|                                  | 10 | 15.74 | 15.85 | 15.74                                          | 15.76 | 15.68 | 15.64 | 15.60 | 15.77 | 16.29 | 15.86 | 15.75 | 15.67 |        |
|                                  | 11 | 15.74 | 15.96 | 15.74                                          | 15.76 | 15.68 | 15.68 | 15.60 | 15.77 | 16.16 | 15.80 | 15.74 | 15.67 |        |
|                                  | 12 | 15.74 | 15.94 | 15.75                                          | 15.72 | 15.68 | 15.70 | 15.60 | 15.77 | 16.59 | 15.80 | 15.74 | 15.67 |        |
|                                  | 13 | 15.74 | 15.88 | 15.75                                          | 15.75 | 15.68 | 15.70 | 15.60 | 15.75 | 16.24 | 15.80 | 15.74 | 15.67 |        |
|                                  | 14 | 18.07 | 15.82 | 15.76                                          | 15.72 | 15.67 | 15.69 | 15.62 | 15.75 | 15.94 | 15.87 | 15.74 | 15.67 |        |
|                                  | 15 | 16.05 | 15.80 | 15.76                                          | 15.70 | 15.67 | 15.68 | 15.62 | 15.75 | 15.91 | 16.18 | 15.74 | 15.67 |        |
|                                  | 16 | 15.86 | 15.80 | 15.76                                          | 15.70 | 15.65 | 15.66 | 15.62 | 15.77 | 15.93 | 16.00 | 15.74 | 15.65 |        |
|                                  | 17 | 15.80 | 15.78 | 15.75                                          | 15.70 | 15.65 | 15.66 | 15.64 | 15.97 | 16.21 | 15.98 | 15.78 | 15.63 |        |
|                                  | 18 | 15.80 | 15.78 | 15.75                                          | 15.70 | 15.65 | 15.65 | 15.70 | 16.61 | 16.07 | 15.88 | 15.70 | 15.62 |        |
|                                  | 19 | 15.80 | 15.78 | 15.75                                          | 15.70 | 15.65 | 15.65 | 15.77 | 16.23 | 15.97 | 15.86 | 15.70 | 15.63 |        |
|                                  | 20 | 15.80 | 15.76 | 15.75                                          | 15.70 | 15.65 | 15.67 | 15.83 | 16.19 | 15.95 | 15.85 | 15.70 | 15.64 |        |
|                                  | 21 | 15.78 | 15.78 | 15.72                                          | 15.70 | 15.62 | 15.65 | 15.91 | 16.83 | 15.94 | 15.85 | 15.70 | 15.65 |        |
|                                  | 22 | 15.92 | 15.77 | 15.72                                          | 15.70 | 15.62 | 15.65 | 15.86 | 19.71 | 15.91 | 15.84 | 15.70 | 15.67 |        |
|                                  | 23 | 15.86 | 15.76 | 15.70                                          | 15.68 | 15.62 | 15.65 | 15.83 | 18.82 | 15.90 | 15.84 | 15.70 | 15.68 |        |
|                                  | 24 | 15.82 | 15.76 | 15.70                                          | 15.68 | 15.62 | 15.65 | 15.82 | 17.13 | 15.90 | 15.84 | 15.70 | 15.69 |        |
|                                  | 25 | 15.80 | 15.75 | 15.70                                          | 15.68 | 15.60 | 15.65 | 15.82 | 16.52 | 15.90 | 15.80 | 15.70 | 15.70 |        |
|                                  | 26 | 15.78 | 15.75 | 15.77                                          | 15.68 | 15.60 | 15.65 | 15.82 | 15.91 | 15.88 | 15.82 | 15.70 | 15.69 |        |
|                                  | 27 | 15.70 | 15.75 | 15.75                                          | 15.68 | 15.60 | 15.64 | 15.86 | 15.91 | 15.88 | 15.82 | 15.70 | 15.69 |        |
|                                  | 28 | 15.78 | 15.75 | 15.76                                          | 15.70 | 15.60 | 15.64 | 15.86 | 16.16 | 15.86 | 15.82 | 15.70 | 15.68 |        |
|                                  | 29 | 15.78 | 15.76 | 15.75                                          | 15.70 | 15.68 | 15.66 | 15.90 | 16.84 | 15.85 | 15.80 |       | 15.68 |        |
|                                  | 30 | 15.78 | 15.77 | 15.75                                          | 15.70 | 15.68 | 15.64 | 15.89 | 17.93 | 15.84 | 15.80 |       | 15.67 |        |
|                                  | 31 |       | 15.79 |                                                | 15.73 | 15.68 |       | 15.81 |       | 15.80 | 15.80 |       | 15.67 |        |
| Mean                             |    | 15.86 | 15.83 | 15.73                                          | 15.72 | 15.66 | 15.64 | 15.71 | 16.31 | 16.40 | 15.86 | 15.74 | 15.67 |        |
| Max                              |    | 18.07 | 16.01 | 15.77                                          | 15.78 | 15.72 | 15.70 | 15.91 | 19.71 | 18.80 | 16.18 | 15.79 | 15.70 | 19.71  |
| Min                              |    | 15.70 | 15.75 | 15.68                                          | 15.68 | 15.60 | 15.58 | 15.60 | 15.75 | 15.80 | 15.80 | 15.70 | 15.62 | 15.58  |
| Annual Max Momentary Gage Height |    |       | 20.61 | m. (MSL.) , at 08.00 Hours , on Nov 22 , 2013  |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 0.00  | m. (MSL.) , River Bed 15.37 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 22.24 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 22.20 | m. (MSL.) , Drainage Area 36 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



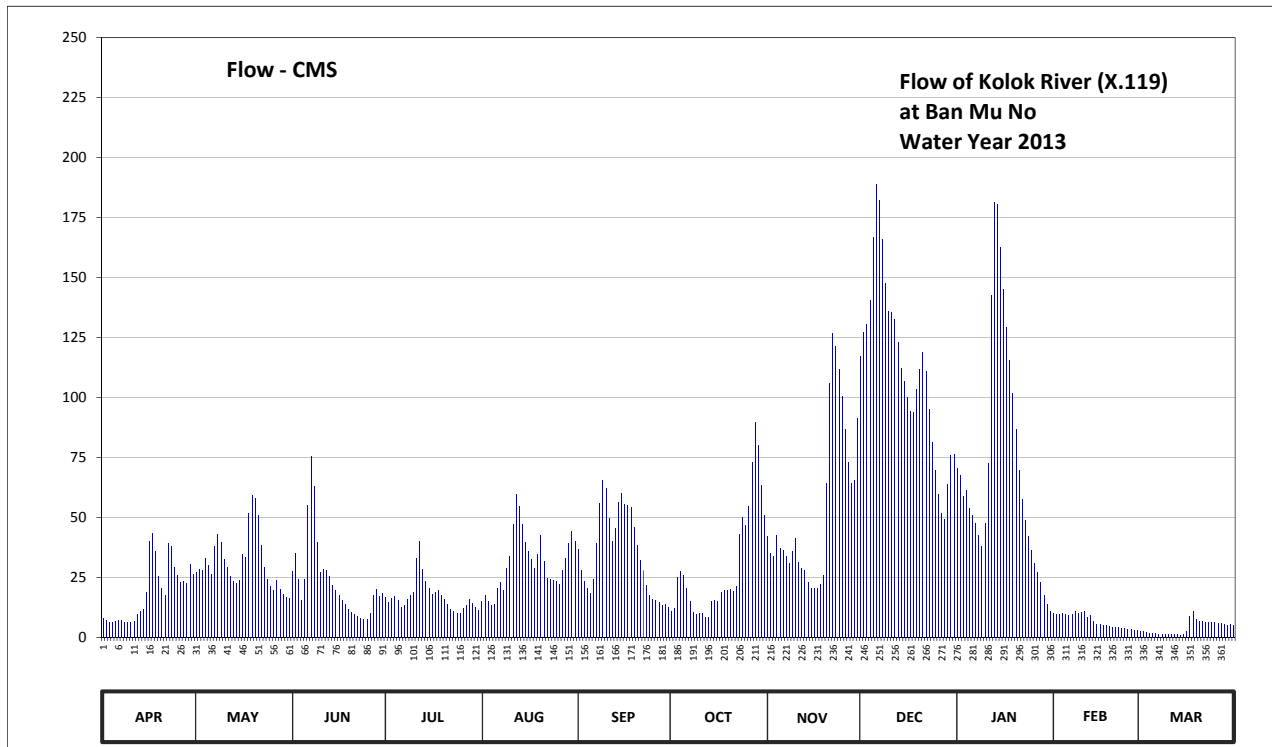
**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun  | Jul                  | Aug  | Sep      | Oct                      | Nov    | Dec    | Jan   | Feb  | Mar  | Annual        |
|----------------|-----------------------------------------------------------------|--------------------------|------|----------------------|------|----------|--------------------------|--------|--------|-------|------|------|---------------|
| 1              | 0.37                                                            | 0.65                     | 0.27 | 0.45                 | 0.27 | 0.00     | 0.05                     | 0.50   | 13.95  | 0.70  | 0.47 | 0.25 |               |
| 2              | 0.37                                                            | 1.58                     | 0.25 | 0.40                 | 0.25 | 0.00     | 0.05                     | 0.50   | 10.25  | 0.70  | 0.47 | 0.25 |               |
| 3              | 0.37                                                            | 1.45                     | 0.25 | 0.40                 | 0.25 | 0.00     | 0.00                     | 0.50   | 8.50   | 0.60  | 0.45 | 0.22 |               |
| 4              | 0.37                                                            | 1.20                     | 0.20 | 0.40                 | 0.25 | 0.00     | 0.00                     | 0.50   | 10.50  | 0.80  | 0.45 | 0.22 |               |
| 5              | 0.37                                                            | 1.10                     | 0.20 | 0.35                 | 0.30 | 0.00     | 0.00                     | 0.50   | 18.77  | 1.00  | 0.40 | 0.22 |               |
| 6              | 0.35                                                            | 1.00                     | 0.22 | 0.35                 | 0.30 | 0.00     | 0.00                     | 0.50   | 30.80  | 0.90  | 0.40 | 0.22 |               |
| 7              | 0.35                                                            | 1.20                     | 0.22 | 0.35                 | 0.25 | 0.05     | 0.00                     | 0.45   | 21.09  | 0.80  | 0.40 | 0.22 |               |
| 8              | 0.35                                                            | 1.00                     | 0.22 | 0.37                 | 0.20 | 0.05     | 0.02                     | 0.45   | 13.65  | 0.70  | 0.37 | 0.22 |               |
| 9              | 0.35                                                            | 0.85                     | 0.35 | 0.37                 | 0.20 | 0.10     | 0.02                     | 0.45   | 9.75   | 0.60  | 0.47 | 0.20 |               |
| 10             | 0.35                                                            | 0.75                     | 0.35 | 0.40                 | 0.20 | 0.10     | 0.00                     | 0.43   | 3.68   | 0.80  | 0.37 | 0.17 |               |
| 11             | 0.35                                                            | 1.30                     | 0.35 | 0.40                 | 0.20 | 0.20     | 0.00                     | 0.43   | 2.70   | 0.50  | 0.35 | 0.17 |               |
| 12             | 0.35                                                            | 1.20                     | 0.37 | 0.30                 | 0.20 | 0.25     | 0.00                     | 0.43   | 6.88   | 0.50  | 0.35 | 0.17 |               |
| 13             | 0.35                                                            | 0.90                     | 0.37 | 0.37                 | 0.20 | 0.25     | 0.00                     | 0.37   | 3.30   | 0.50  | 0.35 | 0.17 |               |
| 14             | 19.59                                                           | 0.60                     | 0.40 | 0.30                 | 0.17 | 0.22     | 0.05                     | 0.37   | 1.20   | 0.85  | 0.35 | 0.17 |               |
| 15             | 1.87                                                            | 0.50                     | 0.40 | 0.25                 | 0.17 | 0.20     | 0.05                     | 0.37   | 1.05   | 2.85  | 0.35 | 0.17 |               |
| 16             | 0.80                                                            | 0.50                     | 0.40 | 0.25                 | 0.12 | 0.15     | 0.05                     | 0.43   | 1.15   | 1.50  | 0.35 | 0.12 |               |
| 17             | 0.50                                                            | 0.45                     | 0.37 | 0.25                 | 0.12 | 0.15     | 0.10                     | 1.35   | 3.07   | 1.40  | 0.45 | 0.07 |               |
| 18             | 0.50                                                            | 0.45                     | 0.37 | 0.25                 | 0.12 | 0.12     | 0.25                     | 7.13   | 2.02   | 0.90  | 0.25 | 0.05 |               |
| 19             | 0.50                                                            | 0.45                     | 0.37 | 0.25                 | 0.12 | 0.12     | 0.43                     | 3.22   | 1.35   | 0.80  | 0.25 | 0.07 |               |
| 20             | 0.50                                                            | 0.40                     | 0.37 | 0.25                 | 0.12 | 0.17     | 0.65                     | 2.93   | 1.25   | 0.75  | 0.25 | 0.10 |               |
| 21             | 0.45                                                            | 0.45                     | 0.30 | 0.25                 | 0.05 | 0.12     | 1.05                     | 9.88   | 1.20   | 0.75  | 0.25 | 0.12 |               |
| 22             | 1.10                                                            | 0.43                     | 0.30 | 0.25                 | 0.05 | 0.12     | 0.80                     | 57.35  | 1.05   | 0.70  | 0.25 | 0.17 |               |
| 23             | 0.80                                                            | 0.40                     | 0.25 | 0.20                 | 0.05 | 0.12     | 0.65                     | 31.27  | 1.00   | 0.70  | 0.25 | 0.20 |               |
| 24             | 0.60                                                            | 0.40                     | 0.25 | 0.20                 | 0.05 | 0.12     | 0.60                     | 13.95  | 1.00   | 0.70  | 0.25 | 0.22 |               |
| 25             | 0.50                                                            | 0.37                     | 0.25 | 0.20                 | 0.00 | 0.12     | 0.60                     | 6.00   | 1.00   | 0.50  | 0.25 | 0.25 |               |
| 26             | 0.45                                                            | 0.37                     | 0.43 | 0.20                 | 0.00 | 0.12     | 0.60                     | 1.05   | 0.90   | 0.60  | 0.25 | 0.22 |               |
| 27             | 0.25                                                            | 0.37                     | 0.37 | 0.20                 | 0.00 | 0.10     | 0.80                     | 1.05   | 0.90   | 0.60  | 0.25 | 0.22 |               |
| 28             | 0.45                                                            | 0.37                     | 0.40 | 0.25                 | 0.00 | 0.10     | 0.80                     | 2.70   | 0.80   | 0.60  | 0.25 | 0.20 |               |
| 29             | 0.45                                                            | 0.40                     | 0.37 | 0.25                 | 0.20 | 0.15     | 1.00                     | 10.00  | 0.75   | 0.50  |      | 0.20 |               |
| 30             | 0.45                                                            | 0.43                     | 0.37 | 0.25                 | 0.20 | 0.10     | 0.95                     | 18.48  | 0.70   | 0.50  |      | 0.17 |               |
| 31             |                                                                 | 0.47                     |      | 0.32                 | 0.20 |          | 0.55                     |        | 0.50   | 0.50  |      | 0.17 |               |
| Total          | 34.41                                                           | 21.99                    | 9.59 | 9.28                 | 4.81 | 3.30     | 10.12                    | 173.54 | 174.71 | 24.80 | 9.55 | 5.59 | 481.69 CMSDAY |
| Mean           | 1.15                                                            | 0.71                     | 0.32 | 0.30                 | 0.16 | 0.11     | 0.33                     | 5.78   | 5.64   | 0.80  | 0.34 | 0.18 | 1.32 CMS      |
| Max            | 19.59                                                           | 1.58                     | 0.43 | 0.45                 | 0.30 | 0.25     | 1.05                     | 57.35  | 30.80  | 2.85  | 0.47 | 0.25 | 57.35 CMS     |
| Min            | 0.25                                                            | 0.37                     | 0.20 | 0.20                 | 0.00 | 0.00     | 0.00                     | 0.37   | 0.50   | 0.50  | 0.25 | 0.05 | 0.00 CMS      |
| Runoff         | 2.97                                                            | 1.90                     | 0.83 | 0.80                 | 0.42 | 0.29     | 0.87                     | 14.99  | 15.10  | 2.14  | 0.83 | 0.48 | 41.62 MCM     |
| Momentary Peak | 97.00 CMS. at 20.61 m. (MSL.) at 08.00 Hours , on Nov 22 , 2013 |                          |      |                      |      |          |                          |        |        |       |      |      |               |
| Runoff Yield   | 36.18                                                           | Liters/Second/Square KM. |      | Momentary Peak Yield |      | 2658.991 | Liters/Second/Square KM. |        |        |       |      |      |               |

**Location :** on left bank at Ban Mu No.

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                              | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|--------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 1.39 | 2.41 | 2.42                                             | 1.89 | 1.80 | 2.76 | 1.60 | 2.94 | 4.87 | 3.77 | 1.56 | 0.88 |        |
| 2                                | 1.31 | 2.46 | 2.70                                             | 1.79 | 1.94 | 2.44 | 1.66 | 2.71 | 5.09 | 3.69 | 1.53 | 0.85 |        |
| 3                                | 1.25 | 2.45 | 2.26                                             | 1.87 | 1.81 | 2.23 | 2.30 | 2.67 | 5.17 | 3.46 | 1.52 | 0.82 |        |
| 4                                | 1.25 | 2.63 | 1.83                                             | 1.91 | 1.73 | 2.08 | 2.42 | 2.96 | 5.37 | 3.53 | 1.55 | 0.79 |        |
| 5                                | 1.30 | 2.52 | 2.27                                             | 1.83 | 1.75 | 1.97 | 2.36 | 2.78 | 5.89 | 3.31 | 1.52 | 0.76 |        |
| 6                                | 1.33 | 2.38 | 3.35                                             | 1.69 | 2.09 | 2.27 | 2.09 | 2.75 | 6.29 | 3.23 | 1.50 | 0.74 |        |
| 7                                | 1.33 | 2.81 | 3.89                                             | 1.72 | 2.21 | 2.84 | 1.81 | 2.67 | 6.17 | 3.13 | 1.51 | 0.72 |        |
| 8                                | 1.26 | 2.97 | 3.58                                             | 1.85 | 2.03 | 3.37 | 1.57 | 2.56 | 5.87 | 2.96 | 1.59 | 0.70 |        |
| 9                                | 1.23 | 2.86 | 2.86                                             | 1.94 | 2.48 | 3.64 | 1.51 | 2.74 | 5.51 | 2.80 | 1.56 | 0.68 |        |
| 10                               | 1.25 | 2.62 | 2.41                                             | 1.99 | 2.66 | 3.55 | 1.54 | 2.92 | 5.28 | 3.13 | 1.58 | 0.68 |        |
| 11                               | 1.28 | 2.50 | 2.46                                             | 2.63 | 3.11 | 3.19 | 1.54 | 2.57 | 5.27 | 3.82 | 1.61 | 0.68 |        |
| 12                               | 1.52 | 2.34 | 2.44                                             | 2.88 | 3.48 | 2.87 | 1.45 | 2.48 | 5.21 | 5.41 | 1.43 | 0.68 |        |
| 13                               | 1.59 | 2.22 | 2.33                                             | 2.46 | 3.34 | 3.05 | 1.43 | 2.45 | 5.00 | 6.15 | 1.49 | 0.66 |        |
| 14                               | 1.65 | 2.19 | 2.15                                             | 2.22 | 3.11 | 3.38 | 1.80 | 2.20 | 4.76 | 6.14 | 1.29 | 0.64 |        |
| 15                               | 1.99 | 2.25 | 2.03                                             | 2.09 | 2.86 | 3.49 | 1.83 | 2.08 | 4.64 | 5.81 | 1.18 | 0.67 |        |
| 16                               | 2.88 | 2.69 | 1.93                                             | 1.95 | 2.74 | 3.36 | 1.82 | 2.09 | 4.49 | 5.46 | 1.17 | 0.85 |        |
| 17                               | 2.98 | 2.65 | 1.84                                             | 2.00 | 2.62 | 3.35 | 1.99 | 2.08 | 4.36 | 5.14 | 1.14 | 1.47 |        |
| 18                               | 2.73 | 3.26 | 1.74                                             | 2.04 | 2.48 | 3.33 | 2.03 | 2.16 | 4.35 | 4.83 | 1.11 | 1.60 |        |
| 19                               | 2.34 | 3.47 | 1.65                                             | 1.94 | 2.69 | 3.07 | 2.03 | 2.35 | 4.56 | 4.53 | 1.08 | 1.38 |        |
| 20                               | 2.09 | 3.43 | 1.57                                             | 1.85 | 2.96 | 2.82 | 2.07 | 3.61 | 4.75 | 4.17 | 1.05 | 1.27 |        |
| 21                               | 1.94 | 3.23 | 1.51                                             | 1.74 | 2.59 | 2.61 | 2.02 | 4.62 | 4.91 | 3.74 | 1.04 | 1.28 |        |
| 22                               | 2.85 | 2.82 | 1.47                                             | 1.64 | 2.29 | 2.44 | 2.13 | 5.08 | 4.73 | 3.42 | 1.02 | 1.25 |        |
| 23                               | 2.81 | 2.49 | 1.41                                             | 1.59 | 2.26 | 2.14 | 2.97 | 4.96 | 4.38 | 3.17 | 1.01 | 1.23 |        |
| 24                               | 2.50 | 2.26 | 1.38                                             | 1.55 | 2.25 | 1.93 | 3.21 | 4.75 | 4.04 | 2.95 | 0.99 | 1.24 |        |
| 25                               | 2.35 | 2.13 | 1.38                                             | 1.54 | 2.23 | 1.86 | 3.10 | 4.50 | 3.74 | 2.75 | 0.97 | 1.24 |        |
| 26                               | 2.21 | 2.03 | 1.55                                             | 1.66 | 2.17 | 1.83 | 3.34 | 4.17 | 3.48 | 2.56 | 0.93 | 1.22 |        |
| 27                               | 2.22 | 2.24 | 1.94                                             | 1.73 | 2.45 | 1.78 | 3.83 | 3.83 | 3.25 | 2.41 | 0.90 | 1.19 |        |
| 28                               | 2.18 | 2.06 | 2.07                                             | 1.85 | 2.64 | 1.73 | 4.24 | 3.61 | 3.18 | 2.21 | 0.89 | 1.16 |        |
| 29                               | 2.54 | 1.96 | 1.92                                             | 1.77 | 2.85 | 1.74 | 4.00 | 3.64 | 3.60 | 1.94 |      | 1.13 |        |
| 30                               | 2.38 | 1.89 | 1.98                                             | 1.68 | 3.01 | 1.68 | 3.59 | 4.29 | 3.90 | 1.74 |      | 1.15 |        |
| 31                               |      | 1.88 |                                                  | 1.62 | 2.87 |      | 3.23 |      | 3.91 | 1.59 |      | 1.14 |        |
| Mean                             | 1.93 | 2.52 | 2.14                                             | 1.90 | 2.50 | 2.63 | 2.34 | 3.17 | 4.71 | 3.64 | 1.28 | 0.99 |        |
| Max                              | 2.98 | 3.47 | 3.89                                             | 2.88 | 3.48 | 3.64 | 4.24 | 5.08 | 6.29 | 6.15 | 1.61 | 1.60 | 6.29   |
| Min                              | 1.23 | 1.88 | 1.38                                             | 1.54 | 1.73 | 1.68 | 1.43 | 2.08 | 3.18 | 1.59 | 0.89 | 0.64 | 0.64   |
| Annual Max Momentary Gage Height | 6.32 |      | m. (MSL.) , at 16.00 Hours , on Dec 6 , 2013     |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (MSL.) , River Bed -1.42 m. (MSL.)            |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 7.30 |      | m. (MSL.) ,                                      |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 5.18 |      | m. (MSL.) , Drainage Area 1600 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



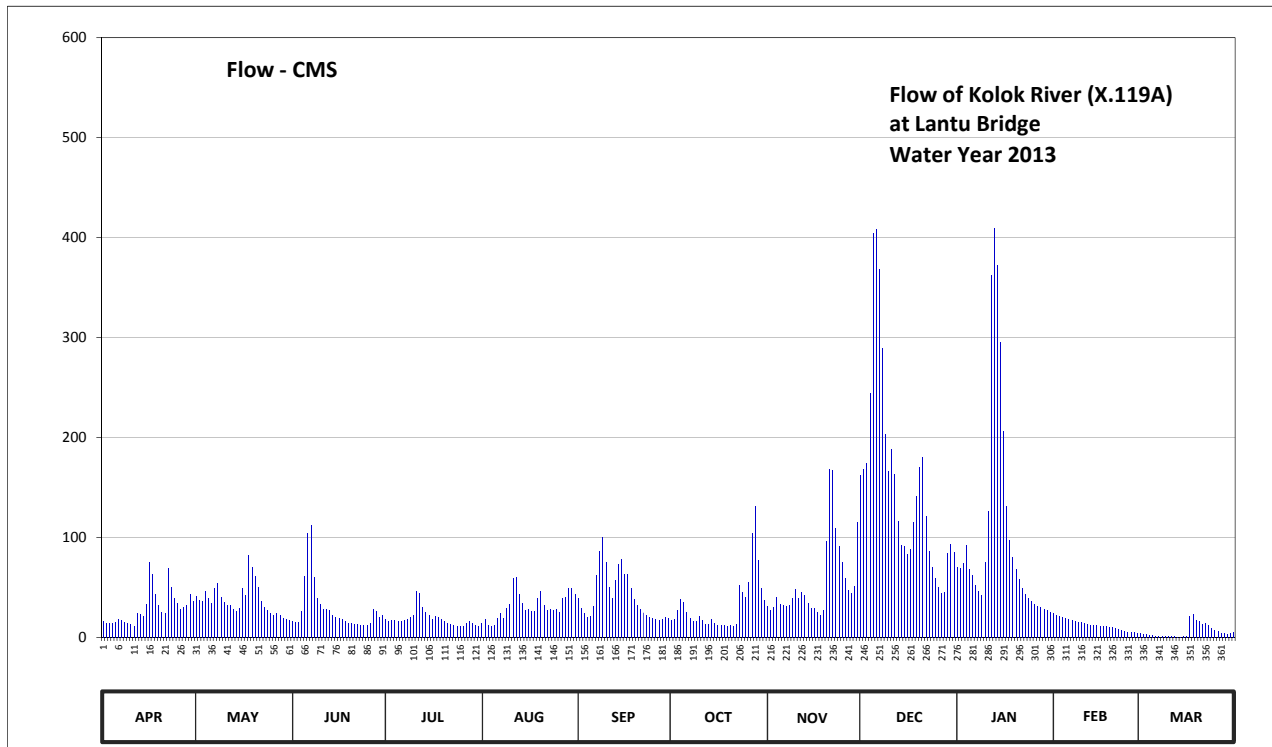
Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                      | Jun                                                     | Jul    | Aug    | Sep                  | Oct    | Nov     | Dec     | Jan     | Feb                      | Mar    | Annual   |        |
|----------------|--------|--------------------------|---------------------------------------------------------|--------|--------|----------------------|--------|---------|---------|---------|--------------------------|--------|----------|--------|
| 1              | 7.90   | 27.25                    | 27.50                                                   | 16.80  | 15.00  | 36.80                | 11.00  | 42.20   | 117.15  | 70.80   | 10.40                    | 2.80   |          |        |
| 2              | 7.10   | 28.50                    | 35.00                                                   | 14.80  | 17.80  | 28.00                | 12.20  | 35.30   | 127.05  | 67.60   | 9.95                     | 2.50   |          |        |
| 3              | 6.50   | 28.25                    | 24.20                                                   | 16.40  | 15.20  | 23.60                | 25.00  | 34.10   | 130.65  | 59.10   | 9.80                     | 2.20   |          |        |
| 4              | 6.50   | 32.90                    | 15.60                                                   | 17.20  | 13.60  | 20.60                | 27.50  | 42.80   | 140.50  | 61.55   | 10.25                    | 1.95   |          |        |
| 5              | 7.00   | 30.00                    | 24.40                                                   | 15.60  | 14.00  | 18.40                | 26.20  | 37.40   | 166.95  | 53.85   | 9.80                     | 1.80   |          |        |
| 6              | 7.30   | 26.60                    | 55.25                                                   | 12.80  | 20.80  | 24.40                | 20.80  | 36.50   | 188.95  | 51.05   | 9.50                     | 1.70   |          |        |
| 7              | 7.30   | 38.30                    | 75.60                                                   | 13.40  | 23.20  | 39.20                | 15.20  | 34.10   | 182.35  | 47.90   | 9.65                     | 1.60   |          |        |
| 8              | 6.60   | 43.10                    | 63.30                                                   | 16.00  | 19.60  | 55.95                | 10.55  | 31.00   | 165.85  | 42.80   | 10.85                    | 1.50   |          |        |
| 9              | 6.30   | 39.80                    | 39.80                                                   | 17.80  | 29.00  | 65.60                | 9.65   | 36.20   | 147.50  | 38.00   | 10.40                    | 1.40   |          |        |
| 10             | 6.50   | 32.60                    | 27.25                                                   | 18.80  | 33.80  | 62.25                | 10.10  | 41.60   | 136.00  | 47.90   | 10.70                    | 1.40   |          |        |
| 11             | 6.80   | 29.50                    | 28.50                                                   | 32.90  | 47.30  | 49.70                | 10.10  | 31.25   | 135.50  | 72.80   | 11.20                    | 1.40   |          |        |
| 12             | 9.80   | 25.80                    | 28.00                                                   | 40.40  | 59.80  | 40.10                | 8.75   | 29.00   | 132.50  | 142.50  | 8.45                     | 1.40   |          |        |
| 13             | 10.85  | 23.40                    | 25.60                                                   | 28.50  | 54.90  | 45.50                | 8.45   | 28.25   | 123.00  | 181.25  | 9.35                     | 1.30   |          |        |
| 14             | 12.00  | 22.80                    | 22.00                                                   | 23.40  | 47.30  | 56.30                | 15.00  | 23.00   | 112.20  | 180.70  | 6.90                     | 1.20   |          |        |
| 15             | 18.80  | 24.00                    | 19.60                                                   | 20.80  | 39.80  | 60.15                | 15.60  | 20.60   | 106.80  | 162.55  | 5.80                     | 1.35   |          |        |
| 16             | 40.40  | 34.70                    | 17.60                                                   | 18.00  | 36.20  | 55.60                | 15.40  | 20.80   | 100.05  | 145.00  | 5.70                     | 2.50   |          |        |
| 17             | 43.40  | 33.50                    | 15.80                                                   | 19.00  | 32.60  | 55.25                | 18.80  | 20.60   | 94.40   | 129.30  | 5.40                     | 9.05   |          |        |
| 18             | 35.90  | 52.10                    | 13.80                                                   | 19.80  | 29.00  | 54.55                | 19.60  | 22.20   | 94.00   | 115.35  | 5.10                     | 11.00  |          |        |
| 19             | 25.80  | 59.45                    | 12.00                                                   | 17.80  | 34.70  | 46.10                | 19.60  | 26.00   | 103.20  | 101.85  | 4.80                     | 7.80   |          |        |
| 20             | 20.80  | 58.05                    | 10.55                                                   | 16.00  | 42.80  | 38.60                | 20.40  | 64.40   | 111.75  | 86.80   | 4.50                     | 6.70   |          |        |
| 21             | 17.80  | 51.05                    | 9.65                                                    | 13.80  | 31.75  | 32.30                | 19.40  | 105.90  | 118.95  | 69.60   | 4.40                     | 6.80   |          |        |
| 22             | 39.50  | 38.60                    | 9.05                                                    | 11.80  | 24.80  | 28.00                | 21.60  | 126.60  | 110.85  | 57.70   | 4.20                     | 6.50   |          |        |
| 23             | 38.30  | 29.25                    | 8.15                                                    | 10.85  | 24.20  | 21.80                | 43.10  | 121.20  | 95.20   | 49.10   | 4.10                     | 6.30   |          |        |
| 24             | 29.50  | 24.20                    | 7.80                                                    | 10.25  | 24.00  | 17.60                | 50.35  | 111.75  | 81.60   | 42.50   | 3.90                     | 6.40   |          |        |
| 25             | 26.00  | 21.60                    | 7.80                                                    | 10.10  | 23.60  | 16.20                | 47.00  | 100.50  | 69.60   | 36.50   | 3.70                     | 6.40   |          |        |
| 26             | 23.20  | 19.60                    | 10.25                                                   | 12.20  | 22.40  | 15.60                | 54.90  | 86.80   | 59.80   | 31.00   | 3.30                     | 6.20   |          |        |
| 27             | 23.40  | 23.80                    | 17.80                                                   | 13.60  | 28.25  | 14.60                | 73.20  | 73.20   | 51.75   | 27.25   | 3.00                     | 5.90   |          |        |
| 28             | 22.60  | 20.20                    | 20.40                                                   | 16.00  | 33.20  | 13.60                | 89.60  | 64.40   | 49.40   | 23.20   | 2.90                     | 5.60   |          |        |
| 29             | 30.50  | 18.20                    | 17.40                                                   | 14.40  | 39.50  | 13.80                | 80.00  | 65.60   | 64.00   | 17.80   |                          | 5.30   |          |        |
| 30             | 26.60  | 16.80                    | 18.60                                                   | 12.60  | 44.30  | 12.60                | 63.65  | 91.60   | 76.00   | 13.80   |                          | 5.50   |          |        |
| 31             |        | 16.60                    |                                                         | 11.40  | 40.10  |                      | 51.05  |         | 76.40   | 10.85   |                          | 5.40   |          |        |
| Total          | 570.95 | 970.50                   | 708.25                                                  | 533.20 | 962.50 | 1062.75              | 913.75 | 1604.85 | 3469.90 | 2237.95 | 198.00                   | 128.85 | 13361.45 | CMSDAY |
| Mean           | 19.03  | 31.31                    | 23.61                                                   | 17.20  | 31.05  | 35.42                | 29.48  | 53.50   | 111.93  | 72.19   | 7.07                     | 4.16   | 36.61    | CMS    |
| Max            | 43.40  | 59.45                    | 75.60                                                   | 40.40  | 59.80  | 65.60                | 89.60  | 126.60  | 188.95  | 181.25  | 11.20                    | 11.00  | 188.95   | CMS    |
| Min            | 6.30   | 16.60                    | 7.80                                                    | 10.10  | 13.60  | 12.60                | 8.45   | 20.60   | 49.40   | 10.85   | 2.90                     | 1.20   | 1.20     | CMS    |
| Runoff         | 49.33  | 83.85                    | 61.19                                                   | 46.07  | 83.16  | 91.82                | 78.95  | 138.66  | 299.80  | 193.36  | 17.11                    | 11.13  | 1154.43  | MCM    |
| Momentary Peak |        | 190.60                   | CMS. at 6:32 m. (MSL.) at 16:00 Hours , on Dec 6 , 2013 |        |        |                      |        |         |         |         |                          |        |          |        |
| Runoff Yield   | 22.88  | Liters/Second/Square KM. |                                                         |        |        | Momentary Peak Yield |        |         |         | 119.125 | Liters/Second/Square KM. |        |          |        |

**Location : on left bank at the bridge.**

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                              | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|--------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 3.80  | 4.83 | 3.83                                             | 3.91 | 3.75 | 4.72 | 3.87 | 4.40 | 7.48 | 5.61 | 4.12 | 3.31 |        |
| 2                                | 3.75  | 4.65 | 3.78                                             | 3.81 | 3.88 | 4.34 | 3.88 | 4.25 | 7.57 | 5.58 | 4.06 | 3.28 |        |
| 3                                | 3.75  | 4.63 | 3.77                                             | 3.85 | 3.68 | 4.12 | 4.26 | 4.36 | 7.67 | 5.71 | 4.01 | 3.25 |        |
| 4                                | 3.73  | 4.99 | 4.20                                             | 3.87 | 3.63 | 3.99 | 4.68 | 4.79 | 8.53 | 6.15 | 3.96 | 3.22 |        |
| 5                                | 3.79  | 4.72 | 5.38                                             | 3.84 | 3.65 | 4.03 | 4.57 | 4.49 | 9.94 | 5.57 | 3.92 | 3.20 |        |
| 6                                | 3.88  | 4.53 | 6.46                                             | 3.82 | 3.94 | 4.43 | 4.19 | 4.48 | 9.97 | 5.42 | 3.88 | 3.19 |        |
| 7                                | 3.86  | 5.06 | 6.61                                             | 3.85 | 4.15 | 5.41 | 3.95 | 4.43 | 9.66 | 5.17 | 3.85 | 3.18 |        |
| 8                                | 3.77  | 5.21 | 5.36                                             | 3.91 | 3.93 | 6.02 | 3.84 | 4.47 | 8.99 | 4.99 | 3.81 | 3.17 |        |
| 9                                | 3.73  | 4.79 | 4.72                                             | 3.97 | 4.35 | 6.36 | 3.84 | 4.75 | 8.04 | 4.84 | 3.78 | 3.16 |        |
| 10                               | 3.70  | 4.58 | 4.50                                             | 4.05 | 4.50 | 5.74 | 4.03 | 5.04 | 7.55 | 5.73 | 3.77 | 3.14 |        |
| 11                               | 3.63  | 4.45 | 4.32                                             | 4.99 | 5.33 | 5.10 | 3.85 | 4.73 | 7.85 | 6.88 | 3.73 | 3.12 |        |
| 12                               | 4.15  | 4.44 | 4.32                                             | 4.93 | 5.36 | 4.72 | 3.71 | 4.96 | 7.49 | 9.62 | 3.69 | 3.10 |        |
| 13                               | 4.11  | 4.29 | 4.25                                             | 4.39 | 4.89 | 5.28 | 3.69 | 4.86 | 6.69 | 9.98 | 3.67 | 3.09 |        |
| 14                               | 4.02  | 4.22 | 4.06                                             | 4.17 | 4.53 | 5.69 | 3.89 | 4.55 | 6.17 | 9.69 | 3.65 | 3.09 |        |
| 15                               | 4.51  | 4.35 | 3.99                                             | 4.04 | 4.26 | 5.80 | 3.74 | 4.33 | 6.14 | 9.05 | 3.64 | 3.11 |        |
| 16                               | 5.74  | 5.07 | 3.95                                             | 3.90 | 4.29 | 5.44 | 3.67 | 4.35 | 5.94 | 8.08 | 3.63 | 3.14 |        |
| 17                               | 5.44  | 4.86 | 3.91                                             | 4.02 | 4.23 | 5.43 | 3.67 | 4.18 | 6.05 | 6.96 | 3.62 | 4.02 |        |
| 18                               | 4.88  | 5.92 | 3.84                                             | 4.00 | 4.23 | 5.08 | 3.65 | 4.04 | 6.67 | 6.28 | 3.61 | 4.11 |        |
| 19                               | 4.45  | 5.62 | 3.75                                             | 3.90 | 4.72 | 4.71 | 3.63 | 4.26 | 7.13 | 5.87 | 3.59 | 3.85 |        |
| 20                               | 4.18  | 5.39 | 3.72                                             | 3.83 | 4.98 | 4.47 | 3.65 | 6.25 | 7.61 | 5.57 | 3.57 | 3.84 |        |
| 21                               | 4.13  | 5.11 | 3.71                                             | 3.73 | 4.45 | 4.28 | 3.62 | 7.58 | 7.75 | 5.30 | 3.54 | 3.69 |        |
| 22                               | 5.58  | 4.62 | 3.70                                             | 3.71 | 4.24 | 4.15 | 3.71 | 7.56 | 6.80 | 5.07 | 3.49 | 3.72 |        |
| 23                               | 5.09  | 4.38 | 3.68                                             | 3.67 | 4.32 | 4.05 | 5.16 | 6.56 | 6.01 | 4.88 | 3.45 | 3.68 |        |
| 24                               | 4.72  | 4.24 | 3.66                                             | 3.63 | 4.26 | 3.97 | 4.95 | 6.14 | 5.61 | 4.74 | 3.42 | 3.55 |        |
| 25                               | 4.53  | 4.14 | 3.64                                             | 3.62 | 4.28 | 3.92 | 4.79 | 5.73 | 5.33 | 4.62 | 3.39 | 3.45 |        |
| 26                               | 4.30  | 4.07 | 3.74                                             | 3.63 | 4.18 | 3.90 | 5.23 | 5.33 | 5.09 | 4.51 | 3.38 | 3.40 |        |
| 27                               | 4.38  | 4.12 | 4.30                                             | 3.73 | 4.74 | 3.86 | 6.45 | 5.00 | 4.92 | 4.43 | 3.36 | 3.34 |        |
| 28                               | 4.48  | 4.05 | 4.23                                             | 3.82 | 4.80 | 3.90 | 6.95 | 4.91 | 4.94 | 4.37 | 3.34 | 3.30 |        |
| 29                               | 4.89  | 3.93 | 3.98                                             | 3.74 | 5.06 | 3.97 | 5.78 | 5.13 | 5.95 | 4.32 |      | 3.29 |        |
| 30                               | 4.63  | 3.91 | 4.06                                             | 3.64 | 5.08 | 3.93 | 5.07 | 6.67 | 6.20 | 4.25 |      | 3.34 |        |
| 31                               |       | 3.87 |                                                  | 3.60 | 4.89 |      | 4.65 |      | 6.00 | 4.18 |      | 3.36 |        |
| Mean                             | 4.32  | 4.61 | 4.25                                             | 3.92 | 4.41 | 4.69 | 4.34 | 5.09 | 7.02 | 5.92 | 3.68 | 3.38 |        |
| Max                              | 5.74  | 5.92 | 6.61                                             | 4.99 | 5.36 | 6.36 | 6.95 | 7.58 | 9.97 | 9.98 | 4.12 | 4.11 | 9.98   |
| Min                              | 3.63  | 3.87 | 3.64                                             | 3.60 | 3.63 | 3.86 | 3.62 | 4.04 | 4.92 | 4.18 | 3.34 | 3.09 | 3.09   |
| Annual Max Momentary Gage Height | 10.12 |      | m. (MSL.) , at 14.00 Hours , on Dec 5 , 2013     |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , River Bed 1.09 m. (MSL.)             |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 10.65 |      | m. (MSL.) ,                                      |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 9.75  |      | m. (MSL.) , Drainage Area 1358 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

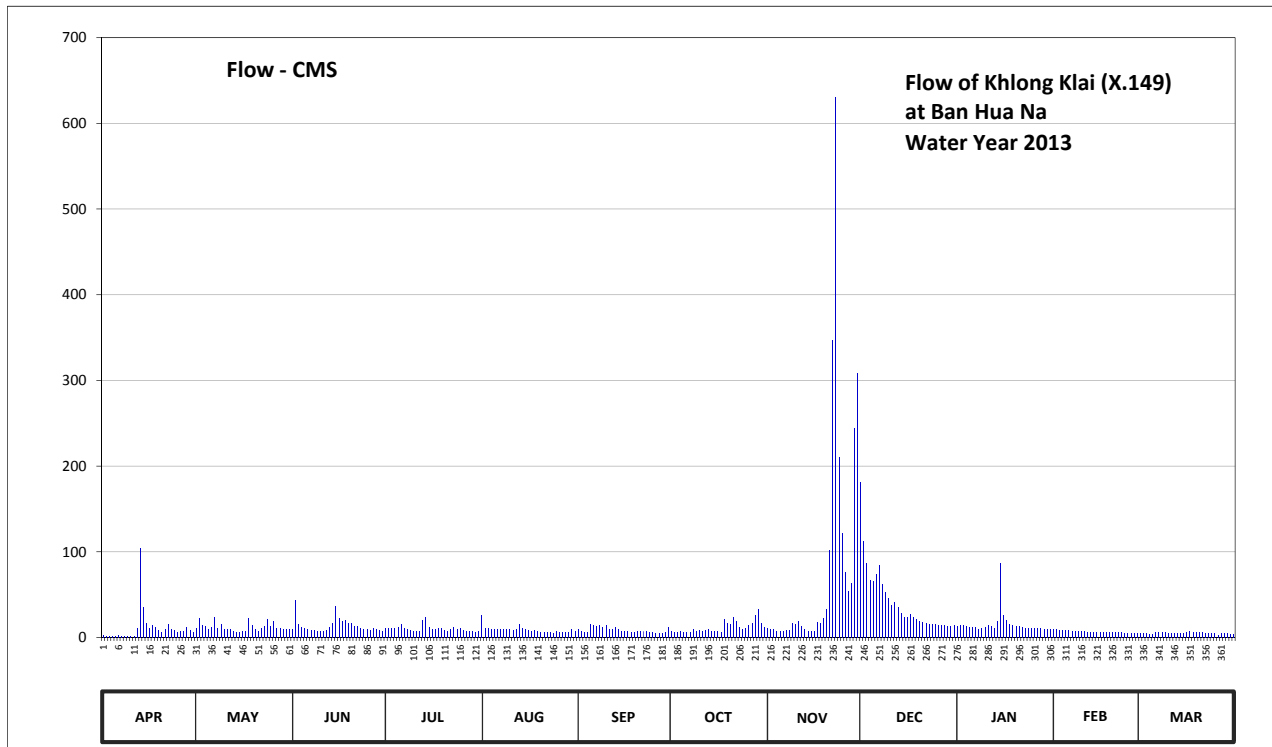
| Date           | Apr    | May                                                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov                      | Dec     | Jan     | Feb    | Mar    | Annual   |        |
|----------------|--------|----------------------------------------------------------|--------|--------|----------------------|---------|---------|--------------------------|---------|---------|--------|--------|----------|--------|
| 1              | 16.00  | 41.90                                                    | 16.75  | 18.75  | 14.75                | 39.00   | 17.75   | 31.00                    | 162.80  | 70.40   | 24.00  | 4.20   |          |        |
| 2              | 14.75  | 37.25                                                    | 15.50  | 16.25  | 18.00                | 29.50   | 18.00   | 27.25                    | 168.20  | 69.20   | 22.50  | 3.60   |          |        |
| 3              | 14.75  | 36.75                                                    | 15.25  | 17.25  | 13.00                | 24.00   | 27.50   | 30.00                    | 174.90  | 74.40   | 21.25  | 3.00   |          |        |
| 4              | 14.25  | 46.70                                                    | 26.00  | 17.75  | 11.75                | 20.75   | 38.00   | 40.75                    | 243.70  | 92.00   | 20.00  | 2.40   |          |        |
| 5              | 15.75  | 39.00                                                    | 61.20  | 17.00  | 12.25                | 21.75   | 35.25   | 33.25                    | 404.20  | 68.80   | 19.00  | 2.00   |          |        |
| 6              | 18.00  | 34.25                                                    | 105.00 | 16.50  | 19.50                | 31.75   | 25.75   | 33.00                    | 408.10  | 62.80   | 18.00  | 1.90   |          |        |
| 7              | 17.50  | 49.10                                                    | 112.50 | 17.25  | 24.75                | 62.40   | 19.75   | 31.75                    | 367.80  | 52.95   | 17.25  | 1.80   |          |        |
| 8              | 15.25  | 54.40                                                    | 60.40  | 18.75  | 19.25                | 86.80   | 17.00   | 32.75                    | 289.00  | 46.70   | 16.25  | 1.70   |          |        |
| 9              | 14.25  | 40.75                                                    | 39.00  | 20.25  | 29.75                | 100.40  | 17.00   | 39.75                    | 203.20  | 42.20   | 15.50  | 1.60   |          |        |
| 10             | 13.50  | 35.50                                                    | 33.50  | 22.25  | 33.50                | 75.60   | 21.75   | 48.40                    | 167.00  | 75.20   | 15.25  | 1.40   |          |        |
| 11             | 11.75  | 32.25                                                    | 29.00  | 46.70  | 59.20                | 50.50   | 17.25   | 39.25                    | 188.00  | 126.80  | 14.25  | 1.20   |          |        |
| 12             | 24.75  | 32.00                                                    | 29.00  | 44.90  | 60.40                | 39.00   | 13.75   | 45.80                    | 163.40  | 362.60  | 13.25  | 1.00   |          |        |
| 13             | 23.75  | 28.25                                                    | 27.25  | 30.75  | 43.70                | 57.20   | 13.25   | 42.80                    | 116.50  | 409.40  | 12.75  | 0.90   |          |        |
| 14             | 21.50  | 26.50                                                    | 22.50  | 25.25  | 34.25                | 73.60   | 18.25   | 34.75                    | 92.80   | 371.70  | 12.25  | 0.90   |          |        |
| 15             | 33.75  | 29.75                                                    | 20.75  | 22.00  | 27.50                | 78.00   | 14.50   | 29.25                    | 91.60   | 295.00  | 12.00  | 1.10   |          |        |
| 16             | 75.60  | 49.45                                                    | 19.75  | 18.50  | 28.25                | 63.60   | 12.75   | 29.75                    | 83.60   | 206.40  | 11.75  | 1.40   |          |        |
| 17             | 63.60  | 42.80                                                    | 18.75  | 21.50  | 26.75                | 63.20   | 12.75   | 25.50                    | 88.00   | 131.60  | 11.50  | 21.50  |          |        |
| 18             | 43.40  | 82.80                                                    | 17.00  | 21.00  | 26.75                | 49.80   | 12.25   | 22.00                    | 115.50  | 97.20   | 11.25  | 23.75  |          |        |
| 19             | 32.25  | 70.80                                                    | 14.75  | 18.50  | 39.00                | 38.75   | 11.75   | 27.50                    | 141.80  | 80.80   | 10.75  | 17.25  |          |        |
| 20             | 25.50  | 61.60                                                    | 14.00  | 16.75  | 46.40                | 32.75   | 12.25   | 96.00                    | 170.70  | 68.80   | 10.25  | 17.00  |          |        |
| 21             | 24.25  | 50.85                                                    | 13.75  | 14.25  | 32.25                | 28.00   | 11.50   | 168.80                   | 180.50  | 58.00   | 9.50   | 13.25  |          |        |
| 22             | 69.20  | 36.50                                                    | 13.50  | 13.75  | 27.00                | 24.75   | 13.75   | 167.60                   | 122.00  | 49.45   | 8.25   | 14.00  |          |        |
| 23             | 50.15  | 30.50                                                    | 13.00  | 12.75  | 29.00                | 22.25   | 52.60   | 110.00                   | 86.40   | 43.40   | 7.25   | 13.00  |          |        |
| 24             | 39.00  | 27.00                                                    | 12.50  | 11.75  | 27.50                | 20.25   | 45.50   | 91.60                    | 70.40   | 39.50   | 6.50   | 9.75   |          |        |
| 25             | 34.25  | 24.50                                                    | 12.00  | 11.50  | 28.00                | 19.00   | 40.75   | 75.20                    | 59.20   | 36.50   | 5.80   | 7.25   |          |        |
| 26             | 28.50  | 22.75                                                    | 14.50  | 11.75  | 25.50                | 18.50   | 55.20   | 59.20                    | 50.15   | 33.75   | 5.60   | 6.00   |          |        |
| 27             | 30.50  | 24.00                                                    | 28.50  | 14.25  | 39.50                | 17.50   | 104.50  | 47.00                    | 44.60   | 31.75   | 5.20   | 4.80   |          |        |
| 28             | 33.00  | 22.25                                                    | 26.75  | 16.50  | 41.00                | 18.50   | 131.00  | 44.30                    | 45.20   | 30.25   | 4.80   | 4.00   |          |        |
| 29             | 43.70  | 19.25                                                    | 20.50  | 14.50  | 49.10                | 20.25   | 77.20   | 51.55                    | 84.00   | 29.00   |        | 3.80   |          |        |
| 30             | 36.75  | 18.75                                                    | 22.50  | 12.00  | 49.80                | 19.25   | 49.45   | 115.50                   | 94.00   | 27.25   |        | 4.80   |          |        |
| 31             |        | 17.75                                                    |        | 11.00  | 43.70                |         | 37.25   |                          | 86.00   | 25.50   |        | 5.20   |          |        |
| Total          | 899.15 | 1165.90                                                  | 875.35 | 591.85 | 981.05               | 1246.60 | 995.20  | 1671.25                  | 4763.25 | 3209.30 | 361.90 | 195.45 | 16956.25 | CMSDAY |
| Mean           | 29.97  | 37.61                                                    | 29.18  | 19.09  | 31.65                | 41.55   | 32.10   | 55.71                    | 153.65  | 103.53  | 12.93  | 6.30   | 46.46    | CMS    |
| Max            | 75.60  | 82.80                                                    | 112.50 | 46.70  | 60.40                | 100.40  | 131.00  | 168.80                   | 408.10  | 409.40  | 24.00  | 23.75  | 409.40   | CMS    |
| Min            | 11.75  | 17.75                                                    | 12.00  | 11.00  | 11.75                | 17.50   | 11.50   | 22.00                    | 44.60   | 25.50   | 4.80   | 0.90   | 0.90     | CMS    |
| Runoff         | 77.69  | 100.73                                                   | 75.63  | 51.14  | 84.76                | 107.71  | 85.99   | 144.40                   | 411.55  | 277.28  | 31.27  | 16.89  | 1465.02  | MCM    |
| Momentary Peak | 427.60 | CMS. at 10.12 m. (MSL.) at 14.00 Hours , on Dec 5 , 2013 |        |        |                      |         |         |                          |         |         |        |        |          |        |
| Runoff Yield   | 34.21  | Liters/Second/Square KM.                                 |        |        | Momentary Peak Yield |         | 314.875 | Liters/Second/Square KM. |         |         |        |        |          |        |

Lat 08 - 43 - 46 N    Long 99 - 44 - 53 E

|                                         |                                                                                           |           |               |           |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Hua Na    | <b>Amphoe</b> | Nopphitam | <b>Changwat</b>  | Nakhon Si Thammarat |
| <b>Drainage Area</b>                    | 475                                                                                       | sq.km.    |               |           |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |           |                  |                     |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |           |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                     |
| <b>Location BM</b>                      | On left bank near the station office.                                                     |           |               |           | <b>Elevation</b> | +34.588 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |           |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |           |                  |                     |
| <b>Period of Available Gage Records</b> | 1984 to date.                                                                             |           |               |           |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                     |
| <b>Period of Rating</b>                 | 1984 to date.                                                                             |           |               |           |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                     |
| <b>Rated by Current Meter</b>           | 1984 to date.                                                                             |           |               |           |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |           |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                     |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2013. |           |               |           |                  |                     |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 28.92 | 29.18 | 29.14 | 29.17 | 29.42 | 29.13 | 29.08 | 29.19 | 30.35 | 29.22   | 29.13 | 29.03 |        |
| 2    | 28.91 | 29.38 | 29.56 | 29.17 | 29.19 | 29.10 | 29.05 | 29.14 | 30.00 | 29.25   | 29.13 | 29.02 |        |
| 3    | 28.91 | 29.24 | 29.26 | 29.18 | 29.17 | 29.07 | 29.05 | 29.14 | 29.84 | 29.25   | 29.12 | 29.02 |        |
| 4    | 28.90 | 29.22 | 29.20 | 29.18 | 29.15 | 29.06 | 29.08 | 29.10 | 29.72 | 29.22   | 29.12 | 29.01 |        |
| 5    | 28.90 | 29.15 | 29.19 | 29.21 | 29.15 | 29.26 | 29.05 | 29.08 | 29.71 | 29.21   | 29.11 | 29.01 |        |
| 6    | 28.92 | 29.21 | 29.15 | 29.27 | 29.15 | 29.24 | 29.06 | 29.10 | 29.76 | 29.21   | 29.11 | 29.06 |        |
| 7    | 28.91 | 29.40 | 29.12 | 29.19 | 29.14 | 29.23 | 29.07 | 29.11 | 29.83 | 29.20   | 29.10 | 29.05 |        |
| 8    | 28.90 | 29.19 | 29.11 | 29.15 | 29.14 | 29.24 | 29.13 | 29.11 | 29.69 | 29.16   | 29.09 | 29.05 |        |
| 9    | 28.90 | 29.26 | 29.10 | 29.12 | 29.14 | 29.21 | 29.10 | 29.29 | 29.63 | 29.17   | 29.09 | 29.05 |        |
| 10   | 28.89 | 29.15 | 29.09 | 29.10 | 29.13 | 29.25 | 29.11 | 29.26 | 29.58 | 29.20   | 29.08 | 29.04 |        |
| 11   | 28.91 | 29.14 | 29.08 | 29.09 | 29.12 | 29.15 | 29.08 | 29.33 | 29.52 | 29.25   | 29.08 | 29.04 |        |
| 12   | 29.17 | 29.13 | 29.11 | 29.08 | 29.14 | 29.16 | 29.11 | 29.22 | 29.54 | 29.22   | 29.07 | 29.04 |        |
| 13   | 29.95 | 29.09 | 29.21 | 29.34 | 29.26 | 29.21 | 29.15 | 29.13 | 29.50 | 29.18   | 29.07 | 29.04 |        |
| 14   | 29.50 | 29.07 | 29.28 | 29.40 | 29.18 | 29.13 | 29.08 | 29.10 | 29.44 | 29.33   | 29.06 | 29.03 |        |
| 15   | 29.29 | 29.05 | 29.51 | 29.20 | 29.15 | 29.10 | 29.09 | 29.09 | 29.40 | 29.84   | 29.06 | 29.03 |        |
| 16   | 29.19 | 29.09 | 29.38 | 29.16 | 29.12 | 29.10 | 29.08 | 29.09 | 29.39 | 29.42   | 29.06 | 29.05 |        |
| 17   | 29.25 | 29.08 | 29.33 | 29.15 | 29.10 | 29.08 | 29.07 | 29.30 | 29.43 | 29.34   | 29.06 | 29.08 |        |
| 18   | 29.20 | 29.37 | 29.34 | 29.19 | 29.12 | 29.07 | 29.35 | 29.29 | 29.39 | 29.27   | 29.05 | 29.07 |        |
| 19   | 29.12 | 29.25 | 29.28 | 29.17 | 29.09 | 29.05 | 29.29 | 29.37 | 29.35 | 29.25   | 29.05 | 29.06 |        |
| 20   | 29.06 | 29.13 | 29.29 | 29.12 | 29.07 | 29.08 | 29.26 | 29.48 | 29.32 | 29.23   | 29.05 | 29.05 |        |
| 21   | 29.14 | 29.09 | 29.22 | 29.10 | 29.06 | 29.10 | 29.39 | 29.94 | 29.30 | 29.22   | 29.05 | 29.05 |        |
| 22   | 29.26 | 29.18 | 29.22 | 29.13 | 29.05 | 29.08 | 29.32 | 30.93 | 29.28 | 29.20   | 29.05 | 29.04 |        |
| 23   | 29.13 | 29.22 | 29.18 | 29.21 | 29.05 | 29.08 | 29.21 | 31.67 | 29.27 | 29.18   | 29.05 | 29.04 |        |
| 24   | 29.11 | 29.35 | 29.15 | 29.16 | 29.04 | 29.07 | 29.15 | 30.46 | 29.27 | 29.17   | 29.04 | 29.04 |        |
| 25   | 29.06 | 29.22 | 29.13 | 29.17 | 29.08 | 29.05 | 29.19 | 30.06 | 29.26 | 29.18   | 29.04 | 29.03 |        |
| 26   | 29.10 | 29.31 | 29.12 | 29.12 | 29.05 | 29.04 | 29.25 | 29.78 | 29.25 | 29.18   | 29.04 | 28.97 |        |
| 27   | 29.08 | 29.19 | 29.19 | 29.10 | 29.05 | 29.02 | 29.29 | 29.64 | 29.24 | 29.17   | 29.03 | 29.02 |        |
| 28   | 29.21 | 29.18 | 29.13 | 29.08 | 29.05 | 29.02 | 29.42 | 29.70 | 29.24 | 29.17   | 29.03 | 29.02 |        |
| 29   | 29.11 | 29.16 | 29.11 | 29.08 | 29.06 | 29.05 | 29.48 | 30.58 | 29.22 | 29.16   |       | 29.02 |        |
| 30   | 29.07 | 29.15 | 29.10 | 29.07 | 29.16 | 29.21 | 29.28 | 30.80 | 29.22 | 29.15</ |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug    | Sep      | Oct                      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|--------|----------|--------------------------|---------|---------|--------|--------|--------|----------------|
| 1              | 2.40                                                             | 11.20                    | 9.60   | 10.80                | 26.40  | 9.20     | 7.20                     | 11.60   | 181.50  | 13.20  | 9.20   | 5.20   |                |
| 2              | 2.20                                                             | 22.80                    | 43.20  | 10.80                | 11.60  | 8.00     | 6.00                     | 9.60    | 112.00  | 15.00  | 9.20   | 4.80   |                |
| 3              | 2.20                                                             | 14.40                    | 15.60  | 11.20                | 10.80  | 6.80     | 6.00                     | 9.60    | 86.40   | 15.00  | 8.80   | 4.80   |                |
| 4              | 2.00                                                             | 13.20                    | 12.00  | 11.20                | 10.00  | 6.40     | 7.20                     | 8.00    | 67.20   | 13.20  | 8.80   | 4.40   |                |
| 5              | 2.00                                                             | 10.00                    | 11.60  | 12.60                | 10.00  | 15.60    | 6.00                     | 7.20    | 65.60   | 12.60  | 8.40   | 4.40   |                |
| 6              | 2.40                                                             | 12.60                    | 10.00  | 16.20                | 10.00  | 14.40    | 6.40                     | 8.00    | 73.60   | 12.60  | 8.40   | 6.40   |                |
| 7              | 2.20                                                             | 24.00                    | 8.80   | 11.60                | 9.60   | 13.80    | 6.80                     | 8.40    | 84.80   | 12.00  | 8.00   | 6.00   |                |
| 8              | 2.00                                                             | 11.60                    | 8.40   | 10.00                | 9.60   | 14.40    | 9.20                     | 8.40    | 62.40   | 10.40  | 7.60   | 6.00   |                |
| 9              | 2.00                                                             | 15.60                    | 8.00   | 8.80                 | 9.60   | 12.60    | 8.00                     | 17.40   | 52.80   | 10.80  | 7.60   | 6.00   |                |
| 10             | 1.80                                                             | 10.00                    | 7.60   | 8.00                 | 9.20   | 15.00    | 8.40                     | 15.60   | 45.60   | 12.00  | 7.20   | 5.60   |                |
| 11             | 2.20                                                             | 9.60                     | 7.20   | 7.60                 | 8.80   | 10.00    | 7.20                     | 19.80   | 38.40   | 15.00  | 7.20   | 5.60   |                |
| 12             | 10.80                                                            | 9.20                     | 8.40   | 7.20                 | 9.60   | 10.40    | 8.40                     | 13.20   | 40.80   | 13.20  | 6.80   | 5.60   |                |
| 13             | 104.00                                                           | 7.60                     | 12.60  | 20.40                | 15.60  | 12.60    | 10.00                    | 9.20    | 36.00   | 11.20  | 6.80   | 5.60   |                |
| 14             | 36.00                                                            | 6.80                     | 16.80  | 24.00                | 11.20  | 9.20     | 7.20                     | 8.00    | 28.80   | 19.80  | 6.40   | 5.20   |                |
| 15             | 17.40                                                            | 6.00                     | 37.20  | 12.00                | 10.00  | 8.00     | 7.60                     | 7.60    | 24.00   | 86.40  | 6.40   | 5.20   |                |
| 16             | 11.60                                                            | 7.60                     | 22.80  | 10.40                | 8.80   | 8.00     | 7.20                     | 7.60    | 23.40   | 26.40  | 6.40   | 6.00   |                |
| 17             | 15.00                                                            | 7.20                     | 19.80  | 10.00                | 8.00   | 7.20     | 6.80                     | 18.00   | 27.60   | 20.40  | 6.40   | 7.20   |                |
| 18             | 12.00                                                            | 22.20                    | 20.40  | 11.60                | 8.80   | 6.80     | 21.00                    | 17.40   | 23.40   | 16.20  | 6.00   | 6.80   |                |
| 19             | 8.80                                                             | 15.00                    | 16.80  | 10.80                | 7.60   | 6.00     | 17.40                    | 22.20   | 21.00   | 15.00  | 6.00   | 6.40   |                |
| 20             | 6.40                                                             | 9.20                     | 17.40  | 8.80                 | 6.80   | 7.20     | 15.60                    | 33.60   | 19.20   | 13.80  | 6.00   | 6.00   |                |
| 21             | 9.60                                                             | 7.60                     | 13.20  | 8.00                 | 6.40   | 8.00     | 23.40                    | 102.40  | 18.00   | 13.20  | 6.00   | 6.00   |                |
| 22             | 15.60                                                            | 11.20                    | 13.20  | 9.20                 | 6.00   | 7.20     | 19.20                    | 347.00  | 16.80   | 12.00  | 6.00   | 5.60   |                |
| 23             | 9.20                                                             | 13.20                    | 11.20  | 12.60                | 6.00   | 7.20     | 12.60                    | 630.80  | 16.20   | 11.20  | 6.00   | 5.60   |                |
| 24             | 8.40                                                             | 21.00                    | 10.00  | 10.40                | 5.60   | 6.80     | 10.00                    | 210.80  | 16.20   | 10.80  | 5.60   | 5.60   |                |
| 25             | 6.40                                                             | 13.20                    | 9.20   | 10.80                | 7.20   | 6.00     | 11.60                    | 121.60  | 15.60   | 11.20  | 5.60   | 5.20   |                |
| 26             | 8.00                                                             | 18.60                    | 8.80   | 8.80                 | 6.00   | 5.60     | 15.00                    | 76.80   | 15.00   | 11.20  | 5.60   | 3.40   |                |
| 27             | 7.20                                                             | 11.60                    | 11.60  | 8.00                 | 6.00   | 4.80     | 17.40                    | 54.40   | 14.40   | 10.80  | 5.20   | 4.80   |                |
| 28             | 12.60                                                            | 11.20                    | 9.20   | 7.20                 | 6.00   | 4.80     | 26.40                    | 64.00   | 14.40   | 10.80  | 5.20   | 4.80   |                |
| 29             | 8.40                                                             | 10.40                    | 8.40   | 7.20                 | 6.40   | 6.00     | 33.60                    | 244.40  | 13.20   | 10.40  |        | 4.80   |                |
| 30             | 6.80                                                             | 10.00                    | 8.00   | 6.80                 | 10.40  | 12.60    | 16.80                    | 308.00  | 13.20   | 10.00  |        | 4.40   |                |
| 31             |                                                                  | 10.40                    |        | 7.20                 | 7.60   |          | 12.00                    |         | 14.40   | 9.60   |        | 4.40   |                |
| Total          | 337.60                                                           | 384.20                   | 417.00 | 330.20               | 285.60 | 270.60   | 377.60                   | 2420.60 | 1281.90 | 485.40 | 192.80 | 167.80 | 6951.30 CMSDAY |
| Mean           | 11.25                                                            | 12.39                    | 13.90  | 10.65                | 9.21   | 9.02     | 12.18                    | 80.69   | 41.35   | 15.66  | 6.89   | 5.41   | 19.04 CMS      |
| Max            | 104.00                                                           | 24.00                    | 43.20  | 24.00                | 26.40  | 15.60    | 33.60                    | 630.80  | 181.50  | 86.40  | 9.20   | 7.20   | 630.80 CMS     |
| Min            | 1.80                                                             | 6.00                     | 7.20   | 6.80                 | 5.60   | 4.80     | 6.00                     | 7.20    | 13.20   | 9.60   | 5.20   | 3.40   | 1.80 CMS       |
| Runoff         | 29.17                                                            | 33.20                    | 36.03  | 28.53                | 24.68  | 23.38    | 32.63                    | 209.14  | 110.76  | 41.94  | 16.66  | 14.50  | 600.59 MCM     |
| Momentary Peak | 975.00 CMS. at 32.39 m. (MSL.) at 04.00 Hours , on Nov 23 , 2013 |                          |        |                      |        |          |                          |         |         |        |        |        |                |
| Runoff Yield   | 40.08                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 2052.156 | Liters/Second/Square KM. |         |         |        |        |        |                |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA EAST COAST

### Khlong Tha Taphao at Ban Wang Khrok , Chumphon (X.158)

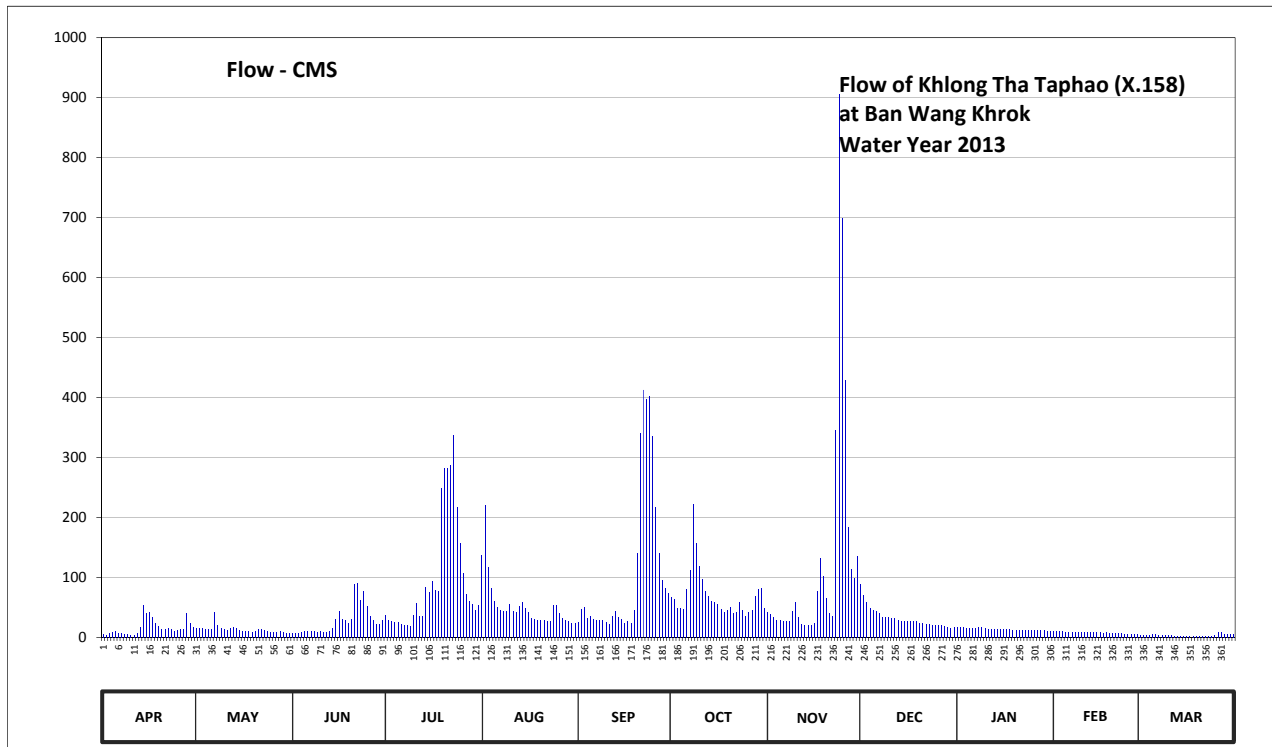
Lat 10 - 35 - 34 N      Long 99 - 08 - 43 E

**Location : on right bank at the bridge on Chumphon - Prachuap Khiri Khan Highway**

|                                         |                                                                                           |            |               |         |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Wang Khrok | <b>Amphoe</b> | Tha Sae | <b>Changwat</b>  | Chumphon          |
| <b>Drainage Area</b>                    | 1,814                                                                                     | sq.km.     |               |         |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)  |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank about 1 meters from the top staff gage.                                     |            |               |         | <b>Elevation</b> | +11.796 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |            |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |            |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                              |            |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1990 to date                                                                              |            |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1990 to date                                                                              |            |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |            |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |         |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 26 discharge measurements made in 2013. |            |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr  | May   | Jun                                              | Jul  | Aug  | Sep  | Oct  | Nov   | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|----|------|-------|--------------------------------------------------|------|------|------|------|-------|------|------|------|------|--------|
|                                  | 1  | 3.08 | 3.41  | 3.17                                             | 3.90 | 5.58 | 3.67 | 4.44 | 4.00  | 4.80 | 3.48 | 3.27 | 3.06 |        |
|                                  | 2  | 3.06 | 3.42  | 3.16                                             | 3.75 | 6.74 | 4.07 | 4.38 | 3.92  | 4.49 | 3.48 | 3.27 | 3.06 |        |
|                                  | 3  | 3.14 | 3.42  | 3.16                                             | 3.70 | 5.27 | 4.15 | 4.12 | 3.84  | 4.28 | 3.46 | 3.25 | 3.04 |        |
|                                  | 4  | 3.18 | 3.38  | 3.22                                             | 3.65 | 4.68 | 3.81 | 4.12 | 3.75  | 4.11 | 3.43 | 3.24 | 3.03 |        |
|                                  | 5  | 3.26 | 3.38  | 3.27                                             | 3.66 | 4.31 | 3.87 | 4.08 | 3.74  | 4.05 | 3.41 | 3.23 | 3.07 |        |
|                                  | 6  | 3.15 | 3.37  | 3.27                                             | 3.58 | 4.13 | 3.76 | 4.67 | 3.70  | 4.02 | 3.41 | 3.23 | 3.11 |        |
|                                  | 7  | 3.13 | 3.98  | 3.26                                             | 3.54 | 4.06 | 3.74 | 5.19 | 3.69  | 3.96 | 3.44 | 3.23 | 3.04 |        |
|                                  | 8  | 3.10 | 3.56  | 3.24                                             | 3.54 | 4.01 | 3.73 | 6.75 | 3.68  | 3.85 | 3.45 | 3.23 | 3.03 |        |
|                                  | 9  | 3.11 | 3.42  | 3.23                                             | 3.51 | 4.02 | 3.72 | 5.87 | 4.02  | 3.83 | 3.45 | 3.22 | 3.03 |        |
|                                  | 10 | 3.02 | 3.38  | 3.25                                             | 3.90 | 4.23 | 3.67 | 5.30 | 4.28  | 3.83 | 3.43 | 3.20 | 3.03 |        |
|                                  | 11 | 3.04 | 3.33  | 3.19                                             | 4.25 | 4.02 | 3.59 | 4.93 | 3.84  | 3.81 | 3.40 | 3.20 | 3.03 |        |
|                                  | 12 | 3.16 | 3.42  | 3.19                                             | 3.87 | 4.00 | 3.87 | 4.60 | 3.58  | 3.79 | 3.38 | 3.19 | 3.00 |        |
|                                  | 13 | 3.46 | 3.48  | 3.24                                             | 3.86 | 4.18 | 4.02 | 4.47 | 3.56  | 3.72 | 3.37 | 3.20 | 2.98 |        |
|                                  | 14 | 4.20 | 3.43  | 3.42                                             | 4.71 | 4.30 | 3.85 | 4.32 | 3.55  | 3.70 | 3.37 | 3.20 | 2.98 |        |
|                                  | 15 | 3.96 | 3.30  | 3.77                                             | 4.58 | 4.12 | 3.78 | 4.28 | 3.54  | 3.70 | 3.37 | 3.19 | 2.97 |        |
|                                  | 16 | 3.98 | 3.26  | 4.01                                             | 4.88 | 4.00 | 3.63 | 4.23 | 3.61  | 3.68 | 3.37 | 3.19 | 2.97 |        |
|                                  | 17 | 3.85 | 3.25  | 3.76                                             | 4.63 | 3.82 | 3.68 | 4.07 | 4.62  | 3.69 | 3.36 | 3.17 | 2.96 |        |
|                                  | 18 | 3.62 | 3.24  | 3.73                                             | 4.62 | 3.78 | 3.62 | 3.98 | 5.52  | 3.69 | 3.35 | 3.20 | 2.96 |        |
|                                  | 19 | 3.51 | 3.21  | 3.64                                             | 7.08 | 3.74 | 4.06 | 4.05 | 5.02  | 3.68 | 3.32 | 3.14 | 2.96 |        |
|                                  | 20 | 3.39 | 3.25  | 3.77                                             | 7.46 | 3.74 | 5.64 | 4.15 | 4.40  | 3.64 | 3.32 | 3.13 | 2.96 |        |
|                                  | 21 | 3.37 | 3.36  | 4.81                                             | 7.47 | 3.72 | 8.06 | 3.96 | 3.96  | 3.61 | 3.32 | 3.13 | 2.96 |        |
|                                  | 22 | 3.43 | 3.35  | 4.84                                             | 7.51 | 3.70 | 8.77 | 4.00 | 3.88  | 3.60 | 3.32 | 3.12 | 2.97 |        |
|                                  | 23 | 3.34 | 3.31  | 4.36                                             | 8.03 | 3.70 | 8.63 | 4.29 | 8.12  | 3.57 | 3.31 | 3.12 | 2.98 |        |
|                                  | 24 | 3.27 | 3.27  | 4.60                                             | 6.69 | 4.20 | 8.67 | 4.04 | 11.92 | 3.54 | 3.31 | 3.11 | 2.99 |        |
|                                  | 25 | 3.31 | 3.23  | 4.17                                             | 5.88 | 4.19 | 8.01 | 3.88 | 11.03 | 3.53 | 3.31 | 3.10 | 3.01 |        |
|                                  | 26 | 3.36 | 3.21  | 3.87                                             | 5.12 | 3.97 | 6.69 | 4.00 | 8.92  | 3.54 | 3.30 | 3.09 | 3.22 |        |
|                                  | 27 | 3.34 | 3.19  | 3.72                                             | 4.52 | 3.81 | 5.63 | 4.04 | 6.24  | 3.53 | 3.30 | 3.08 | 3.22 |        |
|                                  | 28 | 3.96 | 3.26  | 3.60                                             | 4.33 | 3.75 | 4.92 | 4.47 | 5.23  | 3.50 | 3.29 | 3.07 | 3.08 |        |
|                                  | 29 | 3.62 | 3.22  | 3.59                                             | 4.23 | 3.71 | 4.69 | 4.65 | 4.98  | 3.46 | 3.29 |      | 3.07 |        |
|                                  | 30 | 3.48 | 3.16  | 3.74                                             | 4.06 | 3.64 | 4.55 | 4.69 | 5.57  | 3.43 | 3.28 |      | 3.08 |        |
|                                  | 31 |      | 3.14  |                                                  | 4.20 | 3.64 |      | 4.12 |       | 3.48 | 3.28 |      | 3.08 |        |
| Mean                             |    | 3.40 | 3.34  | 3.64                                             | 4.80 | 4.15 | 4.89 | 4.46 | 4.99  | 3.78 | 3.37 | 3.18 | 3.03 |        |
| Max                              |    | 4.20 | 3.98  | 4.84                                             | 8.03 | 6.74 | 8.77 | 6.75 | 11.92 | 4.80 | 3.48 | 3.27 | 3.22 | 11.92  |
| Min                              |    | 3.02 | 3.14  | 3.16                                             | 3.51 | 3.64 | 3.59 | 3.88 | 3.54  | 3.43 | 3.28 | 3.07 | 2.96 | 2.96   |
| Annual Max Momentary Gage Height |    |      | 12.27 | m. (MSL.) , at 12.00 Hours , on Nov 24 , 2013    |      |      |      |      |       |      |      |      |      |        |
| Zero Gage at Bottom Elevation    |    |      | 0.00  | m. (MSL.) , River Bed 0.65 m. (MSL.)             |      |      |      |      |       |      |      |      |      |        |
| Left Bank Elevation              |    |      | 14.50 | m. (MSL.) ,                                      |      |      |      |      |       |      |      |      |      |        |
| Right Bank Elevation             |    |      | 14.45 | m. (MSL.) , Drainage Area 1814 Square Kilometers |      |      |      |      |       |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                               | May                      | Jun    | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-------------------------------------------------------------------|--------------------------|--------|---------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 5.40                                                              | 15.40                    | 8.10   | 37.50   | 136.70               | 26.15   | 67.40   | 43.00   | 89.00                    | 18.20  | 11.10  | 4.80   |          |        |
| 2              | 4.80                                                              | 15.80                    | 7.80   | 29.75   | 221.50               | 46.85   | 63.90   | 38.60   | 70.40                    | 18.20  | 11.10  | 4.80   |          |        |
| 3              | 7.20                                                              | 15.80                    | 7.80   | 27.50   | 117.20               | 51.25   | 49.60   | 34.20   | 58.40                    | 17.40  | 10.50  | 4.20   |          |        |
| 4              | 8.40                                                              | 14.40                    | 9.60   | 25.25   | 81.80                | 32.55   | 49.60   | 29.75   | 49.05                    | 16.20  | 10.20  | 3.90   |          |        |
| 5              | 10.80                                                             | 14.40                    | 11.10  | 25.70   | 60.05                | 35.85   | 47.40   | 29.30   | 45.75                    | 15.40  | 9.90   | 5.10   |          |        |
| 6              | 7.50                                                              | 14.10                    | 11.10  | 22.20   | 50.15                | 30.20   | 81.20   | 27.50   | 44.10                    | 15.40  | 9.90   | 6.30   |          |        |
| 7              | 6.90                                                              | 41.90                    | 10.80  | 20.60   | 46.30                | 29.30   | 112.40  | 27.05   | 40.80                    | 16.60  | 9.90   | 4.20   |          |        |
| 8              | 6.00                                                              | 21.40                    | 10.20  | 20.60   | 43.55                | 28.85   | 222.25  | 26.60   | 34.75                    | 17.00  | 9.90   | 3.90   |          |        |
| 9              | 6.30                                                              | 15.80                    | 9.90   | 19.40   | 44.10                | 28.40   | 156.90  | 44.10   | 33.65                    | 17.00  | 9.60   | 3.90   |          |        |
| 10             | 3.60                                                              | 14.40                    | 10.50  | 37.50   | 55.65                | 26.15   | 119.00  | 58.40   | 33.65                    | 16.20  | 9.00   | 3.90   |          |        |
| 11             | 4.20                                                              | 12.90                    | 8.70   | 56.75   | 44.10                | 22.60   | 96.80   | 34.20   | 32.55                    | 15.00  | 9.00   | 3.90   |          |        |
| 12             | 7.80                                                              | 15.80                    | 8.70   | 35.85   | 43.00                | 35.85   | 77.00   | 22.20   | 31.55                    | 14.40  | 8.70   | 3.00   |          |        |
| 13             | 17.40                                                             | 18.20                    | 10.20  | 35.30   | 52.90                | 44.10   | 69.20   | 21.40   | 28.40                    | 14.10  | 9.00   | 2.40   |          |        |
| 14             | 54.00                                                             | 16.20                    | 15.80  | 83.60   | 59.50                | 34.75   | 60.60   | 21.00   | 27.50                    | 14.10  | 9.00   | 2.40   |          |        |
| 15             | 40.80                                                             | 12.00                    | 30.65  | 75.80   | 49.60                | 31.10   | 58.40   | 20.60   | 27.50                    | 14.10  | 8.70   | 2.10   |          |        |
| 16             | 41.90                                                             | 10.80                    | 43.55  | 93.80   | 43.00                | 24.35   | 55.65   | 23.45   | 26.60                    | 14.10  | 8.70   | 2.10   |          |        |
| 17             | 34.75                                                             | 10.50                    | 30.20  | 78.80   | 33.10                | 26.60   | 46.85   | 78.20   | 27.05                    | 13.80  | 8.10   | 1.80   |          |        |
| 18             | 23.90                                                             | 10.20                    | 28.85  | 78.20   | 31.10                | 23.90   | 41.90   | 132.80  | 27.05                    | 13.50  | 9.00   | 1.80   |          |        |
| 19             | 19.40                                                             | 9.30                     | 24.80  | 249.80  | 29.30                | 46.30   | 45.75   | 102.20  | 26.60                    | 12.60  | 7.20   | 1.80   |          |        |
| 20             | 14.70                                                             | 10.50                    | 30.65  | 282.40  | 29.30                | 140.80  | 51.25   | 65.00   | 24.80                    | 12.60  | 6.90   | 1.80   |          |        |
| 21             | 14.10                                                             | 13.80                    | 89.60  | 283.30  | 28.40                | 340.00  | 40.80   | 40.80   | 23.45                    | 12.60  | 6.90   | 1.80   |          |        |
| 22             | 16.20                                                             | 13.50                    | 91.40  | 286.90  | 27.50                | 412.70  | 43.00   | 36.40   | 23.00                    | 12.60  | 6.60   | 2.10   |          |        |
| 23             | 13.20                                                             | 12.30                    | 62.80  | 337.00  | 27.50                | 397.30  | 58.95   | 346.00  | 21.80                    | 12.30  | 6.60   | 2.40   |          |        |
| 24             | 11.10                                                             | 11.10                    | 77.00  | 217.75  | 54.00                | 401.70  | 45.20   | 905.20  | 20.60                    | 12.30  | 6.30   | 2.70   |          |        |
| 25             | 12.30                                                             | 9.90                     | 52.35  | 157.60  | 53.45                | 335.00  | 36.40   | 699.25  | 20.20                    | 12.30  | 6.00   | 3.30   |          |        |
| 26             | 13.80                                                             | 9.30                     | 35.85  | 108.20  | 41.35                | 217.75  | 43.00   | 429.20  | 20.60                    | 12.00  | 5.70   | 9.60   |          |        |
| 27             | 13.20                                                             | 8.70                     | 28.40  | 72.20   | 32.55                | 140.10  | 45.20   | 184.00  | 20.20                    | 12.00  | 5.40   | 9.60   |          |        |
| 28             | 40.80                                                             | 10.80                    | 23.00  | 61.15   | 29.75                | 96.20   | 69.20   | 114.80  | 19.00                    | 11.70  | 5.10   | 5.40   |          |        |
| 29             | 23.90                                                             | 9.60                     | 22.60  | 55.65   | 27.95                | 82.40   | 80.00   | 99.80   | 17.40                    | 11.70  |        | 5.10   |          |        |
| 30             | 18.20                                                             | 7.80                     | 29.30  | 46.30   | 24.80                | 74.00   | 82.40   | 136.05  | 16.20                    | 11.40  |        | 5.40   |          |        |
| 31             |                                                                   | 7.20                     |        | 54.00   | 24.80                |         | 49.60   |         | 18.20                    | 11.40  |        | 5.40   |          |        |
| Total          | 502.55                                                            | 423.80                   | 841.30 | 3016.35 | 1643.95              | 3263.05 | 2166.80 | 3871.05 | 999.80                   | 438.20 | 234.00 | 120.90 | 17521.75 | CMSDAY |
| Mean           | 16.75                                                             | 13.67                    | 28.04  | 97.30   | 53.03                | 108.77  | 69.90   | 129.04  | 32.25                    | 14.14  | 8.36   | 3.90   | 48.00    | CMS    |
| Max            | 54.00                                                             | 41.90                    | 91.40  | 337.00  | 221.50               | 412.70  | 222.25  | 905.20  | 89.00                    | 18.20  | 11.10  | 9.60   | 905.20   | CMS    |
| Min            | 3.60                                                              | 7.20                     | 7.80   | 19.40   | 24.80                | 22.60   | 36.40   | 20.60   | 16.20                    | 11.40  | 5.10   | 1.80   | 1.80     | CMS    |
| Runoff         | 43.42                                                             | 36.62                    | 72.69  | 260.61  | 142.04               | 281.93  | 187.21  | 334.46  | 86.38                    | 37.86  | 20.22  | 10.45  | 1513.88  | MCM    |
| Momentary Peak | 1030.10 CMS. at 12.27 m. (MSL.) at 12.00 Hours , on Nov 24 , 2013 |                          |        |         |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 26.46                                                             | Liters/Second/Square KM. |        |         | Momentary Peak Yield |         |         | 567.820 | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA EAST COAST

**Khlong Sao Thong at Ban Sao Thong , Nakhon Si Thammarat (X.167)**

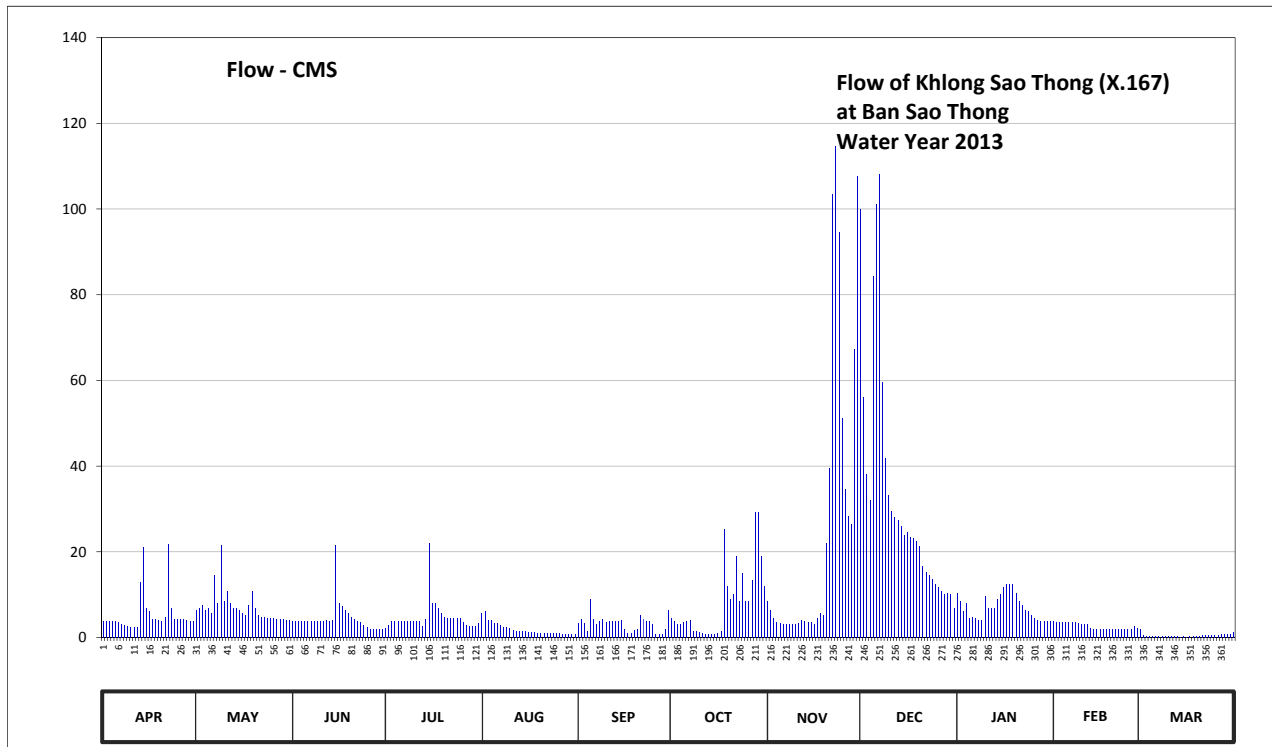
Lat 08 - 16 - 44 N    Long 99 - 54 - 30 E

**Location : on right bank at the bridge.**

|                                         |                                                                                           |           |               |            |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Sao Thong | <b>Amphoe</b> | Ron Phibun | <b>Changwat</b>  | Nakhon Si Thammarat |
| <b>Drainage Area</b>                    | 252                                                                                       | sq.km.    |               |            |                  |                     |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |            |                  |                     |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |            |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |            |                  |                     |
| <b>Location BM</b>                      | On right bank about 4.50 meters from the top staff gage.                                  |           |               |            | <b>Elevation</b> | +12.456 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |            |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |            |                  |                     |
| <b>Period of Available Gage Records</b> | 1986 to date                                                                              |           |               |            |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |           |               |            |                  |                     |
| <b>Period of Rating</b>                 | 1989 to date                                                                              |           |               |            |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |            |                  |                     |
| <b>Rated by Current Meter</b>           | 1989 to date                                                                              |           |               |            |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |               |            |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |            |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |           |               |            |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May   | Jun         | Jul  | Aug                               | Sep  | Oct               | Nov   | Dec   | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|-------|-------------|------|-----------------------------------|------|-------------------|-------|-------|------|------|------|--------|
| 1                                | 7.96 | 8.05  | 7.97        | 7.88 | 8.03                              | 7.94 | 8.00              | 8.10  | 11.50 | 8.15 | 7.96 | 7.87 |        |
| 2                                | 7.96 | 8.06  | 7.97        | 7.92 | 8.04                              | 7.99 | 7.97              | 8.05  | 10.38 | 8.10 | 7.95 | 7.79 |        |
| 3                                | 7.97 | 8.08  | 7.97        | 7.96 | 7.98                              | 7.94 | 7.93              | 8.00  | 9.66  | 8.04 | 7.95 | 7.76 |        |
| 4                                | 7.97 | 8.05  | 7.97        | 7.97 | 7.98                              | 7.84 | 7.93              | 7.95  | 9.32  | 8.09 | 7.95 | 7.76 |        |
| 5                                | 7.96 | 8.06  | 7.97        | 7.97 | 7.94                              | 8.11 | 7.95              | 7.94  | 11.16 | 8.00 | 7.95 | 7.76 |        |
| 6                                | 7.95 | 8.03  | 7.97        | 7.97 | 7.94                              | 7.99 | 7.97              | 7.93  | 11.52 | 8.01 | 7.95 | 7.76 |        |
| 7                                | 7.93 | 8.25  | 7.97        | 7.97 | 7.92                              | 7.93 | 7.98              | 7.93  | 11.66 | 8.00 | 7.95 | 7.76 |        |
| 8                                | 7.91 | 8.09  | 7.97        | 7.97 | 7.89                              | 7.97 | 7.84              | 7.93  | 10.50 | 7.98 | 7.95 | 7.75 |        |
| 9                                | 7.90 | 8.47  | 7.96        | 7.96 | 7.89                              | 7.99 | 7.84              | 7.93  | 9.84  | 7.98 | 7.94 | 7.75 |        |
| 10                               | 7.89 | 8.10  | 7.96        | 7.96 | 7.88                              | 7.95 | 7.83              | 7.93  | 9.39  | 8.13 | 7.93 | 7.75 |        |
| 11                               | 7.89 | 8.16  | 7.96        | 7.96 | 7.85                              | 7.96 | 7.81              | 7.94  | 9.15  | 8.06 | 7.93 | 7.75 |        |
| 12                               | 7.89 | 8.09  | 7.98        | 7.97 | 7.84                              | 7.97 | 7.80              | 7.98  | 9.05  | 8.06 | 7.93 | 7.75 |        |
| 13                               | 8.21 | 8.06  | 7.97        | 7.90 | 7.84                              | 7.97 | 7.80              | 7.97  | 9.01  | 8.06 | 7.88 | 7.75 |        |
| 14                               | 8.44 | 8.06  | 7.98        | 7.99 | 7.84                              | 7.96 | 7.80              | 7.95  | 8.89  | 8.11 | 7.86 | 7.72 |        |
| 15                               | 8.06 | 8.05  | 8.48        | 8.52 | 7.84                              | 7.98 | 7.80              | 7.95  | 8.71  | 8.14 | 7.86 | 7.75 |        |
| 16                               | 8.04 | 8.03  | 8.09        | 8.09 | 7.83                              | 7.87 | 7.81              | 7.93  | 8.77  | 8.18 | 7.86 | 7.73 |        |
| 17                               | 7.99 | 8.02  | 8.07        | 8.09 | 7.83                              | 7.82 | 7.84              | 8.00  | 8.67  | 8.20 | 7.86 | 7.74 |        |
| 18                               | 7.99 | 8.08  | 8.05        | 8.06 | 7.83                              | 7.81 | 8.83              | 8.03  | 8.65  | 8.20 | 7.86 | 7.74 |        |
| 19                               | 7.98 | 8.16  | 8.03        | 8.03 | 7.82                              | 7.85 | 8.19              | 8.02  | 8.58  | 8.20 | 7.86 | 7.75 |        |
| 20                               | 7.97 | 8.06  | 8.01        | 8.01 | 7.82                              | 7.87 | 8.11              | 8.53  | 8.45  | 8.15 | 7.86 | 7.76 |        |
| 21                               | 8.01 | 8.02  | 7.99        | 8.00 | 7.81                              | 8.02 | 8.14              | 9.73  | 8.30  | 8.10 | 7.86 | 7.78 |        |
| 22                               | 8.51 | 8.01  | 7.97        | 8.00 | 7.81                              | 7.99 | 8.36              | 11.57 | 8.27  | 8.08 | 7.86 | 7.78 |        |
| 23                               | 8.06 | 8.01  | 7.95        | 8.00 | 7.81                              | 7.97 | 8.10              | 11.79 | 8.25  | 8.05 | 7.86 | 7.78 |        |
| 24                               | 7.99 | 8.00  | 7.92        | 8.00 | 7.81                              | 7.96 | 8.26              | 11.39 | 8.23  | 8.04 | 7.86 | 7.78 |        |
| 25                               | 7.99 | 8.00  | 7.89        | 8.00 | 7.81                              | 7.93 | 8.10              | 10.22 | 8.20  | 8.02 | 7.86 | 7.79 |        |
| 26                               | 7.99 | 8.00  | 7.87        | 7.95 | 7.81                              | 7.80 | 8.10              | 9.46  | 8.18  | 8.00 | 7.87 | 7.79 |        |
| 27                               | 7.99 | 7.99  | 7.86        | 7.91 | 7.80                              | 7.80 | 8.22              | 9.07  | 8.16  | 7.98 | 7.90 | 7.80 |        |
| 28                               | 7.98 | 7.99  | 7.86        | 7.90 | 7.80                              | 7.80 | 9.14              | 8.93  | 8.14  | 7.97 | 7.88 | 7.80 |        |
| 29                               | 7.97 | 7.99  | 7.86        | 7.90 | 7.80                              | 7.86 | 9.13              | 10.73 | 8.15  | 7.97 |      | 7.80 |        |
| 30                               | 7.97 | 7.98  | 7.86        | 7.90 | 7.80                              | 8.05 | 8.36              | 11.65 | 8.14  | 7.97 |      | 7.80 |        |
| 31                               |      | 7.98  |             | 7.94 | 7.80                              |      | 8.19              |       | 8.06  | 7.97 |      | 7.83 |        |
| Mean                             | 8.01 | 8.06  | 7.98        | 7.99 | 7.86                              | 7.93 | 8.10              | 8.82  | 9.13  | 8.06 | 7.90 | 7.77 |        |
| Max                              | 8.51 | 8.47  | 8.48        | 8.52 | 8.04                              | 8.11 | 9.14              | 11.79 | 11.66 | 8.20 | 7.96 | 7.87 | 11.79  |
| Min                              | 7.89 | 7.98  | 7.86        | 7.88 | 7.80                              | 7.80 | 7.80              | 7.93  | 8.06  | 7.97 | 7.86 | 7.72 | 7.72   |
| Annual Max Momentary Gage Height |      | 11.88 | m. (MSL.) , |      | at 24.00 Hours , on Dec 22 , 2013 |      |                   |       |       |      |      |      |        |
| Zero Gage at Bottom Elevation    |      | 0.00  | m. (MSL.) , |      | River Bed                         | 7.49 | m. (MSL.)         |       |       |      |      |      |        |
| Left Bank Elevation              |      | 14.14 | m. (MSL.) , |      |                                   |      |                   |       |       |      |      |      |        |
| Right Bank Elevation             |      | 14.14 | m. (MSL.) , |      | Drainage Area                     | 252  | Square Kilometers |       |       |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun    | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec     | Jan    | Feb   | Mar   | Annual         |
|----------------|------------------------------------------------------------------|--------------------------|--------|----------------------|-------|---------|--------------------------|--------|---------|--------|-------|-------|----------------|
| 1              | 3.75                                                             | 6.50                     | 3.94   | 2.25                 | 5.70  | 3.38    | 4.50                     | 8.50   | 100.00  | 10.50  | 3.75  | 2.06  |                |
| 2              | 3.75                                                             | 6.90                     | 3.94   | 3.00                 | 6.10  | 4.31    | 3.94                     | 6.50   | 55.93   | 8.50   | 3.56  | 0.67  |                |
| 3              | 3.94                                                             | 7.70                     | 3.94   | 3.75                 | 4.13  | 3.38    | 3.19                     | 4.50   | 38.20   | 6.10   | 3.56  | 0.45  |                |
| 4              | 3.94                                                             | 6.50                     | 3.94   | 3.94                 | 4.13  | 1.50    | 3.19                     | 3.56   | 32.20   | 8.10   | 3.56  | 0.45  |                |
| 5              | 3.75                                                             | 6.90                     | 3.94   | 3.94                 | 3.38  | 8.90    | 3.56                     | 3.38   | 84.30   | 4.50   | 3.56  | 0.45  |                |
| 6              | 3.56                                                             | 5.70                     | 3.94   | 3.94                 | 3.38  | 4.31    | 3.94                     | 3.19   | 101.00  | 4.90   | 3.56  | 0.45  |                |
| 7              | 3.19                                                             | 14.56                    | 3.94   | 3.94                 | 3.00  | 3.19    | 4.13                     | 3.19   | 108.07  | 4.50   | 3.56  | 0.45  |                |
| 8              | 2.81                                                             | 8.10                     | 3.94   | 3.94                 | 2.44  | 3.94    | 1.50                     | 3.19   | 59.63   | 4.13   | 3.56  | 0.38  |                |
| 9              | 2.63                                                             | 21.45                    | 3.75   | 3.75                 | 2.44  | 4.31    | 1.50                     | 3.19   | 41.95   | 4.13   | 3.38  | 0.38  |                |
| 10             | 2.44                                                             | 8.50                     | 3.75   | 3.75                 | 2.25  | 3.56    | 1.31                     | 3.19   | 33.34   | 9.70   | 3.19  | 0.38  |                |
| 11             | 2.44                                                             | 10.90                    | 3.75   | 3.75                 | 1.69  | 3.75    | 0.94                     | 3.38   | 29.50   | 6.90   | 3.19  | 0.38  |                |
| 12             | 2.44                                                             | 8.10                     | 4.13   | 3.94                 | 1.50  | 3.94    | 0.75                     | 4.13   | 28.00   | 6.90   | 3.19  | 0.38  |                |
| 13             | 12.91                                                            | 6.90                     | 3.94   | 2.63                 | 1.50  | 3.94    | 0.75                     | 3.94   | 27.40   | 6.90   | 2.25  | 0.38  |                |
| 14             | 21.15                                                            | 6.90                     | 4.13   | 4.31                 | 1.50  | 3.75    | 0.75                     | 3.56   | 26.01   | 8.90   | 1.88  | 0.15  |                |
| 15             | 6.90                                                             | 6.50                     | 21.55  | 21.95                | 1.50  | 4.13    | 0.75                     | 3.56   | 23.99   | 10.10  | 1.88  | 0.38  |                |
| 16             | 6.10                                                             | 5.70                     | 8.10   | 8.10                 | 1.31  | 2.06    | 0.94                     | 3.19   | 24.66   | 11.70  | 1.88  | 0.23  |                |
| 17             | 4.31                                                             | 5.30                     | 7.30   | 8.10                 | 1.31  | 1.13    | 1.50                     | 4.50   | 23.54   | 12.50  | 1.88  | 0.30  |                |
| 18             | 4.31                                                             | 7.70                     | 6.50   | 6.90                 | 1.31  | 0.94    | 25.34                    | 5.70   | 23.31   | 12.50  | 1.88  | 0.30  |                |
| 19             | 4.13                                                             | 10.90                    | 5.70   | 5.70                 | 1.13  | 1.69    | 12.10                    | 5.30   | 22.55   | 12.50  | 1.88  | 0.38  |                |
| 20             | 3.94                                                             | 6.90                     | 4.90   | 4.90                 | 1.13  | 2.06    | 8.90                     | 22.05  | 21.25   | 10.50  | 1.88  | 0.45  |                |
| 21             | 4.90                                                             | 5.30                     | 4.31   | 4.50                 | 0.94  | 5.30    | 10.10                    | 39.60  | 16.63   | 8.50   | 1.88  | 0.60  |                |
| 22             | 21.85                                                            | 4.90                     | 3.94   | 4.50                 | 0.94  | 4.31    | 19.10                    | 103.50 | 15.39   | 7.70   | 1.88  | 0.60  |                |
| 23             | 6.90                                                             | 4.90                     | 3.56   | 4.50                 | 0.94  | 3.94    | 8.50                     | 114.74 | 14.56   | 6.50   | 1.88  | 0.60  |                |
| 24             | 4.31                                                             | 4.50                     | 3.00   | 4.50                 | 0.94  | 3.75    | 14.98                    | 94.55  | 13.74   | 6.10   | 1.88  | 0.60  |                |
| 25             | 4.31                                                             | 4.50                     | 2.44   | 4.50                 | 0.94  | 3.19    | 8.50                     | 51.33  | 12.50   | 5.30   | 1.88  | 0.67  |                |
| 26             | 4.31                                                             | 4.50                     | 2.06   | 3.56                 | 0.94  | 0.75    | 8.50                     | 34.55  | 11.70   | 4.50   | 2.06  | 0.67  |                |
| 27             | 4.31                                                             | 4.31                     | 1.88   | 2.81                 | 0.75  | 0.75    | 13.33                    | 28.30  | 10.90   | 4.13   | 2.63  | 0.75  |                |
| 28             | 4.13                                                             | 4.31                     | 1.88   | 2.63                 | 0.75  | 0.75    | 29.35                    | 26.46  | 10.10   | 3.94   | 2.25  | 0.75  |                |
| 29             | 3.94                                                             | 4.31                     | 1.88   | 2.63                 | 0.75  | 1.88    | 29.20                    | 67.30  | 10.50   | 3.94   |       | 0.75  |                |
| 30             | 3.94                                                             | 4.13                     | 1.88   | 2.63                 | 0.75  | 6.50    | 19.10                    | 107.56 | 10.10   | 3.94   |       | 0.75  |                |
| 31             |                                                                  | 4.13                     |        | 3.38                 | 0.75  |         | 12.10                    |        | 6.90    | 3.94   |       | 1.31  |                |
|                |                                                                  |                          |        |                      |       |         |                          |        |         |        |       |       |                |
| Total          | 165.29                                                           | 218.40                   | 135.85 | 146.62               | 60.22 | 99.29   | 256.24                   | 769.59 | 1037.85 | 222.95 | 73.37 | 17.50 | 3203.17 CMSDAY |
| Mean           | 5.51                                                             | 7.05                     | 4.53   | 4.73                 | 1.94  | 3.31    | 8.27                     | 25.65  | 33.48   | 7.19   | 2.62  | 0.56  | 8.78 CMS       |
| Max            | 21.85                                                            | 21.45                    | 21.55  | 21.95                | 6.10  | 8.90    | 29.35                    | 114.74 | 108.07  | 12.50  | 3.75  | 2.06  | 114.74 CMS     |
| Min            | 2.44                                                             | 4.13                     | 1.88   | 2.25                 | 0.75  | 0.75    | 0.75                     | 3.19   | 6.90    | 3.94   | 1.88  | 0.15  | 0.15 CMS       |
| Runoff         | 14.28                                                            | 18.87                    | 11.74  | 12.67                | 5.20  | 8.58    | 22.14                    | 66.49  | 89.67   | 19.26  | 6.34  | 1.51  | 276.75 MCM     |
| Momentary Peak | 119.55 CMS. at 11.88 m. (MSL.) at 24.00 Hours , on Nov 22 , 2013 |                          |        |                      |       |         |                          |        |         |        |       |       |                |
| Runoff Yield   | 34.83                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |       | 474.424 | Liters/Second/Square KM. |        |         |        |       |       |                |

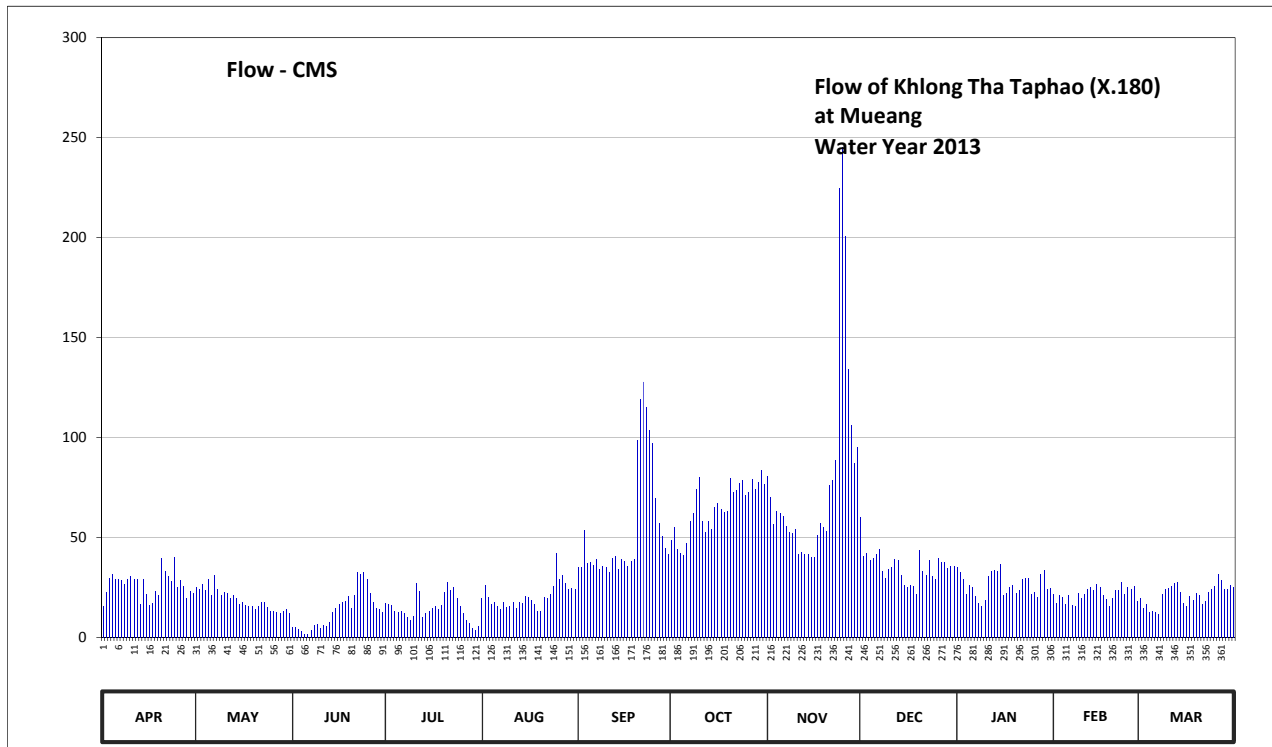
**WATER YEAR : 2013**  
**SOUTHERN PENINSULA EAST COAST**  
**Khlong Tha Taphao at Mueang , Chumphon (X.180)**  
Lat 10 - 29 - 42 N Long 99 - 10 - 23 E

Location : on left bank at the bridge.

|                                         |                                                                                           |           |               |        |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | -         | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Chumphon         |
| <b>Drainage Area</b>                    | 2,045                                                                                     | sq.km.    |               |        |                  |                  |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                  |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |           |               |        | <b>Elevation</b> | +5.896 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |        |                  |                  |
| <b>Period of Available Gage Records</b> | 1995 to date                                                                              |           |               |        |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                  |
| <b>Period of Rating</b>                 | 1995 to date                                                                              |           |               |        |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                  |
| <b>Rated by Current Meter</b>           | 1995 to date                                                                              |           |               |        |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |               |        |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                  |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2013. |           |               |        |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun         | Jul   | Aug  | Sep                               | Oct   | Nov               | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|-------------|-------|------|-----------------------------------|-------|-------------------|------|------|------|------|--------|
| 1                                | 0.29 | 0.55 | -0.09       | 0.33  | 0.41 | 0.80                              | 1.10  | 1.69              | 1.33 | 0.80 | 0.46 | 0.41 |        |
| 2                                | 0.49 | 0.53 | -0.09       | 0.31  | 0.58 | 0.81                              | 1.23  | 1.51              | 0.93 | 0.74 | 0.33 | 0.26 |        |
| 3                                | 0.67 | 0.59 | -0.13       | 0.30  | 0.42 | 1.20                              | 1.00  | 1.26              | 0.96 | 0.66 | 0.44 | 0.32 |        |
| 4                                | 0.72 | 0.51 | -0.17       | 0.21  | 0.32 | 0.85                              | 0.96  | 1.39              | 0.88 | 0.46 | 0.42 | 0.19 |        |
| 5                                | 0.66 | 0.66 | -0.23       | 0.19  | 0.35 | 0.86                              | 0.94  | 1.37              | 0.90 | 0.58 | 0.31 | 0.21 |        |
| 6                                | 0.66 | 0.45 | -0.23       | 0.20  | 0.28 | 0.83                              | 1.07  | 1.34              | 0.95 | 0.55 | 0.45 | 0.19 |        |
| 7                                | 0.64 | 0.71 | -0.16       | 0.17  | 0.24 | 0.89                              | 1.29  | 1.24              | 1.00 | 0.43 | 0.30 | 0.15 |        |
| 8                                | 0.59 | 0.52 | -0.05       | 0.09  | 0.34 | 0.78                              | 1.37  | 1.18              | 0.75 | 0.33 | 0.28 | 0.46 |        |
| 9                                | 0.66 | 0.44 | -0.03       | 0.05  | 0.27 | 0.82                              | 1.58  | 1.17              | 0.67 | 0.29 | 0.47 | 0.53 |        |
| 10                               | 0.69 | 0.49 | -0.11       | 0.12  | 0.29 | 0.80                              | 1.68  | 1.21              | 0.78 | 0.38 | 0.40 | 0.54 |        |
| 11                               | 0.65 | 0.47 | -0.06       | 0.61  | 0.35 | 0.74                              | 1.29  | 0.95              | 0.80 | 0.69 | 0.46 | 0.56 |        |
| 12                               | 0.66 | 0.40 | -0.07       | 0.50  | 0.26 | 0.90                              | 1.18  | 0.97              | 0.89 | 0.76 | 0.53 | 0.60 |        |
| 13                               | 0.31 | 0.45 | 0.01        | 0.09  | 0.34 | 0.93                              | 1.29  | 0.95              | 0.88 | 0.77 | 0.55 | 0.62 |        |
| 14                               | 0.65 | 0.40 | 0.19        | 0.18  | 0.33 | 0.78                              | 1.21  | 0.95              | 0.71 | 0.76 | 0.51 | 0.49 |        |
| 15                               | 0.46 | 0.31 | 0.25        | 0.21  | 0.43 | 0.89                              | 1.42  | 0.92              | 0.58 | 0.84 | 0.59 | 0.33 |        |
| 16                               | 0.30 | 0.34 | 0.32        | 0.26  | 0.42 | 0.87                              | 1.46  | 0.92              | 0.55 | 0.44 | 0.55 | 0.28 |        |
| 17                               | 0.33 | 0.30 | 0.35        | 0.29  | 0.37 | 0.82                              | 1.40  | 1.15              | 0.58 | 0.47 | 0.45 | 0.43 |        |
| 18                               | 0.50 | 0.28 | 0.36        | 0.24  | 0.32 | 0.87                              | 1.38  | 1.27              | 0.56 | 0.55 | 0.39 | 0.38 |        |
| 19                               | 0.45 | 0.28 | 0.43        | 0.30  | 0.21 | 0.89                              | 1.39  | 1.23              | 0.46 | 0.58 | 0.29 | 0.47 |        |
| 20                               | 0.90 | 0.23 | 0.26        | 0.49  | 0.20 | 1.96                              | 1.67  | 1.19              | 0.99 | 0.48 | 0.41 | 0.44 |        |
| 21                               | 0.76 | 0.29 | 0.44        | 0.62  | 0.42 | 2.25                              | 1.55  | 1.61              | 0.76 | 0.51 | 0.51 | 0.31 |        |
| 22                               | 0.69 | 0.34 | 0.74        | 0.51  | 0.40 | 2.37                              | 1.57  | 1.65              | 0.70 | 0.65 | 0.51 | 0.36 |        |
| 23                               | 0.63 | 0.34 | 0.72        | 0.55  | 0.46 | 2.20                              | 1.63  | 1.82              | 0.88 | 0.67 | 0.62 | 0.49 |        |
| 24                               | 0.92 | 0.27 | 0.74        | 0.41  | 0.56 | 2.03                              | 1.65  | 3.55              | 0.69 | 0.67 | 0.46 | 0.53 |        |
| 25                               | 0.55 | 0.21 | 0.66        | 0.28  | 0.96 | 1.94                              | 1.53  | 3.78              | 0.66 | 0.46 | 0.55 | 0.57 |        |
| 26                               | 0.64 | 0.21 | 0.47        | 0.18  | 0.65 | 1.50                              | 1.55  | 3.28              | 0.90 | 0.49 | 0.53 | 0.72 |        |
| 27                               | 0.57 | 0.19 | 0.34        | 0.05  | 0.70 | 1.27                              | 1.66  | 2.45              | 0.86 | 0.42 | 0.57 | 0.64 |        |
| 28                               | 0.41 | 0.17 | 0.25        | -0.02 | 0.61 | 1.14                              | 1.58  | 2.07              | 0.86 | 0.72 | 0.36 | 0.52 |        |
| 29                               | 0.50 | 0.20 | 0.23        | -0.11 | 0.53 | 1.02                              | 1.64  | 1.80              | 0.79 | 0.77 |      | 0.52 |        |
| 30                               | 0.48 | 0.23 | 0.19        | -0.15 | 0.54 | 0.95                              | 1.74  | 1.91              | 0.82 | 0.53 |      | 0.58 |        |
| 31                               |      | 0.18 |             | -0.07 | 0.53 |                                   | 1.62  |                   | 0.82 | 0.54 |      | 0.55 |        |
| Mean                             | 0.58 | 0.37 | 0.18        | 0.24  | 0.42 | 1.17                              | 1.41  | 1.59              | 0.80 | 0.58 | 0.45 | 0.44 |        |
| Max                              | 0.92 | 0.71 | 0.74        | 0.62  | 0.96 | 2.37                              | 1.74  | 3.78              | 1.33 | 0.84 | 0.62 | 0.72 | 3.78   |
| Min                              | 0.29 | 0.17 | -0.23       | -0.15 | 0.20 | 0.74                              | 0.94  | 0.92              | 0.46 | 0.29 | 0.28 | 0.15 | -0.23  |
| Annual Max Momentary Gage Height | 3.90 |      | m. (MSL.) , |       |      | at 02.00 Hours , on Nov 25 , 2013 |       |                   |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (MSL.) , |       |      | River Bed                         | -5.13 | m. (MSL.)         |      |      |      |      |        |
| Left Bank Elevation              | 6.47 |      | m. (MSL.) , |       |      |                                   |       |                   |      |      |      |      |        |
| Right Bank Elevation             | 7.08 |      | m. (MSL.) , |       |      | Drainage Area                     | 2045  | Square Kilometers |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul    | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|--------|--------|----------------------|---------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 15.93                                                           | 25.12                    | 5.25   | 17.22  | 19.87                | 35.00   | 48.75   | 80.90   | 60.33                    | 35.00  | 21.75  | 19.87  |          |        |
| 2              | 22.87                                                           | 24.37                    | 5.25   | 16.57  | 26.25                | 35.45   | 55.08   | 70.32   | 40.85                    | 32.60  | 17.22  | 14.95  |          |        |
| 3              | 29.80                                                           | 26.62                    | 4.25   | 16.25  | 20.25                | 53.50   | 44.00   | 56.65   | 42.20                    | 29.40  | 21.00  | 16.90  |          |        |
| 4              | 31.80                                                           | 23.62                    | 3.25   | 13.32  | 16.90                | 37.25   | 42.20   | 63.48   | 38.60                    | 21.75  | 20.25  | 12.73  |          |        |
| 5              | 29.40                                                           | 29.40                    | 1.75   | 12.73  | 17.87                | 37.70   | 41.30   | 62.43   | 39.50                    | 26.25  | 16.57  | 13.32  |          |        |
| 6              | 29.40                                                           | 21.37                    | 1.75   | 13.00  | 15.60                | 36.35   | 47.33   | 60.85   | 41.75                    | 25.12  | 21.37  | 12.73  |          |        |
| 7              | 28.60                                                           | 31.40                    | 3.50   | 12.18  | 14.30                | 39.05   | 58.22   | 55.60   | 44.00                    | 20.62  | 16.25  | 11.63  |          |        |
| 8              | 26.62                                                           | 24.00                    | 6.25   | 9.98   | 17.55                | 34.20   | 62.43   | 52.55   | 33.00                    | 17.22  | 15.60  | 21.75  |          |        |
| 9              | 29.40                                                           | 21.00                    | 6.75   | 8.88   | 15.28                | 35.90   | 74.35   | 52.07   | 29.80                    | 15.93  | 22.12  | 24.37  |          |        |
| 10             | 30.60                                                           | 22.87                    | 4.75   | 10.80  | 15.93                | 35.00   | 80.30   | 54.03   | 34.20                    | 18.85  | 19.50  | 24.75  |          |        |
| 11             | 29.00                                                           | 22.12                    | 6.00   | 27.40  | 17.87                | 32.60   | 58.22   | 41.75   | 35.00                    | 30.60  | 21.75  | 25.50  |          |        |
| 12             | 29.40                                                           | 19.50                    | 5.75   | 23.25  | 14.95                | 39.50   | 52.55   | 42.65   | 39.05                    | 33.40  | 24.37  | 27.00  |          |        |
| 13             | 16.57                                                           | 21.37                    | 7.78   | 9.98   | 17.55                | 40.85   | 58.22   | 41.75   | 38.60                    | 33.80  | 25.12  | 27.80  |          |        |
| 14             | 29.00                                                           | 19.50                    | 12.73  | 12.45  | 17.22                | 34.20   | 54.03   | 41.75   | 31.40                    | 33.40  | 23.62  | 22.87  |          |        |
| 15             | 21.75                                                           | 16.57                    | 14.63  | 13.32  | 20.62                | 39.05   | 65.15   | 40.40   | 26.25                    | 36.80  | 26.62  | 17.22  |          |        |
| 16             | 16.25                                                           | 17.55                    | 16.90  | 14.95  | 20.25                | 38.15   | 67.45   | 40.40   | 25.12                    | 21.00  | 25.12  | 15.60  |          |        |
| 17             | 17.22                                                           | 16.25                    | 17.87  | 15.93  | 18.52                | 35.90   | 64.00   | 51.12   | 26.25                    | 22.12  | 21.37  | 20.62  |          |        |
| 18             | 23.25                                                           | 15.60                    | 18.20  | 14.30  | 16.90                | 38.15   | 62.95   | 57.18   | 25.50                    | 25.12  | 19.17  | 18.85  |          |        |
| 19             | 21.37                                                           | 15.60                    | 20.62  | 16.25  | 13.32                | 39.05   | 63.48   | 55.08   | 21.75                    | 26.25  | 15.93  | 22.12  |          |        |
| 20             | 39.50                                                           | 13.98                    | 14.95  | 22.87  | 13.00                | 98.70   | 79.70   | 53.03   | 43.55                    | 22.50  | 19.87  | 21.00  |          |        |
| 21             | 33.40                                                           | 15.93                    | 21.00  | 27.80  | 20.25                | 119.12  | 72.62   | 76.10   | 33.40                    | 23.62  | 23.62  | 16.57  |          |        |
| 22             | 30.60                                                           | 17.55                    | 32.60  | 23.62  | 19.50                | 127.82  | 73.77   | 78.50   | 31.00                    | 29.00  | 23.62  | 18.20  |          |        |
| 23             | 28.20                                                           | 17.55                    | 31.80  | 25.12  | 21.75                | 115.50  | 77.30   | 88.90   | 38.60                    | 29.80  | 27.80  | 22.87  |          |        |
| 24             | 40.40                                                           | 15.28                    | 32.60  | 19.87  | 25.50                | 103.60  | 78.50   | 224.50  | 30.60                    | 29.80  | 21.75  | 24.37  |          |        |
| 25             | 25.12                                                           | 13.32                    | 29.40  | 15.60  | 42.20                | 97.30   | 71.47   | 245.20  | 29.40                    | 21.75  | 25.12  | 25.87  |          |        |
| 26             | 28.60                                                           | 13.32                    | 22.12  | 12.45  | 29.00                | 69.75   | 72.62   | 200.80  | 39.50                    | 22.87  | 24.37  | 31.80  |          |        |
| 27             | 25.87                                                           | 12.73                    | 17.55  | 8.88   | 31.00                | 57.18   | 79.10   | 133.88  | 37.70                    | 20.25  | 25.87  | 28.60  |          |        |
| 28             | 19.87                                                           | 12.18                    | 14.63  | 7.00   | 27.40                | 50.65   | 74.35   | 106.40  | 37.70                    | 31.80  | 18.20  | 24.00  |          |        |
| 29             | 23.25                                                           | 13.00                    | 13.98  | 4.75   | 24.37                | 44.95   | 77.90   | 87.50   | 34.60                    | 33.80  |        | 24.00  |          |        |
| 30             | 22.50                                                           | 13.98                    | 12.73  | 3.75   | 24.75                | 41.75   | 83.90   | 95.20   | 35.90                    | 24.37  |        | 26.25  |          |        |
| 31             |                                                                 | 12.45                    |        | 5.75   | 24.37                |         | 76.70   |         | 35.90                    | 24.75  |        | 25.12  |          |        |
| Total          | 795.54                                                          | 585.10                   | 406.59 | 456.22 | 640.09               | 1643.17 | 2017.94 | 2410.97 | 1101.00                  | 819.54 | 604.92 | 659.23 | 12140.31 | CMSDAY |
| Mean           | 26.52                                                           | 18.87                    | 13.55  | 14.72  | 20.65                | 54.77   | 65.09   | 80.37   | 35.52                    | 26.44  | 21.60  | 21.27  | 33.26    | CMS    |
| Max            | 40.40                                                           | 31.40                    | 32.60  | 27.80  | 42.20                | 127.82  | 83.90   | 245.20  | 60.33                    | 36.80  | 27.80  | 31.80  | 245.20   | CMS    |
| Min            | 15.93                                                           | 12.18                    | 1.75   | 3.75   | 13.00                | 32.60   | 41.30   | 40.40   | 21.75                    | 15.93  | 15.60  | 11.63  | 1.75     | CMS    |
| Runoff         | 68.74                                                           | 50.55                    | 35.13  | 39.42  | 55.30                | 141.97  | 174.35  | 208.31  | 95.13                    | 70.81  | 52.27  | 56.96  | 1048.92  | MCM    |
| Momentary Peak | 256.00 CMS. at 3.90 m. (MSL.) at 02.00 Hours , on Nov 25 , 2013 |                          |        |        |                      |         |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 16.26                                                           | Liters/Second/Square KM. |        |        | Momentary Peak Yield |         |         | 125.183 | Liters/Second/Square KM. |        |        |        |          |        |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA EAST COAST

**Upper Khlong Thadee at Ban Wang Sai , Nakhon Si Thammarat (X.200**

Lat 08 - 24 - 32 N      Long 99 - 47 - 54 E

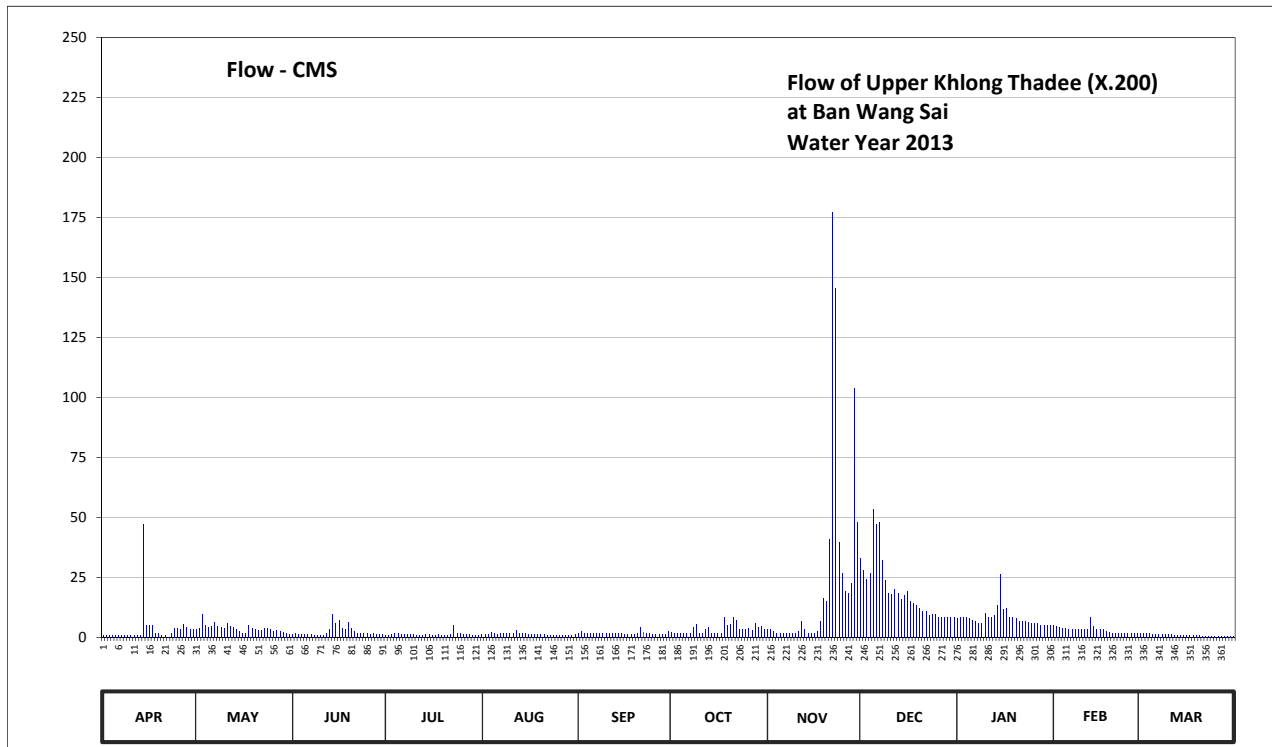
**Location :** on right bank at Ban Wang Sai.

|                                         |                                                                                           |           |               |          |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|----------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Wang Sai  | <b>Amphoe</b> | Lan Saka | <b>Changwat</b>  | Nakhon Si Thammarat |
| <b>Drainage Area</b>                    | 83                                                                                        | sq.km.    |               |          |                  |                     |
| <b>Type of Gage</b>                     | Staff gage.                                                                               |           |               |          |                  |                     |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |          |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |          |                  |                     |
| <b>Location BM</b>                      | On right bank near the gage site.                                                         |           |               |          | <b>Elevation</b> | +36.394 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |          |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |          |                  |                     |
| <b>Period of Available Gage Records</b> | 2006 to date                                                                              |           |               |          |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |           |               |          |                  |                     |
| <b>Period of Rating</b>                 | 2006 to date                                                                              |           |               |          |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |          |                  |                     |
| <b>Rated by Current Meter</b>           | 2006 to date                                                                              |           |               |          |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |          |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |          |                  |                     |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |           |               |          |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun         | Jul   | Aug   | Sep                               | Oct   | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|-------------|-------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|--------|
|                                  | 1  | 31.30 | 31.44 | 31.33       | 31.32 | 31.34 | 31.40                             | 31.41 | 31.44             | 32.09 | 31.58 | 31.49 | 31.39 |        |
|                                  | 2  | 31.30 | 31.46 | 31.40       | 31.32 | 31.35 | 31.42                             | 31.39 | 31.44             | 32.00 | 31.59 | 31.48 | 31.41 |        |
|                                  | 3  | 31.30 | 31.62 | 31.34       | 31.34 | 31.36 | 31.38                             | 31.38 | 31.42             | 31.93 | 31.59 | 31.47 | 31.41 |        |
|                                  | 4  | 31.30 | 31.50 | 31.34       | 31.37 | 31.41 | 31.37                             | 31.37 | 31.40             | 31.98 | 31.59 | 31.46 | 31.51 |        |
|                                  | 5  | 31.30 | 31.47 | 31.33       | 31.39 | 31.38 | 31.37                             | 31.40 | 31.38             | 32.42 | 31.58 | 31.46 | 31.80 |        |
|                                  | 6  | 31.30 | 31.48 | 31.33       | 31.35 | 31.36 | 31.39                             | 31.39 | 31.37             | 32.33 | 31.56 | 31.45 | 31.79 |        |
|                                  | 7  | 31.30 | 31.53 | 31.33       | 31.34 | 31.40 | 31.38                             | 31.39 | 31.37             | 32.34 | 31.54 | 31.45 | 31.80 |        |
|                                  | 8  | 31.30 | 31.48 | 31.31       | 31.35 | 31.38 | 31.40                             | 31.47 | 31.37             | 32.08 | 31.52 | 31.45 | 31.80 |        |
|                                  | 9  | 31.30 | 31.47 | 31.31       | 31.33 | 31.37 | 31.38                             | 31.51 | 31.37             | 31.92 | 31.52 | 31.44 | 31.80 |        |
|                                  | 10 | 31.30 | 31.46 | 31.32       | 31.33 | 31.37 | 31.37                             | 31.39 | 31.37             | 31.81 | 31.63 | 31.44 | 31.80 |        |
|                                  | 11 | 31.30 | 31.52 | 31.32       | 31.32 | 31.38 | 31.37                             | 31.39 | 31.42             | 31.80 | 31.60 | 31.44 | 31.80 |        |
|                                  | 12 | 31.30 | 31.48 | 31.38       | 31.32 | 31.43 | 31.40                             | 31.44 | 31.55             | 31.84 | 31.60 | 31.44 | 31.84 |        |
|                                  | 13 | 31.30 | 31.47 | 31.44       | 31.32 | 31.38 | 31.40                             | 31.47 | 31.44             | 31.81 | 31.61 | 31.59 | 31.84 |        |
|                                  | 14 | 32.33 | 31.45 | 31.62       | 31.33 | 31.38 | 31.37                             | 31.40 | 31.40             | 31.76 | 31.70 | 31.48 | 31.84 |        |
|                                  | 15 | 31.50 | 31.42 | 31.52       | 31.35 | 31.38 | 31.37                             | 31.39 | 31.40             | 31.79 | 31.97 | 31.45 | 31.86 |        |
|                                  | 16 | 31.50 | 31.38 | 31.56       | 31.32 | 31.36 | 31.36                             | 31.38 | 31.40             | 31.83 | 31.67 | 31.44 | 31.93 |        |
|                                  | 17 | 31.50 | 31.40 | 31.46       | 31.32 | 31.35 | 31.35                             | 31.38 | 31.42             | 31.74 | 31.68 | 31.44 | 31.84 |        |
|                                  | 18 | 31.40 | 31.49 | 31.44       | 31.34 | 31.34 | 31.35                             | 31.59 | 31.54             | 31.72 | 31.60 | 31.42 | 31.84 |        |
|                                  | 19 | 31.40 | 31.46 | 31.53       | 31.32 | 31.34 | 31.34                             | 31.49 | 31.77             | 31.70 | 31.60 | 31.41 | 31.84 |        |
|                                  | 20 | 31.30 | 31.45 | 31.46       | 31.32 | 31.34 | 31.40                             | 31.51 | 31.74             | 31.68 | 31.58 | 31.40 | 31.84 |        |
|                                  | 21 | 31.30 | 31.43 | 31.42       | 31.32 | 31.33 | 31.47                             | 31.60 | 32.23             | 31.65 | 31.54 | 31.40 | 31.94 |        |
|                                  | 22 | 31.30 | 31.43 | 31.40       | 31.36 | 31.32 | 31.41                             | 31.56 | 33.87             | 31.65 | 31.54 | 31.40 | 31.93 |        |
|                                  | 23 | 31.40 | 31.46 | 31.38       | 31.50 | 31.32 | 31.39                             | 31.44 | 33.54             | 31.61 | 31.54 | 31.40 | 31.92 |        |
|                                  | 24 | 31.46 | 31.46 | 31.39       | 31.38 | 31.32 | 31.37                             | 31.44 | 32.21             | 31.62 | 31.53 | 31.40 | 31.92 |        |
|                                  | 25 | 31.46 | 31.44 | 31.37       | 31.38 | 31.32 | 31.36                             | 31.44 | 31.98             | 31.62 | 31.52 | 31.40 | 31.90 |        |
|                                  | 26 | 31.45 | 31.42 | 31.36       | 31.35 | 31.32 | 31.34                             | 31.46 | 31.83             | 31.60 | 31.52 | 31.39 | 31.90 |        |
|                                  | 27 | 31.51 | 31.43 | 31.37       | 31.35 | 31.32 | 31.33                             | 31.43 | 31.81             | 31.60 | 31.52 | 31.39 | 31.90 |        |
|                                  | 28 | 31.47 | 31.42 | 31.35       | 31.34 | 31.31 | 31.34                             | 31.52 | 31.89             | 31.59 | 31.50 | 31.39 | 31.90 |        |
|                                  | 29 | 31.45 | 31.41 | 31.34       | 31.32 | 31.31 | 31.36                             | 31.47 | 33.08             | 31.59 | 31.50 |       | 31.93 |        |
|                                  | 30 | 31.45 | 31.39 | 31.34       | 31.32 | 31.32 | 31.42                             | 31.48 | 32.34             | 31.59 | 31.49 |       | 31.86 |        |
|                                  | 31 |       | 31.36 |             | 31.32 | 31.33 |                                   | 31.44 |                   | 31.59 | 31.49 |       | 31.84 |        |
| Mean                             |    | 31.40 | 31.45 | 31.39       | 31.34 | 31.35 | 31.38                             | 31.45 | 31.79             | 31.82 | 31.58 | 31.44 | 31.80 |        |
| Max                              |    | 32.33 | 31.62 | 31.62       | 31.50 | 31.43 | 31.47                             | 31.60 | 33.87             | 32.42 | 31.97 | 31.59 | 31.94 | 33.87  |
| Min                              |    | 31.30 | 31.36 | 31.31       | 31.32 | 31.31 | 31.33                             | 31.37 | 31.37             | 31.59 | 31.49 | 31.39 | 31.39 | 31.30  |
| Annual Max Momentary Gage Height |    |       | 36.04 | m. (MSL.) , |       |       | at 01.00 Hours , on Nov 23 , 2013 |       |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 0.00  | m. (MSL.) , |       |       | River Bed                         | 30.64 | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              |    |       | 36.34 | m. (MSL.) , |       |       |                                   |       |                   |       |       |       |       |        |
| Right Bank Elevation             |    |       | 36.45 | m. (MSL.) , |       |       | Drainage Area                     | 83    | Square Kilometers |       |       |       |       |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                       | May                      | Jun   | Jul   | Aug                  | Sep   | Oct    | Nov      | Dec                      | Jan    | Feb   | Mar   | Annual  |        |
|----------------|-----------------------------------------------------------|--------------------------|-------|-------|----------------------|-------|--------|----------|--------------------------|--------|-------|-------|---------|--------|
| 1              | 1.00                                                      | 3.35                     | 1.30  | 1.20  | 1.40                 | 2.00  | 2.34   | 3.35     | 32.95                    | 8.07   | 5.04  | 1.90  |         |        |
| 2              | 1.00                                                      | 4.02                     | 2.00  | 1.20  | 1.50                 | 2.68  | 1.90   | 3.35     | 28.00                    | 8.41   | 4.70  | 1.82  |         |        |
| 3              | 1.00                                                      | 9.68                     | 1.40  | 1.40  | 1.60                 | 1.80  | 1.80   | 2.68     | 24.50                    | 8.41   | 4.36  | 1.74  |         |        |
| 4              | 1.00                                                      | 5.38                     | 1.40  | 1.70  | 2.34                 | 1.70  | 1.70   | 2.00     | 27.00                    | 8.41   | 4.02  | 1.67  |         |        |
| 5              | 1.00                                                      | 4.36                     | 1.30  | 1.90  | 1.80                 | 1.70  | 2.00   | 1.80     | 53.40                    | 8.07   | 4.02  | 1.59  |         |        |
| 6              | 1.00                                                      | 4.70                     | 1.30  | 1.50  | 1.60                 | 1.90  | 1.90   | 1.70     | 47.45                    | 7.40   | 3.69  | 1.53  |         |        |
| 7              | 1.00                                                      | 6.39                     | 1.30  | 1.40  | 2.00                 | 1.80  | 1.90   | 1.70     | 48.10                    | 6.73   | 3.69  | 1.46  |         |        |
| 8              | 1.00                                                      | 4.70                     | 1.10  | 1.50  | 1.80                 | 2.00  | 4.36   | 1.70     | 32.40                    | 6.05   | 3.69  | 1.40  |         |        |
| 9              | 1.00                                                      | 4.36                     | 1.10  | 1.30  | 1.70                 | 1.80  | 5.71   | 1.70     | 24.00                    | 6.05   | 3.35  | 1.34  |         |        |
| 10             | 1.00                                                      | 4.02                     | 1.20  | 1.30  | 1.70                 | 1.70  | 1.90   | 1.70     | 18.50                    | 10.14  | 3.35  | 1.28  |         |        |
| 11             | 1.00                                                      | 6.05                     | 1.20  | 1.20  | 1.80                 | 1.70  | 1.90   | 2.68     | 18.00                    | 8.75   | 3.35  | 1.22  |         |        |
| 12             | 1.00                                                      | 4.70                     | 1.80  | 1.20  | 3.01                 | 2.00  | 3.35   | 7.06     | 20.00                    | 8.75   | 3.35  | 1.17  |         |        |
| 13             | 1.00                                                      | 4.36                     | 3.35  | 1.20  | 1.80                 | 2.00  | 4.36   | 3.35     | 18.50                    | 9.21   | 8.41  | 1.12  |         |        |
| 14             | 47.45                                                     | 3.69                     | 9.68  | 1.30  | 1.80                 | 1.70  | 2.00   | 2.00     | 16.15                    | 13.38  | 4.70  | 1.07  |         |        |
| 15             | 5.38                                                      | 2.68                     | 6.05  | 1.50  | 1.80                 | 1.70  | 1.90   | 2.00     | 17.54                    | 26.50  | 3.69  | 1.03  |         |        |
| 16             | 5.38                                                      | 1.80                     | 7.40  | 1.20  | 1.60                 | 1.60  | 1.80   | 2.00     | 19.50                    | 11.99  | 3.35  | 0.98  |         |        |
| 17             | 5.38                                                      | 2.00                     | 4.02  | 1.20  | 1.50                 | 1.50  | 1.80   | 2.68     | 15.23                    | 12.45  | 3.35  | 0.94  |         |        |
| 18             | 2.00                                                      | 5.04                     | 3.35  | 1.40  | 1.40                 | 1.50  | 8.41   | 6.73     | 14.30                    | 8.75   | 2.68  | 0.90  |         |        |
| 19             | 2.00                                                      | 4.02                     | 6.39  | 1.20  | 1.40                 | 1.40  | 5.04   | 16.61    | 13.38                    | 8.75   | 2.34  | 0.86  |         |        |
| 20             | 1.00                                                      | 3.69                     | 4.02  | 1.20  | 1.40                 | 2.00  | 5.71   | 15.23    | 12.45                    | 8.07   | 2.00  | 0.82  |         |        |
| 21             | 1.00                                                      | 3.01                     | 2.68  | 1.20  | 1.30                 | 4.36  | 8.75   | 40.95    | 11.06                    | 6.73   | 2.00  | 0.79  |         |        |
| 22             | 0.10                                                      | 3.01                     | 2.00  | 1.60  | 1.20                 | 2.34  | 7.40   | 177.35   | 11.06                    | 6.73   | 2.00  | 0.75  |         |        |
| 23             | 2.00                                                      | 4.02                     | 1.80  | 5.38  | 1.20                 | 1.90  | 3.35   | 145.30   | 9.21                     | 6.73   | 2.00  | 0.72  |         |        |
| 24             | 4.02                                                      | 4.02                     | 1.90  | 1.80  | 1.20                 | 1.70  | 3.35   | 39.65    | 9.68                     | 6.39   | 2.00  | 0.69  |         |        |
| 25             | 4.02                                                      | 3.35                     | 1.70  | 1.80  | 1.20                 | 1.60  | 3.35   | 27.00    | 9.68                     | 6.05   | 2.00  | 0.66  |         |        |
| 26             | 3.69                                                      | 2.68                     | 1.60  | 1.50  | 1.20                 | 1.40  | 4.02   | 19.50    | 8.75                     | 6.05   | 1.90  | 0.63  |         |        |
| 27             | 5.71                                                      | 3.01                     | 1.70  | 1.50  | 1.20                 | 1.30  | 3.01   | 18.50    | 8.75                     | 6.05   | 1.90  | 0.61  |         |        |
| 28             | 4.36                                                      | 2.68                     | 1.50  | 1.40  | 1.10                 | 1.40  | 6.05   | 22.50    | 8.41                     | 5.38   | 1.90  | 0.58  |         |        |
| 29             | 3.69                                                      | 2.34                     | 1.40  | 1.20  | 1.10                 | 1.60  | 4.36   | 103.80   | 8.41                     | 5.38   |       | 0.55  |         |        |
| 30             | 3.69                                                      | 1.90                     | 1.40  | 1.20  | 1.20                 | 2.68  | 4.70   | 48.10    | 8.41                     | 5.04   |       | 0.53  |         |        |
| 31             |                                                           | 1.60                     |       | 1.20  | 1.30                 |       | 3.35   |          | 8.41                     | 5.04   |       | 0.51  |         |        |
| Total          | 113.87                                                    | 120.61                   | 78.34 | 46.78 | 48.15                | 56.46 | 113.47 | 724.67   | 603.18                   | 259.91 | 92.83 | 32.86 | 2291.13 | CMSDAY |
| Mean           | 3.80                                                      | 3.89                     | 2.61  | 1.51  | 1.55                 | 1.88  | 3.66   | 24.16    | 19.46                    | 8.38   | 3.32  | 1.06  | 6.28    | CMS    |
| Max            | 47.45                                                     | 9.68                     | 9.68  | 5.38  | 3.01                 | 4.36  | 8.75   | 177.35   | 53.40                    | 26.50  | 8.41  | 1.90  | 177.35  | CMS    |
| Min            | 0.10                                                      | 1.60                     | 1.10  | 1.20  | 1.10                 | 1.30  | 1.70   | 1.70     | 8.41                     | 5.04   | 1.90  | 0.51  | 0.10    | CMS    |
| Runoff         | 9.84                                                      | 10.42                    | 6.77  | 4.04  | 4.16                 | 4.88  | 9.80   | 62.61    | 52.12                    | 22.46  | 8.02  | 2.84  | 197.95  | MCM    |
| Momentary Peak | CMS. at 36.04 m. (MSL.) at 01.00 Hours , on Nov 23 , 2013 |                          |       |       |                      |       |        |          |                          |        |       |       |         |        |
| Runoff Yield   | 75.62                                                     | Liters/Second/Square KM. |       |       | Momentary Peak Yield |       |        | 5493.314 | Liters/Second/Square KM. |        |       |       |         |        |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA EAST COAST

**Khlong Thadee at Ban Na Pa , Nakhon Si Thammarat (X.203)**

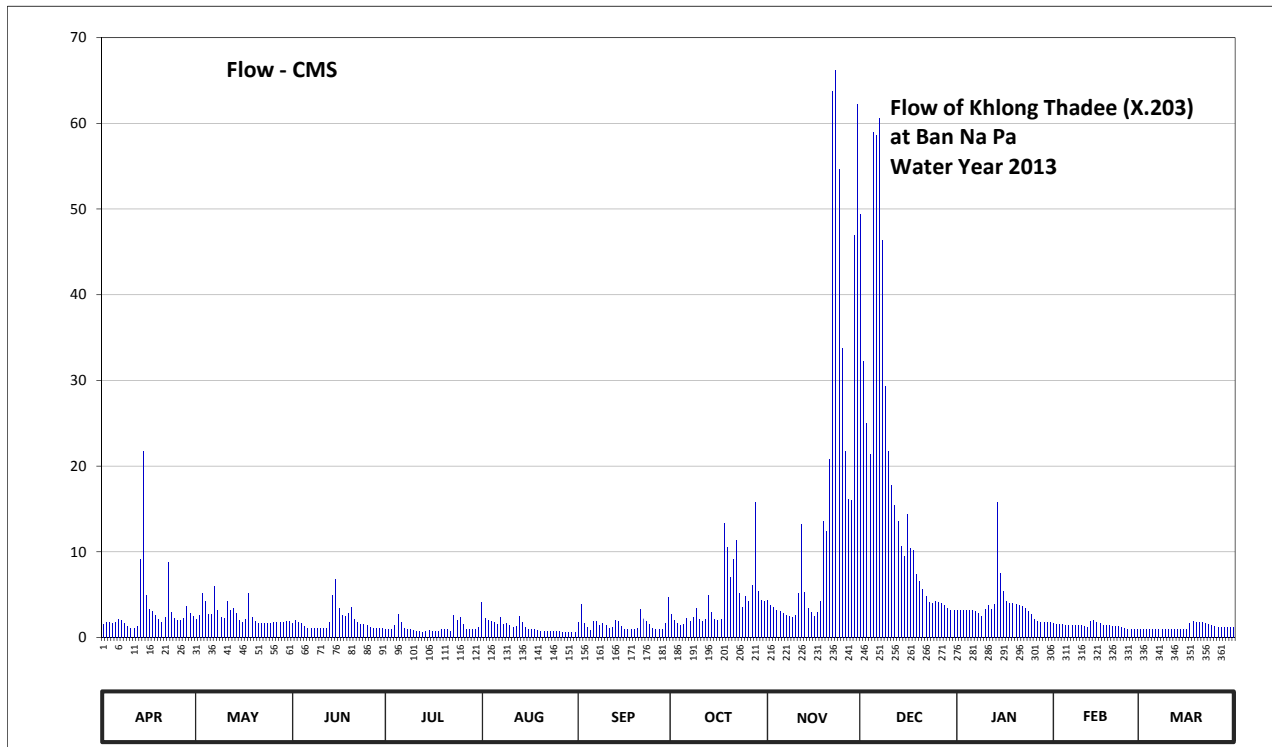
Lat 08 - 23 - 39 N    Long 99 - 54 - 55 E

**Location :** on left bank at Ban Na Pa.

|                                         |                                                                                           |           |               |        |                  |                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|---------------------|
|                                         | <b>Ban</b>                                                                                | Na Pa     | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Nakhon Si Thammarat |
| <b>Drainage Area</b>                    | 120                                                                                       | sq.km.    |               |        |                  |                     |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                     |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                     |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                     |
| <b>Location BM</b>                      | On left bank near the gage site.                                                          |           |               |        | <b>Elevation</b> | +11.529 m. (MSL.)   |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                     |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |        |                  |                     |
| <b>Period of Available Gage Records</b> | 2000 to date                                                                              |           |               |        |                  |                     |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                     |
| <b>Period of Rating</b>                 | 2000 to date                                                                              |           |               |        |                  |                     |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                     |
| <b>Rated by Current Meter</b>           | 2000 to date                                                                              |           |               |        |                  |                     |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |        |                  |                     |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                     |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2013. |           |               |        |                  |                     |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr  | May   | Jun                                             | Jul  | Aug  | Sep  | Oct  | Nov   | Dec   | Jan  | Feb  | Mar  | Annual |
|----------------------------------|----|------|-------|-------------------------------------------------|------|------|------|------|-------|-------|------|------|------|--------|
|                                  | 1  | 7.62 | 7.72  | 7.63                                            | 7.51 | 8.01 | 7.65 | 7.83 | 8.04  | 10.24 | 7.90 | 7.63 | 7.50 |        |
|                                  | 2  | 7.65 | 7.82  | 7.71                                            | 7.50 | 7.75 | 7.99 | 7.71 | 7.98  | 9.61  | 7.90 | 7.62 | 7.50 |        |
|                                  | 3  | 7.67 | 8.12  | 7.65                                            | 7.50 | 7.70 | 7.63 | 7.63 | 7.94  | 9.30  | 7.90 | 7.61 | 7.50 |        |
|                                  | 4  | 7.64 | 8.02  | 7.63                                            | 7.60 | 7.68 | 7.55 | 7.60 | 7.90  | 9.12  | 7.90 | 7.61 | 7.50 |        |
|                                  | 5  | 7.66 | 7.83  | 7.56                                            | 7.83 | 7.65 | 7.48 | 7.61 | 7.88  | 10.50 | 7.90 | 7.60 | 7.50 |        |
|                                  | 6  | 7.74 | 7.83  | 7.52                                            | 7.65 | 7.62 | 7.68 | 7.76 | 7.84  | 10.49 | 7.89 | 7.60 | 7.50 |        |
|                                  | 7  | 7.71 | 8.20  | 7.52                                            | 7.53 | 7.77 | 7.68 | 7.69 | 7.81  | 10.54 | 7.88 | 7.60 | 7.50 |        |
|                                  | 8  | 7.63 | 7.90  | 7.52                                            | 7.50 | 7.62 | 7.60 | 7.79 | 7.80  | 10.14 | 7.84 | 7.60 | 7.50 |        |
|                                  | 9  | 7.57 | 7.79  | 7.52                                            | 7.50 | 7.63 | 7.63 | 7.92 | 7.78  | 9.49  | 7.80 | 7.60 | 7.50 |        |
|                                  | 10 | 7.53 | 7.75  | 7.52                                            | 7.48 | 7.58 | 7.58 | 7.73 | 7.82  | 9.14  | 7.91 | 7.60 | 7.50 |        |
|                                  | 11 | 7.53 | 8.03  | 7.52                                            | 7.46 | 7.54 | 7.53 | 7.69 | 8.12  | 8.94  | 7.97 | 7.57 | 7.50 |        |
|                                  | 12 | 7.57 | 7.89  | 7.53                                            | 7.46 | 7.57 | 7.54 | 7.73 | 8.71  | 8.82  | 7.91 | 7.55 | 7.50 |        |
|                                  | 13 | 8.48 | 7.92  | 7.65                                            | 7.43 | 7.80 | 7.70 | 8.09 | 8.13  | 8.73  | 7.99 | 7.69 | 7.50 |        |
|                                  | 14 | 9.14 | 7.84  | 8.10                                            | 7.46 | 7.65 | 7.69 | 7.86 | 7.93  | 8.58  | 8.84 | 7.71 | 7.50 |        |
|                                  | 15 | 8.09 | 7.71  | 8.28                                            | 7.47 | 7.55 | 7.56 | 7.73 | 7.87  | 8.50  | 8.35 | 7.67 | 7.50 |        |
|                                  | 16 | 7.91 | 7.67  | 7.92                                            | 7.44 | 7.50 | 7.50 | 7.70 | 7.80  | 8.77  | 8.14 | 7.63 | 7.50 |        |
|                                  | 17 | 7.88 | 7.72  | 7.81                                            | 7.44 | 7.51 | 7.51 | 7.72 | 7.86  | 8.56  | 8.02 | 7.59 | 7.63 |        |
|                                  | 18 | 7.82 | 8.12  | 7.80                                            | 7.44 | 7.50 | 7.50 | 8.72 | 8.02  | 8.55  | 8.00 | 7.58 | 7.69 |        |
|                                  | 19 | 7.72 | 7.79  | 7.85                                            | 7.49 | 7.48 | 7.51 | 8.57 | 8.73  | 8.34  | 8.00 | 7.58 | 7.65 |        |
|                                  | 20 | 7.66 | 7.69  | 7.94                                            | 7.50 | 7.46 | 7.53 | 8.31 | 8.67  | 8.26  | 7.99 | 7.57 | 7.65 |        |
|                                  | 21 | 7.79 | 7.64  | 7.74                                            | 7.50 | 7.45 | 7.91 | 8.48 | 9.09  | 8.17  | 7.97 | 7.57 | 7.65 |        |
|                                  | 22 | 8.45 | 7.64  | 7.66                                            | 7.46 | 7.45 | 7.74 | 8.62 | 10.62 | 8.08  | 7.96 | 7.56 | 7.64 |        |
|                                  | 23 | 7.86 | 7.64  | 7.62                                            | 7.82 | 7.45 | 7.68 | 8.12 | 10.68 | 8.01  | 7.93 | 7.54 | 7.61 |        |
|                                  | 24 | 7.75 | 7.64  | 7.62                                            | 7.71 | 7.44 | 7.61 | 7.94 | 10.39 | 8.00  | 7.88 | 7.52 | 7.58 |        |
|                                  | 25 | 7.70 | 7.64  | 7.58                                            | 7.77 | 7.44 | 7.53 | 8.08 | 9.67  | 8.02  | 7.83 | 7.51 | 7.56 |        |
|                                  | 26 | 7.70 | 7.65  | 7.54                                            | 7.62 | 7.44 | 7.49 | 8.02 | 9.14  | 8.01  | 7.74 | 7.51 | 7.55 |        |
|                                  | 27 | 7.76 | 7.65  | 7.52                                            | 7.51 | 7.43 | 7.49 | 8.21 | 8.86  | 8.00  | 7.69 | 7.50 | 7.55 |        |
|                                  | 28 | 7.96 | 7.66  | 7.52                                            | 7.50 | 7.43 | 7.49 | 8.84 | 8.85  | 7.97  | 7.67 | 7.50 | 7.55 |        |
|                                  | 29 | 7.85 | 7.67  | 7.52                                            | 7.50 | 7.42 | 7.63 | 8.14 | 10.16 | 7.92  | 7.66 |      | 7.55 |        |
|                                  | 30 | 7.80 | 7.68  | 7.52                                            | 7.50 | 7.42 | 8.07 | 8.04 | 10.58 | 7.90  | 7.65 |      | 7.55 |        |
|                                  | 31 |      | 7.68  |                                                 | 7.54 | 7.42 |      | 8.02 |       | 7.90  | 7.65 |      | 7.55 |        |
| Mean                             |    | 7.83 | 7.79  | 7.67                                            | 7.54 | 7.56 | 7.62 | 8.00 | 8.62  | 8.79  | 7.92 | 7.59 | 7.55 |        |
| Max                              |    | 9.14 | 8.20  | 8.28                                            | 7.83 | 8.01 | 8.07 | 8.84 | 10.68 | 10.54 | 8.84 | 7.71 | 7.69 | 10.68  |
| Min                              |    | 7.53 | 7.64  | 7.52                                            | 7.43 | 7.42 | 7.48 | 7.60 | 7.78  | 7.90  | 7.65 | 7.50 | 7.50 | 7.42   |
| Annual Max Momentary Gage Height |    |      | 10.73 | m. (MSL.) , at 07.00 Hours , on Nov 23 , 2013   |      |      |      |      |       |       |      |      |      |        |
| Zero Gage at Bottom Elevation    |    |      | 0.00  | m. (MSL.) , River Bed 7.27 m. (MSL.)            |      |      |      |      |       |       |      |      |      |        |
| Left Bank Elevation              |    |      | 12.30 | m. (MSL.) ,                                     |      |      |      |      |       |       |      |      |      |        |
| Right Bank Elevation             |    |      | 12.23 | m. (MSL.) , Drainage Area 120 Square Kilometers |      |      |      |      |       |       |      |      |      |        |



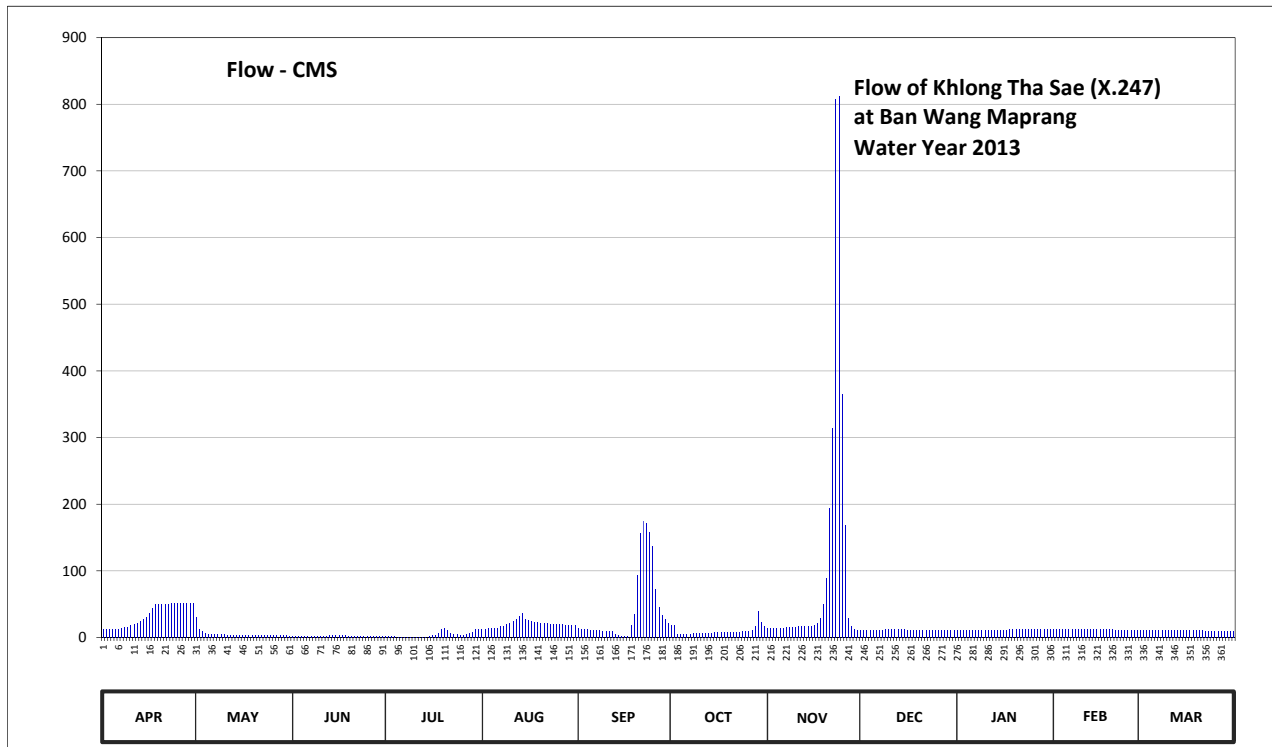
**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun   | Jul                  | Aug   | Sep     | Oct    | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------|--------------------------|--------|--------|-------|-------|----------------|
| 1              | 1.60                                                            | 2.10                     | 1.65  | 1.05                 | 4.10  | 1.75    | 2.72   | 4.40                     | 49.40  | 3.25   | 1.65  | 1.00  |                |
| 2              | 1.75                                                            | 2.65                     | 2.05  | 1.00                 | 2.25  | 3.92    | 2.05   | 3.85                     | 32.25  | 3.25   | 1.60  | 1.00  |                |
| 3              | 1.85                                                            | 5.20                     | 1.75  | 1.00                 | 2.00  | 1.65    | 1.65   | 3.55                     | 25.00  | 3.25   | 1.55  | 1.00  |                |
| 4              | 1.70                                                            | 4.20                     | 1.65  | 1.50                 | 1.90  | 1.25    | 1.50   | 3.25                     | 21.40  | 3.25   | 1.55  | 1.00  |                |
| 5              | 1.80                                                            | 2.72                     | 1.30  | 2.72                 | 1.75  | 0.90    | 1.55   | 3.10                     | 59.00  | 3.25   | 1.50  | 1.00  |                |
| 6              | 2.20                                                            | 2.72                     | 1.10  | 1.75                 | 1.60  | 1.90    | 2.30   | 2.80                     | 58.60  | 3.17   | 1.50  | 1.00  |                |
| 7              | 2.05                                                            | 6.00                     | 1.10  | 1.15                 | 2.35  | 1.90    | 1.95   | 2.57                     | 60.60  | 3.10   | 1.50  | 1.00  |                |
| 8              | 1.65                                                            | 3.25                     | 1.10  | 1.00                 | 1.60  | 1.50    | 2.45   | 2.50                     | 46.35  | 2.80   | 1.50  | 1.00  |                |
| 9              | 1.35                                                            | 2.45                     | 1.10  | 1.00                 | 1.65  | 1.65    | 3.40   | 2.40                     | 29.25  | 2.50   | 1.50  | 1.00  |                |
| 10             | 1.15                                                            | 2.25                     | 1.10  | 0.90                 | 1.40  | 1.40    | 2.15   | 2.65                     | 21.80  | 3.32   | 1.50  | 1.00  |                |
| 11             | 1.15                                                            | 4.30                     | 1.10  | 0.80                 | 1.20  | 1.15    | 1.95   | 5.20                     | 17.80  | 3.77   | 1.35  | 1.00  |                |
| 12             | 1.35                                                            | 3.17                     | 1.15  | 0.80                 | 1.35  | 1.20    | 2.15   | 13.20                    | 15.40  | 3.32   | 1.25  | 1.00  |                |
| 13             | 9.20                                                            | 3.40                     | 1.75  | 0.65                 | 2.50  | 2.00    | 4.90   | 5.30                     | 13.60  | 3.92   | 1.95  | 1.00  |                |
| 14             | 21.80                                                           | 2.80                     | 5.00  | 0.80                 | 1.75  | 1.95    | 2.95   | 3.47                     | 10.70  | 15.80  | 2.05  | 1.00  |                |
| 15             | 4.90                                                            | 2.05                     | 6.80  | 0.85                 | 1.25  | 1.30    | 2.15   | 3.02                     | 9.50   | 7.50   | 1.85  | 1.00  |                |
| 16             | 3.32                                                            | 1.85                     | 3.40  | 0.70                 | 1.00  | 1.00    | 2.00   | 2.50                     | 14.40  | 5.40   | 1.65  | 1.00  |                |
| 17             | 3.10                                                            | 2.10                     | 2.57  | 0.70                 | 1.05  | 1.05    | 2.10   | 2.95                     | 10.40  | 4.20   | 1.45  | 1.65  |                |
| 18             | 2.65                                                            | 5.20                     | 2.50  | 0.70                 | 1.00  | 1.00    | 13.40  | 4.20                     | 10.25  | 4.00   | 1.40  | 1.95  |                |
| 19             | 2.10                                                            | 2.45                     | 2.87  | 0.95                 | 0.90  | 1.05    | 10.55  | 13.60                    | 7.40   | 4.00   | 1.40  | 1.75  |                |
| 20             | 1.80                                                            | 1.95                     | 3.55  | 1.00                 | 0.80  | 1.15    | 7.10   | 12.40                    | 6.60   | 3.92   | 1.35  | 1.75  |                |
| 21             | 2.45                                                            | 1.70                     | 2.20  | 1.00                 | 0.75  | 3.32    | 9.20   | 20.80                    | 5.70   | 3.77   | 1.35  | 1.75  |                |
| 22             | 8.75                                                            | 1.70                     | 1.80  | 0.80                 | 0.75  | 2.20    | 11.40  | 63.80                    | 4.80   | 3.70   | 1.30  | 1.70  |                |
| 23             | 2.95                                                            | 1.70                     | 1.60  | 2.65                 | 0.75  | 1.90    | 5.20   | 66.20                    | 4.10   | 3.47   | 1.20  | 1.55  |                |
| 24             | 2.25                                                            | 1.70                     | 1.60  | 2.05                 | 0.70  | 1.55    | 3.55   | 54.65                    | 4.00   | 3.10   | 1.10  | 1.40  |                |
| 25             | 2.00                                                            | 1.70                     | 1.40  | 2.35                 | 0.70  | 1.15    | 4.80   | 33.75                    | 4.20   | 2.72   | 1.05  | 1.30  |                |
| 26             | 2.00                                                            | 1.75                     | 1.20  | 1.60                 | 0.70  | 0.95    | 4.20   | 21.80                    | 4.10   | 2.20   | 1.05  | 1.25  |                |
| 27             | 2.30                                                            | 1.75                     | 1.10  | 1.05                 | 0.65  | 0.95    | 6.10   | 16.20                    | 4.00   | 1.95   | 1.00  | 1.25  |                |
| 28             | 3.70                                                            | 1.80                     | 1.10  | 1.00                 | 0.65  | 0.95    | 15.80  | 16.00                    | 3.77   | 1.85   | 1.00  | 1.25  |                |
| 29             | 2.87                                                            | 1.85                     | 1.10  | 1.00                 | 0.60  | 1.65    | 5.40   | 46.90                    | 3.40   | 1.80   |       | 1.25  |                |
| 30             | 2.50                                                            | 1.90                     | 1.10  | 1.00                 | 0.60  | 4.70    | 4.40   | 62.20                    | 3.25   | 1.75   |       | 1.25  |                |
| 31             |                                                                 | 1.90                     |       | 1.20                 | 0.60  |         | 4.20   |                          | 3.25   | 1.75   |       | 1.25  |                |
| Total          | 100.24                                                          | 82.26                    | 58.79 | 36.72                | 40.85 | 49.99   | 145.22 | 499.21                   | 564.27 | 115.03 | 40.10 | 38.30 | 1770.98 CMSDAY |
| Mean           | 3.34                                                            | 2.65                     | 1.96  | 1.18                 | 1.32  | 1.67    | 4.68   | 16.64                    | 18.20  | 3.71   | 1.43  | 1.24  | 4.85 CMS       |
| Max            | 21.80                                                           | 6.00                     | 6.80  | 2.72                 | 4.10  | 4.70    | 15.80  | 66.20                    | 60.60  | 15.80  | 2.05  | 1.95  | 66.20 CMS      |
| Min            | 1.15                                                            | 1.70                     | 1.10  | 0.65                 | 0.60  | 0.90    | 1.50   | 2.40                     | 3.25   | 1.75   | 1.00  | 1.00  | 0.60 CMS       |
| Runoff         | 8.66                                                            | 7.11                     | 5.08  | 3.17                 | 3.53  | 4.32    | 12.55  | 43.13                    | 48.75  | 9.94   | 3.47  | 3.31  | 153.01 MCM     |
| Momentary Peak | 68.20 CMS. at 10.73 m. (MSL.) at 07.00 Hours , on Nov 23 , 2013 |                          |       |                      |       |         |        |                          |        |        |       |       |                |
| Runoff Yield   | 40.42                                                           | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 568.097 |        | Liters/Second/Square KM. |        |        |       |       |                |

Lat 10 - 43 - 58 N    Long 99 - 10 - 42 E

|                                         |                                                                                           |              |               |         |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Wang Maprang | <b>Amphoe</b> | Tha Sae | <b>Changwat</b>  | Chumphon          |
| <b>Drainage Area</b>                    | 656                                                                                       | sq.km.       |               |         |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |              |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +12.000                                                                                   | m. (MSL.)    |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |         |                  |                   |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |              |               |         | <b>Elevation</b> | +23.427 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |              |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 5 readings                                                            |              |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |              |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |              |               |         |                  |                   |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |              |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |              |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |              |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |         |                  |                   |
| <b>General Description</b>              | Records poor. Stage-discharge relation defined by 24 discharge measurements made in 2013. |              |               |         |                  |                   |

| Date | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan     | Feb   | Mar   | Annual |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|
| 1    | 18.10 | 18.78 | 16.77 | 16.66 | 18.22 | 18.35 | 17.13 | 18.35 | 18.01 | 18.00   | 18.18 | 18.04 |        |
| 2    | 18.12 | 18.24 | 16.75 | 16.63 | 18.25 | 18.23 | 17.13 | 18.36 | 18.02 | 18.00   | 18.18 | 18.04 |        |
| 3    | 18.15 | 17.85 | 16.74 | 16.57 | 18.27 | 18.18 | 17.16 | 18.36 | 18.03 | 18.00   | 18.17 | 18.03 |        |
| 4    | 18.17 | 17.52 | 16.73 | 16.51 | 18.29 | 18.11 | 17.18 | 18.37 | 18.04 | 18.00   | 18.17 | 18.03 |        |
| 5    | 18.20 | 17.34 | 16.72 | 16.43 | 18.33 | 18.07 | 17.21 | 18.38 | 18.05 | 18.01   | 18.17 | 18.02 |        |
| 6    | 18.25 | 17.25 | 16.72 | 16.40 | 18.38 | 18.05 | 17.26 | 18.39 | 18.06 | 18.02   | 18.16 | 18.02 |        |
| 7    | 18.30 | 17.23 | 16.71 | 16.38 | 18.44 | 18.02 | 17.32 | 18.40 | 18.07 | 18.02   | 18.16 | 18.01 |        |
| 8    | 18.40 | 17.19 | 16.70 | 16.35 | 18.48 | 17.97 | 17.39 | 18.41 | 18.08 | 18.03   | 18.15 | 18.01 |        |
| 9    | 18.43 | 17.15 | 16.67 | 16.30 | 18.53 | 17.91 | 17.45 | 18.42 | 18.09 | 18.04   | 18.14 | 18.00 |        |
| 10   | 18.49 | 17.11 | 16.64 | 16.24 | 18.59 | 17.84 | 17.52 | 18.43 | 18.11 | 18.04   | 18.14 | 18.00 |        |
| 11   | 18.55 | 17.07 | 16.61 | 16.22 | 18.64 | 17.80 | 17.58 | 18.44 | 18.12 | 18.05   | 18.13 | 17.99 |        |
| 12   | 18.58 | 17.04 | 16.61 | 16.21 | 18.72 | 17.81 | 17.60 | 18.45 | 18.11 | 18.05   | 18.13 | 17.99 |        |
| 13   | 18.65 | 17.02 | 16.81 | 16.21 | 18.80 | 17.26 | 17.62 | 18.46 | 18.10 | 18.06   | 18.12 | 17.98 |        |
| 14   | 18.70 | 17.00 | 16.87 | 16.47 | 18.84 | 16.95 | 17.65 | 18.47 | 18.10 | 18.06   | 18.12 | 17.98 |        |
| 15   | 18.77 | 16.98 | 16.85 | 16.73 | 18.70 | 16.74 | 17.68 | 18.48 | 18.09 | 18.07   | 18.11 | 17.97 |        |
| 16   | 18.84 | 16.92 | 16.83 | 16.86 | 18.68 | 16.60 | 17.70 | 18.51 | 18.08 | 18.07   | 18.11 | 17.97 |        |
| 17   | 18.90 | 16.88 | 16.82 | 17.01 | 18.65 | 16.60 | 17.71 | 18.58 | 18.08 | 18.08   | 18.10 | 17.96 |        |
| 18   | 18.95 | 16.87 | 16.80 | 17.54 | 18.63 | 17.11 | 17.73 | 18.73 | 18.07 | 18.09   | 18.10 | 17.96 |        |
| 19   | 18.95 | 16.86 | 16.78 | 18.21 | 18.61 | 17.48 | 17.74 | 18.95 | 18.07 | 18.10   | 18.09 | 17.95 |        |
| 20   | 18.95 | 16.84 | 16.77 | 18.32 | 18.60 | 18.24 | 17.75 | 19.14 | 18.06 | 18.11   | 18.09 | 17.95 |        |
| 21   | 18.95 | 16.83 | 16.76 | 17.95 | 18.58 | 18.84 | 17.76 | 19.34 | 18.05 | 18.12   | 18.08 | 17.94 |        |
| 22   | 18.95 | 16.82 | 16.75 | 17.54 | 18.57 | 18.99 | 17.77 | 19.88 | 18.05 | 18.13   | 18.08 | 17.93 |        |
| 23   | 18.96 | 16.80 | 16.73 | 17.24 | 18.55 | 18.96 | 17.79 | 21.55 | 18.04 | 18.14   | 18.07 | 17.92 |        |
| 24   | 18.96 | 16.80 | 16.72 | 17.09 | 18.55 | 18.85 | 17.81 | 21.56 | 18.03 | 18.15   | 18.06 | 17.91 |        |
| 25   | 18.96 | 16.80 | 16.71 | 17.03 | 18.54 | 18.66 | 17.83 | 20.14 | 18.03 | 18.16   | 18.05 | 17.90 |        |
| 26   | 18.96 | 16.80 | 16.70 | 17.06 | 18.54 | 18.01 | 17.85 | 19.30 | 18.03 | 18.17   | 18.05 | 17.90 |        |
| 27   | 18.96 | 16.79 | 16.70 | 17.27 | 18.53 | 17.65 | 18.05 | 18.75 | 18.02 | 18.18   | 18.04 | 17.89 |        |
| 28   | 18.96 | 16.79 | 16.69 | 17.40 | 18.52 | 17.44 | 18.48 | 18.45 | 18.02 | 18.19   | 18.03 | 17.88 |        |
| 29   | 18.96 | 16.79 | 16.68 | 17.73 | 18.51 | 17.32 | 18.86 | 18.24 | 18.01 | 18.19   |       | 17.87 |        |
| 30   | 18.96 | 16.79 | 16.67 | 18.10 | 18.50 | 17.18 | 18.63 | 18.03 | 18.01 | 18.19</ |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                               | May                      | Jun   | Jul                  | Aug    | Sep      | Oct                      | Nov     | Dec    | Jan    | Feb    | Mar    | Annual  |        |
|----------------|-------------------------------------------------------------------|--------------------------|-------|----------------------|--------|----------|--------------------------|---------|--------|--------|--------|--------|---------|--------|
| 1              | 12.00                                                             | 31.00                    | 2.85  | 2.30                 | 13.20  | 14.50    | 19.20                    | 14.50   | 11.10  | 11.00  | 12.80  | 11.40  |         |        |
| 2              | 12.20                                                             | 13.40                    | 2.75  | 2.15                 | 13.50  | 13.30    | 19.20                    | 14.60   | 11.20  | 11.00  | 12.80  | 11.40  |         |        |
| 3              | 12.50                                                             | 9.50                     | 2.70  | 1.85                 | 13.70  | 12.80    | 4.80                     | 14.60   | 11.30  | 11.00  | 12.70  | 11.30  |         |        |
| 4              | 12.70                                                             | 6.60                     | 2.65  | 1.55                 | 13.90  | 12.10    | 4.90                     | 14.70   | 11.40  | 11.00  | 12.70  | 11.30  |         |        |
| 5              | 13.00                                                             | 5.70                     | 2.60  | 1.15                 | 14.30  | 11.70    | 5.05                     | 14.80   | 11.50  | 11.10  | 12.70  | 11.20  |         |        |
| 6              | 13.50                                                             | 5.25                     | 2.60  | 1.00                 | 14.80  | 11.50    | 5.30                     | 14.90   | 11.60  | 11.20  | 12.60  | 11.20  |         |        |
| 7              | 14.00                                                             | 5.15                     | 2.55  | 0.95                 | 16.40  | 11.20    | 5.60                     | 15.00   | 11.70  | 11.20  | 12.60  | 11.10  |         |        |
| 8              | 15.00                                                             | 4.95                     | 2.50  | 0.88                 | 17.80  | 10.70    | 5.95                     | 15.35   | 11.80  | 11.30  | 12.50  | 11.10  |         |        |
| 9              | 16.05                                                             | 4.75                     | 2.35  | 0.75                 | 19.55  | 10.10    | 6.25                     | 15.70   | 11.90  | 11.40  | 12.40  | 11.00  |         |        |
| 10             | 18.15                                                             | 4.55                     | 2.20  | 0.60                 | 21.65  | 9.40     | 6.60                     | 16.05   | 12.10  | 11.40  | 12.40  | 11.00  |         |        |
| 11             | 20.25                                                             | 4.35                     | 2.05  | 0.55                 | 24.00  | 9.00     | 6.90                     | 16.40   | 12.20  | 11.50  | 12.30  | 10.90  |         |        |
| 12             | 21.30                                                             | 4.20                     | 2.05  | 0.52                 | 28.00  | 9.10     | 7.00                     | 16.75   | 12.10  | 11.50  | 12.30  | 10.90  |         |        |
| 13             | 24.50                                                             | 4.10                     | 3.05  | 0.52                 | 32.00  | 5.30     | 7.20                     | 17.10   | 12.00  | 11.60  | 12.20  | 10.80  |         |        |
| 14             | 27.00                                                             | 4.00                     | 3.35  | 1.35                 | 36.80  | 3.75     | 7.50                     | 17.45   | 12.00  | 11.60  | 12.20  | 10.80  |         |        |
| 15             | 30.50                                                             | 3.90                     | 3.25  | 2.65                 | 27.00  | 2.70     | 7.80                     | 17.80   | 11.90  | 11.70  | 12.10  | 10.70  |         |        |
| 16             | 36.80                                                             | 3.60                     | 3.15  | 3.30                 | 26.00  | 2.00     | 8.00                     | 18.85   | 11.80  | 11.70  | 12.10  | 10.70  |         |        |
| 17             | 44.00                                                             | 3.40                     | 3.10  | 4.05                 | 24.50  | 2.00     | 8.10                     | 21.30   | 11.80  | 11.80  | 12.00  | 10.60  |         |        |
| 18             | 50.00                                                             | 3.35                     | 3.00  | 6.70                 | 23.50  | 18.40    | 8.30                     | 28.50   | 11.70  | 11.90  | 12.00  | 10.60  |         |        |
| 19             | 50.00                                                             | 3.30                     | 2.90  | 13.10                | 22.50  | 35.40    | 8.40                     | 50.00   | 11.70  | 12.00  | 11.90  | 10.50  |         |        |
| 20             | 50.00                                                             | 3.20                     | 2.85  | 14.20                | 22.00  | 93.60    | 8.50                     | 89.60   | 11.60  | 12.10  | 11.90  | 10.50  |         |        |
| 21             | 50.00                                                             | 3.15                     | 2.80  | 10.50                | 21.30  | 156.80   | 8.60                     | 193.60  | 11.50  | 12.20  | 11.80  | 10.40  |         |        |
| 22             | 50.00                                                             | 3.10                     | 2.75  | 6.70                 | 20.95  | 174.80   | 8.70                     | 314.40  | 11.50  | 12.30  | 11.80  | 10.30  |         |        |
| 23             | 51.20                                                             | 3.00                     | 2.65  | 5.20                 | 20.25  | 171.20   | 8.90                     | 807.50  | 11.40  | 12.40  | 11.70  | 10.20  |         |        |
| 24             | 51.20                                                             | 3.00                     | 2.60  | 4.45                 | 20.25  | 158.00   | 9.10                     | 812.00  | 11.30  | 12.50  | 11.60  | 10.10  |         |        |
| 25             | 51.20                                                             | 3.00                     | 2.55  | 4.15                 | 19.90  | 136.60   | 9.30                     | 364.00  | 11.30  | 12.60  | 11.50  | 10.00  |         |        |
| 26             | 51.20                                                             | 3.00                     | 2.50  | 4.30                 | 19.90  | 72.90    | 9.50                     | 168.00  | 11.30  | 12.70  | 11.50  | 10.00  |         |        |
| 27             | 51.20                                                             | 2.95                     | 2.50  | 5.35                 | 19.55  | 45.50    | 11.50                    | 29.50   | 11.20  | 12.80  | 11.40  | 9.90   |         |        |
| 28             | 51.20                                                             | 2.95                     | 2.45  | 6.00                 | 19.20  | 33.20    | 17.80                    | 16.75   | 11.20  | 12.90  | 11.30  | 9.80   |         |        |
| 29             | 51.20                                                             | 2.95                     | 2.40  | 8.30                 | 18.85  | 27.40    | 39.20                    | 13.40   | 11.10  | 12.90  |        | 9.70   |         |        |
| 30             | 51.20                                                             | 2.95                     | 2.35  | 12.00                | 18.50  | 21.20    | 23.50                    | 11.30   | 11.10  | 12.90  |        | 9.60   |         |        |
| 31             |                                                                   | 2.90                     |       | 12.60                | 18.15  |          | 16.40                    |         | 11.00  | 12.90  |        | 9.50   |         |        |
| Total          | 1003.05                                                           | 161.20                   | 80.05 | 139.67               | 641.90 | 1296.15  | 323.05                   | 3174.40 | 358.30 | 368.10 | 339.80 | 328.50 | 8214.17 | CMSDAY |
| Mean           | 33.44                                                             | 5.20                     | 2.67  | 4.51                 | 20.71  | 43.21    | 10.42                    | 105.81  | 11.56  | 11.87  | 12.14  | 10.60  | 22.50   | CMS    |
| Max            | 51.20                                                             | 31.00                    | 3.35  | 14.20                | 36.80  | 174.80   | 39.20                    | 812.00  | 12.20  | 12.90  | 12.80  | 11.40  | 812.00  | CMS    |
| Min            | 12.00                                                             | 2.90                     | 2.05  | 0.52                 | 13.20  | 2.00     | 4.80                     | 11.30   | 11.00  | 11.00  | 11.30  | 9.50   | 0.52    | CMS    |
| Runoff         | 86.66                                                             | 13.93                    | 6.92  | 12.07                | 55.46  | 111.99   | 27.91                    | 274.27  | 30.96  | 31.80  | 29.36  | 28.38  | 709.70  | MCM    |
| Momentary Peak | 1163.50 CMS. at 22.19 m. (MSL.) at 01.00 Hours , on Nov 24 , 2013 |                          |       |                      |        |          |                          |         |        |        |        |        |         |        |
| Runoff Yield   | 34.27                                                             | Liters/Second/Square KM. |       | Momentary Peak Yield |        | 1771.657 | Liters/Second/Square KM. |         |        |        |        |        |         |        |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA EAST COAST

### Khlong Rap Ro at Ban Hat Nai , Chumphon (X.248)

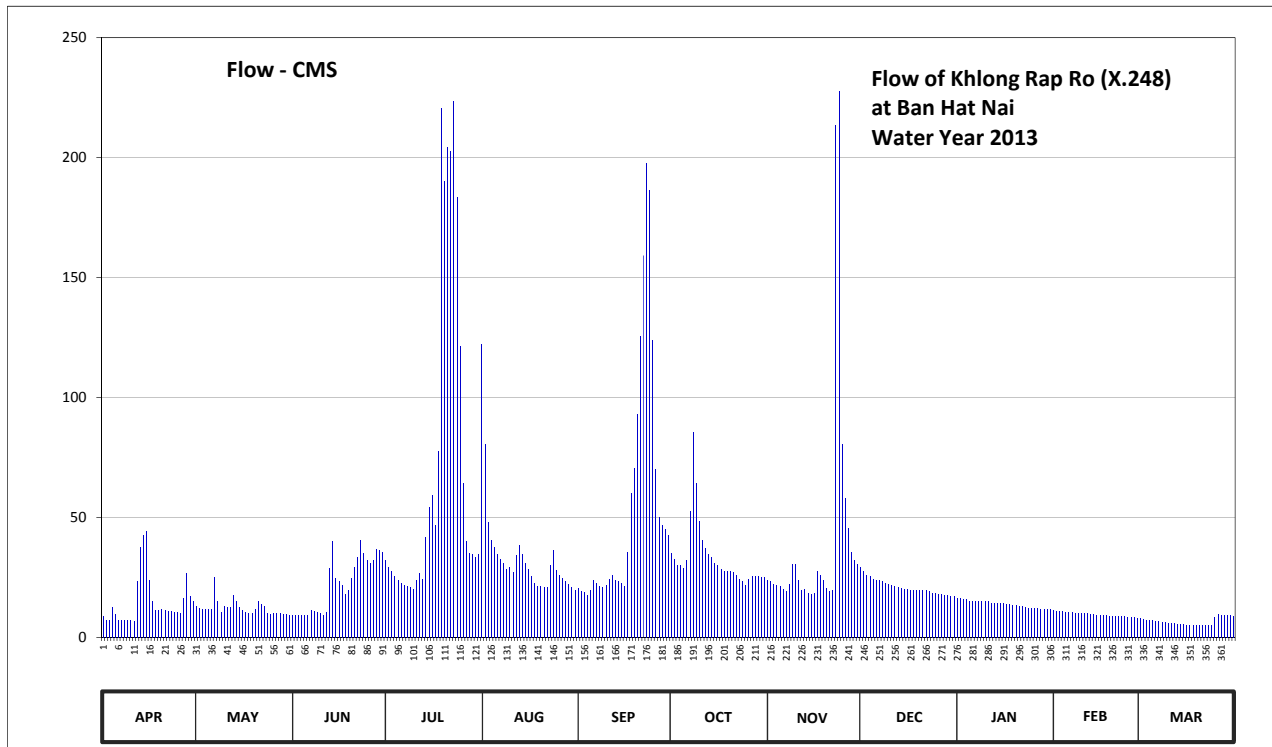
Lat 10 - 38 - 16 N    Long 99 - 03 - 01 E

**Location :** on left bank at Ban Hat Nai

|                                         |                                                                                           |           |               |         |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Hat Nai   | <b>Amphoe</b> | Tha Sae | <b>Changwat</b>  | Chumphon          |
| <b>Drainage Area</b>                    | 691                                                                                       | sq.km.    |               |         |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +16.734                                                                                   | m. (MSL.) |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |         |                  |                   |
| <b>Location BM</b>                      | Near the automatic gage building.                                                         |           |               |         | <b>Elevation</b> | +31.337 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |           |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 2006 to date                                                                              |           |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |         |                  |                   |
| <b>Period of Rating</b>                 | 2006 to date                                                                              |           |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 2006 to date                                                                              |           |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |         |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2013. |           |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 18.11 | 18.23 | 18.13       | 18.64 | 19.96                             | 18.40 | 18.70             | 18.47 | 18.59 | 18.30 | 18.18 | 18.09 |        |
| 2                                | 18.06 | 18.21 | 18.13       | 18.59 | 19.43                             | 18.37 | 18.65             | 18.46 | 18.55 | 18.30 | 18.17 | 18.08 |        |
| 3                                | 18.07 | 18.20 | 18.12       | 18.55 | 18.93                             | 18.36 | 18.60             | 18.44 | 18.52 | 18.29 | 18.17 | 18.07 |        |
| 4                                | 18.22 | 18.20 | 18.12       | 18.51 | 18.80                             | 18.33 | 18.60             | 18.43 | 18.51 | 18.29 | 18.17 | 18.06 |        |
| 5                                | 18.14 | 18.20 | 18.13       | 18.47 | 18.75                             | 18.38 | 18.58             | 18.42 | 18.48 | 18.28 | 18.16 | 18.06 |        |
| 6                                | 18.07 | 18.20 | 18.13       | 18.45 | 18.69                             | 18.47 | 18.64             | 18.39 | 18.47 | 18.28 | 18.16 | 18.05 |        |
| 7                                | 18.07 | 18.50 | 18.18       | 18.43 | 18.65                             | 18.45 | 19.01             | 18.37 | 18.47 | 18.28 | 18.16 | 18.05 |        |
| 8                                | 18.07 | 18.27 | 18.17       | 18.42 | 18.62                             | 18.42 | 19.50             | 18.44 | 18.46 | 18.27 | 18.15 | 18.04 |        |
| 9                                | 18.06 | 18.16 | 18.16       | 18.41 | 18.57                             | 18.41 | 19.20             | 18.61 | 18.45 | 18.27 | 18.15 | 18.04 |        |
| 10                               | 18.06 | 18.23 | 18.15       | 18.39 | 18.59                             | 18.43 | 18.94             | 18.61 | 18.44 | 18.27 | 18.15 | 18.03 |        |
| 11                               | 18.05 | 18.22 | 18.12       | 18.47 | 18.54                             | 18.48 | 18.80             | 18.47 | 18.43 | 18.27 | 18.15 | 18.03 |        |
| 12                               | 18.46 | 18.22 | 18.16       | 18.53 | 18.68                             | 18.52 | 18.74             | 18.38 | 18.42 | 18.26 | 18.15 | 18.03 |        |
| 13                               | 18.75 | 18.33 | 18.58       | 18.48 | 18.76                             | 18.47 | 18.69             | 18.39 | 18.41 | 18.26 | 18.14 | 18.02 |        |
| 14                               | 18.84 | 18.28 | 18.79       | 18.82 | 18.69                             | 18.46 | 18.67             | 18.35 | 18.40 | 18.26 | 18.14 | 18.02 |        |
| 15                               | 18.87 | 18.22 | 18.49       | 19.04 | 18.62                             | 18.45 | 18.62             | 18.34 | 18.39 | 18.26 | 18.13 | 18.02 |        |
| 16                               | 18.47 | 18.18 | 18.46       | 19.12 | 18.57                             | 18.42 | 18.60             | 18.35 | 18.39 | 18.26 | 18.12 | 18.01 |        |
| 17                               | 18.27 | 18.16 | 18.43       | 18.91 | 18.51                             | 18.71 | 18.57             | 18.55 | 18.38 | 18.25 | 18.12 | 18.01 |        |
| 18                               | 18.18 | 18.15 | 18.34       | 19.39 | 18.45                             | 19.13 | 18.55             | 18.52 | 18.38 | 18.25 | 18.12 | 18.01 |        |
| 19                               | 18.18 | 18.15 | 18.38       | 21.02 | 18.42                             | 19.29 | 18.55             | 18.47 | 18.38 | 18.24 | 18.11 | 18.01 |        |
| 20                               | 18.19 | 18.19 | 18.49       | 20.71 | 18.42                             | 19.60 | 18.55             | 18.40 | 18.38 | 18.24 | 18.11 | 18.00 |        |
| 21                               | 18.18 | 18.27 | 18.59       | 20.86 | 18.41                             | 20.00 | 18.54             | 18.37 | 18.38 | 18.23 | 18.11 | 18.00 |        |
| 22                               | 18.17 | 18.25 | 18.67       | 20.84 | 18.41                             | 20.38 | 18.52             | 18.38 | 18.38 | 18.23 | 18.11 | 18.00 |        |
| 23                               | 18.17 | 18.23 | 18.80       | 21.05 | 18.60                             | 20.79 | 18.48             | 20.95 | 18.37 | 18.22 | 18.11 | 18.00 |        |
| 24                               | 18.16 | 18.15 | 18.70       | 20.64 | 18.72                             | 20.67 | 18.46             | 21.09 | 18.35 | 18.21 | 18.11 | 18.00 |        |
| 25                               | 18.16 | 18.14 | 18.64       | 19.95 | 18.56                             | 19.98 | 18.43             | 19.43 | 18.35 | 18.21 | 18.10 | 18.10 |        |
| 26                               | 18.15 | 18.15 | 18.62       | 19.20 | 18.52                             | 19.28 | 18.48             | 19.10 | 18.34 | 18.21 | 18.10 | 18.14 |        |
| 27                               | 18.30 | 18.15 | 18.64       | 18.79 | 18.49                             | 18.97 | 18.51             | 18.89 | 18.34 | 18.21 | 18.10 | 18.13 |        |
| 28                               | 18.53 | 18.15 | 18.73       | 18.70 | 18.46                             | 18.91 | 18.51             | 18.71 | 18.33 | 18.20 | 18.09 | 18.13 |        |
| 29                               | 18.32 | 18.14 | 18.72       | 18.69 | 18.44                             | 18.88 | 18.51             | 18.64 | 18.33 | 18.20 |       | 18.12 |        |
| 30                               | 18.28 | 18.14 | 18.71       | 18.67 | 18.41                             | 18.84 | 18.50             | 18.61 | 18.32 | 18.20 |       | 18.12 |        |
| 31                               |       | 18.13 |             | 18.69 | 18.38                             |       | 18.50             |       | 18.32 | 18.20 |       | 18.11 |        |
| Mean                             | 18.25 | 18.21 | 18.42       | 19.14 | 18.65                             | 18.94 | 18.65             | 18.70 | 18.41 | 18.25 | 18.13 | 18.05 |        |
| Max                              | 18.87 | 18.50 | 18.80       | 21.05 | 19.96                             | 20.79 | 19.50             | 21.09 | 18.59 | 18.30 | 18.18 | 18.14 | 21.09  |
| Min                              | 18.05 | 18.13 | 18.12       | 18.39 | 18.38                             | 18.33 | 18.43             | 18.34 | 18.32 | 18.20 | 18.09 | 18.00 | 18.00  |
| Annual Max Momentary Gage Height |       | 21.92 | m. (MSL.) , |       | at 02.00 Hours , on Nov 24 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 16.73 | m. (MSL.) , |       | River Bed                         | 16.70 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              |       | 27.36 | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             |       | 27.35 | m. (MSL.) , |       | Drainage Area                     | 691   | Square Kilometers |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr    | May                                                       | Jun    | Jul     | Aug     | Sep                  | Oct     | Nov     | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|--------|-----------------------------------------------------------|--------|---------|---------|----------------------|---------|---------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 8.85   | 13.27                                                     | 9.55   | 32.10   | 122.20  | 20.50                | 35.25   | 23.82   | 29.52                    | 16.25  | 11.30  | 8.15   |          |        |
| 2              | 7.10   | 12.42                                                     | 9.55   | 29.52   | 80.68   | 19.23                | 32.62   | 23.35   | 27.62                    | 16.25  | 10.95  | 7.80   |          |        |
| 3              | 7.45   | 12.00                                                     | 9.20   | 27.62   | 47.98   | 18.80                | 30.00   | 22.40   | 26.20                    | 15.83  | 10.95  | 7.45   |          |        |
| 4              | 12.85  | 12.00                                                     | 9.20   | 25.73   | 40.50   | 17.52                | 30.00   | 21.93   | 25.73                    | 15.83  | 10.95  | 7.10   |          |        |
| 5              | 9.90   | 12.00                                                     | 9.55   | 23.82   | 37.88   | 19.65                | 29.05   | 21.45   | 24.30                    | 15.40  | 10.60  | 7.10   |          |        |
| 6              | 7.45   | 12.00                                                     | 9.55   | 22.88   | 34.73   | 23.82                | 32.10   | 20.07   | 23.82                    | 15.40  | 10.60  | 6.75   |          |        |
| 7              | 7.45   | 25.25                                                     | 11.30  | 21.93   | 32.62   | 22.88                | 52.63   | 19.23   | 23.82                    | 15.40  | 10.60  | 6.75   |          |        |
| 8              | 7.45   | 14.98                                                     | 10.95  | 21.45   | 31.05   | 21.45                | 85.75   | 22.40   | 23.35                    | 14.98  | 10.25  | 6.40   |          |        |
| 9              | 7.10   | 10.60                                                     | 10.60  | 20.98   | 28.57   | 20.98                | 64.50   | 30.53   | 22.88                    | 14.98  | 10.25  | 6.40   |          |        |
| 10             | 7.10   | 13.27                                                     | 10.25  | 20.07   | 29.52   | 21.93                | 48.55   | 30.53   | 22.40                    | 14.98  | 10.25  | 6.05   |          |        |
| 11             | 6.75   | 12.85                                                     | 9.20   | 23.82   | 27.15   | 24.30                | 40.50   | 23.82   | 21.93                    | 14.98  | 10.25  | 6.05   |          |        |
| 12             | 23.35  | 12.85                                                     | 10.60  | 26.68   | 34.20   | 26.20                | 37.35   | 19.65   | 21.45                    | 14.55  | 10.25  | 6.05   |          |        |
| 13             | 37.88  | 17.52                                                     | 29.05  | 24.30   | 38.40   | 23.82                | 34.73   | 20.07   | 20.98                    | 14.55  | 9.90   | 5.70   |          |        |
| 14             | 42.80  | 15.40                                                     | 39.98  | 41.65   | 34.73   | 23.35                | 33.68   | 18.38   | 20.50                    | 14.55  | 9.90   | 5.70   |          |        |
| 15             | 44.53  | 12.85                                                     | 24.77  | 54.50   | 31.05   | 22.88                | 31.05   | 17.95   | 20.07                    | 14.55  | 9.55   | 5.70   |          |        |
| 16             | 23.82  | 11.30                                                     | 23.35  | 59.50   | 28.57   | 21.45                | 30.00   | 18.38   | 20.07                    | 14.55  | 9.20   | 5.35   |          |        |
| 17             | 14.98  | 10.60                                                     | 21.93  | 46.83   | 25.73   | 35.77                | 28.57   | 27.62   | 19.65                    | 14.12  | 9.20   | 5.35   |          |        |
| 18             | 11.30  | 10.25                                                     | 17.95  | 77.80   | 22.88   | 60.12                | 27.62   | 26.20   | 19.65                    | 14.12  | 9.20   | 5.35   |          |        |
| 19             | 11.30  | 10.25                                                     | 19.65  | 220.55  | 21.45   | 70.80                | 27.62   | 23.82   | 19.65                    | 13.70  | 8.85   | 5.35   |          |        |
| 20             | 11.65  | 11.65                                                     | 24.77  | 189.95  | 21.45   | 93.00                | 27.62   | 20.50   | 19.65                    | 13.70  | 8.85   | 5.00   |          |        |
| 21             | 11.30  | 14.98                                                     | 29.52  | 204.50  | 20.98   | 125.50               | 27.15   | 19.23   | 19.65                    | 13.27  | 8.85   | 5.00   |          |        |
| 22             | 10.95  | 14.12                                                     | 33.68  | 202.50  | 20.98   | 159.20               | 26.20   | 19.65   | 19.65                    | 13.27  | 8.85   | 5.00   |          |        |
| 23             | 10.95  | 13.27                                                     | 40.50  | 223.62  | 30.00   | 197.55               | 24.30   | 213.50  | 19.23                    | 12.85  | 8.85   | 5.00   |          |        |
| 24             | 10.60  | 10.25                                                     | 35.25  | 183.30  | 36.30   | 186.15               | 23.35   | 227.73  | 18.38                    | 12.42  | 8.85   | 5.00   |          |        |
| 25             | 10.60  | 9.90                                                      | 32.10  | 121.38  | 28.10   | 123.85               | 21.93   | 80.68   | 18.38                    | 12.42  | 8.50   | 8.50   |          |        |
| 26             | 10.25  | 10.25                                                     | 31.05  | 64.50   | 26.20   | 70.10                | 24.30   | 58.25   | 17.95                    | 12.42  | 8.50   | 9.90   |          |        |
| 27             | 16.25  | 10.25                                                     | 32.10  | 39.98   | 24.77   | 50.27                | 25.73   | 45.67   | 17.95                    | 12.42  | 8.50   | 9.55   |          |        |
| 28             | 26.68  | 10.25                                                     | 36.82  | 35.25   | 23.35   | 46.83                | 25.73   | 35.77   | 17.52                    | 12.00  | 8.15   | 9.55   |          |        |
| 29             | 17.10  | 9.90                                                      | 36.30  | 34.73   | 22.40   | 45.10                | 25.73   | 32.10   | 17.52                    | 12.00  |        | 9.20   |          |        |
| 30             | 15.40  | 9.90                                                      | 35.77  | 33.68   | 20.98   | 42.80                | 25.25   | 30.53   | 17.10                    | 12.00  |        | 9.20   |          |        |
| 31             |        | 9.55                                                      |        | 34.73   | 19.65   |                      | 25.25   |         | 17.10                    | 12.00  |        | 8.85   |          |        |
| Total          | 451.14 | 385.93                                                    | 664.04 | 2189.85 | 1045.05 | 1655.80              | 1034.11 | 1215.21 | 653.67                   | 435.74 | 270.90 | 210.30 | 10211.74 | CMSDAY |
| Mean           | 15.04  | 12.45                                                     | 22.13  | 70.64   | 33.71   | 55.19                | 33.36   | 40.51   | 21.09                    | 14.06  | 9.68   | 6.78   | 27.98    | CMS    |
| Max            | 44.53  | 25.25                                                     | 40.50  | 223.62  | 122.20  | 197.55               | 85.75   | 227.73  | 29.52                    | 16.25  | 11.30  | 9.90   | 227.73   | CMS    |
| Min            | 6.75   | 9.55                                                      | 9.20   | 20.07   | 19.65   | 17.52                | 21.93   | 17.95   | 17.10                    | 12.00  | 8.15   | 5.00   | 5.00     | CMS    |
| Runoff         | 38.98  | 33.34                                                     | 57.37  | 189.20  | 90.29   | 143.06               | 89.35   | 104.99  | 56.48                    | 37.65  | 23.41  | 18.17  | 882.29   | MCM    |
| Momentary Peak | 314.02 | CMS. at 21.92 m. (MSL.) at 02.00 Hours , on Nov 24 , 2013 |        |         |         |                      |         |         |                          |        |        |        |          |        |
| Runoff Yield   | 40.48  | Liters/Second/Square KM.                                  |        |         |         | Momentary Peak Yield |         | 454.311 | Liters/Second/Square KM. |        |        |        |          |        |

## WATER YEAR : 2013

## SOUTHERN PENINSULA EAST COAST

**Kolok River at Ban Bu Kae Ta , Narathiwat (X.274**

Lat 05 - 50 - 21 N      Long 101 - 53 - 07 E

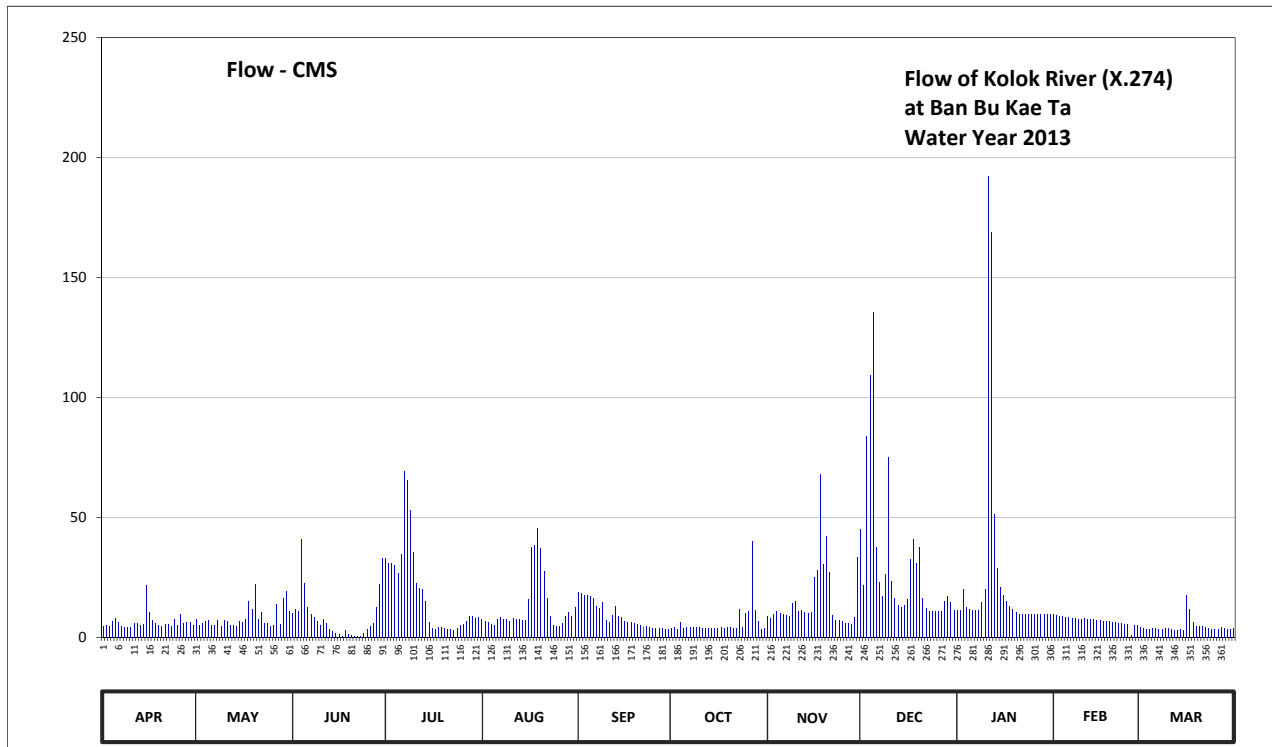
**Location :** on left bank at Ban Bu Kae Ta

|                                         |                                                                                          |           |               |       |                  |            |
|-----------------------------------------|------------------------------------------------------------------------------------------|-----------|---------------|-------|------------------|------------|
|                                         | <b>Ban</b>                                                                               | Bu Kae Ta | <b>Amphoe</b> | Waeng | <b>Changwat</b>  | Narathiwat |
| <b>Drainage Area</b>                    | 86                                                                                       | sq.km.    |               |       |                  |            |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                   |           |               |       |                  |            |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                   | m. (MSL.) |               |       |                  |            |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                |           |               |       |                  |            |
| <b>Location BM</b>                      | Near the automatic gage building.                                                        |           |               |       | <b>Elevation</b> | - m. (MSL) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                |           |               |       |                  |            |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                           |           |               |       |                  |            |
| <b>Period of Available Gage Records</b> | 2013 to date                                                                             |           |               |       |                  |            |
| <b>Rating Operation</b>                 |                                                                                          |           |               |       |                  |            |
| <b>Period of Rating</b>                 | 2013 to date                                                                             |           |               |       |                  |            |
| <b>Rated by Flot</b>                    | -                                                                                        |           |               |       |                  |            |
| <b>Rated by Current Meter</b>           | 2013 to date                                                                             |           |               |       |                  |            |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                  |           |               |       |                  |            |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                        |           |               |       |                  |            |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 7 discharge measurements made in 2013. |           |               |       |                  |            |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|----|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                  | 1  | 18.96 | 19.19 | 19.32                                          | 20.18 | 19.17 | 19.75 | 18.89 | 19.24 | 20.46 | 19.38 | 19.28 | 18.95 |        |
|                                  | 2  | 19.00 | 19.02 | 19.39                                          | 20.13 | 19.11 | 19.72 | 18.92 | 19.21 | 19.86 | 19.37 | 19.27 | 18.89 |        |
|                                  | 3  | 18.98 | 19.07 | 19.36                                          | 20.13 | 19.09 | 19.69 | 18.86 | 19.29 | 21.24 | 19.80 | 19.25 | 18.85 |        |
|                                  | 4  | 19.12 | 19.11 | 20.38                                          | 20.10 | 19.04 | 19.68 | 19.10 | 19.35 | 21.72 | 19.44 | 19.24 | 18.87 |        |
|                                  | 5  | 19.21 | 19.15 | 19.89                                          | 20.02 | 19.02 | 19.66 | 18.91 | 19.31 | 22.16 | 19.39 | 19.23 | 18.88 |        |
|                                  | 6  | 19.09 | 19.00 | 19.44                                          | 20.22 | 19.17 | 19.63 | 18.92 | 19.29 | 20.29 | 19.38 | 19.22 | 18.90 |        |
|                                  | 7  | 18.99 | 19.01 | 19.28                                          | 20.95 | 19.22 | 19.45 | 18.95 | 19.26 | 19.90 | 19.38 | 19.21 | 18.87 |        |
|                                  | 8  | 18.95 | 19.15 | 19.22                                          | 20.87 | 19.17 | 19.42 | 18.93 | 19.24 | 19.67 | 19.38 | 19.20 | 18.85 |        |
|                                  | 9  | 18.93 | 18.99 | 19.12                                          | 20.62 | 19.17 | 19.53 | 18.94 | 19.52 | 20.01 | 19.54 | 19.19 | 18.91 |        |
|                                  | 10 | 18.93 | 19.16 | 19.02                                          | 20.24 | 19.12 | 19.16 | 18.92 | 19.56 | 21.06 | 19.81 | 19.19 | 18.90 |        |
|                                  | 11 | 19.06 | 19.12 | 19.19                                          | 19.89 | 19.20 | 19.10 | 18.91 | 19.35 | 19.91 | 22.95 | 19.20 | 18.84 |        |
|                                  | 12 | 19.08 | 19.00 | 19.06                                          | 19.82 | 19.19 | 19.26 | 18.89 | 19.37 | 19.62 | 22.64 | 19.19 | 18.79 |        |
|                                  | 13 | 19.00 | 19.00 | 18.83                                          | 19.81 | 19.17 | 19.45 | 18.90 | 19.34 | 19.47 | 20.59 | 19.18 | 18.80 |        |
|                                  | 14 | 19.05 | 18.97 | 18.77                                          | 19.55 | 19.16 | 19.24 | 18.88 | 19.32 | 19.43 | 20.07 | 19.17 | 18.84 |        |
|                                  | 15 | 19.86 | 19.11 | 18.70                                          | 19.09 | 19.16 | 19.22 | 18.91 | 19.33 | 19.48 | 19.84 | 19.16 | 18.81 |        |
|                                  | 16 | 19.34 | 19.09 | 18.63                                          | 18.89 | 19.60 | 19.13 | 18.89 | 19.98 | 19.61 | 19.68 | 19.15 | 19.69 |        |
|                                  | 17 | 19.14 | 19.18 | 18.55                                          | 18.85 | 20.29 | 19.09 | 18.94 | 20.05 | 20.17 | 19.57 | 19.13 | 19.39 |        |
|                                  | 18 | 19.07 | 19.55 | 18.80                                          | 18.92 | 20.31 | 19.10 | 18.88 | 20.92 | 20.38 | 19.46 | 19.12 | 19.09 |        |
|                                  | 19 | 19.01 | 19.39 | 18.65                                          | 18.93 | 20.47 | 19.08 | 18.92 | 20.12 | 20.13 | 19.39 | 19.11 | 18.96 |        |
|                                  | 20 | 18.97 | 19.87 | 18.59                                          | 18.88 | 20.28 | 19.04 | 18.95 | 20.41 | 20.29 | 19.33 | 19.10 | 18.97 |        |
|                                  | 21 | 19.05 | 19.17 | 18.55                                          | 18.84 | 20.04 | 19.02 | 18.89 | 20.03 | 19.63 | 19.29 | 19.09 | 18.96 |        |
|                                  | 22 | 19.04 | 19.33 | 18.50                                          | 18.86 | 19.63 | 18.96 | 18.89 | 19.27 | 19.41 | 19.29 | 19.08 | 18.92 |        |
|                                  | 23 | 18.96 | 19.08 | 18.53                                          | 18.81 | 19.24 | 18.97 | 19.39 | 19.16 | 19.36 | 19.28 | 19.07 | 18.88 |        |
|                                  | 24 | 19.18 | 19.07 | 18.67                                          | 18.89 | 19.02 | 18.93 | 18.92 | 19.16 | 19.36 | 19.28 | 19.05 | 18.84 |        |
|                                  | 25 | 19.01 | 18.99 | 18.83                                          | 19.00 | 18.96 | 18.90 | 19.30 | 19.13 | 19.36 | 19.28 | 19.03 | 18.85 |        |
|                                  | 26 | 19.28 | 19.00 | 18.96                                          | 19.04 | 18.97 | 18.90 | 19.36 | 19.08 | 19.36 | 19.28 | 18.60 | 18.87 |        |
|                                  | 27 | 19.06 | 19.49 | 19.06                                          | 19.13 | 19.06 | 18.89 | 20.35 | 19.06 | 19.36 | 19.28 | 19.00 | 18.92 |        |
|                                  | 28 | 19.09 | 19.05 | 19.43                                          | 19.24 | 19.24 | 18.88 | 19.38 | 19.05 | 19.55 | 19.28 | 19.00 | 18.91 |        |
|                                  | 29 | 19.10 | 19.63 | 19.87                                          | 19.24 | 19.33 | 18.86 | 19.13 | 19.23 | 19.67 | 19.28 |       | 18.84 |        |
|                                  | 30 | 19.00 | 19.76 | 20.18                                          | 19.20 | 19.25 | 18.84 | 18.85 | 20.19 | 19.53 | 19.28 |       | 18.87 |        |
|                                  | 31 |       | 19.36 |                                                | 19.22 | 19.44 |       | 18.88 |       | 19.37 | 19.28 |       | 18.91 |        |
| Mean                             |    | 19.08 | 19.20 | 19.09                                          | 19.53 | 19.36 | 19.22 | 19.02 | 19.49 | 19.96 | 19.69 | 19.13 | 18.93 |        |
| Max                              |    | 19.86 | 19.87 | 20.38                                          | 20.95 | 20.47 | 19.75 | 20.35 | 20.92 | 22.16 | 22.95 | 19.28 | 19.69 | 22.95  |
| Min                              |    | 18.93 | 18.97 | 18.50                                          | 18.81 | 18.96 | 18.84 | 18.85 | 19.05 | 19.36 | 19.28 | 18.60 | 18.79 | 18.50  |
| Annual Max Momentary Gage Height |    |       | 24.68 | m. (MSL.) , at 18.00 Hours , on Jan 11 , 2013  |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |    |       | 0.00  | m. (MSL.) , River Bed 18.36 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |    |       | 27.82 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |    |       | 27.90 | m. (MSL.) , Drainage Area 86 Square Kilometers |       |       |       |       |       |       |       |       |       |        |

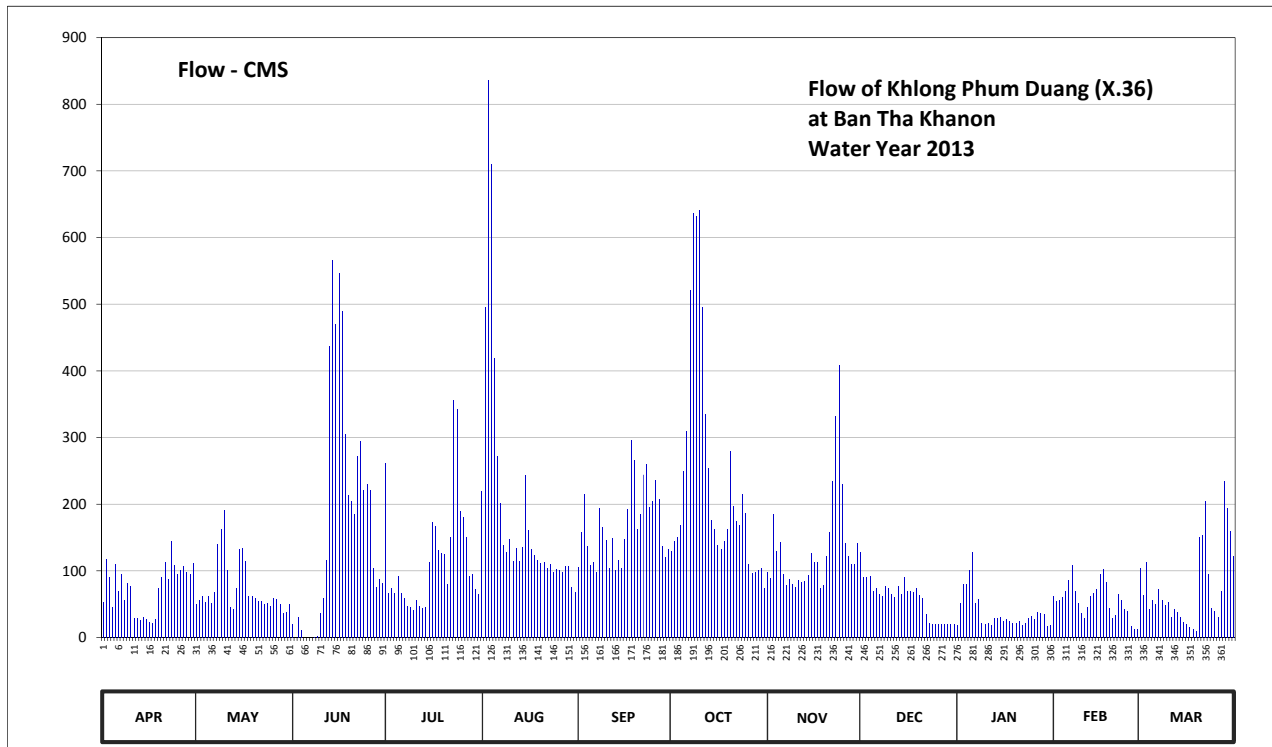




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                       | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov      | Dec                      | Jan    | Feb    | Mar    | Annual  |        |
|----------------|-----------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|----------|--------------------------|--------|--------|--------|---------|--------|
| 1              | 4.60                                                      | 7.85                     | 10.40  | 33.20  | 7.55                 | 19.00  | 3.90   | 8.80     | 45.00                    | 11.60  | 9.60   | 4.50   |         |        |
| 2              | 5.00                                                      | 5.30                     | 11.80  | 31.20  | 6.65                 | 18.40  | 4.20   | 8.20     | 21.80                    | 11.40  | 9.40   | 3.90   |         |        |
| 3              | 4.80                                                      | 6.05                     | 11.20  | 31.20  | 6.35                 | 17.80  | 3.60   | 9.80     | 84.00                    | 20.00  | 9.00   | 3.50   |         |        |
| 4              | 6.80                                                      | 6.65                     | 41.20  | 30.00  | 5.60                 | 17.60  | 6.50   | 11.00    | 109.20                   | 12.80  | 8.80   | 3.70   |         |        |
| 5              | 8.20                                                      | 7.25                     | 22.70  | 26.80  | 5.30                 | 17.20  | 4.10   | 10.20    | 135.60                   | 11.80  | 8.60   | 3.80   |         |        |
| 6              | 6.35                                                      | 5.00                     | 12.80  | 34.80  | 7.55                 | 16.60  | 4.20   | 9.80     | 37.60                    | 11.60  | 8.40   | 4.00   |         |        |
| 7              | 4.90                                                      | 5.15                     | 9.60   | 69.50  | 8.40                 | 13.00  | 4.50   | 9.20     | 23.00                    | 11.60  | 8.20   | 3.70   |         |        |
| 8              | 4.50                                                      | 7.25                     | 8.40   | 65.50  | 7.55                 | 12.40  | 4.30   | 8.80     | 17.40                    | 11.60  | 8.00   | 3.50   |         |        |
| 9              | 4.30                                                      | 4.90                     | 6.80   | 53.00  | 7.55                 | 14.60  | 4.40   | 14.40    | 26.40                    | 14.80  | 7.85   | 4.10   |         |        |
| 10             | 4.30                                                      | 7.40                     | 5.30   | 35.60  | 6.80                 | 7.40   | 4.20   | 15.20    | 75.00                    | 20.30  | 7.85   | 4.00   |         |        |
| 11             | 5.90                                                      | 6.80                     | 7.85   | 22.70  | 8.00                 | 6.50   | 4.10   | 11.00    | 23.30                    | 192.00 | 8.00   | 3.40   |         |        |
| 12             | 6.20                                                      | 5.00                     | 5.90   | 20.60  | 7.85                 | 9.20   | 3.90   | 11.40    | 16.40                    | 168.80 | 7.85   | 2.90   |         |        |
| 13             | 5.00                                                      | 5.00                     | 3.30   | 20.30  | 7.55                 | 13.00  | 4.00   | 10.80    | 13.40                    | 51.50  | 7.70   | 3.00   |         |        |
| 14             | 5.75                                                      | 4.70                     | 2.70   | 15.00  | 7.40                 | 8.80   | 3.80   | 10.40    | 12.60                    | 28.80  | 7.55   | 3.40   |         |        |
| 15             | 21.80                                                     | 6.65                     | 2.00   | 6.35   | 7.40                 | 8.40   | 4.10   | 10.60    | 13.60                    | 21.20  | 7.40   | 3.10   |         |        |
| 16             | 10.80                                                     | 6.35                     | 1.30   | 3.90   | 16.00                | 6.95   | 3.90   | 25.40    | 16.20                    | 17.60  | 7.25   | 17.80  |         |        |
| 17             | 7.10                                                      | 7.70                     | 0.75   | 3.50   | 37.60                | 6.35   | 4.40   | 28.00    | 32.80                    | 15.40  | 6.95   | 11.80  |         |        |
| 18             | 6.05                                                      | 15.00                    | 3.00   | 4.20   | 38.40                | 6.50   | 3.80   | 68.00    | 41.20                    | 13.20  | 6.80   | 6.35   |         |        |
| 19             | 5.15                                                      | 11.80                    | 1.50   | 4.30   | 45.50                | 6.20   | 4.20   | 30.80    | 31.20                    | 11.80  | 6.65   | 4.60   |         |        |
| 20             | 4.70                                                      | 22.10                    | 0.95   | 3.80   | 37.20                | 5.60   | 4.50   | 42.50    | 37.60                    | 10.60  | 6.50   | 4.70   |         |        |
| 21             | 5.75                                                      | 7.55                     | 0.75   | 3.40   | 27.60                | 5.30   | 3.90   | 27.20    | 16.60                    | 9.80   | 6.35   | 4.60   |         |        |
| 22             | 5.60                                                      | 10.60                    | 0.50   | 3.60   | 16.60                | 4.60   | 3.90   | 9.40     | 12.20                    | 9.80   | 6.20   | 4.20   |         |        |
| 23             | 4.60                                                      | 6.20                     | 0.65   | 3.10   | 8.80                 | 4.70   | 11.80  | 7.40     | 11.20                    | 9.60   | 6.05   | 3.80   |         |        |
| 24             | 7.70                                                      | 6.05                     | 1.70   | 3.90   | 5.30                 | 4.30   | 4.20   | 7.40     | 11.20                    | 9.60   | 5.75   | 3.40   |         |        |
| 25             | 5.15                                                      | 4.90                     | 3.30   | 5.00   | 4.60                 | 4.00   | 10.00  | 6.95     | 11.20                    | 9.60   | 5.45   | 3.50   |         |        |
| 26             | 9.60                                                      | 5.00                     | 4.60   | 5.60   | 4.70                 | 4.00   | 11.20  | 6.20     | 11.20                    | 9.60   | 1.00   | 3.70   |         |        |
| 27             | 5.90                                                      | 13.80                    | 5.90   | 6.95   | 5.90                 | 3.90   | 40.00  | 5.90     | 11.20                    | 9.60   | 5.00   | 4.20   |         |        |
| 28             | 6.35                                                      | 5.75                     | 12.60  | 8.80   | 8.80                 | 3.80   | 11.60  | 5.75     | 15.00                    | 9.60   | 5.00   | 4.10   |         |        |
| 29             | 6.50                                                      | 16.60                    | 22.10  | 8.80   | 10.60                | 3.60   | 6.95   | 8.60     | 17.40                    | 9.60   |        | 3.40   |         |        |
| 30             | 5.00                                                      | 19.20                    | 33.20  | 8.00   | 9.00                 | 3.40   | 3.50   | 33.60    | 14.60                    | 9.60   |        | 3.70   |         |        |
| 31             |                                                           | 11.20                    |        | 8.40   | 12.80                |        | 3.80   |          | 11.40                    | 9.60   |        | 4.10   |         |        |
| Total          | 194.35                                                    | 260.75                   | 254.75 | 581.00 | 396.90               | 273.10 | 195.45 | 472.70   | 956.50                   | 774.40 | 199.15 | 142.45 | 4701.50 | CMSDAY |
| Mean           | 6.48                                                      | 8.41                     | 8.49   | 18.74  | 12.80                | 9.10   | 6.30   | 15.76    | 30.85                    | 24.98  | 7.11   | 4.60   | 12.88   | CMS    |
| Max            | 21.80                                                     | 22.10                    | 41.20  | 69.50  | 45.50                | 19.00  | 40.00  | 68.00    | 135.60                   | 192.00 | 9.60   | 17.80  | 192.00  | CMS    |
| Min            | 4.30                                                      | 4.70                     | 0.50   | 3.10   | 4.60                 | 3.40   | 3.50   | 5.75     | 11.20                    | 9.60   | 1.00   | 2.90   | 0.50    | CMS    |
| Runoff         | 16.79                                                     | 22.53                    | 22.01  | 50.20  | 34.29                | 23.60  | 16.89  | 40.84    | 82.64                    | 66.91  | 17.21  | 12.31  | 406.21  | MCM    |
| Momentary Peak | CMS. at 24.68 m. (MSL.) at 18.00 Hours , on Jan 11 , 2013 |                          |        |        |                      |        |        |          |                          |        |        |        |         |        |
| Runoff Yield   | 148.67                                                    | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | 4016.621 | Liters/Second/Square KM. |        |        |        |         |        |

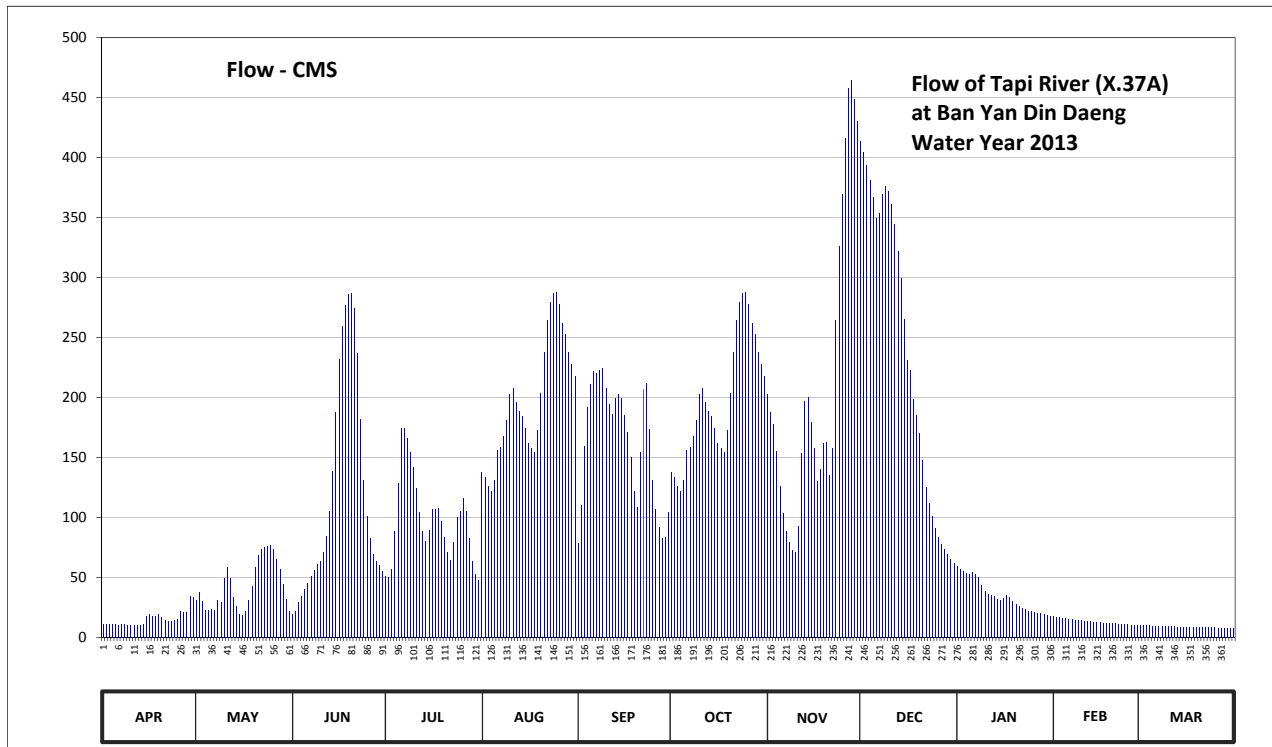




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun     | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec     | Jan     | Feb     | Mar     | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|---------|--------------------------|---------|---------|---------|---------|----------|--------|
| 1              | 53.80                                                          | 50.80                    | 20.45   | 261.75               | 219.60  | 105.65  | 130.30  | 98.00                    | 128.60  | 19.05   | 61.60   | 104.80  |          |        |
| 2              | 117.55                                                         | 55.60                    | 0.00    | 66.40                | 494.70  | 158.00  | 145.50  | 89.20                    | 90.00   | 52.00   | 54.40   | 64.00   |          |        |
| 3              | 90.80                                                          | 62.80                    | 30.20   | 74.50                | 836.30  | 215.00  | 150.00  | 185.40                   | 90.80   | 79.75   | 56.80   | 113.30  |          |        |
| 4              | 46.00                                                          | 52.60                    | 11.70   | 66.40                | 710.00  | 137.40  | 169.00  | 129.45                   | 92.40   | 79.75   | 61.00   | 42.50   |          |        |
| 5              | 109.90                                                         | 62.80                    | 0.00    | 91.60                | 419.20  | 109.05  | 250.50  | 142.80                   | 70.00   | 101.40  | 69.25   | 56.20   |          |        |
| 6              | 70.00                                                          | 52.00                    | 0.00    | 67.00                | 273.00  | 113.30  | 309.60  | 94.80                    | 73.75   | 127.75  | 86.00   | 50.20   |          |        |
| 7              | 95.60                                                          | 68.50                    | 0.00    | 58.60                | 201.20  | 98.00   | 520.10  | 78.25                    | 65.20   | 51.40   | 108.20  | 73.00   |          |        |
| 8              | 56.20                                                          | 140.10                   | 0.60    | 46.60                | 138.30  | 194.30  | 637.00  | 87.60                    | 62.20   | 58.00   | 70.00   | 55.60   |          |        |
| 9              | 82.00                                                          | 162.00                   | 2.70    | 46.00                | 128.60  | 166.00  | 631.75  | 80.50                    | 76.75   | 21.50   | 51.40   | 48.40   |          |        |
| 10             | 76.75                                                          | 190.90                   | 37.00   | 41.00                | 147.30  | 146.40  | 640.60  | 75.25                    | 73.75   | 20.80   | 36.00   | 52.60   |          |        |
| 11             | 28.60                                                          | 100.55                   | 58.60   | 56.20                | 115.00  | 104.80  | 494.70  | 86.80                    | 65.80   | 21.50   | 29.00   | 31.40   |          |        |
| 12             | 29.00                                                          | 46.00                    | 115.85  | 47.80                | 134.70  | 149.10  | 335.25  | 83.60                    | 60.40   | 19.40   | 46.00   | 42.00   |          |        |
| 13             | 26.60                                                          | 42.50                    | 436.95  | 44.20                | 115.00  | 100.55  | 254.25  | 85.20                    | 76.75   | 29.80   | 62.80   | 38.50   |          |        |
| 14             | 30.20                                                          | 74.50                    | 565.25  | 46.00                | 135.60  | 115.85  | 176.60  | 93.20                    | 64.60   | 29.40   | 66.40   | 30.20   |          |        |
| 15             | 27.00                                                          | 132.00                   | 469.95  | 113.30               | 244.25  | 103.95  | 163.00  | 126.05                   | 90.80   | 30.60   | 73.00   | 23.25   |          |        |
| 16             | 23.60                                                          | 133.80                   | 546.00  | 173.30               | 161.00  | 147.30  | 138.30  | 113.30                   | 69.25   | 25.00   | 95.60   | 20.80   |          |        |
| 17             | 21.15                                                          | 115.00                   | 489.75  | 167.00               | 132.90  | 193.15  | 132.00  | 113.30                   | 69.25   | 28.20   | 102.25  | 15.90   |          |        |
| 18             | 28.20                                                          | 62.20                    | 305.55  | 131.15               | 123.50  | 296.10  | 144.60  | 73.75                    | 67.75   | 23.95   | 83.60   | 12.90   |          |        |
| 19             | 74.50                                                          | 61.60                    | 213.85  | 126.05               | 116.70  | 265.50  | 162.00  | 78.25                    | 73.75   | 22.20   | 43.60   | 9.00    |          |        |
| 20             | 90.80                                                          | 59.80                    | 204.65  | 125.20               | 111.60  | 163.00  | 280.50  | 121.80                   | 63.40   | 21.85   | 29.40   | 151.00  |          |        |
| 21             | 112.45                                                         | 54.40                    | 185.40  | 79.75                | 113.30  | 185.40  | 196.60  | 158.00                   | 59.20   | 25.00   | 34.00   | 154.00  |          |        |
| 22             | 87.60                                                          | 55.00                    | 271.75  | 151.00               | 104.80  | 244.25  | 175.50  | 234.55                   | 35.00   | 18.70   | 65.20   | 204.65  |          |        |
| 23             | 144.60                                                         | 50.20                    | 294.75  | 356.00               | 109.90  | 260.50  | 169.00  | 332.55                   | 21.85   | 21.50   | 56.80   | 95.60   |          |        |
| 24             | 109.05                                                         | 52.00                    | 221.90  | 343.40               | 98.85   | 195.45  | 215.00  | 408.00                   | 20.45   | 28.60   | 42.50   | 43.60   |          |        |
| 25             | 95.60                                                          | 46.60                    | 229.95  | 189.80               | 103.10  | 204.65  | 186.50  | 229.95                   | 20.10   | 32.60   | 40.00   | 39.00   |          |        |
| 26             | 101.40                                                         | 59.80                    | 221.90  | 181.00               | 100.55  | 235.70  | 109.90  | 141.90                   | 20.10   | 28.20   | 17.40   | 31.00   |          |        |
| 27             | 106.50                                                         | 57.40                    | 104.80  | 151.00               | 98.00   | 208.10  | 97.20   | 122.65                   | 20.10   | 38.00   | 12.00   | 69.25   |          |        |
| 28             | 98.85                                                          | 50.20                    | 75.25   | 91.60                | 107.35  | 137.40  | 98.85   | 110.75                   | 19.75   | 36.00   | 12.00   | 234.55  |          |        |
| 29             | 95.60                                                          | 36.50                    | 88.40   | 94.80                | 106.50  | 120.10  | 101.40  | 110.75                   | 20.10   | 35.50   |         | 194.30  |          |        |
| 30             | 111.60                                                         | 38.50                    | 81.25   | 72.25                | 75.25   | 132.90  | 103.95  | 141.90                   | 20.10   | 16.80   |         | 160.00  |          |        |
| 31             |                                                                | 49.60                    |         | 65.20                | 67.75   |         | 73.75   |                          | 20.10   | 18.00   |         | 121.80  |          |        |
| Total          | 2241.50                                                        | 2276.25                  | 5284.40 | 3625.85              | 6043.80 | 506.85  | 7393.20 | 4027.50                  | 1802.05 | 1162.20 | 1566.20 | 2383.30 | 42813.10 | CMSDAY |
| Mean           | 74.72                                                          | 73.43                    | 176.15  | 116.96               | 194.96  | 166.90  | 238.49  | 134.25                   | 58.13   | 37.49   | 55.94   | 76.88   | 117.30   | CMS    |
| Max            | 144.60                                                         | 190.90                   | 565.25  | 356.00               | 836.30  | 296.10  | 640.60  | 408.00                   | 128.60  | 127.75  | 108.20  | 234.55  | 836.30   | CMS    |
| Min            | 21.15                                                          | 36.50                    | 0.00    | 41.00                | 67.75   | 98.00   | 73.75   | 73.75                    | 19.75   | 16.80   | 12.00   | 9.00    | 0.00     | CMS    |
| Runoff         | 193.67                                                         | 196.67                   | 456.57  | 313.27               | 522.18  | 432.59  | 638.77  | 347.98                   | 155.70  | 100.41  | 135.32  | 205.92  | 3699.05  | MCM    |
| Momentary Peak | 859.10 CMS. at 7.79 m. (MSL.) at 13.00 Hours , on Aug 3 , 2013 |                          |         |                      |         |         |         |                          |         |         |         |         |          |        |
| Runoff Yield   | 39.52                                                          | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 289.429 |         | Liters/Second/Square KM. |         |         |         |         |          |        |

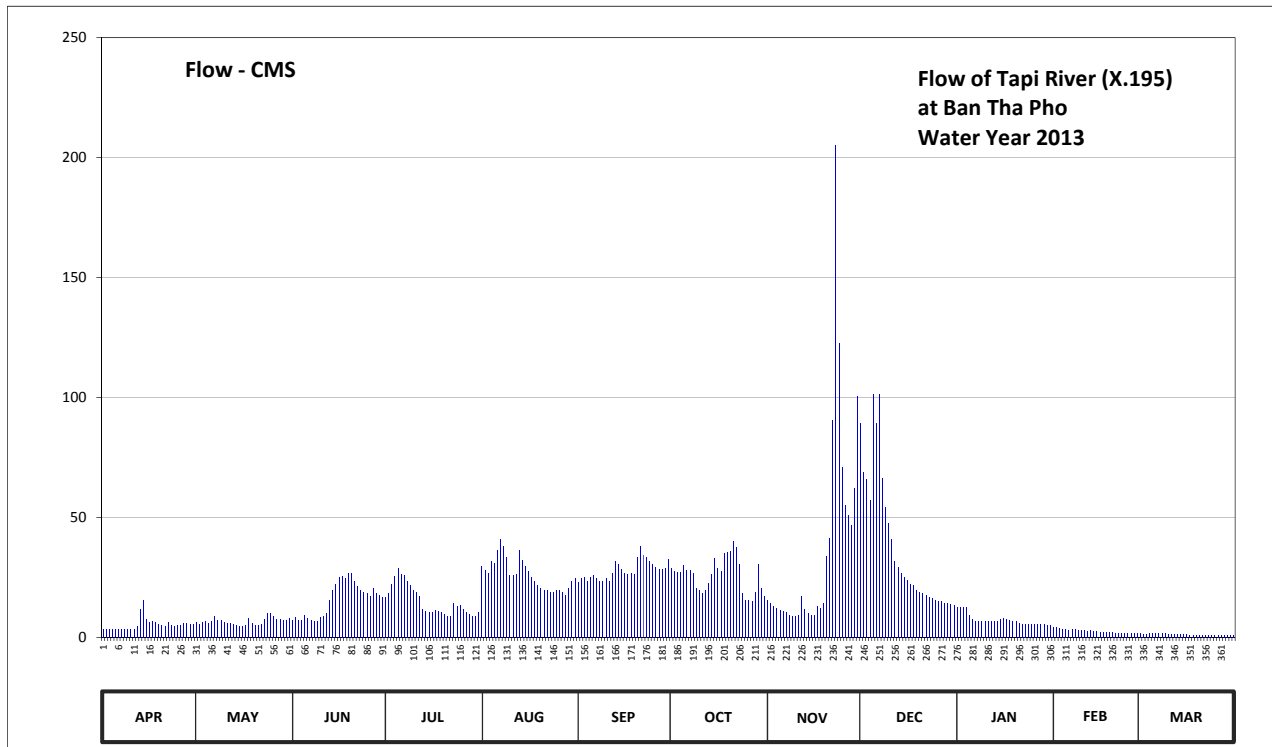




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                            | May                      | Jun      | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan     | Feb    | Mar    | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|----------|---------|----------------------|---------|---------|---------|--------------------------|---------|--------|--------|----------|--------|
| 1              | 11.20                                                          | 31.60                    | 19.60    | 51.50   | 138.30               | 78.50   | 138.30  | 202.80  | 413.40                   | 59.50   | 17.60  | 10.40  |          |        |
| 2              | 11.40                                                          | 37.60                    | 22.00    | 50.50   | 133.40               | 110.40  | 133.40  | 187.60  | 404.20                   | 57.00   | 17.00  | 10.40  |          |        |
| 3              | 11.20                                                          | 30.00                    | 29.60    | 57.50   | 126.60               | 159.60  | 126.60  | 178.00  | 393.80                   | 55.00   | 16.60  | 10.20  |          |        |
| 4              | 11.00                                                          | 22.80                    | 34.40    | 88.50   | 121.80               | 192.40  | 121.80  | 155.60  | 380.80                   | 53.50   | 16.40  | 10.00  |          |        |
| 5              | 11.00                                                          | 22.80                    | 40.00    | 129.00  | 131.40               | 211.00  | 131.40  | 126.60  | 366.50                   | 52.50   | 16.00  | 9.80   |          |        |
| 6              | 10.80                                                          | 24.00                    | 45.20    | 174.80  | 156.40               | 222.00  | 156.40  | 103.80  | 349.60                   | 54.50   | 15.40  | 9.80   |          |        |
| 7              | 11.00                                                          | 22.80                    | 51.00    | 174.80  | 158.80               | 220.00  | 158.80  | 88.50   | 353.50                   | 52.50   | 15.20  | 9.60   |          |        |
| 8              | 11.00                                                          | 31.20                    | 56.00    | 166.00  | 167.60               | 223.00  | 167.60  | 79.50   | 369.10                   | 50.50   | 14.80  | 9.60   |          |        |
| 9              | 10.60                                                          | 29.60                    | 61.00    | 154.80  | 181.20               | 224.00  | 181.20  | 73.00   | 375.60                   | 43.60   | 14.60  | 9.40   |          |        |
| 10             | 10.60                                                          | 49.50                    | 64.00    | 141.80  | 202.80               | 207.60  | 202.80  | 71.00   | 371.70                   | 38.40   | 14.20  | 9.40   |          |        |
| 11             | 10.40                                                          | 58.50                    | 71.50    | 124.20  | 207.60               | 194.00  | 207.60  | 93.00   | 361.30                   | 36.00   | 14.00  | 9.20   |          |        |
| 12             | 10.40                                                          | 49.50                    | 85.00    | 104.40  | 195.60               | 186.00  | 195.60  | 154.00  | 344.40                   | 35.60   | 13.80  | 9.20   |          |        |
| 13             | 10.40                                                          | 33.60                    | 105.60   | 89.00   | 188.40               | 198.80  | 188.40  | 196.40  | 322.00                   | 34.40   | 13.40  | 9.00   |          |        |
| 14             | 11.40                                                          | 26.40                    | 139.00   | 80.00   | 184.40               | 202.80  | 184.40  | 200.40  | 299.00                   | 32.40   | 13.20  | 9.00   |          |        |
| 15             | 17.60                                                          | 19.20                    | 187.60   | 89.50   | 174.80               | 198.80  | 174.80  | 179.60  | 265.00                   | 31.20   | 13.00  | 9.00   |          |        |
| 16             | 19.80                                                          | 18.80                    | 232.00   | 106.80  | 162.00               | 185.20  | 162.00  | 158.00  | 231.00                   | 33.20   | 12.80  | 8.80   |          |        |
| 17             | 18.00                                                          | 21.80                    | 259.00   | 106.80  | 158.00               | 170.80  | 158.00  | 130.20  | 223.00                   | 35.20   | 12.40  | 8.80   |          |        |
| 18             | 18.20                                                          | 31.20                    | 277.00   | 108.00  | 154.80               | 150.00  | 154.80  | 140.40  | 198.00                   | 33.60   | 12.20  | 9.00   |          |        |
| 19             | 19.60                                                          | 42.80                    | 286.00   | 97.20   | 173.20               | 121.80  | 173.20  | 162.00  | 185.20                   | 30.40   | 12.20  | 9.00   |          |        |
| 20             | 17.00                                                          | 58.50                    | 287.00   | 84.00   | 203.60               | 108.60  | 203.60  | 162.80  | 170.00                   | 28.00   | 11.80  | 8.80   |          |        |
| 21             | 14.60                                                          | 69.00                    | 274.00   | 71.50   | 238.00               | 154.80  | 238.00  | 135.50  | 147.60                   | 26.00   | 11.80  | 8.60   |          |        |
| 22             | 13.40                                                          | 74.00                    | 237.00   | 64.50   | 264.00               | 206.80  | 264.00  | 158.00  | 125.40                   | 24.80   | 11.60  | 8.80   |          |        |
| 23             | 13.80                                                          | 75.50                    | 182.00   | 79.50   | 279.00               | 212.00  | 279.00  | 264.00  | 112.20                   | 23.60   | 11.20  | 8.60   |          |        |
| 24             | 14.20                                                          | 76.50                    | 131.40   | 100.20  | 287.00               | 174.00  | 287.00  | 325.60  | 101.40                   | 22.40   | 11.20  | 8.60   |          |        |
| 25             | 15.20                                                          | 77.00                    | 101.40   | 105.60  | 288.00               | 130.80  | 288.00  | 369.10  | 91.50                    | 21.80   | 11.00  | 8.40   |          |        |
| 26             | 22.00                                                          | 73.50                    | 82.50    | 116.40  | 278.00               | 107.40  | 278.00  | 416.20  | 84.00                    | 21.20   | 10.80  | 8.20   |          |        |
| 27             | 21.20                                                          | 65.50                    | 69.50    | 105.60  | 262.00               | 92.00   | 262.00  | 458.00  | 78.00                    | 20.80   | 10.60  | 8.00   |          |        |
| 28             | 21.00                                                          | 57.50                    | 63.50    | 83.00   | 253.00               | 83.00   | 253.00  | 464.00  | 73.50                    | 20.40   | 10.60  | 8.00   |          |        |
| 29             | 34.40                                                          | 44.80                    | 60.50    | 64.00   | 238.00               | 84.00   | 238.00  | 449.00  | 69.50                    | 19.60   |        | 7.80   |          |        |
| 30             | 33.60                                                          | 32.40                    | 55.00    | 52.50   | 228.00               | 105.00  | 228.00  | 430.20  | 65.50                    | 18.40   |        | 8.00   |          |        |
| 31             |                                                                | 22.40                    |          | 48.00   | 218.00               |         | 218.00  |         | 62.00                    | 18.00   |        | 8.00   |          |        |
| Total          | 466.00                                                         | 1,330.30                 | 3,609.30 | 3069.90 | 6153.70              | 4915.10 | 6153.70 | 6312.80 | 7387.70                  | 1084.00 | 375.40 | 279.40 | 41137.30 | CMSDAY |
| Mean           | 15.53                                                          | 42.91                    | 120.31   | 99.03   | 198.51               | 163.84  | 198.51  | 210.43  | 238.31                   | 34.97   | 13.41  | 9.01   | 112.70   | CMS    |
| Max            | 34.40                                                          | 77.00                    | 287.00   | 174.80  | 288.00               | 224.00  | 288.00  | 464.00  | 413.40                   | 59.50   | 17.60  | 10.40  | 464.00   | CMS    |
| Min            | 10.40                                                          | 18.80                    | 19.60    | 48.00   | 121.80               | 78.50   | 121.80  | 71.00   | 62.00                    | 18.00   | 10.60  | 7.80   | 7.80     | CMS    |
| Runoff         | 40.26                                                          | 114.94                   | 311.84   | 265.24  | 531.68               | 424.67  | 531.68  | 545.43  | 638.30                   | 93.66   | 32.44  | 24.14  | 3554.26  | MCM    |
| Momentary Peak | 468.50 CMS, at 10.79 m. (MSL), at 02.00 Hours, on Nov 28, 2013 |                          |          |         |                      |         |         |         |                          |         |        |        |          |        |
| Runoff Yield   | 20.94                                                          | Liters/Second/Square KM. |          |         | Momentary Peak Yield |         |         | 87.029  | Liters/Second/Square KM. |         |        |        |          |        |

| Date                             | Apr   | May   | Jun         | Jul   | Aug                               | Sep   | Oct               | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-----------------------------------|-------|-------------------|-------|-------|-------|-------|-------|--------|
| 1                                | 32.71 | 32.85 | 32.89       | 33.26 | 33.68                             | 33.48 | 33.66             | 33.22 | 34.99 | 33.12 | 32.75 | 32.63 |        |
| 2                                | 32.72 | 32.82 | 32.95       | 33.32 | 33.63                             | 33.53 | 33.62             | 33.17 | 34.61 | 33.12 | 32.75 | 32.62 |        |
| 3                                | 32.72 | 32.86 | 32.90       | 33.46 | 33.59                             | 33.55 | 33.61             | 33.13 | 34.55 | 33.12 | 32.74 | 32.62 |        |
| 4                                | 32.72 | 32.87 | 32.89       | 33.56 | 33.74                             | 33.50 | 33.61             | 33.10 | 34.36 | 33.11 | 32.72 | 32.63 |        |
| 5                                | 32.72 | 32.83 | 32.99       | 33.66 | 33.72                             | 33.55 | 33.69             | 33.07 | 35.20 | 32.99 | 32.71 | 32.63 |        |
| 6                                | 32.72 | 32.88 | 32.94       | 33.58 | 33.86                             | 33.57 | 33.63             | 33.05 | 34.99 | 32.91 | 32.70 | 32.63 |        |
| 7                                | 32.72 | 32.98 | 32.90       | 33.57 | 33.99                             | 33.53 | 33.63             | 33.04 | 35.20 | 32.88 | 32.71 | 32.63 |        |
| 8                                | 32.72 | 32.90 | 32.88       | 33.49 | 33.91                             | 33.49 | 33.59             | 33.00 | 34.56 | 32.88 | 32.71 | 32.63 |        |
| 9                                | 32.72 | 32.90 | 32.87       | 33.44 | 33.79                             | 33.49 | 33.41             | 32.97 | 34.30 | 32.88 | 32.69 | 32.63 |        |
| 10                               | 32.72 | 32.85 | 32.95       | 33.38 | 33.57                             | 33.53 | 33.37             | 32.98 | 34.15 | 32.88 | 32.69 | 32.62 |        |
| 11                               | 32.72 | 32.84 | 32.97       | 33.35 | 33.57                             | 33.49 | 33.33             | 33.00 | 33.99 | 32.88 | 32.69 | 32.62 |        |
| 12                               | 32.77 | 32.83 | 33.02       | 33.29 | 33.58                             | 33.60 | 33.38             | 33.29 | 33.74 | 32.88 | 32.68 | 32.61 |        |
| 13                               | 33.08 | 32.81 | 33.23       | 33.08 | 33.87                             | 33.74 | 33.47             | 33.09 | 33.67 | 32.88 | 32.69 | 32.61 |        |
| 14                               | 33.23 | 32.80 | 33.37       | 33.05 | 33.75                             | 33.70 | 33.58             | 33.03 | 33.59 | 32.87 | 32.68 | 32.61 |        |
| 15                               | 32.92 | 32.78 | 33.45       | 33.04 | 33.68                             | 33.64 | 33.77             | 33.00 | 33.55 | 32.92 | 32.67 | 32.61 |        |
| 16                               | 32.86 | 32.77 | 33.54       | 33.04 | 33.62                             | 33.60 | 33.66             | 32.99 | 33.51 | 32.93 | 32.66 | 32.62 |        |
| 17                               | 32.88 | 32.79 | 33.56       | 33.07 | 33.55                             | 33.58 | 33.62             | 33.13 | 33.45 | 32.92 | 32.66 | 32.59 |        |
| 18                               | 32.86 | 32.93 | 33.53       | 33.05 | 33.49                             | 33.59 | 33.83             | 33.10 | 33.44 | 32.90 | 32.66 | 32.57 |        |
| 19                               | 32.81 | 32.83 | 33.59       | 33.04 | 33.44                             | 33.58 | 33.84             | 33.18 | 33.38 | 32.88 | 32.65 | 32.58 |        |
| 20                               | 32.79 | 32.80 | 33.60       | 33.01 | 33.40                             | 33.78 | 33.85             | 33.80 | 33.35 | 32.87 | 32.65 | 32.60 |        |
| 21                               | 32.77 | 32.80 | 33.49       | 32.98 | 33.37                             | 33.91 | 33.97             | 34.00 | 33.32 | 32.83 | 32.64 | 32.60 |        |
| 22                               | 32.85 | 32.82 | 33.43       | 32.98 | 33.38                             | 33.81 | 33.90             | 35.01 | 33.30 | 32.82 | 32.64 | 32.58 |        |
| 23                               | 32.80 | 32.91 | 33.38       | 33.18 | 33.34                             | 33.79 | 33.70             | 36.80 | 33.27 | 32.82 | 32.64 | 32.58 |        |
| 24                               | 32.78 | 33.03 | 33.34       | 33.13 | 33.35                             | 33.74 | 33.32             | 35.55 | 33.25 | 32.82 | 32.64 | 32.57 |        |
| 25                               | 32.79 | 33.02 | 33.32       | 33.14 | 33.38                             | 33.70 | 33.23             | 34.65 | 33.23 | 32.82 | 32.64 | 32.56 |        |
| 26                               | 32.79 | 32.97 | 33.29       | 33.09 | 33.38                             | 33.67 | 33.23             | 34.32 | 33.21 | 32.82 | 32.63 | 32.57 |        |
| 27                               | 32.83 | 32.91 | 33.40       | 33.04 | 33.34                             | 33.65 | 33.20             | 34.22 | 33.20 | 32.82 | 32.63 | 32.56 |        |
| 28                               | 32.83 | 32.92 | 33.33       | 33.01 | 33.30                             | 33.65 | 33.35             | 34.13 | 33.18 | 32.82 | 32.63 | 32.56 |        |
| 29                               | 32.81 | 32.90 | 33.30       | 32.98 | 33.40                             | 33.66 | 33.70             | 34.47 | 33.17 | 32.81 |       | 32.56 |        |
| 30                               | 32.82 | 32.90 | 33.27       | 32.97 | 33.50                             | 33.76 | 33.40             | 35.18 | 33.16 | 32.80 |       | 32.56 |        |
| 31                               |       | 32.94 |             | 33.04 | 33.53                             |       | 33.28             |       | 33.15 | 32.80 |       | 32.56 |        |
| Mean                             | 32.81 | 32.87 | 33.22       | 33.20 | 33.57                             | 33.63 | 33.56             | 33.69 | 33.81 | 32.90 | 32.68 | 32.60 |        |
| Max                              | 33.23 | 33.03 | 33.60       | 33.66 | 33.99                             | 33.91 | 33.97             | 36.80 | 35.20 | 33.12 | 32.75 | 32.63 | 36.80  |
| Min                              | 32.71 | 32.77 | 32.87       | 32.97 | 33.30                             | 33.48 | 33.20             | 32.97 | 33.15 | 32.80 | 32.63 | 32.56 | 32.56  |
| Annual Max Momentary Gage Height | 37.45 |       | m. (MSL.) , |       | at 12.00 Hours , on Nov 23 , 2013 |       |                   |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , |       | River Bed                         | 32.02 | m. (MSL.)         |       |       |       |       |       |        |
| Left Bank Elevation              | 40.13 |       | m. (MSL.) , |       |                                   |       |                   |       |       |       |       |       |        |
| Right Bank Elevation             | 40.16 |       | m. (MSL.) , |       | Drainage Area                     | 488   | Square Kilometers |       |       |       |       |       |        |

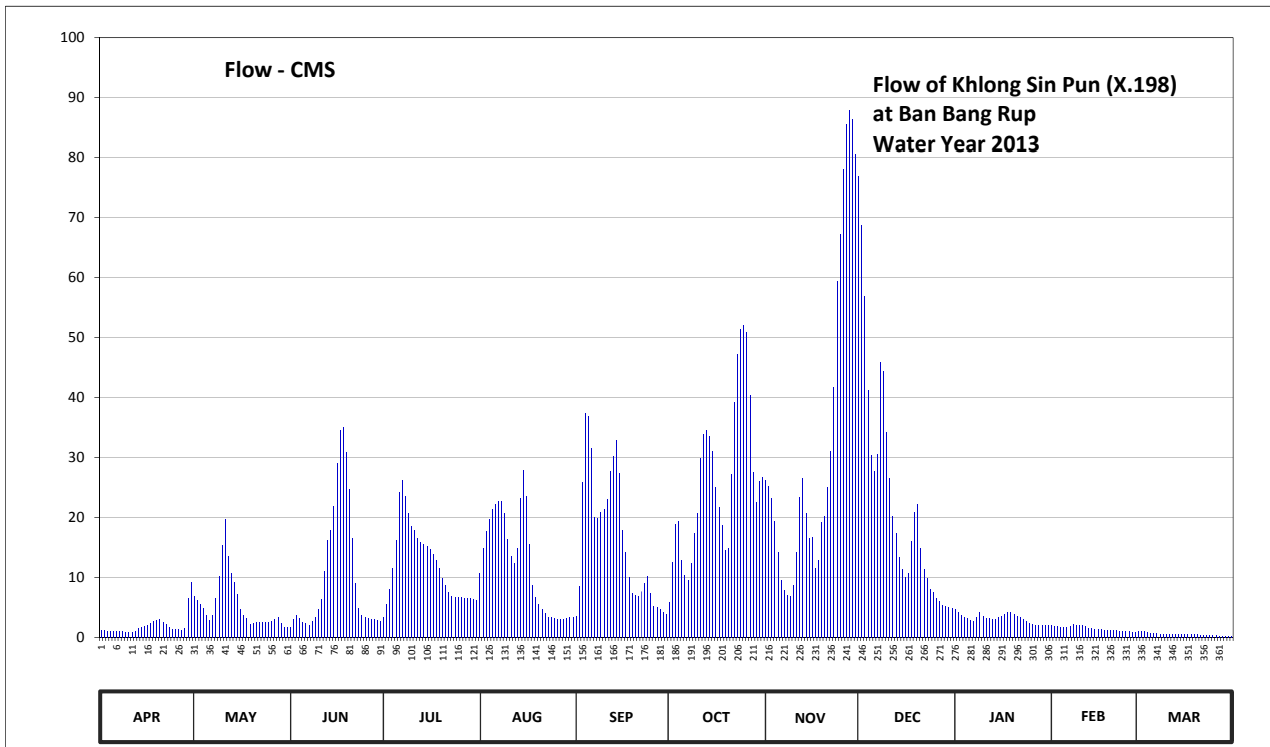


Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan    | Feb   | Mar   | Annual  |        |
|----------------|--------|----------------------------------------------------------|--------|--------|----------------------|--------|--------|---------|--------------------------|--------|-------|-------|---------|--------|
| 1              | 3.46   | 6.35                                                     | 7.19   | 16.65  | 29.80                | 23.10  | 29.10  | 15.55   | 89.45                    | 12.80  | 4.28  | 1.82  |         |        |
| 2              | 3.66   | 5.72                                                     | 8.45   | 18.30  | 28.05                | 24.72  | 27.70  | 14.17   | 69.03                    | 12.80  | 4.28  | 1.61  |         |        |
| 3              | 3.66   | 6.56                                                     | 7.40   | 22.45  | 26.68                | 25.37  | 27.35  | 13.08   | 66.12                    | 12.80  | 4.07  | 1.61  |         |        |
| 4              | 3.66   | 6.77                                                     | 7.19   | 25.70  | 31.90                | 23.75  | 27.35  | 12.25   | 57.20                    | 12.53  | 3.66  | 1.82  |         |        |
| 5              | 3.66   | 5.93                                                     | 9.29   | 29.10  | 31.20                | 25.37  | 30.15  | 11.42   | 101.50                   | 9.29   | 3.46  | 1.82  |         |        |
| 6              | 3.66   | 6.98                                                     | 8.24   | 26.35  | 36.25                | 26.03  | 28.05  | 10.87   | 89.45                    | 7.61   | 3.25  | 1.82  |         |        |
| 7              | 3.66   | 9.08                                                     | 7.40   | 26.03  | 41.13                | 24.72  | 28.05  | 10.60   | 101.50                   | 6.98   | 3.46  | 1.82  |         |        |
| 8              | 3.66   | 7.40                                                     | 6.98   | 23.43  | 38.13                | 23.43  | 26.68  | 9.50    | 66.60                    | 6.98   | 3.46  | 1.82  |         |        |
| 9              | 3.66   | 7.40                                                     | 6.77   | 21.80  | 33.65                | 23.43  | 20.82  | 8.87    | 54.50                    | 6.98   | 3.04  | 1.82  |         |        |
| 10             | 3.66   | 6.35                                                     | 8.45   | 19.95  | 26.03                | 24.72  | 19.67  | 9.08    | 47.88                    | 6.98   | 3.04  | 1.61  |         |        |
| 11             | 3.66   | 6.14                                                     | 8.87   | 19.12  | 26.03                | 23.43  | 18.58  | 9.50    | 41.13                    | 6.98   | 3.04  | 1.61  |         |        |
| 12             | 4.69   | 5.93                                                     | 10.05  | 17.47  | 26.35                | 27.00  | 19.95  | 17.47   | 31.90                    | 6.98   | 2.84  | 1.41  |         |        |
| 13             | 11.70  | 5.51                                                     | 15.82  | 11.70  | 36.62                | 31.90  | 22.78  | 11.97   | 29.45                    | 6.98   | 3.04  | 1.41  |         |        |
| 14             | 15.82  | 5.30                                                     | 19.67  | 10.87  | 32.25                | 30.50  | 26.35  | 10.32   | 26.68                    | 6.77   | 2.84  | 1.41  |         |        |
| 15             | 7.82   | 4.89                                                     | 22.12  | 10.60  | 29.80                | 28.40  | 32.95  | 9.50    | 25.37                    | 7.82   | 2.63  | 1.41  |         |        |
| 16             | 6.56   | 4.69                                                     | 25.05  | 10.60  | 27.70                | 27.00  | 29.10  | 9.29    | 24.07                    | 8.03   | 2.43  | 1.61  |         |        |
| 17             | 6.98   | 5.10                                                     | 25.70  | 11.42  | 25.37                | 26.35  | 27.70  | 13.08   | 22.12                    | 7.82   | 2.43  | 1.14  |         |        |
| 18             | 6.56   | 8.03                                                     | 24.72  | 10.87  | 23.43                | 26.68  | 35.13  | 12.25   | 21.80                    | 7.40   | 2.43  | 1.02  |         |        |
| 19             | 5.51   | 5.93                                                     | 26.68  | 10.60  | 21.80                | 26.35  | 35.50  | 14.45   | 19.95                    | 6.98   | 2.23  | 1.08  |         |        |
| 20             | 5.10   | 5.30                                                     | 27.00  | 9.77   | 20.50                | 33.30  | 35.87  | 34.00   | 19.12                    | 6.77   | 2.23  | 1.20  |         |        |
| 21             | 4.69   | 5.30                                                     | 23.43  | 9.08   | 19.67                | 38.13  | 40.38  | 41.50   | 18.30                    | 5.93   | 2.02  | 1.20  |         |        |
| 22             | 6.35   | 5.72                                                     | 21.47  | 9.08   | 19.95                | 34.38  | 37.75  | 90.57   | 17.75                    | 5.72   | 2.02  | 1.08  |         |        |
| 23             | 5.30   | 7.61                                                     | 19.95  | 14.45  | 18.85                | 33.65  | 30.50  | 205.00  | 16.92                    | 5.72   | 2.02  | 1.08  |         |        |
| 24             | 4.89   | 10.32                                                    | 18.85  | 13.08  | 19.12                | 31.90  | 18.30  | 122.50  | 16.37                    | 5.72   | 2.02  | 1.02  |         |        |
| 25             | 5.10   | 10.05                                                    | 18.30  | 13.35  | 19.95                | 30.50  | 15.82  | 71.13   | 15.82                    | 5.72   | 2.02  | 0.96  |         |        |
| 26             | 5.10   | 8.87                                                     | 17.47  | 11.97  | 19.95                | 29.45  | 15.82  | 55.40   | 15.27                    | 5.72   | 1.82  | 1.02  |         |        |
| 27             | 5.93   | 7.61                                                     | 20.50  | 10.60  | 18.85                | 28.75  | 15.00  | 50.90   | 15.00                    | 5.72   | 1.82  | 0.96  |         |        |
| 28             | 5.93   | 7.82                                                     | 18.58  | 9.77   | 17.75                | 28.75  | 19.12  | 47.03   | 14.45                    | 5.72   | 1.82  | 0.96  |         |        |
| 29             | 5.51   | 7.40                                                     | 17.75  | 9.08   | 20.50                | 29.10  | 30.50  | 62.33   | 14.17                    | 5.51   |       | 0.96  |         |        |
| 30             | 5.72   | 7.40                                                     | 16.92  | 8.87   | 23.75                | 32.60  | 20.50  | 100.35  | 13.90                    | 5.30   |       | 0.96  |         |        |
| 31             |        | 8.24                                                     |        | 10.60  | 24.72                |        | 17.20  |         | 13.63                    | 5.30   |       | 0.96  |         |        |
| Total          | 165.32 | 211.70                                                   | 476.26 | 472.71 | 815.73               | 842.76 | 809.72 | 1103.93 | 1176.40                  | 230.36 | 77.70 | 42.03 | 6424.62 | CMSDAY |
| Mean           | 5.51   | 6.83                                                     | 15.88  | 15.25  | 26.31                | 28.09  | 26.12  | 36.80   | 37.95                    | 7.43   | 2.77  | 1.36  | 17.60   | CMS    |
| Max            | 15.82  | 10.32                                                    | 27.00  | 29.10  | 41.13                | 38.13  | 40.38  | 205.00  | 101.50                   | 12.80  | 4.28  | 1.82  | 205.00  | CMS    |
| Min            | 3.46   | 4.69                                                     | 6.77   | 8.87   | 17.75                | 23.10  | 15.00  | 8.87    | 13.63                    | 5.30   | 1.82  | 0.96  | 0.96    | CMS    |
| Runoff         | 14.28  | 18.29                                                    | 41.15  | 40.84  | 70.48                | 72.81  | 69.96  | 95.38   | 101.64                   | 19.90  | 6.71  | 3.63  | 555.09  | MCM    |
| Momentary Peak | 251.13 | CMS, at 37.45 m. (MSL.), at 12.00 Hours, on Nov 23, 2013 |        |        |                      |        |        |         |                          |        |       |       |         |        |
| Runoff Yield   | 36.07  | Liters/Second/Square KM.                                 |        |        | Momentary Peak Yield |        |        | 514.632 | Liters/Second/Square KM. |        |       |       |         |        |



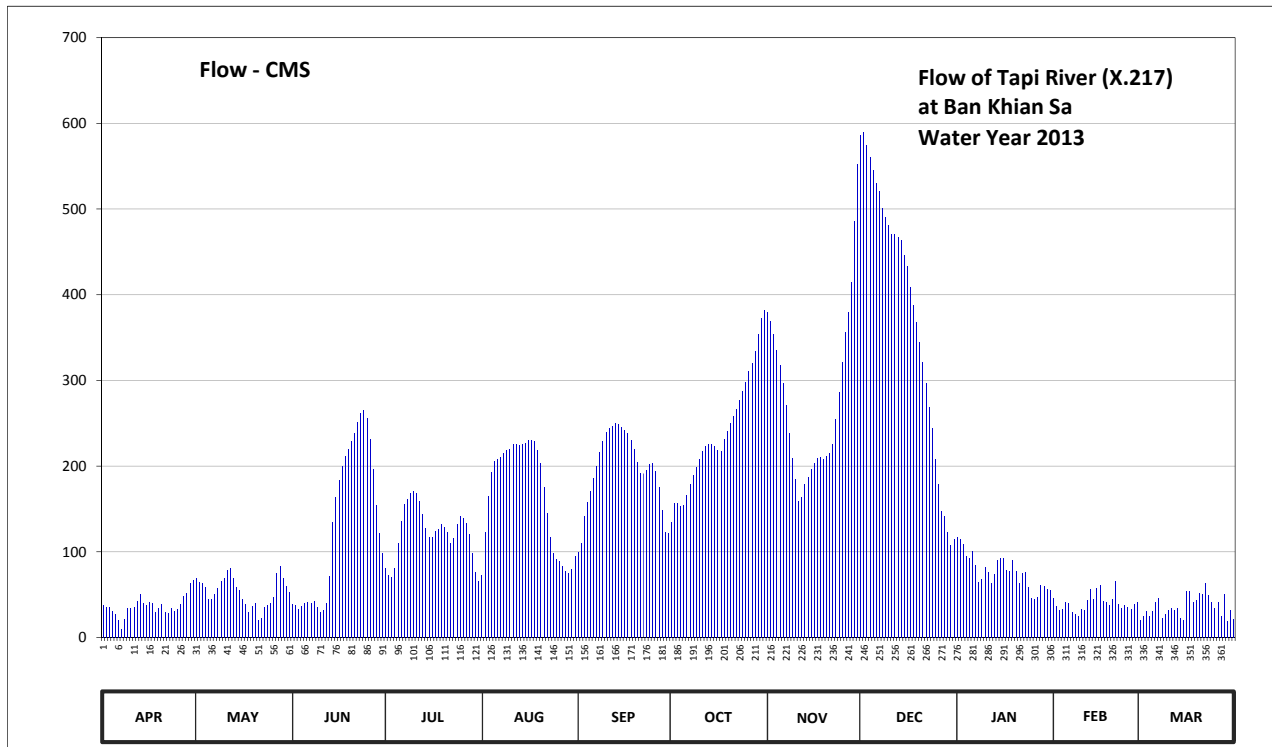




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                            | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|----------------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|---------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 1.20                                                           | 6.89                     | 1.80   | 3.40   | 10.66                | 3.55   | 5.91   | 26.20   | 76.88                    | 4.66  | 2.00  | 1.10  |         |        |
| 2              | 1.20                                                           | 6.24                     | 3.00   | 5.65   | 14.94                | 8.55   | 12.61  | 25.28   | 68.75                    | 4.18  | 1.95  | 1.15  |         |        |
| 3              | 1.15                                                           | 5.59                     | 3.70   | 8.03   | 17.77                | 25.94  | 18.99  | 23.20   | 56.90                    | 3.80  | 1.90  | 1.00  |         |        |
| 4              | 1.15                                                           | 4.84                     | 3.20   | 11.51  | 19.79                | 37.43  | 19.45  | 19.45   | 41.12                    | 3.40  | 1.80  | 0.90  |         |        |
| 5              | 1.10                                                           | 3.70                     | 2.60   | 16.20  | 21.51                | 36.94  | 12.87  | 14.31   | 30.39                    | 3.20  | 1.80  | 0.80  |         |        |
| 6              | 1.10                                                           | 2.85                     | 2.35   | 24.24  | 22.29                | 31.62  | 10.49  | 9.55    | 27.83                    | 2.95  | 1.75  | 0.70  |         |        |
| 7              | 1.05                                                           | 3.80                     | 2.05   | 26.20  | 22.81                | 20.02  | 9.64   | 7.88    | 30.52                    | 2.70  | 1.95  | 0.70  |         |        |
| 8              | 1.00                                                           | 6.57                     | 2.65   | 23.59  | 22.68                | 19.91  | 12.45  | 7.09    | 45.80                    | 3.35  | 2.25  | 0.60  |         |        |
| 9              | 0.95                                                           | 10.23                    | 3.35   | 20.73  | 20.73                | 20.99  | 17.46  | 6.96    | 44.40                    | 4.18  | 2.10  | 0.55  |         |        |
| 10             | 0.90                                                           | 15.39                    | 4.66   | 18.53  | 16.41                | 21.38  | 20.73  | 8.77    | 34.16                    | 3.60  | 2.00  | 0.50  |         |        |
| 11             | 0.90                                                           | 19.68                    | 6.43   | 17.98  | 13.63                | 23.07  | 29.98  | 14.23   | 26.61                    | 3.25  | 2.00  | 0.50  |         |        |
| 12             | 1.00                                                           | 13.55                    | 11.09  | 16.52  | 12.45                | 27.83  | 33.86  | 23.46   | 20.26                    | 3.20  | 1.85  | 0.50  |         |        |
| 13             | 1.65                                                           | 10.66                    | 16.20  | 15.84  | 14.85                | 30.25  | 34.62  | 26.61   | 17.46                    | 3.10  | 1.60  | 0.50  |         |        |
| 14             | 1.75                                                           | 9.30                     | 17.88  | 15.57  | 23.20                | 32.88  | 33.58  | 20.73   | 13.47                    | 3.00  | 1.55  | 0.50  |         |        |
| 15             | 1.85                                                           | 7.22                     | 21.90  | 15.21  | 27.96                | 27.42  | 31.06  | 16.52   | 11.34                    | 3.35  | 1.50  | 0.50  |         |        |
| 16             | 2.00                                                           | 4.72                     | 29.04  | 14.76  | 23.59                | 17.88  | 25.02  | 16.72   | 10.15                    | 3.60  | 1.40  | 0.50  |         |        |
| 17             | 2.40                                                           | 3.80                     | 34.62  | 13.89  | 15.57                | 14.23  | 21.77  | 11.59   | 10.66                    | 3.85  | 1.35  | 0.50  |         |        |
| 18             | 2.80                                                           | 3.20                     | 35.08  | 12.87  | 8.70                 | 10.06  | 18.76  | 12.95   | 16.02                    | 4.18  | 1.25  | 0.50  |         |        |
| 19             | 2.95                                                           | 2.30                     | 30.93  | 11.51  | 6.76                 | 7.48   | 14.58  | 19.22   | 20.86                    | 4.18  | 1.25  | 0.50  |         |        |
| 20             | 3.00                                                           | 2.35                     | 24.76  | 9.98   | 5.53                 | 7.09   | 14.85  | 20.26   | 22.29                    | 3.85  | 1.20  | 0.50  |         |        |
| 21             | 2.60                                                           | 2.50                     | 16.62  | 8.70   | 4.78                 | 6.89   | 27.29  | 25.02   | 14.94                    | 3.60  | 1.20  | 0.45  |         |        |
| 22             | 2.20                                                           | 2.60                     | 9.15   | 7.61   | 4.00                 | 7.67   | 39.25  | 31.06   | 11.34                    | 3.35  | 1.20  | 0.45  |         |        |
| 23             | 1.80                                                           | 2.60                     | 4.96   | 6.89   | 3.45                 | 9.15   | 47.20  | 41.66   | 9.89                     | 3.00  | 1.15  | 0.45  |         |        |
| 24             | 1.50                                                           | 2.60                     | 3.70   | 6.76   | 3.35                 | 10.32  | 51.40  | 59.37   | 8.03                     | 2.70  | 1.15  | 0.40  |         |        |
| 25             | 1.50                                                           | 2.60                     | 3.45   | 6.76   | 3.25                 | 7.48   | 52.00  | 67.25   | 7.61                     | 2.35  | 1.05  | 0.40  |         |        |
| 26             | 1.50                                                           | 2.65                     | 3.30   | 6.69   | 3.15                 | 5.27   | 50.80  | 77.98   | 6.63                     | 2.20  | 1.00  | 0.35  |         |        |
| 27             | 1.25                                                           | 3.15                     | 3.10   | 6.63   | 3.05                 | 5.02   | 40.40  | 85.50   | 6.05                     | 2.15  | 0.95  | 0.30  |         |        |
| 28             | 1.65                                                           | 3.35                     | 3.05   | 6.57   | 3.05                 | 4.72   | 27.55  | 87.90   | 5.46                     | 2.00  | 0.95  | 0.30  |         |        |
| 29             | 6.63                                                           | 2.45                     | 2.90   | 6.50   | 3.25                 | 4.24   | 22.55  | 86.40   | 5.20                     | 2.00  |       | 0.30  |         |        |
| 30             | 9.30                                                           | 1.75                     | 2.75   | 6.43   | 3.40                 | 3.95   | 26.07  | 80.45   | 5.08                     | 2.00  |       | 0.30  |         |        |
| 31             |                                                                | 1.70                     |        | 6.31   | 3.50                 |        | 26.75  |         | 4.96                     | 2.00  |       | 0.25  |         |        |
| Total          | 61.03                                                          | 170.83                   | 310.27 | 378.06 | 380.06               | 489.23 | 809.94 | 973.57  | 711.06                   | 98.93 | 43.10 | 16.95 | 4443.03 | CMSDAY |
| Mean           | 2.03                                                           | 5.51                     | 10.34  | 12.20  | 12.26                | 16.31  | 26.13  | 32.45   | 22.94                    | 3.19  | 1.54  | 0.55  | 12.17   | CMS    |
| Max            | 9.30                                                           | 19.68                    | 35.08  | 26.20  | 27.96                | 37.43  | 52.00  | 87.90   | 76.88                    | 4.66  | 2.25  | 1.15  | 87.90   | CMS    |
| Min            | 0.90                                                           | 1.70                     | 1.80   | 3.40   | 3.05                 | 3.55   | 5.91   | 6.96    | 4.96                     | 2.00  | 0.95  | 0.25  | 0.25    | CMS    |
| Runoff         | 5.27                                                           | 14.76                    | 26.81  | 32.66  | 32.84                | 42.27  | 69.98  | 84.12   | 61.44                    | 8.55  | 3.72  | 1.46  | 383.88  | MCM    |
| Momentary Peak | 88.20 CMS, at 16.24 m. (MSL.), at 10.00 Hours, on Nov 28, 2013 |                          |        |        |                      |        |        |         |                          |       |       |       |         |        |
| Runoff Yield   | 14.06                                                          | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | 101.848 | Liters/Second/Square KM. |       |       |       |         |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec      | Jan     | Feb     | Mar     | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|---------|----------|---------|---------|---------|----------|--------|
| 1              | 37.95                                                          | 69.00                    | 38.90   | 81.50                | 73.00   | 100.20  | 134.95                   | 379.40  | 586.00   | 117.80  | 46.50   | 20.85   |          |        |
| 2              | 35.10                                                          | 65.00                    | 37.95   | 73.00                | 123.45  | 110.10  | 156.75                   | 369.20  | 590.00   | 114.50  | 37.00   | 24.65   |          |        |
| 3              | 35.10                                                          | 64.00                    | 33.20   | 71.00                | 165.50  | 141.85  | 156.75                   | 353.90  | 574.00   | 109.00  | 32.25   | 30.35   |          |        |
| 4              | 31.30                                                          | 59.00                    | 37.00   | 81.50                | 192.70  | 158.00  | 153.00                   | 335.60  | 560.10   | 94.70   | 33.20   | 25.60   |          |        |
| 5              | 27.50                                                          | 44.60                    | 39.85   | 110.10               | 205.70  | 170.60  | 154.25                   | 318.00  | 544.90   | 92.50   | 40.80   | 30.35   |          |        |
| 6              | 19.90                                                          | 44.60                    | 41.75   | 136.10               | 208.30  | 186.20  | 166.75                   | 296.50  | 529.70   | 101.30  | 39.85   | 41.75   |          |        |
| 7              | 9.90                                                           | 50.30                    | 39.85   | 155.50               | 210.90  | 200.50  | 179.70                   | 271.00  | 520.20   | 84.80   | 29.40   | 46.50   |          |        |
| 8              | 21.80                                                          | 58.00                    | 42.70   | 161.75               | 214.80  | 216.10  | 190.10                   | 238.00  | 501.20   | 65.00   | 27.50   | 22.75   |          |        |
| 9              | 34.15                                                          | 66.00                    | 36.05   | 168.00               | 218.70  | 229.00  | 199.20                   | 209.60  | 489.80   | 68.00   | 24.65   | 27.50   |          |        |
| 10             | 34.15                                                          | 69.00                    | 29.40   | 170.60               | 220.00  | 239.50  | 208.30                   | 184.90  | 480.30   | 82.60   | 33.20   | 32.25   |          |        |
| 11             | 35.10                                                          | 78.20                    | 32.25   | 168.00               | 226.00  | 244.00  | 217.40                   | 159.25  | 470.80   | 76.00   | 32.25   | 34.15   |          |        |
| 12             | 42.70                                                          | 81.50                    | 39.85   | 159.25               | 226.00  | 247.00  | 223.00                   | 164.25  | 470.80   | 64.00   | 43.65   | 32.25   |          |        |
| 13             | 50.30                                                          | 69.00                    | 72.00   | 144.25               | 224.50  | 250.00  | 226.00                   | 178.40  | 467.00   | 74.00   | 56.00   | 34.15   |          |        |
| 14             | 39.85                                                          | 59.00                    | 134.95  | 128.05               | 226.00  | 248.50  | 226.00                   | 187.50  | 463.20   | 90.30   | 44.60   | 22.75   |          |        |
| 15             | 37.95                                                          | 55.05                    | 164.25  | 117.80               | 227.50  | 245.50  | 223.00                   | 196.60  | 446.10   | 92.50   | 58.00   | 20.85   |          |        |
| 16             | 41.75                                                          | 44.60                    | 183.60  | 117.80               | 230.50  | 242.50  | 218.70                   | 203.10  | 432.80   | 92.50   | 61.00   | 54.10   |          |        |
| 17             | 39.85                                                          | 38.90                    | 200.50  | 124.60               | 230.50  | 238.00  | 217.40                   | 209.60  | 408.30   | 78.20   | 42.70   | 54.10   |          |        |
| 18             | 29.40                                                          | 29.40                    | 212.20  | 126.90               | 229.00  | 230.50  | 232.00                   | 210.90  | 387.90   | 77.10   | 40.80   | 40.80   |          |        |
| 19             | 34.15                                                          | 37.00                    | 220.00  | 132.65               | 218.70  | 220.00  | 241.00                   | 208.30  | 367.50   | 90.30   | 37.95   | 43.65   |          |        |
| 20             | 38.90                                                          | 39.85                    | 229.00  | 129.20               | 203.10  | 204.40  | 250.00                   | 212.20  | 343.70   | 77.10   | 44.60   | 51.25   |          |        |
| 21             | 29.40                                                          | 20.85                    | 238.00  | 123.45               | 175.80  | 191.40  | 259.00                   | 214.80  | 321.20   | 63.00   | 66.00   | 50.30   |          |        |
| 22             | 28.45                                                          | 22.75                    | 251.50  | 110.10               | 145.50  | 191.40  | 266.50                   | 226.00  | 296.50   | 75.00   | 38.90   | 63.00   |          |        |
| 23             | 34.15                                                          | 35.10                    | 262.00  | 115.60               | 117.80  | 195.30  | 277.00                   | 254.50  | 269.50   | 76.00   | 34.15   | 49.35   |          |        |
| 24             | 31.30                                                          | 37.95                    | 265.00  | 132.65               | 98.00   | 201.80  | 287.50                   | 286.00  | 244.00   | 59.00   | 37.95   | 40.80   |          |        |
| 25             | 33.20                                                          | 39.85                    | 256.00  | 141.85               | 91.40   | 203.10  | 298.00                   | 321.20  | 208.30   | 46.50   | 36.05   | 34.15   |          |        |
| 26             | 38.90                                                          | 47.45                    | 232.00  | 139.55               | 89.20   | 194.00  | 310.00                   | 355.60  | 178.40   | 44.60   | 33.20   | 41.75   |          |        |
| 27             | 48.40                                                          | 75.00                    | 196.60  | 133.80               | 83.70   | 175.80  | 319.60                   | 379.40  | 148.00   | 47.45   | 38.90   | 25.60   |          |        |
| 28             | 51.25                                                          | 83.70                    | 154.25  | 121.15               | 77.10   | 149.25  | 334.00                   | 413.80  | 141.85   | 61.00   | 41.75   | 50.30   |          |        |
| 29             | 63.00                                                          | 69.00                    | 122.30  | 99.10                | 75.00   | 123.45  | 353.90                   | 486.00  | 123.45   | 60.00   |         | 18.95   |          |        |
| 30             | 67.00                                                          | 60.00                    | 98.00   | 76.00                | 80.40   | 122.30  | 372.60                   | 552.50  | 107.90   | 56.00   |         | 32.25   |          |        |
| 31             |                                                                | 53.15                    |         | 66.00                | 94.70   |         | 381.10                   |         | 114.50   | 55.05   |         | 21.80   |          |        |
| Total          | 1101.85                                                        | 1666.80                  | 3940.90 | 3816.80              | 5203.45 | 5870.25 | 7433.45                  | 8376.00 | 11787.90 | 2385.80 | 1132.80 | 1118.85 | 53834.86 | CMSDAY |
| Mean           | 36.73                                                          | 53.77                    | 131.36  | 123.12               | 167.85  | 195.67  | 239.79                   | 279.20  | 380.25   | 76.96   | 40.46   | 36.09   | 147.49   | CMS    |
| Max            | 67.00                                                          | 83.70                    | 265.00  | 170.60               | 230.50  | 250.00  | 381.10                   | 552.50  | 590.00   | 117.80  | 66.00   | 63.00   | 590.00   | CMS    |
| Min            | 9.90                                                           | 20.85                    | 29.40   | 66.00                | 73.00   | 100.20  | 134.95                   | 159.25  | 107.90   | 44.60   | 24.65   | 18.95   | 9.90     | CMS    |
| Runoff         | 95.20                                                          | 144.01                   | 340.49  | 329.77               | 449.58  | 507.19  | 642.25                   | 723.69  | 1018.48  | 206.13  | 97.87   | 96.67   | 4651.33  | MCM    |
| Momentary Peak | 592.00 CMS. at 4.15 m. (MSL.) at 07.00 Hours , on Dec 2 , 2013 |                          |         |                      |         |         |                          |         |          |         |         |         |          |        |
| Runoff Yield   | 22.02                                                          | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 88.402  | Liters/Second/Square KM. |         |          |         |         |         |          |        |

## WATER YEAR : 2013

## TAPI RIVER BASIN

### Khlong Trom at Ban Trom , Surat Thani (X.259)

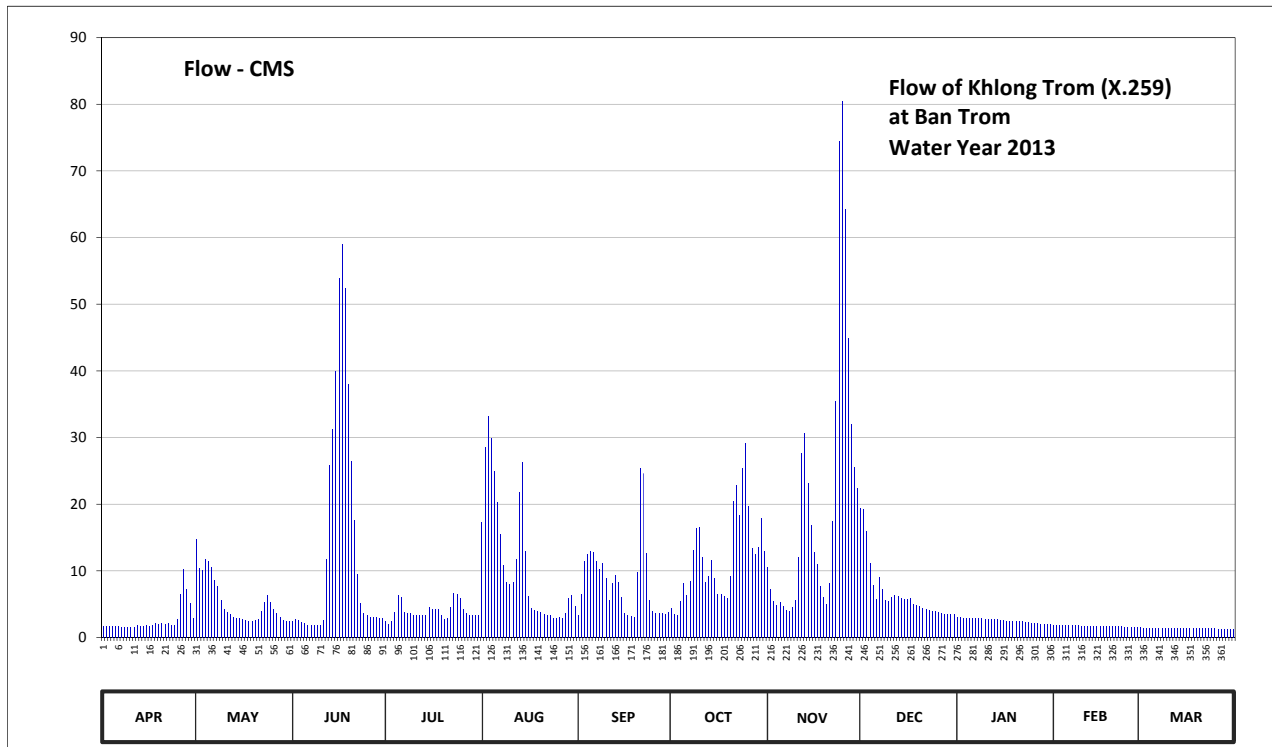
Lat 08 - 32 - 24 N    Long 99 - 05 - 58 E

**Location : on right bank at Ban Trom.**

|                                         |                                                                                           |           |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Trom      | <b>Amphoe</b> | Chai Buri | <b>Changwat</b>  | Surat Thani       |
| <b>Drainage Area</b>                    | 818                                                                                       | sq.km.    |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                   |
| <b>Location BM</b>                      | On right bank downstream at the footpath                                                  |           |               |           | <b>Elevation</b> | +62.353 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |           |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                   |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |           |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |           |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2013. |           |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 53.47 | 55.14 | 53.63                                           | 53.63 | 55.35 | 53.81 | 54.01 | 54.76 | 55.51 | 53.75 | 53.51 | 53.41 |        |
| 2                                | 53.47 | 54.74 | 53.69                                           | 53.52 | 56.25 | 54.30 | 53.83 | 54.40 | 55.50 | 53.74 | 53.50 | 53.39 |        |
| 3                                | 53.46 | 54.70 | 53.66                                           | 53.65 | 56.58 | 54.84 | 53.80 | 54.16 | 55.24 | 53.73 | 53.49 | 53.39 |        |
| 4                                | 53.45 | 54.87 | 53.60                                           | 53.90 | 56.35 | 54.95 | 54.16 | 54.09 | 54.82 | 53.73 | 53.49 | 53.39 |        |
| 5                                | 53.45 | 54.84 | 53.55                                           | 54.28 | 55.96 | 55.00 | 54.49 | 54.15 | 54.47 | 53.72 | 53.49 | 53.39 |        |
| 6                                | 53.44 | 54.75 | 53.50                                           | 54.25 | 55.59 | 54.99 | 54.28 | 54.06 | 54.21 | 53.72 | 53.49 | 53.39 |        |
| 7                                | 53.42 | 54.54 | 53.49                                           | 53.91 | 55.20 | 54.85 | 54.53 | 53.97 | 54.59 | 53.72 | 53.48 | 53.39 |        |
| 8                                | 53.42 | 54.44 | 53.49                                           | 53.88 | 54.79 | 54.72 | 55.01 | 53.92 | 54.40 | 53.71 | 53.48 | 53.39 |        |
| 9                                | 53.41 | 54.18 | 53.49                                           | 53.88 | 54.52 | 54.81 | 55.27 | 54.03 | 54.19 | 53.71 | 53.48 | 53.39 |        |
| 10                               | 53.40 | 53.99 | 53.50                                           | 53.80 | 54.48 | 54.58 | 55.29 | 54.18 | 54.16 | 53.70 | 53.47 | 53.39 |        |
| 11                               | 53.41 | 53.90 | 53.66                                           | 53.80 | 54.52 | 54.18 | 54.90 | 54.91 | 54.24 | 53.69 | 53.47 | 53.38 |        |
| 12                               | 53.48 | 53.85 | 54.88                                           | 53.80 | 54.87 | 54.49 | 54.52 | 56.17 | 54.29 | 53.69 | 53.47 | 53.38 |        |
| 13                               | 53.46 | 53.77 | 56.03                                           | 53.80 | 55.71 | 54.63 | 54.61 | 56.41 | 54.27 | 53.68 | 53.46 | 53.38 |        |
| 14                               | 53.45 | 53.72 | 56.45                                           | 53.81 | 56.07 | 54.52 | 54.86 | 55.81 | 54.22 | 53.68 | 53.46 | 53.38 |        |
| 15                               | 53.48 | 53.71 | 57.01                                           | 54.03 | 55.00 | 54.25 | 54.58 | 55.31 | 54.20 | 53.67 | 53.46 | 53.38 |        |
| 16                               | 53.47 | 53.69 | 57.74                                           | 54.00 | 54.26 | 53.86 | 54.30 | 54.99 | 54.21 | 53.66 | 53.45 | 53.38 |        |
| 17                               | 53.51 | 53.67 | 57.96                                           | 54.00 | 54.01 | 53.80 | 54.30 | 54.80 | 54.22 | 53.65 | 53.45 | 53.38 |        |
| 18                               | 53.55 | 53.65 | 57.67                                           | 53.98 | 53.95 | 53.79 | 54.26 | 54.44 | 54.11 | 53.65 | 53.45 | 53.38 |        |
| 19                               | 53.54 | 53.65 | 56.89                                           | 53.80 | 53.94 | 53.77 | 54.23 | 54.24 | 54.08 | 53.65 | 53.45 | 53.38 |        |
| 20                               | 53.55 | 53.66 | 56.08                                           | 53.69 | 53.90 | 54.67 | 54.62 | 54.11 | 54.05 | 53.64 | 53.45 | 53.38 |        |
| 21                               | 53.54 | 53.68 | 55.37                                           | 53.71 | 53.85 | 55.99 | 55.60 | 54.49 | 54.02 | 53.64 | 53.44 | 53.37 |        |
| 22                               | 53.58 | 53.92 | 54.65                                           | 54.04 | 53.81 | 55.93 | 55.79 | 55.36 | 54.00 | 53.63 | 53.44 | 53.37 |        |
| 23                               | 53.50 | 54.14 | 54.12                                           | 54.33 | 53.81 | 54.97 | 55.43 | 56.73 | 53.97 | 53.61 | 53.44 | 53.37 |        |
| 24                               | 53.50 | 54.28 | 53.87                                           | 54.30 | 53.73 | 54.18 | 55.99 | 58.50 | 53.93 | 53.59 | 53.43 | 53.37 |        |
| 25                               | 53.69 | 54.15 | 53.82                                           | 54.23 | 53.71 | 53.93 | 56.30 | 58.67 | 53.92 | 53.58 | 53.43 | 53.37 |        |
| 26                               | 54.31 | 53.99 | 53.77                                           | 54.00 | 53.76 | 53.88 | 55.54 | 58.17 | 53.90 | 53.56 | 53.42 | 53.36 |        |
| 27                               | 54.73 | 53.88 | 53.76                                           | 53.88 | 53.73 | 53.88 | 55.04 | 57.29 | 53.88 | 53.55 | 53.42 | 53.36 |        |
| 28                               | 54.40 | 53.75 | 53.75                                           | 53.80 | 53.87 | 53.86 | 54.95 | 56.50 | 53.85 | 53.54 | 53.42 | 53.36 |        |
| 29                               | 54.13 | 53.67 | 53.73                                           | 53.80 | 54.23 | 53.84 | 55.05 | 56.01 | 53.84 | 53.53 |       | 53.36 |        |
| 30                               | 53.72 | 53.63 | 53.72                                           | 53.80 | 54.29 | 53.90 | 55.39 | 55.75 | 53.84 | 53.53 |       | 53.36 |        |
| 31                               |       | 53.63 |                                                 | 53.80 | 54.06 |       | 55.00 |       | 53.83 | 53.53 |       | 53.36 |        |
| Mean                             | 53.61 | 54.07 | 54.68                                           | 53.91 | 54.65 | 54.44 | 54.84 | 55.35 | 54.26 | 53.65 | 53.46 | 53.38 |        |
| Max                              | 54.73 | 55.14 | 57.96                                           | 54.33 | 56.58 | 55.99 | 56.30 | 58.67 | 55.51 | 53.75 | 53.51 | 53.41 | 58.67  |
| Min                              | 53.40 | 53.63 | 53.49                                           | 53.52 | 53.71 | 53.77 | 53.80 | 53.92 | 53.83 | 53.53 | 53.42 | 53.36 | 53.36  |
| Annual Max Momentary Gage Height |       | 58.87 | m. (MSL.) , at 22.00 Hours , on Nov 24 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 53.07 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 62.07 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 62.03 | m. (MSL.) , Drainage Area 818 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------|--------------------------|--------|-------|-------|-------|----------------|
| 1              | 1.78                                                            | 14.75                    | 2.45   | 2.45                 | 17.37  | 3.35    | 4.37   | 10.62                    | 19.37  | 3.05  | 1.94  | 1.54  |                |
| 2              | 1.78                                                            | 10.43                    | 2.75   | 1.98                 | 28.62  | 6.50    | 3.45   | 7.30                     | 19.25  | 3.00  | 1.90  | 1.46  |                |
| 3              | 1.74                                                            | 10.05                    | 2.60   | 2.55                 | 33.20  | 11.40   | 3.30   | 5.42                     | 16.00  | 2.95  | 1.86  | 1.46  |                |
| 4              | 1.70                                                            | 11.70                    | 2.30   | 3.80                 | 29.87  | 12.50   | 5.42   | 4.93                     | 11.20  | 2.95  | 1.86  | 1.46  |                |
| 5              | 1.70                                                            | 11.40                    | 2.10   | 6.34                 | 25.00  | 13.00   | 8.11   | 5.35                     | 7.93   | 2.90  | 1.86  | 1.46  |                |
| 6              | 1.66                                                            | 10.53                    | 1.90   | 6.10                 | 20.37  | 12.90   | 6.34   | 4.72                     | 5.78   | 2.90  | 1.86  | 1.46  |                |
| 7              | 1.58                                                            | 8.56                     | 1.86   | 3.85                 | 15.50  | 11.50   | 8.47   | 4.15                     | 9.01   | 2.90  | 1.82  | 1.46  |                |
| 8              | 1.58                                                            | 7.66                     | 1.86   | 3.70                 | 10.91  | 10.24   | 13.12  | 3.90                     | 7.30   | 2.85  | 1.82  | 1.46  |                |
| 9              | 1.54                                                            | 5.56                     | 1.86   | 3.70                 | 8.38   | 11.10   | 16.38  | 4.51                     | 5.63   | 2.85  | 1.82  | 1.46  |                |
| 10             | 1.50                                                            | 4.25                     | 1.90   | 3.30                 | 8.02   | 8.92    | 16.63  | 5.56                     | 5.42   | 2.80  | 1.78  | 1.46  |                |
| 11             | 1.54                                                            | 3.80                     | 2.60   | 3.30                 | 8.38   | 5.56    | 12.00  | 12.10                    | 6.02   | 2.75  | 1.78  | 1.42  |                |
| 12             | 1.82                                                            | 3.55                     | 11.80  | 3.30                 | 11.70  | 8.11    | 8.38   | 27.62                    | 6.42   | 2.75  | 1.78  | 1.42  |                |
| 13             | 1.74                                                            | 3.15                     | 25.87  | 3.30                 | 21.87  | 9.39    | 9.20   | 30.65                    | 6.26   | 2.70  | 1.74  | 1.42  |                |
| 14             | 1.70                                                            | 2.90                     | 31.25  | 3.35                 | 26.37  | 8.38    | 11.60  | 23.13                    | 5.86   | 2.70  | 1.74  | 1.42  |                |
| 15             | 1.82                                                            | 2.85                     | 39.97  | 4.51                 | 13.00  | 6.10    | 8.92   | 16.88                    | 5.70   | 2.65  | 1.74  | 1.42  |                |
| 16             | 1.78                                                            | 2.75                     | 53.80  | 4.30                 | 6.18   | 3.60    | 6.50   | 12.90                    | 5.78   | 2.60  | 1.70  | 1.42  |                |
| 17             | 1.94                                                            | 2.65                     | 59.00  | 4.30                 | 4.37   | 3.30    | 6.50   | 11.00                    | 5.86   | 2.55  | 1.70  | 1.42  |                |
| 18             | 2.10                                                            | 2.55                     | 52.40  | 4.20                 | 4.05   | 3.25    | 6.18   | 7.66                     | 5.07   | 2.55  | 1.70  | 1.42  |                |
| 19             | 2.06                                                            | 2.55                     | 37.98  | 3.30                 | 4.00   | 3.15    | 5.94   | 6.02                     | 4.86   | 2.55  | 1.70  | 1.42  |                |
| 20             | 2.10                                                            | 2.60                     | 26.50  | 2.75                 | 3.80   | 9.76    | 9.29   | 5.07                     | 4.65   | 2.50  | 1.70  | 1.42  |                |
| 21             | 2.06                                                            | 2.70                     | 17.62  | 2.85                 | 3.55   | 25.38   | 20.50  | 8.11                     | 4.44   | 2.50  | 1.66  | 1.38  |                |
| 22             | 2.22                                                            | 3.90                     | 9.58   | 4.58                 | 3.35   | 24.62   | 22.88  | 17.50                    | 4.30   | 2.45  | 1.66  | 1.38  |                |
| 23             | 1.90                                                            | 5.28                     | 5.14   | 6.74                 | 3.35   | 12.70   | 18.37  | 35.45                    | 4.15   | 2.35  | 1.66  | 1.38  |                |
| 24             | 1.90                                                            | 6.34                     | 3.65   | 6.50                 | 2.95   | 5.56    | 25.38  | 74.50                    | 3.95   | 2.26  | 1.62  | 1.38  |                |
| 25             | 2.75                                                            | 5.35                     | 3.40   | 5.94                 | 2.85   | 3.95    | 29.25  | 80.45                    | 3.90   | 2.22  | 1.62  | 1.38  |                |
| 26             | 6.58                                                            | 4.25                     | 3.15   | 4.30                 | 3.10   | 3.70    | 19.75  | 64.25                    | 3.80   | 2.14  | 1.58  | 1.34  |                |
| 27             | 10.34                                                           | 3.70                     | 3.10   | 3.70                 | 2.95   | 3.70    | 13.50  | 44.91                    | 3.70   | 2.10  | 1.58  | 1.34  |                |
| 28             | 7.30                                                            | 3.05                     | 3.05   | 3.30                 | 3.65   | 3.60    | 12.50  | 32.00                    | 3.55   | 2.06  | 1.58  | 1.34  |                |
| 29             | 5.21                                                            | 2.65                     | 2.95   | 3.30                 | 5.94   | 3.50    | 13.62  | 25.62                    | 3.50   | 2.02  |       | 1.34  |                |
| 30             | 2.90                                                            | 2.45                     | 2.90   | 3.30                 | 6.42   | 3.80    | 17.87  | 22.37                    | 3.50   | 2.02  |       | 1.34  |                |
| 31             |                                                                 | 2.45                     |        | 3.30                 | 4.72   |         | 13.00  |                          | 3.45   | 2.02  |       | 1.34  |                |
| Total          | 78.32                                                           | 166.36                   | 417.29 | 122.19               | 343.79 | 252.52  | 376.72 | 614.65                   | 205.61 | 79.59 | 48.76 | 43.82 | 2749.62 CMSDAY |
| Mean           | 2.61                                                            | 5.37                     | 13.91  | 3.94                 | 11.09  | 8.42    | 12.15  | 20.49                    | 6.63   | 2.57  | 1.74  | 1.41  | 7.53 CMS       |
| Max            | 10.34                                                           | 14.75                    | 59.00  | 6.74                 | 33.20  | 25.38   | 29.25  | 80.45                    | 19.37  | 3.05  | 1.94  | 1.54  | 80.45 CMS      |
| Min            | 1.50                                                            | 2.45                     | 1.86   | 1.98                 | 2.85   | 3.15    | 3.30   | 3.90                     | 3.45   | 2.02  | 1.58  | 1.34  | 1.34 CMS       |
| Runoff         | 6.77                                                            | 14.37                    | 36.05  | 10.56                | 29.70  | 21.82   | 32.55  | 53.11                    | 17.77  | 6.88  | 4.21  | 3.79  | 237.57 MCM     |
| Momentary Peak | 87.45 CMS. at 58.87 m. (MSL.) at 22.00 Hours , on Nov 24 , 2013 |                          |        |                      |        |         |        |                          |        |       |       |       |                |
| Runoff Yield   | 9.21                                                            | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 106.907 |        | Liters/Second/Square KM. |        |       |       |       |                |

## WATER YEAR : 2013

## TAPI RIVER BASIN

**Lower Khlong I - Pan at Ban Arpart , Surat Thani (X.260**

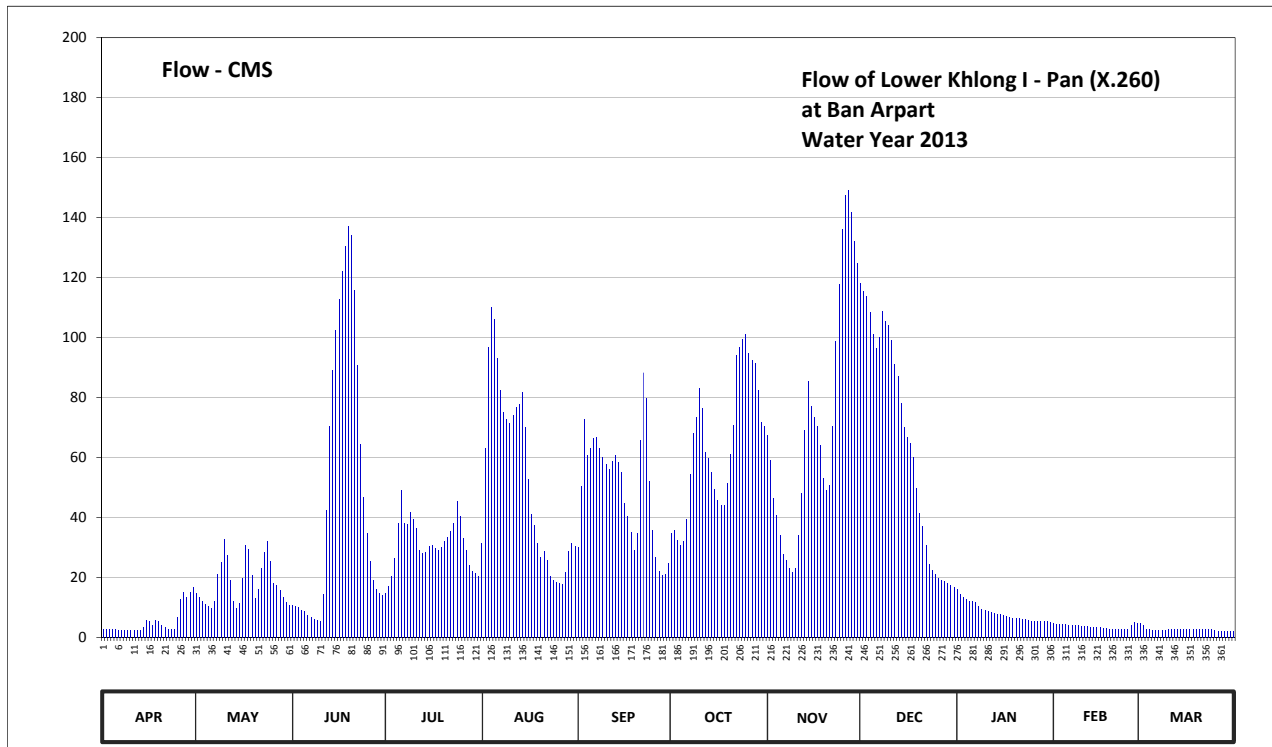
Lat 08 - 32 - 28 N    Long 99 - 13 - 25 E

**Location :** on left bank at Ban Arpart

|                                         |                                                                                           |           |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Arpart    | <b>Amphoe</b> | Phrasaeng | <b>Changwat</b>  | Surat Thani       |
| <b>Drainage Area</b>                    | 2,076                                                                                     | sq.km.    |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |           |                  |                   |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |           |               |           | <b>Elevation</b> | +13.658 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |           |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |           |                  |                   |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |           |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |           |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |           |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |           |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2013. |           |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May   | Jun                                              | Jul  | Aug   | Sep  | Oct  | Nov   | Dec   | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|-------|--------------------------------------------------|------|-------|------|------|-------|-------|------|------|------|--------|
| 1                                | 5.57 | 6.58  | 6.30                                             | 6.58 | 7.45  | 7.40 | 7.61 | 8.87  | 10.37 | 6.65 | 5.78 | 5.78 |        |
| 2                                | 5.57 | 6.49  | 6.27                                             | 6.71 | 8.71  | 8.25 | 7.64 | 8.57  | 10.30 | 6.55 | 5.76 | 5.70 |        |
| 3                                | 5.56 | 6.39  | 6.24                                             | 6.89 | 9.76  | 9.05 | 7.50 | 8.09  | 10.25 | 6.47 | 5.75 | 5.60 |        |
| 4                                | 5.56 | 6.33  | 6.18                                             | 7.21 | 10.14 | 8.63 | 7.43 | 7.86  | 10.10 | 6.44 | 5.74 | 5.55 |        |
| 5                                | 5.55 | 6.28  | 6.14                                             | 7.75 | 10.03 | 8.72 | 7.49 | 7.57  | 9.89  | 6.40 | 5.74 | 5.54 |        |
| 6                                | 5.54 | 6.23  | 6.03                                             | 8.20 | 9.66  | 8.83 | 7.80 | 7.28  | 9.75  | 6.40 | 5.72 | 5.52 |        |
| 7                                | 5.54 | 6.39  | 5.98                                             | 7.74 | 9.34  | 8.84 | 8.40 | 7.17  | 9.86  | 6.36 | 5.72 | 5.52 |        |
| 8                                | 5.53 | 6.92  | 5.92                                             | 7.73 | 9.12  | 8.71 | 8.89 | 7.03  | 10.11 | 6.28 | 5.72 | 5.52 |        |
| 9                                | 5.53 | 7.14  | 5.89                                             | 7.90 | 9.05  | 8.60 | 9.07 | 6.96  | 10.01 | 6.21 | 5.70 | 5.52 |        |
| 10                               | 5.52 | 7.51  | 5.83                                             | 7.80 | 9.00  | 8.52 | 9.36 | 7.03  | 9.97  | 6.17 | 5.69 | 5.56 |        |
| 11                               | 5.52 | 7.26  | 6.55                                             | 7.68 | 9.09  | 8.46 | 9.17 | 7.58  | 9.83  | 6.14 | 5.67 | 5.56 |        |
| 12                               | 5.52 | 6.83  | 7.93                                             | 7.34 | 9.18  | 8.56 | 8.66 | 8.17  | 9.60  | 6.12 | 5.67 | 5.56 |        |
| 13                               | 5.51 | 6.40  | 8.97                                             | 7.29 | 9.21  | 8.63 | 8.59 | 8.92  | 9.48  | 6.09 | 5.66 | 5.56 |        |
| 14                               | 5.66 | 6.22  | 9.54                                             | 7.31 | 9.32  | 8.55 | 8.42 | 9.43  | 9.22  | 6.07 | 5.65 | 5.56 |        |
| 15                               | 5.87 | 6.34  | 9.93                                             | 7.41 | 8.96  | 8.42 | 8.22 | 9.19  | 8.96  | 6.06 | 5.64 | 5.56 |        |
| 16                               | 5.86 | 6.86  | 10.22                                            | 7.43 | 8.34  | 8.02 | 8.06 | 9.07  | 8.84  | 6.05 | 5.64 | 5.56 |        |
| 17                               | 5.73 | 7.42  | 10.48                                            | 7.38 | 7.87  | 7.84 | 8.00 | 8.97  | 8.78  | 6.01 | 5.62 | 5.56 |        |
| 18                               | 5.88 | 7.37  | 10.70                                            | 7.34 | 7.71  | 7.62 | 7.99 | 8.75  | 8.61  | 5.99 | 5.61 | 5.56 |        |
| 19                               | 5.84 | 6.91  | 10.86                                            | 7.40 | 7.46  | 7.35 | 8.29 | 8.35  | 8.23  | 5.96 | 5.60 | 5.56 |        |
| 20                               | 5.72 | 6.46  | 10.79                                            | 7.49 | 7.22  | 7.60 | 8.64 | 8.20  | 7.89  | 5.94 | 5.60 | 5.56 |        |
| 21                               | 5.64 | 6.65  | 10.31                                            | 7.55 | 7.33  | 8.81 | 8.98 | 8.27  | 7.70  | 5.94 | 5.60 | 5.56 |        |
| 22                               | 5.59 | 7.04  | 9.59                                             | 7.63 | 7.18  | 9.52 | 9.69 | 8.97  | 7.43  | 5.92 | 5.60 | 5.56 |        |
| 23                               | 5.57 | 7.32  | 8.77                                             | 7.74 | 6.89  | 9.27 | 9.76 | 9.82  | 7.10  | 5.92 | 5.60 | 5.55 |        |
| 24                               | 5.57 | 7.49  | 8.11                                             | 8.05 | 6.82  | 8.32 | 9.84 | 10.36 | 7.00  | 5.89 | 5.60 | 5.55 |        |
| 25                               | 6.00 | 7.16  | 7.61                                             | 7.84 | 6.79  | 7.64 | 9.89 | 10.84 | 6.92  | 5.86 | 5.60 | 5.53 |        |
| 26                               | 6.43 | 6.77  | 7.16                                             | 7.53 | 6.76  | 7.22 | 9.71 | 11.12 | 6.86  | 5.84 | 5.70 | 5.50 |        |
| 27                               | 6.59 | 6.72  | 6.83                                             | 7.34 | 6.75  | 6.98 | 9.64 | 11.16 | 6.83  | 5.84 | 5.80 | 5.48 |        |
| 28                               | 6.47 | 6.64  | 6.65                                             | 7.09 | 6.96  | 6.91 | 9.61 | 10.98 | 6.80  | 5.84 | 5.79 | 5.48 |        |
| 29                               | 6.59 | 6.48  | 6.57                                             | 6.98 | 7.33  | 6.93 | 9.34 | 10.74 | 6.76  | 5.83 |      | 5.48 |        |
| 30                               | 6.69 | 6.36  | 6.52                                             | 6.94 | 7.46  | 7.13 | 9.01 | 10.55 | 6.72  | 5.83 |      | 5.48 |        |
| 31                               |      | 6.30  |                                                  | 6.89 | 7.41  |      | 8.97 |       | 6.69  | 5.82 |      | 5.49 |        |
| Mean                             | 5.79 | 6.75  | 7.83                                             | 7.42 | 8.20  | 8.18 | 8.70 | 8.86  | 8.61  | 6.09 | 5.68 | 5.55 |        |
| Max                              | 6.69 | 7.51  | 10.86                                            | 8.20 | 10.14 | 9.52 | 9.89 | 11.16 | 10.37 | 6.65 | 5.80 | 5.78 | 11.16  |
| Min                              | 5.51 | 6.22  | 5.83                                             | 6.58 | 6.75  | 6.91 | 7.43 | 6.96  | 6.69  | 5.82 | 5.60 | 5.48 | 5.48   |
| Annual Max Momentary Gage Height |      | 11.20 | m. (MSL.) , at 03.00 Hours , on Nov 27 , 2013    |      |       |      |      |       |       |      |      |      |        |
| Zero Gage at Bottom Elevation    |      | 0.00  | m. (MSL.) , River Bed 2.21 m. (MSL.)             |      |       |      |      |       |       |      |      |      |        |
| Left Bank Elevation              |      | 13.60 | m. (MSL.) ,                                      |      |       |      |      |       |       |      |      |      |        |
| Right Bank Elevation             |      | 13.61 | m. (MSL.) , Drainage Area 2076 Square Kilometers |      |       |      |      |       |       |      |      |      |        |

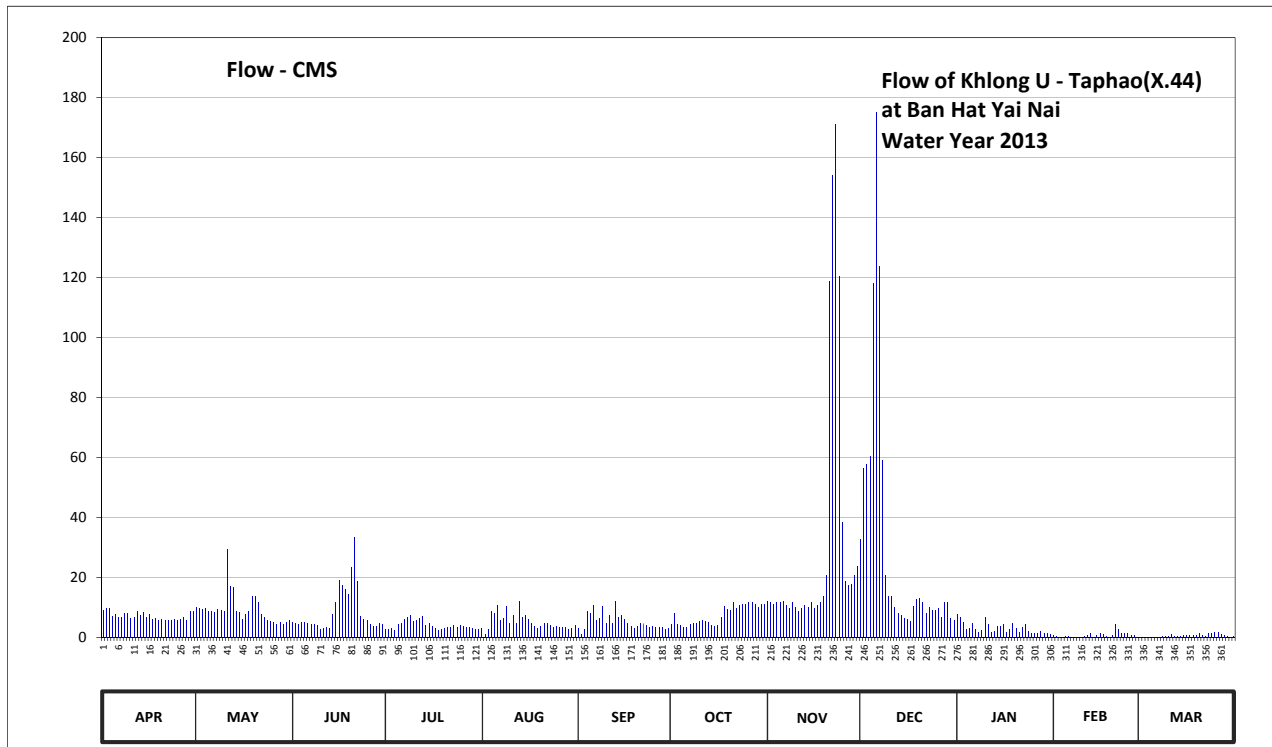


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                              | May                      | Jun     | Jul                  | Aug     | Sep     | Oct     | Nov                      | Dec     | Jan    | Feb    | Mar   | Annual          |
|----------------|------------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|---------|--------------------------|---------|--------|--------|-------|-----------------|
| 1              | 2.78                                                             | 14.95                    | 10.88   | 14.95                | 31.37   | 30.25   | 34.99   | 67.60                    | 117.95  | 16.13  | 4.80   | 4.80  |                 |
| 2              | 2.78                                                             | 13.60                    | 10.46   | 17.17                | 63.02   | 50.38   | 35.70   | 59.17                    | 115.50  | 14.50  | 4.60   | 4.00  |                 |
| 3              | 2.70                                                             | 12.11                    | 10.05   | 20.44                | 96.60   | 73.00   | 32.50   | 46.39                    | 113.75  | 13.30  | 4.50   | 3.00  |                 |
| 4              | 2.70                                                             | 11.29                    | 9.25    | 26.45                | 109.90  | 60.83   | 30.92   | 40.93                    | 108.50  | 12.85  | 4.40   | 2.63  |                 |
| 5              | 2.63                                                             | 10.60                    | 8.75    | 38.31                | 106.05  | 63.30   | 32.27   | 34.08                    | 101.15  | 12.25  | 4.40   | 2.55  |                 |
| 6              | 2.55                                                             | 9.91                     | 7.38    | 49.00                | 93.10   | 66.40   | 39.50   | 27.85                    | 96.25   | 12.25  | 4.20   | 2.40  |                 |
| 7              | 2.55                                                             | 12.11                    | 6.80    | 38.07                | 82.23   | 66.70   | 54.50   | 25.69                    | 100.10  | 11.70  | 4.20   | 2.40  |                 |
| 8              | 2.48                                                             | 21.00                    | 6.20    | 37.84                | 75.10   | 63.02   | 68.20   | 23.06                    | 108.85  | 10.60  | 4.20   | 2.40  |                 |
| 9              | 2.48                                                             | 25.12                    | 5.90    | 41.88                | 73.00   | 60.00   | 73.60   | 21.75                    | 105.35  | 9.64   | 4.00   | 2.40  |                 |
| 10             | 2.40                                                             | 32.73                    | 5.30    | 39.50                | 71.50   | 57.80   | 82.90   | 23.06                    | 103.95  | 9.13   | 3.90   | 2.70  |                 |
| 11             | 2.40                                                             | 27.45                    | 14.50   | 36.65                | 74.20   | 56.15   | 76.60   | 34.30                    | 99.05   | 8.75   | 3.70   | 2.70  |                 |
| 12             | 2.40                                                             | 19.31                    | 42.59   | 29.05                | 76.90   | 58.90   | 61.65   | 48.29                    | 91.00   | 8.50   | 3.70   | 2.70  |                 |
| 13             | 2.33                                                             | 12.25                    | 70.60   | 28.05                | 77.84   | 60.83   | 59.73   | 69.10                    | 86.95   | 8.13   | 3.60   | 2.70  |                 |
| 14             | 3.60                                                             | 9.77                     | 88.97   | 28.45                | 81.55   | 58.63   | 55.05   | 85.26                    | 78.18   | 7.88   | 3.50   | 2.70  |                 |
| 15             | 5.70                                                             | 11.43                    | 102.55  | 30.47                | 70.30   | 55.05   | 49.55   | 77.20                    | 70.30   | 7.75   | 3.40   | 2.70  |                 |
| 16             | 5.60                                                             | 19.87                    | 112.70  | 30.92                | 52.85   | 44.73   | 45.68   | 73.60                    | 66.70   | 7.63   | 3.40   | 2.70  |                 |
| 17             | 4.30                                                             | 30.70                    | 122.00  | 29.85                | 41.16   | 40.45   | 44.25   | 70.60                    | 64.95   | 7.13   | 3.20   | 2.70  |                 |
| 18             | 5.80                                                             | 29.65                    | 130.50  | 29.05                | 37.36   | 35.22   | 44.01   | 64.12                    | 60.27   | 6.90   | 3.10   | 2.70  |                 |
| 19             | 5.40                                                             | 20.81                    | 136.90  | 30.25                | 31.60   | 29.25   | 51.48   | 53.13                    | 49.82   | 6.60   | 3.00   | 2.70  |                 |
| 20             | 4.20                                                             | 13.15                    | 134.10  | 32.27                | 26.65   | 34.75   | 61.10   | 49.00                    | 41.64   | 6.40   | 3.00   | 2.70  |                 |
| 21             | 3.40                                                             | 16.13                    | 115.85  | 33.63                | 28.85   | 65.80   | 70.90   | 50.93                    | 37.13   | 6.40   | 3.00   | 2.70  |                 |
| 22             | 2.93                                                             | 23.25                    | 90.66   | 35.46                | 25.87   | 88.30   | 94.15   | 70.60                    | 30.92   | 6.20   | 3.00   | 2.70  |                 |
| 23             | 2.78                                                             | 28.65                    | 64.68   | 38.07                | 20.44   | 79.86   | 96.60   | 98.70                    | 24.37   | 6.20   | 3.00   | 2.63  |                 |
| 24             | 2.78                                                             | 32.27                    | 46.86   | 45.44                | 19.12   | 52.30   | 99.40   | 117.60                   | 22.50   | 5.90   | 3.00   | 2.63  |                 |
| 25             | 7.00                                                             | 25.50                    | 34.99   | 40.45                | 18.57   | 35.70   | 101.15  | 136.10                   | 21.00   | 5.60   | 3.00   | 2.48  |                 |
| 26             | 12.70                                                            | 18.22                    | 25.50   | 33.18                | 18.05   | 26.65   | 94.85   | 147.30                   | 19.87   | 5.40   | 4.00   | 2.25  |                 |
| 27             | 15.10                                                            | 17.35                    | 19.31   | 29.05                | 17.87   | 22.12   | 92.40   | 148.90                   | 19.31   | 5.40   | 5.00   | 2.10  |                 |
| 28             | 13.30                                                            | 15.95                    | 16.13   | 24.19                | 21.75   | 20.81   | 91.35   | 141.70                   | 18.75   | 5.40   | 4.90   | 2.10  |                 |
| 29             | 15.10                                                            | 13.45                    | 14.80   | 22.12                | 28.85   | 21.19   | 82.23   | 132.10                   | 18.05   | 5.30   |        | 2.10  |                 |
| 30             | 16.82                                                            | 11.70                    | 14.05   | 21.37                | 31.60   | 24.94   | 71.80   | 124.62                   | 17.35   | 5.30   |        | 2.10  |                 |
| 31             |                                                                  | 10.88                    |         | 20.44                | 30.47   |         | 70.60   |                          | 16.82   | 5.20   |        | 2.17  |                 |
| Total          | 159.69                                                           | 571.16                   | 1479.21 | 972.02               | 1633.72 | 1503.31 | 1999.61 | 2162.73                  | 2026.28 | 260.32 | 105.70 | 82.24 | 12955.99 CMSDAY |
| Mean           | 5.32                                                             | 18.42                    | 49.31   | 31.36                | 52.70   | 50.11   | 64.50   | 72.09                    | 65.36   | 8.40   | 3.78   | 2.65  | 35.50 CMS       |
| Max            | 16.82                                                            | 32.73                    | 136.90  | 49.00                | 109.90  | 88.30   | 101.15  | 148.90                   | 117.95  | 16.13  | 5.00   | 4.80  | 148.90 CMS      |
| Min            | 2.33                                                             | 9.77                     | 5.30    | 14.95                | 17.87   | 20.81   | 30.92   | 21.75                    | 16.82   | 5.20   | 3.00   | 2.10  | 2.10 CMS        |
| Runoff         | 13.80                                                            | 49.35                    | 127.80  | 83.98                | 141.15  | 129.89  | 172.77  | 186.86                   | 175.07  | 22.49  | 9.13   | 7.11  | 1119.40 MCM     |
| Momentary Peak | 150.50 CMS. at 11.20 m. (MSL.) at 03.00 Hours , on Nov 27 , 2013 |                          |         |                      |         |         |         |                          |         |        |        |       |                 |
| Runoff Yield   | 17.10                                                            | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 72.495  |         | Liters/Second/Square KM. |         |        |        |       |                 |



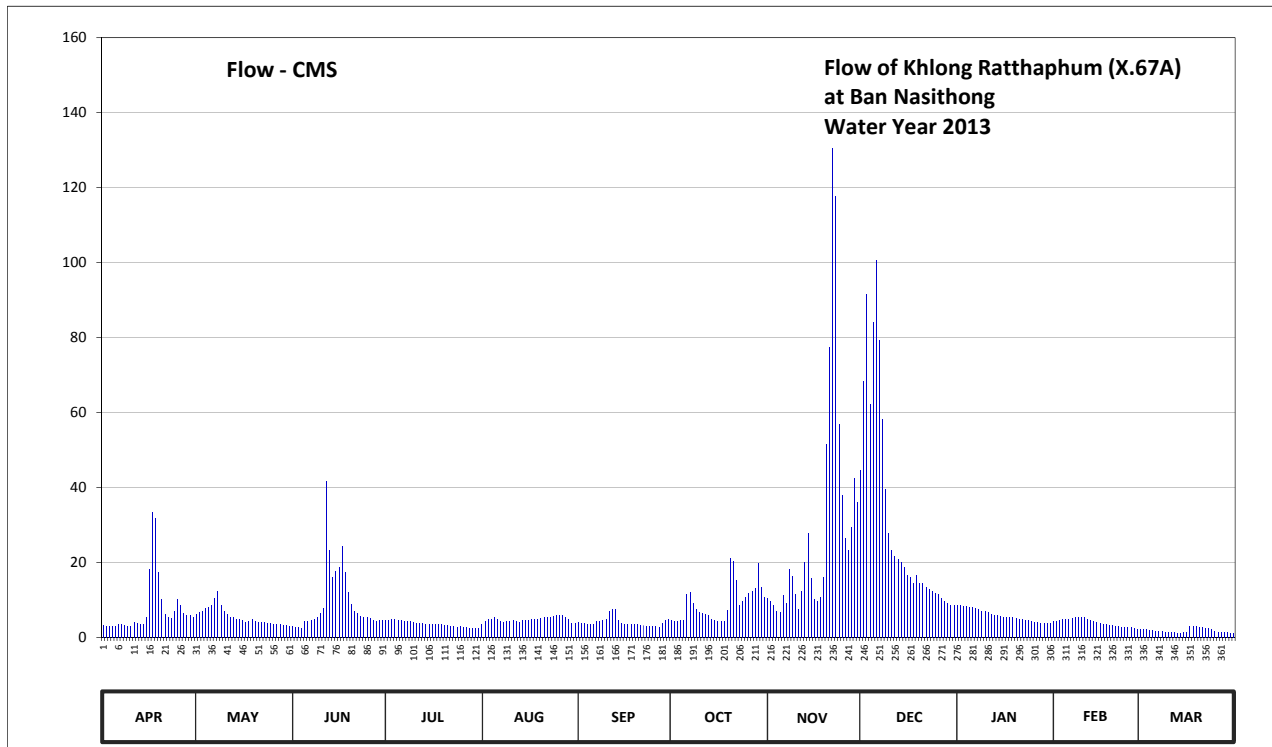




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                           | May                      | Jun    | Jul                  | Aug    | Sep     | Oct    | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual  |        |
|----------------|---------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------|--------------------------|--------|--------|-------|-------|---------|--------|
| 1              | 9.10                                                          | 10.10                    | 5.05   | 3.00                 | 3.30   | 3.30    | 4.35   | 12.18                    | 32.85  | 7.72   | 0.68  | 0.08  |         |        |
| 2              | 9.70                                                          | 9.90                     | 4.70   | 3.00                 | 1.10   | 1.10    | 8.30   | 11.72                    | 56.65  | 7.00   | 0.44  | 0.04  |         |        |
| 3              | 9.70                                                          | 9.50                     | 4.35   | 3.20                 | 2.90   | 2.90    | 4.53   | 11.10                    | 58.00  | 5.04   | 0.28  | 0.16  |         |        |
| 4              | 7.15                                                          | 9.90                     | 5.05   | 2.50                 | 8.70   | 8.70    | 4.18   | 11.95                    | 60.63  | 2.80   | 0.28  | 0.18  |         |        |
| 5              | 7.70                                                          | 8.90                     | 5.23   | 4.35                 | 8.10   | 8.10    | 3.60   | 11.72                    | 118.00 | 3.20   | 0.36  | 0.10  |         |        |
| 6              | 6.98                                                          | 8.90                     | 4.88   | 4.70                 | 10.70  | 10.70   | 3.60   | 12.18                    | 175.00 | 4.76   | 0.36  | 0.12  |         |        |
| 7              | 6.98                                                          | 8.50                     | 4.35   | 6.10                 | 5.75   | 5.75    | 4.35   | 10.70                    | 123.55 | 2.80   | 0.12  | 0.14  |         |        |
| 8              | 8.30                                                          | 9.50                     | 4.53   | 6.98                 | 6.45   | 6.45    | 4.88   | 9.90                     | 59.05  | 1.84   | 0.28  | 0.36  |         |        |
| 9              | 8.30                                                          | 9.10                     | 4.18   | 7.33                 | 10.50  | 10.50   | 4.88   | 11.72                    | 20.67  | 2.40   | 0.28  | 0.36  |         |        |
| 10             | 6.45                                                          | 8.70                     | 3.00   | 5.40                 | 4.70   | 4.70    | 5.58   | 10.30                    | 13.68  | 6.72   | 0.20  | 0.44  |         |        |
| 11             | 6.98                                                          | 29.60                    | 3.10   | 5.75                 | 7.50   | 7.50    | 5.93   | 8.70                     | 13.68  | 4.48   | 0.44  | 1.00  |         |        |
| 12             | 8.70                                                          | 17.10                    | 3.50   | 6.45                 | 4.88   | 4.88    | 5.40   | 9.70                     | 10.24  | 1.84   | 0.76  | 0.44  |         |        |
| 13             | 7.33                                                          | 16.82                    | 3.30   | 7.15                 | 12.18  | 12.18   | 5.05   | 10.70                    | 8.08   | 2.20   | 1.60  | 0.52  |         |        |
| 14             | 8.50                                                          | 8.70                     | 7.70   | 4.00                 | 6.80   | 6.80    | 4.00   | 10.10                    | 7.36   | 3.80   | 0.28  | 0.60  |         |        |
| 15             | 6.63                                                          | 8.50                     | 11.95  | 4.88                 | 7.50   | 7.50    | 3.90   | 11.95                    | 6.44   | 3.80   | 0.76  | 0.76  |         |        |
| 16             | 7.90                                                          | 6.28                     | 19.02  | 3.70                 | 6.28   | 6.28    | 4.18   | 9.70                     | 6.16   | 4.48   | 1.60  | 0.84  |         |        |
| 17             | 6.28                                                          | 7.90                     | 17.37  | 3.10                 | 4.70   | 4.70    | 6.98   | 10.90                    | 5.60   | 1.96   | 1.12  | 0.76  |         |        |
| 18             | 6.45                                                          | 8.70                     | 16.00  | 2.60                 | 3.70   | 3.70    | 10.50  | 11.72                    | 10.60  | 2.80   | 0.36  | 0.76  |         |        |
| 19             | 5.75                                                          | 13.75                    | 14.42  | 2.80                 | 3.30   | 3.30    | 9.30   | 13.97                    | 12.80  | 4.76   | 0.20  | 0.92  |         |        |
| 20             | 6.28                                                          | 13.75                    | 23.43  | 3.10                 | 3.90   | 3.90    | 9.10   | 20.95                    | 13.24  | 3.20   | 0.68  | 1.36  |         |        |
| 21             | 5.93                                                          | 11.72                    | 33.50  | 3.50                 | 4.88   | 4.88    | 11.72  | 118.75                   | 11.92  | 1.96   | 4.48  | 0.92  |         |        |
| 22             | 5.75                                                          | 7.70                     | 18.75  | 3.40                 | 4.70   | 4.70    | 9.90   | 154.20                   | 8.08   | 3.60   | 2.80  | 0.52  |         |        |
| 23             | 5.75                                                          | 6.63                     | 7.15   | 4.00                 | 4.18   | 4.18    | 10.70  | 171.20                   | 10.24  | 4.48   | 1.60  | 1.60  |         |        |
| 24             | 6.10                                                          | 5.93                     | 6.10   | 3.60                 | 3.40   | 3.40    | 11.10  | 120.25                   | 9.16   | 2.20   | 1.60  | 1.48  |         |        |
| 25             | 5.75                                                          | 5.58                     | 5.93   | 4.00                 | 3.80   | 3.80    | 11.10  | 38.40                    | 9.16   | 1.48   | 1.48  | 1.84  |         |        |
| 26             | 6.10                                                          | 5.05                     | 4.53   | 3.70                 | 3.40   | 3.40    | 11.72  | 18.75                    | 9.88   | 1.48   | 0.84  | 1.96  |         |        |
| 27             | 6.63                                                          | 4.53                     | 3.70   | 3.50                 | 3.60   | 3.60    | 11.72  | 17.65                    | 6.72   | 1.36   | 0.84  | 1.12  |         |        |
| 28             | 5.93                                                          | 5.05                     | 3.80   | 3.40                 | 3.50   | 3.50    | 11.30  | 17.92                    | 11.92  | 2.08   | 0.20  | 0.84  |         |        |
| 29             | 8.90                                                          | 4.53                     | 4.70   | 3.20                 | 2.90   | 2.90    | 10.30  | 20.67                    | 11.92  | 1.36   |       | 0.52  |         |        |
| 30             | 8.70                                                          | 5.05                     | 4.35   | 2.90                 | 3.30   | 3.30    | 11.30  | 23.97                    | 6.44   | 1.48   |       | 0.20  |         |        |
| 31             |                                                               | 5.93                     |        | 2.90                 | 4.18   |         | 11.30  |                          | 5.88   | 1.00   |       | 0.36  |         |        |
| Total          | 216.70                                                        | 291.80                   | 257.62 | 128.19               | 164.78 | 160.60  | 234.75 | 933.62                   | 913.60 | 100.08 | 24.92 | 21.30 | 3447.96 | CMSDAY |
| Mean           | 7.22                                                          | 9.41                     | 8.59   | 4.14                 | 5.32   | 5.35    | 7.57   | 31.12                    | 29.47  | 3.23   | 0.89  | 0.69  | 9.45    | CMS    |
| Max            | 9.70                                                          | 29.60                    | 33.50  | 7.33                 | 12.18  | 12.18   | 11.72  | 171.20                   | 175.00 | 7.72   | 4.48  | 1.96  | 175.00  | CMS    |
| Min            | 5.75                                                          | 4.53                     | 3.00   | 2.50                 | 1.10   | 1.10    | 3.60   | 8.70                     | 5.60   | 1.00   | 0.12  | 0.04  | 0.04    | CMS    |
| Runoff         | 18.72                                                         | 25.21                    | 22.26  | 11.08                | 14.24  | 13.88   | 20.28  | 80.67                    | 78.94  | 8.65   | 2.15  | 1.84  | 297.90  | MCM    |
| Momentary Peak | 177.00 CMS. at 3.42 m. (MSL.) at 09.00 Hours , on Dec 6, 2013 |                          |        |                      |        |         |        |                          |        |        |       |       |         |        |
| Runoff Yield   | 5.49                                                          | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 102.910 |        | Liters/Second/Square KM. |        |        |       |       |         |        |

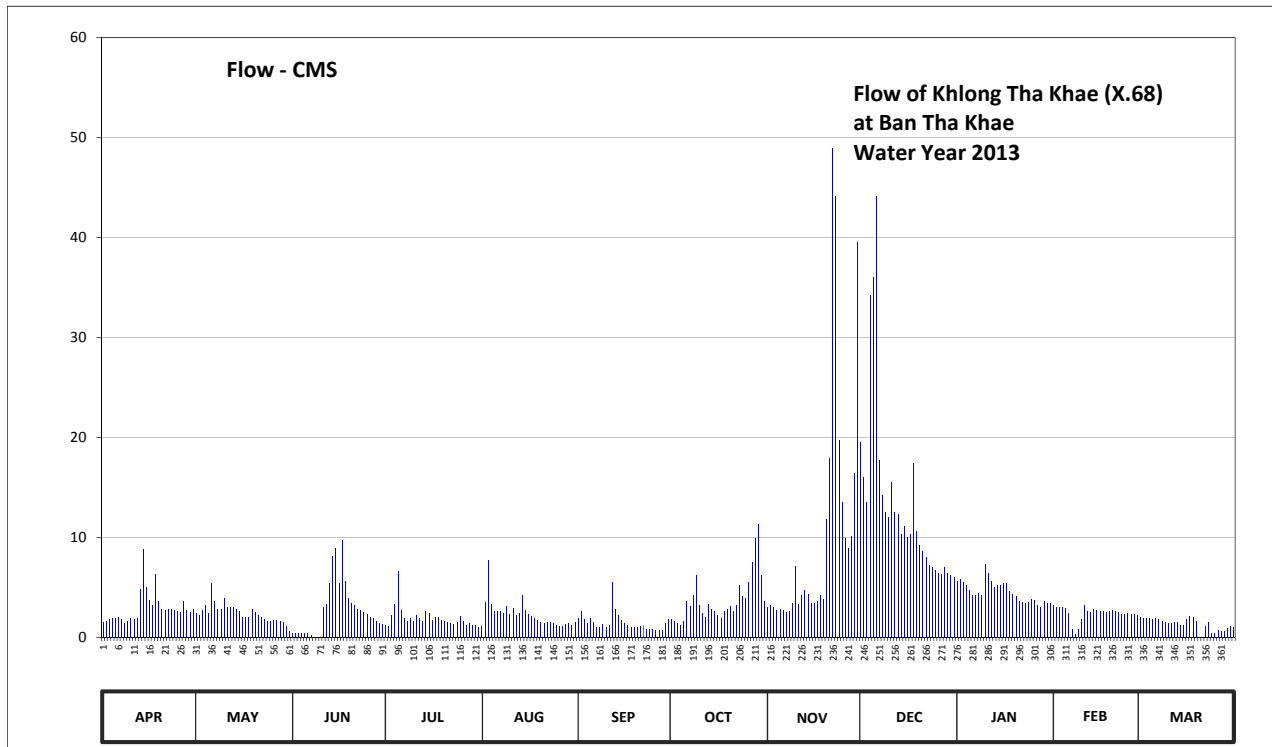
| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct  | Nov  | Dec  | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|------|------|------|-------|-------|-------|--------|
| 1                                | -0.08 | 0.15  | -0.10                                           | 0.03  | -0.06 | -0.01 | 0.03 | 0.40 | 1.71 | 0.30  | 0.01  | -0.15 |        |
| 2                                | -0.09 | 0.18  | -0.11                                           | 0.04  | 0.01  | -0.02 | 0.02 | 0.35 | 2.33 | 0.29  | 0.02  | -0.16 |        |
| 3                                | -0.10 | 0.20  | -0.12                                           | 0.05  | 0.05  | -0.02 | 0.02 | 0.30 | 2.85 | 0.28  | 0.03  | -0.17 |        |
| 4                                | -0.10 | 0.25  | -0.13                                           | 0.06  | 0.06  | -0.04 | 0.03 | 0.20 | 2.18 | 0.28  | 0.05  | -0.18 |        |
| 5                                | -0.10 | 0.26  | 0.01                                            | 0.04  | 0.08  | -0.05 | 0.04 | 0.18 | 2.69 | 0.27  | 0.06  | -0.19 |        |
| 6                                | -0.06 | 0.30  | 0.02                                            | 0.03  | 0.05  | -0.06 | 0.46 | 0.44 | 3.04 | 0.26  | 0.06  | -0.20 |        |
| 7                                | -0.04 | 0.40  | 0.03                                            | 0.02  | 0.02  | 0.01  | 0.48 | 0.32 | 2.58 | 0.25  | 0.07  | -0.21 |        |
| 8                                | -0.08 | 0.50  | 0.05                                            | 0.02  | 0.00  | 0.02  | 0.33 | 0.77 | 2.08 | 0.23  | 0.08  | -0.22 |        |
| 9                                | -0.09 | 0.30  | 0.09                                            | 0.01  | 0.01  | 0.04  | 0.24 | 0.69 | 1.56 | 0.20  | 0.09  | -0.23 |        |
| 10                               | -0.10 | 0.21  | 0.16                                            | -0.01 | 0.02  | 0.06  | 0.18 | 0.46 | 1.16 | 0.20  | 0.10  | -0.24 |        |
| 11                               | -0.01 | 0.15  | 0.25                                            | -0.02 | 0.03  | 0.20  | 0.17 | 0.23 | 0.99 | 0.19  | 0.08  | -0.25 |        |
| 12                               | -0.02 | 0.10  | 1.62                                            | -0.02 | 0.01  | 0.24  | 0.15 | 0.49 | 0.92 | 0.15  | 0.06  | -0.25 |        |
| 13                               | -0.04 | 0.08  | 0.99                                            | -0.03 | 0.00  | 0.23  | 0.12 | 0.86 | 0.89 | 0.13  | 0.04  | -0.26 |        |
| 14                               | -0.04 | 0.06  | 0.68                                            | -0.04 | 0.03  | 0.03  | 0.05 | 1.17 | 0.86 | 0.12  | 0.02  | -0.27 |        |
| 15                               | 0.09  | 0.05  | 0.75                                            | -0.05 | 0.03  | -0.02 | 0.04 | 0.66 | 0.80 | 0.11  | 0.00  | -0.25 |        |
| 16                               | 0.77  | 0.03  | 0.80                                            | -0.05 | 0.04  | -0.05 | 0.02 | 0.38 | 0.70 | 0.10  | -0.02 | -0.23 |        |
| 17                               | 1.36  | 0.00  | 1.03                                            | -0.04 | 0.05  | -0.06 | 0.01 | 0.36 | 0.68 | 0.10  | -0.05 | -0.10 |        |
| 18                               | 1.31  | 0.02  | 0.74                                            | -0.05 | 0.06  | -0.06 | 0.01 | 0.41 | 0.60 | 0.09  | -0.06 | -0.09 |        |
| 19                               | 0.74  | 0.05  | 0.48                                            | -0.06 | 0.06  | -0.06 | 0.22 | 0.67 | 0.70 | 0.08  | -0.07 | -0.10 |        |
| 20                               | 0.39  | 0.02  | 0.31                                            | -0.07 | 0.07  | -0.06 | 0.90 | 1.91 | 0.60 | 0.07  | -0.08 | -0.11 |        |
| 21                               | 0.15  | 0.00  | 0.20                                            | -0.08 | 0.08  | -0.07 | 0.87 | 2.54 | 0.60 | 0.06  | -0.09 | -0.12 |        |
| 22                               | 0.09  | 0.00  | 0.16                                            | -0.09 | 0.09  | -0.08 | 0.64 | 3.63 | 0.55 | 0.05  | -0.10 | -0.13 |        |
| 23                               | 0.07  | -0.01 | 0.11                                            | -0.10 | 0.10  | -0.09 | 0.30 | 3.38 | 0.52 | 0.04  | -0.11 | -0.14 |        |
| 24                               | 0.21  | -0.02 | 0.09                                            | -0.11 | 0.11  | -0.10 | 0.36 | 2.05 | 0.50 | 0.03  | -0.11 | -0.17 |        |
| 25                               | 0.38  | -0.03 | 0.08                                            | -0.10 | 0.12  | -0.10 | 0.41 | 1.51 | 0.47 | 0.02  | -0.12 | -0.22 |        |
| 26                               | 0.29  | -0.04 | 0.07                                            | -0.11 | 0.12  | -0.10 | 0.47 | 1.11 | 0.45 | 0.00  | -0.12 | -0.25 |        |
| 27                               | 0.16  | -0.05 | 0.04                                            | -0.12 | 0.13  | -0.12 | 0.49 | 0.99 | 0.40 | 0.00  | -0.13 | -0.25 |        |
| 28                               | 0.13  | -0.06 | 0.01                                            | -0.13 | 0.10  | -0.03 | 0.53 | 1.22 | 0.36 | -0.02 | -0.15 | -0.25 |        |
| 29                               | 0.12  | -0.07 | 0.04                                            | -0.13 | 0.05  | 0.03  | 0.85 | 1.65 | 0.32 | -0.02 |       | -0.25 |        |
| 30                               | 0.10  | -0.08 | 0.03                                            | -0.14 | -0.02 | 0.05  | 0.55 | 1.45 | 0.30 | -0.02 |       | -0.26 |        |
| 31                               |       | -0.10 |                                                 | -0.14 | -0.02 |       | 0.41 |      | 0.29 | -0.03 |       | -0.26 |        |
| Mean                             | 0.18  | 0.09  | 0.28                                            | -0.04 | 0.05  | -0.01 | 0.30 | 1.03 | 1.12 | 0.12  | -0.02 | -0.20 |        |
| Max                              | 1.36  | 0.50  | 1.62                                            | 0.06  | 0.13  | 0.24  | 0.90 | 3.63 | 3.04 | 0.30  | 0.10  | -0.09 | 3.63   |
| Min                              | -0.10 | -0.10 | -0.13                                           | -0.14 | -0.06 | -0.12 | 0.01 | 0.18 | 0.29 | -0.03 | -0.15 | -0.27 | -0.27  |
| Annual Max Momentary Gage Height | 4.12  |       | m. (A.D.) , at 02.00 Hours , on Nov 23 , 2013   |       |       |       |      |      |      |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (A.D.) , River Bed -1.09 m. (A.D.)           |       |       |       |      |      |      |       |       |       |        |
| Left Bank Elevation              | 6.28  |       | m. (A.D.) ,                                     |       |       |       |      |      |      |       |       |       |        |
| Right Bank Elevation             | 6.29  |       | m. (A.D.) , Drainage Area 248 Square Kilometers |       |       |       |      |      |      |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                      | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan    | Feb    | Mar   | Annual  |        |
|----------------|----------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|---------|--------------------------|--------|--------|-------|---------|--------|
| 1              | 3.24                                                     | 6.30                     | 3.00   | 4.62   | 3.48                 | 4.08   | 4.62   | 10.50   | 44.58                    | 8.75   | 4.34   | 2.40  |         |        |
| 2              | 3.12                                                     | 6.72                     | 2.88   | 4.76   | 4.34                 | 3.96   | 4.48   | 9.63    | 68.33                    | 8.57   | 4.48   | 2.28  |         |        |
| 3              | 3.00                                                     | 7.00                     | 2.76   | 4.90   | 4.90                 | 3.96   | 4.48   | 8.75    | 91.57                    | 8.40   | 4.62   | 2.16  |         |        |
| 4              | 3.00                                                     | 7.88                     | 2.64   | 5.04   | 5.04                 | 3.72   | 4.62   | 7.00    | 62.20                    | 8.40   | 4.90   | 2.04  |         |        |
| 5              | 3.00                                                     | 8.05                     | 4.34   | 4.76   | 5.32                 | 3.60   | 4.76   | 6.72    | 84.14                    | 8.23   | 5.04   | 1.92  |         |        |
| 6              | 3.48                                                     | 8.75                     | 4.48   | 4.62   | 4.90                 | 3.48   | 11.70  | 11.30   | 100.66                   | 8.05   | 5.04   | 1.80  |         |        |
| 7              | 3.72                                                     | 10.50                    | 4.62   | 4.48   | 4.48                 | 4.34   | 12.10  | 9.10    | 79.12                    | 7.88   | 5.18   | 1.71  |         |        |
| 8              | 3.24                                                     | 12.50                    | 4.90   | 4.48   | 4.20                 | 4.48   | 9.28   | 18.15   | 58.20                    | 7.53   | 5.32   | 1.62  |         |        |
| 9              | 3.12                                                     | 8.75                     | 5.46   | 4.34   | 4.34                 | 4.76   | 7.70   | 16.43   | 39.70                    | 7.00   | 5.46   | 1.53  |         |        |
| 10             | 3.00                                                     | 7.17                     | 6.44   | 4.08   | 4.48                 | 5.04   | 6.72   | 11.70   | 27.74                    | 7.00   | 5.60   | 1.44  |         |        |
| 11             | 4.08                                                     | 6.30                     | 7.88   | 3.96   | 4.62                 | 7.00   | 6.58   | 7.53    | 23.27                    | 6.86   | 5.32   | 1.35  |         |        |
| 12             | 3.96                                                     | 5.60                     | 41.65  | 3.96   | 4.34                 | 7.70   | 6.30   | 12.30   | 21.62                    | 6.30   | 5.04   | 1.35  |         |        |
| 13             | 3.72                                                     | 5.32                     | 23.27  | 3.84   | 4.20                 | 7.53   | 5.88   | 20.21   | 20.91                    | 6.02   | 4.76   | 1.26  |         |        |
| 14             | 3.72                                                     | 5.04                     | 16.22  | 3.72   | 4.62                 | 4.62   | 4.90   | 28.00   | 20.21                    | 5.88   | 4.48   | 1.17  |         |        |
| 15             | 5.46                                                     | 4.90                     | 17.72  | 3.60   | 4.62                 | 3.96   | 4.76   | 15.79   | 18.80                    | 5.74   | 4.20   | 1.35  |         |        |
| 16             | 18.15                                                    | 4.62                     | 18.80  | 3.60   | 4.76                 | 3.60   | 4.48   | 10.15   | 16.65                    | 5.60   | 3.96   | 1.53  |         |        |
| 17             | 33.36                                                    | 4.20                     | 24.29  | 3.72   | 4.90                 | 3.48   | 4.34   | 9.80    | 16.22                    | 5.60   | 3.60   | 3.00  |         |        |
| 18             | 31.93                                                    | 4.48                     | 17.51  | 3.60   | 5.04                 | 3.48   | 4.34   | 10.70   | 14.50                    | 5.46   | 3.48   | 3.12  |         |        |
| 19             | 17.51                                                    | 4.90                     | 12.10  | 3.48   | 5.04                 | 3.48   | 7.35   | 16.00   | 16.65                    | 5.32   | 3.36   | 3.00  |         |        |
| 20             | 10.32                                                    | 4.48                     | 8.93   | 3.36   | 5.18                 | 3.48   | 21.15  | 51.63   | 14.50                    | 5.18   | 3.24   | 2.88  |         |        |
| 21             | 6.30                                                     | 4.20                     | 7.00   | 3.24   | 5.32                 | 3.36   | 20.44  | 77.36   | 14.50                    | 5.04   | 3.12   | 2.76  |         |        |
| 22             | 5.46                                                     | 4.20                     | 6.44   | 3.12   | 5.46                 | 3.24   | 15.36  | 130.61  | 13.50                    | 4.90   | 3.00   | 2.64  |         |        |
| 23             | 5.18                                                     | 4.08                     | 5.74   | 3.00   | 5.60                 | 3.12   | 8.75   | 117.68  | 12.90                    | 4.76   | 2.88   | 2.52  |         |        |
| 24             | 7.17                                                     | 3.96                     | 5.46   | 2.88   | 5.74                 | 3.00   | 9.80   | 57.00   | 12.50                    | 4.62   | 2.88   | 2.16  |         |        |
| 25             | 10.15                                                    | 3.84                     | 5.32   | 3.00   | 5.88                 | 3.00   | 10.70  | 38.08   | 11.90                    | 4.48   | 2.76   | 1.62  |         |        |
| 26             | 8.57                                                     | 3.72                     | 5.18   | 2.88   | 5.88                 | 3.00   | 11.90  | 26.41   | 11.50                    | 4.20   | 2.76   | 1.35  |         |        |
| 27             | 6.44                                                     | 3.60                     | 4.76   | 2.76   | 6.02                 | 2.76   | 12.30  | 23.27   | 10.50                    | 4.20   | 2.64   | 1.35  |         |        |
| 28             | 6.02                                                     | 3.48                     | 4.34   | 2.64   | 5.60                 | 3.84   | 13.10  | 29.37   | 9.80                     | 3.96   | 2.40   | 1.35  |         |        |
| 29             | 5.88                                                     | 3.36                     | 4.76   | 2.64   | 4.90                 | 4.62   | 19.97  | 42.63   | 9.10                     | 3.96   |        | 1.35  |         |        |
| 30             | 5.60                                                     | 3.24                     | 4.62   | 2.52   | 3.96                 | 4.90   | 13.50  | 36.13   | 8.75                     | 3.96   |        | 1.26  |         |        |
| 31             |                                                          | 3.00                     |        | 2.52   | 3.96                 |        | 10.70  |         | 8.57                     | 3.84   |        | 1.26  |         |        |
| Total          | 230.90                                                   | 174.14                   | 283.51 | 114.12 | 151.12               | 124.59 | 287.06 | 869.93  | 963.09                   | 185.69 | 113.86 | 58.53 | 3556.54 | CMSDAY |
| Mean           | 7.70                                                     | 5.62                     | 9.45   | 3.68   | 4.87                 | 4.15   | 9.26   | 29.00   | 31.07                    | 5.99   | 4.07   | 1.89  | 9.74    | CMS    |
| Max            | 33.36                                                    | 12.50                    | 41.65  | 5.04   | 6.02                 | 7.70   | 21.15  | 130.61  | 100.66                   | 8.75   | 5.60   | 3.12  | 130.61  | CMS    |
| Min            | 3.00                                                     | 3.00                     | 2.64   | 2.52   | 3.48                 | 2.76   | 4.34   | 6.72    | 8.57                     | 3.84   | 2.40   | 1.17  | 1.17    | CMS    |
| Runoff         | 19.95                                                    | 15.05                    | 24.50  | 9.86   | 13.06                | 10.77  | 24.80  | 75.16   | 83.21                    | 16.04  | 9.84   | 5.06  | 307.29  | MCM    |
| Momentary Peak | CMS. at 4.12 m. (A.D.) at 02.00 Hours , on Nov 23 , 2013 |                          |        |        |                      |        |        |         |                          |        |        |       |         |        |
| Runoff Yield   | 39.17                                                    | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | 631.558 | Liters/Second/Square KM. |        |        |       |         |        |

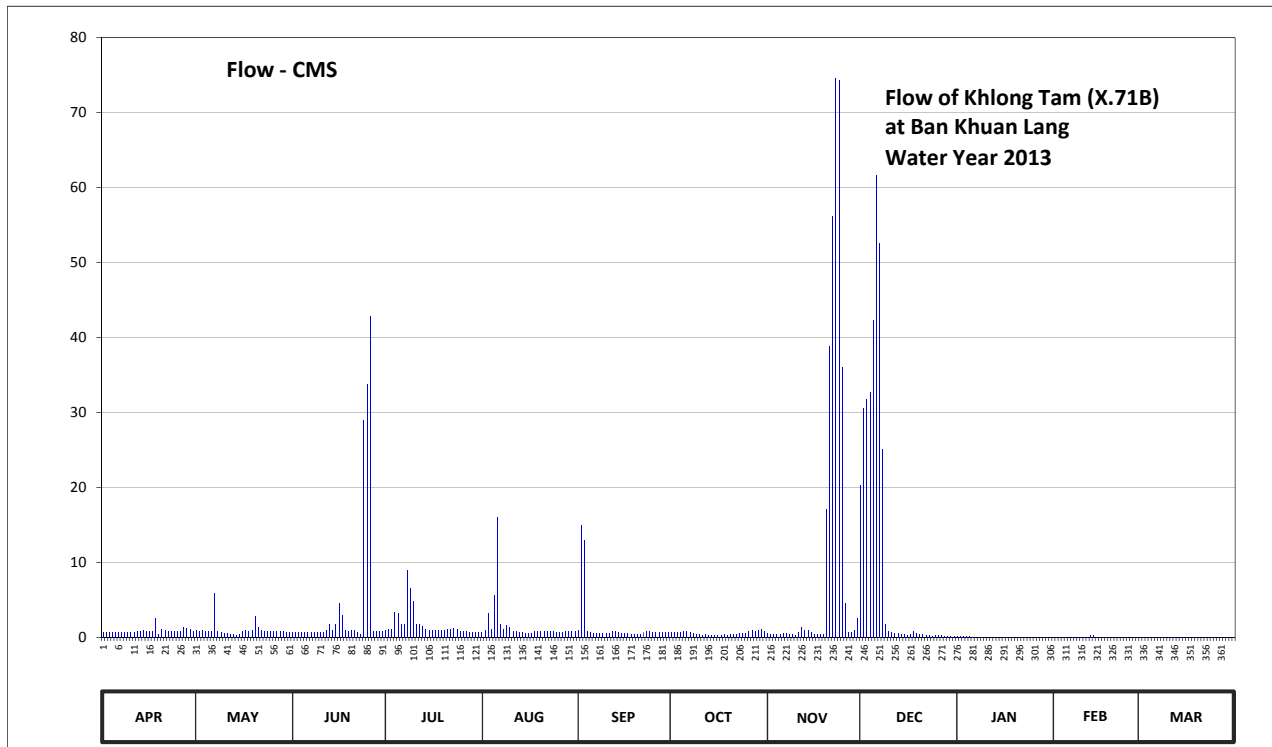




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul   | Aug                  | Sep   | Oct     | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual  |        |
|----------------|-------|-----------------------------------------------------------|-------|-------|----------------------|-------|---------|--------------------------|--------|--------|-------|-------|---------|--------|
| 1              | 1.50  | 2.45                                                      | 0.45  | 1.30  | 1.10                 | 1.95  | 1.85    | 3.00                     | 19.55  | 5.60   | 3.22  | 2.05  |         |        |
| 2              | 1.70  | 2.25                                                      | 0.45  | 1.15  | 3.52                 | 2.60  | 1.65    | 3.22                     | 16.05  | 5.80   | 3.08  | 1.90  |         |        |
| 3              | 1.85  | 2.70                                                      | 0.45  | 2.20  | 7.75                 | 1.85  | 1.40    | 3.08                     | 13.50  | 5.50   | 3.00  | 1.90  |         |        |
| 4              | 1.95  | 3.30                                                      | 0.45  | 3.38  | 3.38                 | 1.45  | 1.20    | 2.70                     | 34.25  | 5.30   | 3.00  | 1.90  |         |        |
| 5              | 1.95  | 2.50                                                      | 0.45  | 6.63  | 2.65                 | 1.90  | 1.60    | 2.85                     | 36.00  | 4.70   | 2.95  | 1.80  |         |        |
| 6              | 2.05  | 5.40                                                      | 0.40  | 2.70  | 2.65                 | 1.50  | 3.68    | 2.70                     | 44.10  | 4.28   | 2.50  | 1.90  |         |        |
| 7              | 1.85  | 3.68                                                      | 0.20  | 1.95  | 2.60                 | 1.00  | 3.15    | 2.55                     | 17.80  | 4.28   | 0.80  | 1.80  |         |        |
| 8              | 1.40  | 2.90                                                      | 0.00  | 1.65  | 2.45                 | 1.05  | 4.28    | 2.60                     | 14.25  | 4.42   | 0.35  | 1.60  |         |        |
| 9              | 1.70  | 2.90                                                      | 0.00  | 1.90  | 3.15                 | 1.35  | 6.20    | 3.45                     | 12.60  | 4.28   | 0.90  | 1.50  |         |        |
| 10             | 1.90  | 3.90                                                      | 0.00  | 1.60  | 2.30                 | 1.05  | 3.22    | 7.13                     | 12.00  | 7.38   | 1.80  | 1.40  |         |        |
| 11             | 1.80  | 3.08                                                      | 3.08  | 2.20  | 2.95                 | 1.25  | 2.45    | 3.38                     | 15.52  | 6.40   | 3.22  | 1.45  |         |        |
| 12             | 1.90  | 3.00                                                      | 3.38  | 1.90  | 2.25                 | 5.50  | 2.10    | 4.20                     | 12.60  | 5.60   | 2.65  | 1.55  |         |        |
| 13             | 4.80  | 3.08                                                      | 5.40  | 1.60  | 2.50                 | 2.80  | 3.38    | 4.70                     | 12.30  | 5.00   | 2.55  | 1.55  |         |        |
| 14             | 8.87  | 2.85                                                      | 8.12  | 2.65  | 4.20                 | 2.20  | 2.85    | 4.35                     | 10.35  | 5.20   | 2.90  | 1.25  |         |        |
| 15             | 5.00  | 2.60                                                      | 9.00  | 2.40  | 2.70                 | 1.75  | 2.65    | 3.45                     | 11.10  | 5.20   | 2.70  | 1.25  |         |        |
| 16             | 3.75  | 2.10                                                      | 5.40  | 1.75  | 2.35                 | 1.45  | 2.25    | 3.45                     | 10.05  | 5.40   | 2.60  | 1.85  |         |        |
| 17             | 3.30  | 2.05                                                      | 9.75  | 2.10  | 2.15                 | 1.25  | 1.95    | 3.68                     | 10.35  | 5.40   | 2.60  | 2.15  |         |        |
| 18             | 6.30  | 2.00                                                      | 5.60  | 2.10  | 1.95                 | 1.05  | 2.60    | 4.20                     | 17.45  | 4.60   | 2.55  | 2.00  |         |        |
| 19             | 3.60  | 2.85                                                      | 3.98  | 1.75  | 1.75                 | 1.05  | 2.85    | 3.82                     | 10.65  | 4.35   | 2.65  | 1.65  |         |        |
| 20             | 2.90  | 2.55                                                      | 3.45  | 1.60  | 1.50                 | 1.05  | 3.15    | 11.85                    | 9.30   | 4.12   | 2.75  | 0.00  |         |        |
| 21             | 2.75  | 2.20                                                      | 3.22  | 1.50  | 1.45                 | 1.15  | 2.60    | 17.98                    | 8.62   | 3.68   | 2.65  | 0.00  |         |        |
| 22             | 2.85  | 2.00                                                      | 2.90  | 1.45  | 1.55                 | 1.20  | 3.30    | 48.90                    | 8.00   | 3.52   | 2.55  | 1.10  |         |        |
| 23             | 2.85  | 1.85                                                      | 2.70  | 1.35  | 1.50                 | 0.90  | 5.20    | 44.10                    | 7.25   | 3.45   | 2.30  | 1.50  |         |        |
| 24             | 2.75  | 1.70                                                      | 2.55  | 1.50  | 1.40                 | 0.85  | 4.12    | 19.73                    | 7.00   | 3.52   | 2.30  | 0.40  |         |        |
| 25             | 2.60  | 1.70                                                      | 2.35  | 2.15  | 1.30                 | 0.80  | 3.90    | 13.50                    | 6.75   | 3.82   | 2.40  | 0.50  |         |        |
| 26             | 2.55  | 1.75                                                      | 2.10  | 1.65  | 1.15                 | 0.75  | 5.50    | 9.90                     | 6.40   | 3.75   | 2.35  | 0.75  |         |        |
| 27             | 3.68  | 1.75                                                      | 1.90  | 1.30  | 1.10                 | 0.75  | 7.50    | 9.00                     | 6.30   | 3.30   | 2.30  | 0.65  |         |        |
| 28             | 2.70  | 1.70                                                      | 1.60  | 1.40  | 1.35                 | 0.70  | 9.90    | 10.20                    | 7.00   | 3.00   | 2.25  | 0.65  |         |        |
| 29             | 2.55  | 1.50                                                      | 1.45  | 1.25  | 1.45                 | 1.45  | 11.40   | 16.40                    | 6.50   | 3.60   |       | 0.95  |         |        |
| 30             | 2.90  | 1.15                                                      | 1.35  | 1.20  | 1.25                 | 1.80  | 6.20    | 39.52                    | 6.20   | 3.45   |       | 1.10  |         |        |
| 31             |       | 0.65                                                      |       | 1.00  | 1.50                 |       | 3.60    |                          | 6.00   | 3.45   |       | 1.00  |         |        |
| Total          | 88.25 | 76.09                                                     | 82.13 | 60.26 | 70.85                | 45.40 | 117.68  | 309.59                   | 415.79 | 141.35 | 67.87 | 41.05 | 1516.31 | CMSDAY |
| Mean           | 2.94  | 2.45                                                      | 2.74  | 1.94  | 2.29                 | 1.51  | 3.80    | 10.32                    | 13.41  | 4.56   | 2.42  | 1.32  | 4.15    | CMS    |
| Max            | 8.87  | 5.40                                                      | 9.75  | 6.63  | 7.75                 | 5.50  | 11.40   | 48.90                    | 44.10  | 7.38   | 3.22  | 2.15  | 48.90   | CMS    |
| Min            | 1.40  | 0.65                                                      | 0.00  | 1.00  | 1.10                 | 0.70  | 1.20    | 2.55                     | 6.00   | 3.00   | 0.35  | 0.00  | 0.00    | CMS    |
| Runoff         | 7.63  | 6.57                                                      | 7.10  | 5.21  | 6.12                 | 3.92  | 10.17   | 26.75                    | 35.92  | 12.21  | 5.86  | 3.55  | 131.01  | MCM    |
| Momentary Peak | 61.05 | CMS. at 15.83 m. (MSL.) at 09.00 Hours , on Nov 23 , 2013 |       |       |                      |       |         |                          |        |        |       |       |         |        |
| Runoff Yield   | 13.74 | Liters/Second/Square KM.                                  |       |       | Momentary Peak Yield |       | 201.972 | Liters/Second/Square KM. |        |        |       |       |         |        |



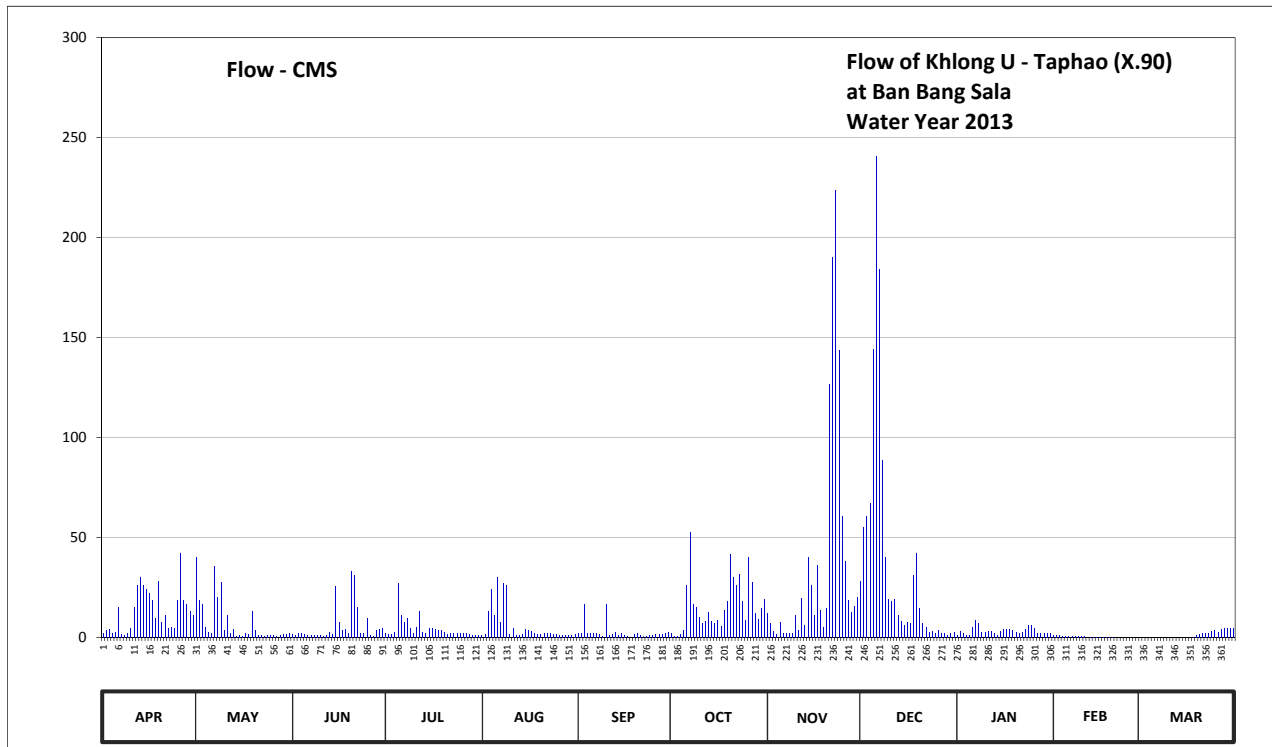


**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul                  | Aug   | Sep     | Oct                      | Nov    | Dec    | Jan  | Feb  | Mar  | Annual        |
|----------------|----------------------------------------------------------------|--------------------------|--------|----------------------|-------|---------|--------------------------|--------|--------|------|------|------|---------------|
| 1              | 0.77                                                           | 0.94                     | 0.79   | 1.04                 | 0.77  | 0.98    | 0.79                     | 0.60   | 20.35  | 0.17 | 0.05 | 0.02 |               |
| 2              | 0.76                                                           | 0.91                     | 0.79   | 1.11                 | 0.96  | 15.00   | 0.79                     | 0.39   | 30.60  | 0.16 | 0.04 | 0.02 |               |
| 3              | 0.77                                                           | 0.94                     | 0.79   | 1.15                 | 3.20  | 13.00   | 0.77                     | 0.43   | 31.73  | 0.16 | 0.04 | 0.02 |               |
| 4              | 0.77                                                           | 0.89                     | 0.77   | 3.35                 | 1.19  | 0.91    | 0.79                     | 0.44   | 32.63  | 0.16 | 0.04 | 0.02 |               |
| 5              | 0.77                                                           | 0.86                     | 0.77   | 3.20                 | 5.60  | 0.76    | 0.81                     | 0.44   | 42.30  | 0.15 | 0.04 | 0.02 |               |
| 6              | 0.77                                                           | 0.84                     | 0.76   | 1.75                 | 16.00 | 0.65    | 0.87                     | 0.60   | 61.65  | 0.10 | 0.04 | 0.02 |               |
| 7              | 0.77                                                           | 5.95                     | 0.76   | 1.81                 | 1.81  | 0.62    | 0.79                     | 0.56   | 52.57  | 0.11 | 0.04 | 0.02 |               |
| 8              | 0.77                                                           | 0.91                     | 0.79   | 9.00                 | 1.11  | 0.54    | 0.52                     | 0.43   | 25.09  | 0.10 | 0.04 | 0.02 |               |
| 9              | 0.77                                                           | 0.72                     | 0.79   | 6.65                 | 1.63  | 0.52    | 0.48                     | 0.39   | 1.75   | 0.07 | 0.04 | 0.02 |               |
| 10             | 0.77                                                           | 0.56                     | 0.76   | 4.90                 | 1.38  | 0.59    | 0.48                     | 0.34   | 0.90   | 0.06 | 0.04 | 0.02 |               |
| 11             | 0.79                                                           | 0.52                     | 0.76   | 1.81                 | 0.90  | 0.61    | 0.38                     | 0.70   | 0.79   | 0.09 | 0.04 | 0.02 |               |
| 12             | 0.80                                                           | 0.48                     | 0.98   | 1.81                 | 0.84  | 0.89    | 0.40                     | 1.44   | 0.64   | 0.06 | 0.03 | 0.01 |               |
| 13             | 0.87                                                           | 0.43                     | 1.81   | 1.50                 | 0.77  | 0.89    | 0.38                     | 0.94   | 0.52   | 0.05 | 0.30 | 0.01 |               |
| 14             | 0.99                                                           | 0.35                     | 0.99   | 1.19                 | 0.74  | 0.69    | 0.38                     | 0.95   | 0.43   | 0.09 | 0.30 | 0.01 |               |
| 15             | 0.91                                                           | 0.39                     | 1.81   | 1.04                 | 0.66  | 0.61    | 0.35                     | 0.76   | 0.40   | 0.05 | 0.03 | 0.01 |               |
| 16             | 0.90                                                           | 0.81                     | 4.55   | 1.00                 | 0.61  | 0.59    | 0.35                     | 0.49   | 0.38   | 0.05 | 0.03 | 0.01 |               |
| 17             | 0.87                                                           | 0.95                     | 3.05   | 0.96                 | 0.57  | 0.55    | 0.31                     | 0.48   | 0.51   | 0.07 | 0.03 | 0.01 |               |
| 18             | 2.60                                                           | 0.86                     | 0.95   | 0.95                 | 0.86  | 0.48    | 0.41                     | 0.49   | 0.85   | 0.06 | 0.03 | 0.01 |               |
| 19             | 0.43                                                           | 0.94                     | 0.90   | 0.99                 | 0.84  | 0.46    | 0.36                     | 0.50   | 0.64   | 0.06 | 0.03 | 0.01 |               |
| 20             | 1.11                                                           | 2.90                     | 0.95   | 0.99                 | 0.84  | 0.50    | 0.50                     | 17.17  | 0.46   | 0.05 | 0.03 | 0.01 |               |
| 21             | 0.95                                                           | 1.38                     | 0.96   | 1.08                 | 0.82  | 0.49    | 0.50                     | 38.89  | 0.39   | 0.05 | 0.03 | 0.01 |               |
| 22             | 0.90                                                           | 0.98                     | 0.71   | 1.08                 | 0.81  | 0.71    | 0.50                     | 56.15  | 0.36   | 0.09 | 0.02 | 0.01 |               |
| 23             | 0.87                                                           | 0.90                     | 0.50   | 1.23                 | 0.80  | 0.80    | 0.52                     | 74.60  | 0.29   | 0.06 | 0.02 | 0.01 |               |
| 24             | 0.82                                                           | 0.90                     | 29.02  | 1.08                 | 0.80  | 0.80    | 0.55                     | 74.30  | 0.26   | 0.06 | 0.02 | 0.01 |               |
| 25             | 0.84                                                           | 0.84                     | 33.75  | 0.89                 | 0.79  | 0.77    | 0.60                     | 36.00  | 0.36   | 0.06 | 0.02 | 0.01 |               |
| 26             | 0.90                                                           | 0.84                     | 42.83  | 0.87                 | 0.77  | 0.77    | 0.80                     | 4.55   | 0.31   | 0.05 | 0.02 | 0.01 |               |
| 27             | 1.38                                                           | 0.81                     | 0.92   | 0.80                 | 0.79  | 0.77    | 0.94                     | 0.79   | 0.33   | 0.05 | 0.02 | 0.01 |               |
| 28             | 1.27                                                           | 0.82                     | 0.91   | 0.79                 | 0.81  | 0.77    | 0.84                     | 0.70   | 0.24   | 0.05 | 0.02 | 0.01 |               |
| 29             | 1.08                                                           | 0.80                     | 0.90   | 0.77                 | 0.84  | 0.79    | 0.94                     | 1.00   | 0.22   | 0.05 |      | 0.01 |               |
| 30             | 0.91                                                           | 0.79                     | 0.89   | 0.76                 | 0.85  | 0.77    | 1.11                     | 2.60   | 0.19   | 0.05 |      | 0.01 |               |
| 31             |                                                                | 0.79                     |        | 0.75                 | 0.91  |         | 0.90                     |        | 0.22   | 0.05 |      | 0.01 |               |
| Total          | 27.88                                                          | 32.00                    | 135.91 | 56.30                | 50.27 | 47.28   | 19.11                    | 318.12 | 308.36 | 2.49 | 1.43 | 0.42 | 999.57 CMSDAY |
| Mean           | 0.93                                                           | 1.03                     | 4.53   | 1.82                 | 1.62  | 1.58    | 0.62                     | 10.60  | 9.95   | 0.08 | 0.05 | 0.01 | 2.74 CMS      |
| Max            | 2.60                                                           | 5.95                     | 42.83  | 9.00                 | 16.00 | 15.00   | 1.11                     | 74.60  | 61.65  | 0.17 | 0.30 | 0.02 | 74.60 CMS     |
| Min            | 0.43                                                           | 0.35                     | 0.50   | 0.75                 | 0.57  | 0.46    | 0.31                     | 0.34   | 0.19   | 0.05 | 0.02 | 0.01 | 0.01 CMS      |
| Runoff         | 2.41                                                           | 2.77                     | 11.74  | 4.86                 | 4.34  | 4.09    | 1.65                     | 27.49  | 26.64  | 0.22 | 0.12 | 0.04 | 86.36 MCM     |
| Momentary Peak | 85.40 CMS. at 8.98 m. (MSL.) at 06.00 Hours , on Nov 24 , 2013 |                          |        |                      |       |         |                          |        |        |      |      |      |               |
| Runoff Yield   | 18.50                                                          | Liters/Second/Square KM. |        | Momentary Peak Yield |       | 577.027 | Liters/Second/Square KM. |        |        |      |      |      |               |

| Date                             | Apr   | May  | Jun                                              | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|--------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 3.17  | 3.73 | 3.08                                             | 3.17 | 3.00 | 3.15 | 3.17 | 3.10 | 3.49 | 2.62 | 2.62 | 2.65 |        |
| 2                                | 3.23  | 3.37 | 3.03                                             | 3.12 | 3.12 | 3.17 | 2.98 | 2.92 | 3.99 | 2.75 | 2.60 | 2.61 |        |
| 3                                | 3.25  | 3.36 | 3.15                                             | 3.11 | 3.34 | 3.36 | 2.97 | 2.76 | 4.08 | 2.67 | 2.60 | 2.59 |        |
| 4                                | 3.14  | 3.28 | 3.15                                             | 3.21 | 3.41 | 3.15 | 3.08 | 2.65 | 4.19 | 2.62 | 2.59 | 2.53 |        |
| 5                                | 3.21  | 3.21 | 3.12                                             | 3.46 | 3.33 | 3.18 | 3.24 | 2.95 | 5.18 | 2.62 | 2.58 | 2.47 |        |
| 6                                | 3.35  | 3.17 | 3.06                                             | 3.33 | 3.53 | 3.20 | 3.45 | 2.70 | 6.24 | 2.85 | 2.57 | 2.44 |        |
| 7                                | 3.12  | 3.63 | 3.03                                             | 3.31 | 3.31 | 3.20 | 3.95 | 2.69 | 5.62 | 2.99 | 2.57 | 2.39 |        |
| 8                                | 3.06  | 3.38 | 3.00                                             | 3.32 | 3.46 | 3.11 | 3.22 | 2.69 | 4.50 | 2.93 | 2.57 | 2.33 |        |
| 9                                | 3.17  | 3.47 | 3.00                                             | 3.26 | 3.45 | 2.95 | 3.18 | 2.67 | 3.72 | 2.71 | 2.57 | 2.31 |        |
| 10                               | 3.26  | 3.24 | 3.00                                             | 3.19 | 3.08 | 3.36 | 3.04 | 3.06 | 3.28 | 2.73 | 2.56 | 2.30 |        |
| 11                               | 3.35  | 3.33 | 2.96                                             | 3.28 | 3.27 | 3.00 | 2.93 | 2.78 | 3.26 | 2.75 | 2.56 | 2.29 |        |
| 12                               | 3.45  | 3.15 | 3.04                                             | 3.34 | 3.06 | 3.11 | 2.96 | 3.29 | 3.28 | 2.75 | 2.60 | 2.28 |        |
| 13                               | 3.53  | 3.25 | 3.21                                             | 3.21 | 3.00 | 3.21 | 3.11 | 2.90 | 3.07 | 2.67 | 2.85 | 2.34 |        |
| 14                               | 3.45  | 2.97 | 3.10                                             | 3.15 | 3.11 | 3.02 | 2.97 | 3.72 | 2.97 | 2.63 | 2.86 | 2.40 |        |
| 15                               | 3.40  | 3.00 | 3.43                                             | 3.27 | 3.25 | 3.17 | 2.92 | 3.44 | 2.88 | 2.75 | 2.86 | 2.52 |        |
| 16                               | 3.39  | 2.94 | 3.31                                             | 3.27 | 3.24 | 3.02 | 2.99 | 3.06 | 2.94 | 2.81 | 2.86 | 2.73 |        |
| 17                               | 3.37  | 3.14 | 3.23                                             | 3.25 | 3.22 | 2.98 | 2.87 | 3.64 | 2.93 | 2.82 | 2.86 | 2.71 |        |
| 18                               | 3.32  | 3.10 | 3.25                                             | 3.24 | 3.16 | 2.76 | 3.14 | 3.14 | 3.54 | 2.80 | 2.85 | 2.89 |        |
| 19                               | 3.49  | 3.34 | 3.13                                             | 3.24 | 3.07 | 3.09 | 3.26 | 2.84 | 3.77 | 2.78 | 2.84 | 3.02 |        |
| 20                               | 3.31  | 3.23 | 3.58                                             | 3.21 | 3.12 | 3.15 | 3.75 | 3.17 | 3.17 | 2.73 | 2.83 | 3.10 |        |
| 21                               | 3.33  | 3.05 | 3.54                                             | 3.10 | 3.13 | 3.05 | 3.53 | 4.98 | 2.93 | 2.67 | 2.80 | 3.17 |        |
| 22                               | 3.27  | 3.02 | 3.35                                             | 3.13 | 3.14 | 2.97 | 3.45 | 5.69 | 2.84 | 2.73 | 2.77 | 3.20 |        |
| 23                               | 3.28  | 2.97 | 3.18                                             | 3.16 | 3.13 | 2.98 | 3.55 | 6.06 | 2.73 | 2.81 | 2.74 | 3.20 |        |
| 24                               | 3.27  | 3.00 | 3.16                                             | 3.15 | 3.10 | 3.00 | 3.25 | 5.17 | 2.74 | 2.88 | 2.73 | 3.22 |        |
| 25                               | 3.37  | 3.01 | 3.32                                             | 3.14 | 3.08 | 3.02 | 2.99 | 4.08 | 2.70 | 2.90 | 2.73 | 3.23 |        |
| 26                               | 3.76  | 3.00 | 3.02                                             | 3.16 | 3.06 | 3.08 | 3.72 | 3.68 | 2.77 | 2.83 | 2.70 | 3.21 |        |
| 27                               | 3.37  | 2.99 | 2.97                                             | 3.17 | 3.04 | 3.10 | 3.47 | 3.27 | 2.67 | 2.70 | 2.69 | 3.25 |        |
| 28                               | 3.36  | 3.04 | 3.23                                             | 3.11 | 3.04 | 3.12 | 3.10 | 3.11 | 2.69 | 2.67 | 2.68 | 3.26 |        |
| 29                               | 3.34  | 3.08 | 3.25                                             | 3.06 | 3.04 | 3.17 | 3.00 | 3.19 | 2.63 | 2.68 |      | 3.27 |        |
| 30                               | 3.33  | 3.10 | 3.27                                             | 3.02 | 3.03 | 3.21 | 3.17 | 3.30 | 2.68 | 2.67 |      | 3.27 |        |
| 31                               |       | 3.15 |                                                  | 3.00 | 3.07 |      | 3.28 |      | 2.73 | 2.67 |      | 3.27 |        |
| Mean                             | 3.32  | 3.18 | 3.17                                             | 3.20 | 3.17 | 3.10 | 3.22 | 3.42 | 3.43 | 2.75 | 2.70 | 2.79 |        |
| Max                              | 3.76  | 3.73 | 3.58                                             | 3.46 | 3.53 | 3.36 | 3.95 | 6.06 | 6.24 | 2.99 | 2.86 | 3.27 | 6.24   |
| Min                              | 3.06  | 2.94 | 2.96                                             | 3.00 | 3.00 | 2.76 | 2.87 | 2.65 | 2.63 | 2.62 | 2.56 | 2.28 | 2.28   |
| Annual Max Momentary Gage Height | 6.26  |      | m. (MSL.) , at 12.00 Hours , on Dec 6 , 2013     |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , River Bed -1.16 m. (MSL.)            |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 11.24 |      | m. (MSL.) ,                                      |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 11.25 |      | m. (MSL.) , Drainage Area 1547 Square Kilometers |      |      |      |      |      |      |      |      |      |        |

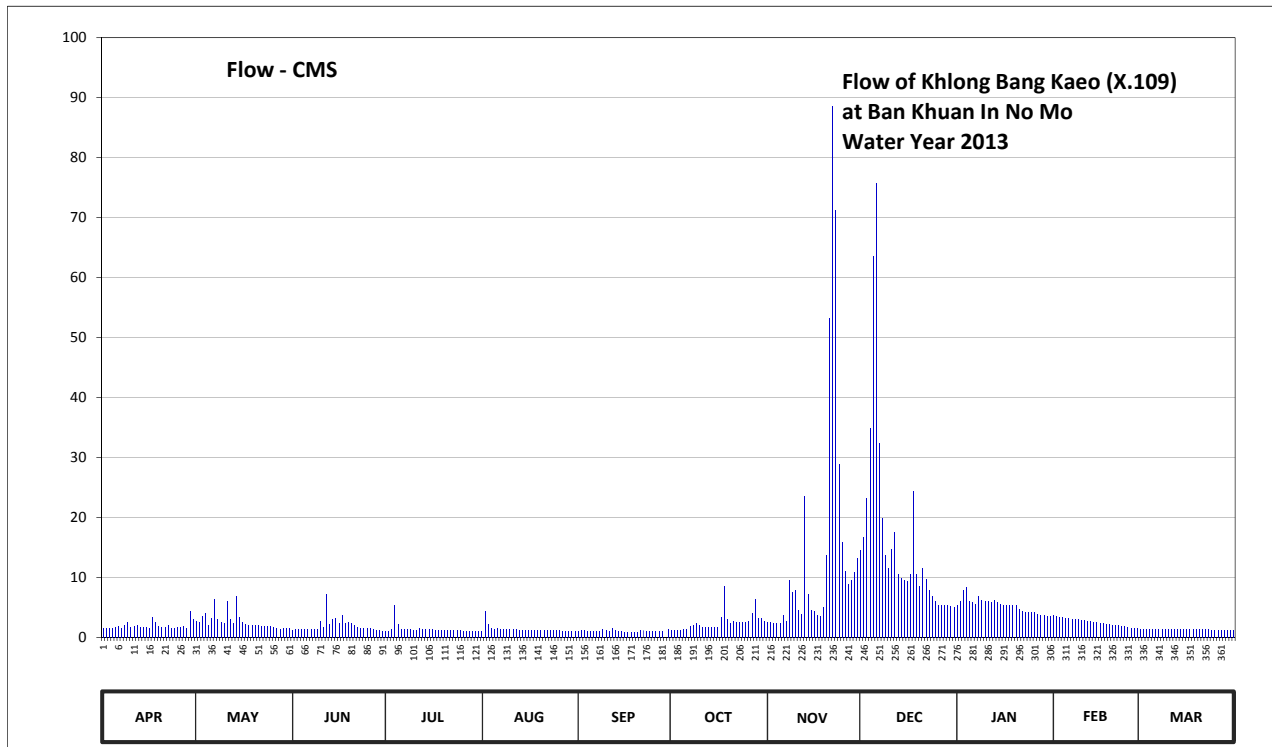




**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov     | Dec     | Jan    | Feb   | Mar   | Annual         |
|----------------|----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|---------|---------|--------|-------|-------|----------------|
| 1              | 2.28                                                           | 40.50                    | 1.60   | 2.28                 | 1.00   | 2.13    | 2.28                     | 12.50   | 28.50   | 1.30   | 1.30  | 0.00  |                |
| 2              | 3.55                                                           | 18.60                    | 1.22   | 1.90                 | 1.90   | 2.28    | 0.90                     | 7.00    | 55.40   | 3.25   | 1.00  | 0.00  |                |
| 3              | 4.25                                                           | 16.80                    | 2.13   | 1.82                 | 13.20  | 16.80   | 0.85                     | 3.40    | 60.80   | 2.05   | 1.00  | 0.00  |                |
| 4              | 2.05                                                           | 5.30                     | 2.13   | 2.85                 | 24.50  | 2.13    | 1.60                     | 1.75    | 67.40   | 1.30   | 0.90  | 0.00  |                |
| 5              | 2.85                                                           | 2.85                     | 1.90   | 27.00                | 11.40  | 2.35    | 3.90                     | 7.75    | 144.20  | 1.30   | 0.80  | 0.00  |                |
| 6              | 15.00                                                          | 2.28                     | 1.45   | 11.40                | 30.50  | 2.50    | 26.50                    | 2.50    | 240.80  | 5.25   | 0.70  | 0.00  |                |
| 7              | 1.90                                                           | 35.50                    | 1.22   | 7.80                 | 7.80   | 2.50    | 53.00                    | 2.35    | 183.80  | 8.75   | 0.70  | 0.00  |                |
| 8              | 1.45                                                           | 20.40                    | 1.00   | 9.60                 | 27.00  | 1.82    | 16.80                    | 2.35    | 89.00   | 7.25   | 0.70  | 0.00  |                |
| 9              | 2.28                                                           | 27.50                    | 1.00   | 4.60                 | 26.50  | 0.75    | 15.30                    | 2.05    | 40.00   | 2.65   | 0.70  | 0.00  |                |
| 10             | 4.60                                                           | 3.90                     | 1.00   | 2.43                 | 1.60   | 16.80   | 10.40                    | 11.10   | 19.20   | 2.95   | 0.60  | 0.00  |                |
| 11             | 15.00                                                          | 11.40                    | 0.80   | 5.30                 | 4.95   | 1.00    | 7.25                     | 3.70    | 18.40   | 3.25   | 0.60  | 0.00  |                |
| 12             | 26.50                                                          | 2.13                     | 1.30   | 13.20                | 1.45   | 1.82    | 8.00                     | 19.60   | 19.20   | 3.25   | 0.00  | 0.00  |                |
| 13             | 30.50                                                          | 4.25                     | 2.85   | 2.85                 | 1.00   | 2.85    | 12.85                    | 6.50    | 11.45   | 2.05   | 0.25  | 0.00  |                |
| 14             | 26.50                                                          | 0.85                     | 1.75   | 2.13                 | 1.82   | 1.15    | 8.25                     | 40.00   | 8.25    | 1.45   | 0.30  | 0.00  |                |
| 15             | 24.00                                                          | 1.00                     | 25.50  | 4.95                 | 4.25   | 2.28    | 7.00                     | 26.00   | 6.00    | 3.25   | 0.30  | 0.00  |                |
| 16             | 22.20                                                          | 0.70                     | 7.80   | 4.95                 | 3.90   | 1.15    | 8.75                     | 11.10   | 7.50    | 4.25   | 0.30  | 0.00  |                |
| 17             | 18.60                                                          | 2.05                     | 3.55   | 4.25                 | 3.20   | 0.90    | 5.75                     | 36.00   | 7.25    | 4.50   | 0.30  | 0.00  |                |
| 18             | 9.60                                                           | 1.75                     | 4.25   | 3.90                 | 2.20   | 0.00    | 13.90                    | 13.90   | 31.00   | 4.00   | 0.25  | 0.45  |                |
| 19             | 28.50                                                          | 13.20                    | 1.98   | 3.90                 | 1.52   | 1.67    | 18.40                    | 5.00    | 42.50   | 3.70   | 0.20  | 1.15  |                |
| 20             | 7.80                                                           | 3.55                     | 33.00  | 2.85                 | 1.90   | 2.13    | 41.50                    | 14.95   | 14.95   | 2.95   | 0.15  | 1.75  |                |
| 21             | 11.40                                                          | 1.37                     | 31.00  | 1.75                 | 1.98   | 1.37    | 30.50                    | 126.40  | 7.25    | 2.05   | 0.00  | 2.28  |                |
| 22             | 4.95                                                           | 1.15                     | 15.00  | 1.98                 | 2.05   | 0.85    | 26.50                    | 190.10  | 5.00    | 2.95   | 0.00  | 2.50  |                |
| 23             | 5.30                                                           | 0.85                     | 2.35   | 2.20                 | 1.98   | 0.90    | 31.50                    | 223.70  | 2.95    | 4.25   | 0.00  | 2.50  |                |
| 24             | 4.95                                                           | 1.00                     | 2.20   | 2.13                 | 1.75   | 1.00    | 18.00                    | 143.30  | 3.10    | 6.00   | 0.00  | 3.20  |                |
| 25             | 18.60                                                          | 1.07                     | 9.60   | 2.05                 | 1.60   | 1.15    | 8.75                     | 60.80   | 2.50    | 6.50   | 0.00  | 3.55  |                |
| 26             | 42.00                                                          | 1.00                     | 1.15   | 2.20                 | 1.45   | 1.60    | 40.00                    | 38.00   | 3.55    | 4.75   | 0.00  | 2.85  |                |
| 27             | 18.60                                                          | 0.95                     | 0.85   | 2.28                 | 1.30   | 1.75    | 27.50                    | 18.80   | 2.05    | 2.50   | 0.00  | 4.25  |                |
| 28             | 16.80                                                          | 1.30                     | 3.55   | 1.82                 | 1.30   | 1.90    | 12.50                    | 12.85   | 2.35    | 2.05   | 0.00  | 4.60  |                |
| 29             | 13.20                                                          | 1.60                     | 4.25   | 1.45                 | 1.30   | 2.28    | 9.00                     | 15.65   | 1.45    | 2.20   |       | 4.95  |                |
| 30             | 11.40                                                          | 1.75                     | 4.95   | 1.15                 | 1.22   | 2.85    | 14.95                    | 20.00   | 2.20    | 2.05   |       | 4.95  |                |
| 31             |                                                                | 2.13                     |        | 1.00                 | 1.52   |         | 19.20                    |         | 2.95    | 2.05   |       | 4.95  |                |
| Total          | 396.61                                                         | 228.68                   | 172.33 | 139.97               | 189.04 | 80.66   | 501.58                   | 1079.10 | 1130.95 | 106.05 | 11.05 | 43.93 | 4079.95 CMSDAY |
| Mean           | 13.22                                                          | 7.38                     | 5.74   | 4.52                 | 6.10   | 2.69    | 16.18                    | 35.97   | 36.48   | 3.42   | 0.39  | 1.42  | 11.18 CMS      |
| Max            | 42.00                                                          | 40.50                    | 33.00  | 27.00                | 30.50  | 16.80   | 53.00                    | 223.70  | 240.80  | 8.75   | 1.30  | 4.95  | 240.80 CMS     |
| Min            | 1.45                                                           | 0.70                     | 0.80   | 1.00                 | 1.00   | 0.00    | 0.85                     | 1.75    | 1.45    | 1.30   | 0.00  | 0.00  | 0.00 CMS       |
| Runoff         | 34.27                                                          | 19.76                    | 14.89  | 12.09                | 16.33  | 6.97    | 43.34                    | 93.23   | 97.71   | 9.16   | 0.96  | 3.80  | 352.51 MCM     |
| Momentary Peak | 242.70 CMS. at 6.26 m. (MSL.) at 12.00 Hours , on Dec 6 , 2013 |                          |        |                      |        |         |                          |         |         |        |       |       |                |
| Runoff Yield   | 7.23                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 156.903 | Liters/Second/Square KM. |         |         |        |       |       |                |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                       | Jun   | Jul   | Aug                  | Sep   | Oct     | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual  |        |
|----------------|-------|-----------------------------------------------------------|-------|-------|----------------------|-------|---------|--------------------------|--------|--------|-------|-------|---------|--------|
| 1              | 1.62  | 2.70                                                      | 1.25  | 1.06  | 1.12                 | 1.12  | 1.19    | 2.55                     | 14.54  | 5.50   | 3.67  | 1.50  |         |        |
| 2              | 1.62  | 2.63                                                      | 1.50  | 1.06  | 4.36                 | 1.19  | 1.19    | 2.55                     | 16.70  | 6.06   | 3.52  | 1.50  |         |        |
| 3              | 1.62  | 3.60                                                      | 1.50  | 1.44  | 2.19                 | 1.19  | 1.19    | 2.48                     | 23.21  | 7.86   | 3.45  | 1.50  |         |        |
| 4              | 1.62  | 4.10                                                      | 1.44  | 5.41  | 1.56                 | 1.12  | 1.31    | 2.48                     | 34.83  | 8.42   | 3.37  | 1.50  |         |        |
| 5              | 1.75  | 2.12                                                      | 1.44  | 2.19  | 1.37                 | 1.12  | 1.37    | 2.48                     | 63.47  | 6.06   | 3.30  | 1.50  |         |        |
| 6              | 1.88  | 3.23                                                      | 1.44  | 1.44  | 1.56                 | 1.12  | 1.50    | 3.67                     | 75.75  | 5.84   | 3.23  | 1.50  |         |        |
| 7              | 1.56  | 6.40                                                      | 1.44  | 1.44  | 1.50                 | 1.12  | 1.88    | 2.77                     | 32.37  | 5.61   | 3.15  | 1.50  |         |        |
| 8              | 2.06  | 3.08                                                      | 1.37  | 1.37  | 1.50                 | 1.12  | 2.12    | 9.66                     | 19.96  | 6.85   | 3.08  | 1.50  |         |        |
| 9              | 2.55  | 2.55                                                      | 1.50  | 1.37  | 1.50                 | 1.44  | 2.48    | 7.52                     | 13.71  | 6.29   | 3.00  | 1.50  |         |        |
| 10             | 1.75  | 2.40                                                      | 2.77  | 1.31  | 1.50                 | 1.19  | 2.00    | 7.86                     | 11.51  | 6.06   | 2.92  | 1.50  |         |        |
| 11             | 1.88  | 6.06                                                      | 1.69  | 1.25  | 1.50                 | 1.12  | 1.81    | 4.63                     | 14.81  | 6.06   | 2.85  | 1.44  |         |        |
| 12             | 2.12  | 3.00                                                      | 7.19  | 1.62  | 1.44                 | 1.56  | 1.81    | 3.93                     | 17.60  | 5.95   | 2.77  | 1.44  |         |        |
| 13             | 1.69  | 2.48                                                      | 2.19  | 1.37  | 1.31                 | 1.19  | 1.75    | 23.54                    | 10.55  | 6.29   | 2.77  | 1.44  |         |        |
| 14             | 1.81  | 6.85                                                      | 3.08  | 1.37  | 1.31                 | 1.06  | 1.75    | 7.19                     | 9.89   | 5.95   | 2.63  | 1.44  |         |        |
| 15             | 1.69  | 3.45                                                      | 3.30  | 1.37  | 1.31                 | 1.00  | 1.75    | 4.63                     | 9.66   | 5.61   | 2.55  | 1.44  |         |        |
| 16             | 1.62  | 2.55                                                      | 2.48  | 1.37  | 1.25                 | 0.90  | 1.75    | 4.36                     | 9.44   | 5.50   | 2.40  | 1.44  |         |        |
| 17             | 3.37  | 2.19                                                      | 3.67  | 1.31  | 1.25                 | 0.90  | 3.45    | 3.67                     | 10.55  | 5.50   | 2.33  | 1.44  |         |        |
| 18             | 2.55  | 2.06                                                      | 2.40  | 1.31  | 1.25                 | 0.90  | 8.54    | 3.52                     | 24.35  | 5.50   | 2.25  | 1.37  |         |        |
| 19             | 1.88  | 2.06                                                      | 2.55  | 1.25  | 1.19                 | 0.90  | 3.00    | 5.06                     | 10.55  | 5.41   | 2.19  | 1.37  |         |        |
| 20             | 1.75  | 2.00                                                      | 2.40  | 1.25  | 1.19                 | 0.95  | 2.40    | 13.71                    | 8.54   | 5.33   | 2.12  | 1.37  |         |        |
| 21             | 1.69  | 2.00                                                      | 2.06  | 1.19  | 1.19                 | 1.31  | 2.70    | 53.10                    | 11.51  | 4.80   | 2.06  | 1.37  |         |        |
| 22             | 2.00  | 1.94                                                      | 1.81  | 1.19  | 1.19                 | 1.19  | 2.63    | 88.50                    | 9.77   | 4.36   | 2.00  | 1.37  |         |        |
| 23             | 1.62  | 1.94                                                      | 1.62  | 1.19  | 1.19                 | 1.12  | 2.55    | 71.25                    | 7.86   | 4.27   | 1.94  | 1.37  |         |        |
| 24             | 1.56  | 1.94                                                      | 1.62  | 1.19  | 1.19                 | 1.12  | 2.55    | 28.90                    | 6.85   | 4.19   | 1.88  | 1.31  |         |        |
| 25             | 1.81  | 1.88                                                      | 1.56  | 1.19  | 1.19                 | 1.06  | 2.63    | 15.95                    | 6.06   | 4.19   | 1.75  | 1.31  |         |        |
| 26             | 1.69  | 1.75                                                      | 1.56  | 1.12  | 1.19                 | 1.06  | 2.77    | 11.10                    | 5.33   | 4.19   | 1.62  | 1.31  |         |        |
| 27             | 1.94  | 1.56                                                      | 1.50  | 1.12  | 1.12                 | 1.00  | 4.10    | 8.88                     | 5.50   | 3.93   | 1.56  | 1.31  |         |        |
| 28             | 1.62  | 1.44                                                      | 1.31  | 1.12  | 1.12                 | 1.06  | 6.40    | 9.55                     | 5.41   | 3.67   | 1.56  | 1.31  |         |        |
| 29             | 4.36  | 1.56                                                      | 1.19  | 1.12  | 1.12                 | 0.00  | 3.30    | 10.96                    | 5.33   | 3.67   |       | 1.31  |         |        |
| 30             | 3.08  | 1.56                                                      | 1.12  | 1.12  | 1.12                 | 1.37  | 3.23    | 13.16                    | 5.24   | 3.60   |       | 1.25  |         |        |
| 31             |       | 1.56                                                      |       | 1.12  | 1.12                 |       | 2.77    |                          | 5.15   | 3.52   |       | 1.25  |         |        |
| Total          | 59.76 | 84.64                                                     | 61.95 | 44.23 | 43.90                | 32.50 | 79.87   | 429.61                   | 506.00 | 166.04 | 71.92 | 43.66 | 1624.08 | CMSDAY |
| Mean           | 1.99  | 2.73                                                      | 2.07  | 1.43  | 1.42                 | 1.08  | 2.58    | 14.32                    | 16.32  | 5.36   | 2.57  | 1.41  | 4.45    | CMS    |
| Max            | 4.36  | 6.85                                                      | 7.19  | 5.41  | 4.36                 | 1.56  | 8.54    | 88.50                    | 75.75  | 8.42   | 3.67  | 1.50  | 88.50   | CMS    |
| Min            | 1.56  | 1.44                                                      | 1.12  | 1.06  | 1.12                 | 0.00  | 1.19    | 2.48                     | 5.15   | 3.52   | 1.56  | 1.25  | 0.00    | CMS    |
| Runoff         | 5.16  | 7.31                                                      | 5.35  | 3.82  | 3.79                 | 2.81  | 6.90    | 37.12                    | 43.72  | 14.35  | 6.21  | 3.77  | 140.32  | MCM    |
| Momentary Peak | 96.33 | CMS. at 31.53 m. (MSL.) at 03.00 Hours , on Nov 22 , 2013 |       |       |                      |       |         |                          |        |        |       |       |         |        |
| Runoff Yield   | 33.98 | Liters/Second/Square KM.                                  |       |       | Momentary Peak Yield |       | 735.568 | Liters/Second/Square KM. |        |        |       |       |         |        |

## WATER YEAR : 2013

## THALE SAP SONGKHLA

### Khlong Sadao at Ban Takian Pao , Songkhla (X.112)

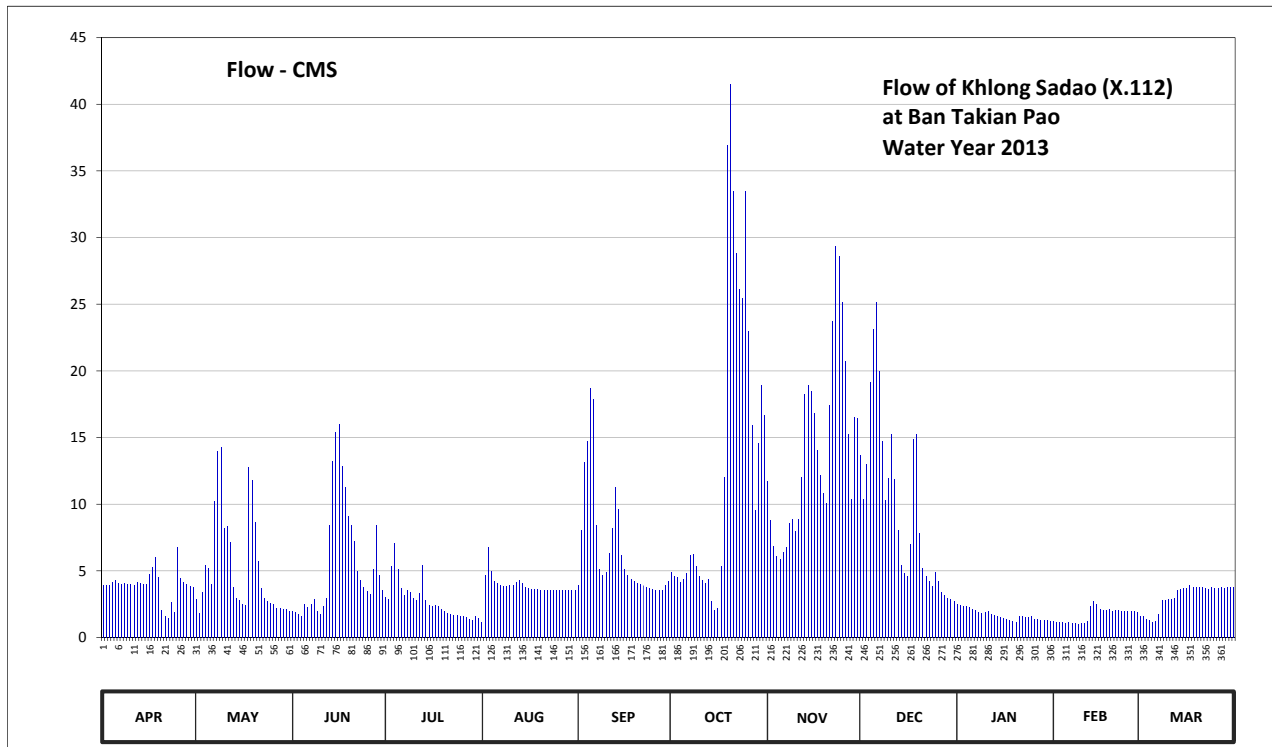
Lat 06 - 42 - 11 N Long 100 - 26 - 10 E

**Location : on right bank at Ban Takian Pao**

|                                         |                                                                                           |            |               |       |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|---------------|-------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Takian Pao | <b>Amphoe</b> | Sadao | <b>Changwat</b>  | Songkhla          |
| <b>Drainage Area</b>                    | 493                                                                                       | sq.km.     |               |       |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |            |               |       |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)  |               |       |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |               |       |                  |                   |
| <b>Location BM</b>                      | Near the top staff gage.                                                                  |            |               |       | <b>Elevation</b> | +24.840 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |            |               |       |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |            |               |       |                  |                   |
| <b>Period of Available Gage Records</b> | 1979 - 1996 , 2006 to date                                                                |            |               |       |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |            |               |       |                  |                   |
| <b>Period of Rating</b>                 | 1979 - 1996 , 2006 to date                                                                |            |               |       |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |            |               |       |                  |                   |
| <b>Rated by Current Meter</b>           | 1979 - 1996 , 2006 to date                                                                |            |               |       |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |            |               |       |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |               |       |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 20 discharge measurements made in 1913. |            |               |       |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

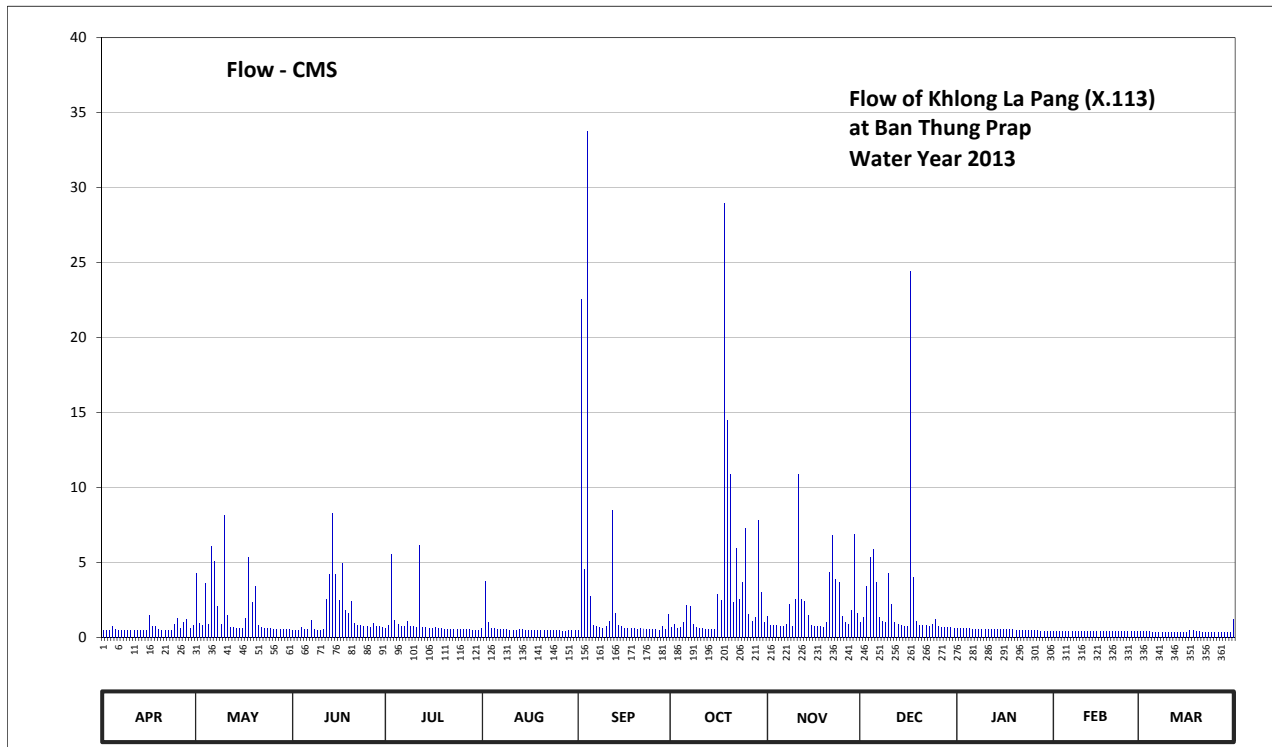
| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 21.01 | 20.75 | 20.52                                           | 20.79 | 20.31 | 21.01 | 21.24 | 22.48 | 22.78 | 20.66 | 20.33 | 20.43 |        |
| 2                                | 21.00 | 20.49 | 20.50                                           | 20.75 | 21.20 | 21.86 | 21.18 | 22.00 | 22.27 | 20.64 | 20.32 | 20.42 |        |
| 3                                | 21.01 | 20.87 | 20.46                                           | 21.35 | 21.64 | 22.70 | 21.16 | 21.65 | 22.68 | 20.62 | 20.32 | 20.37 |        |
| 4                                | 21.07 | 21.37 | 20.43                                           | 21.69 | 21.27 | 22.93 | 21.07 | 21.50 | 23.54 | 20.61 | 20.31 | 20.35 |        |
| 5                                | 21.10 | 21.31 | 20.66                                           | 21.29 | 21.09 | 23.48 | 21.13 | 21.46 | 23.93 | 20.59 | 20.30 | 20.31 |        |
| 6                                | 21.05 | 21.02 | 20.59                                           | 20.95 | 21.05 | 23.37 | 21.23 | 21.56 | 24.08 | 20.56 | 20.31 | 20.33 |        |
| 7                                | 21.03 | 22.24 | 20.65                                           | 20.83 | 21.00 | 21.93 | 21.52 | 21.64 | 23.64 | 20.53 | 20.30 | 20.47 |        |
| 8                                | 21.04 | 22.83 | 20.74                                           | 20.92 | 20.99 | 21.29 | 21.53 | 21.96 | 22.93 | 20.50 | 20.29 | 20.72 |        |
| 9                                | 21.03 | 22.87 | 20.52                                           | 20.87 | 20.99 | 21.19 | 21.34 | 22.01 | 22.25 | 20.48 | 20.28 | 20.73 |        |
| 10                               | 21.02 | 21.89 | 20.46                                           | 20.77 | 21.00 | 21.24 | 21.17 | 21.85 | 22.52 | 20.50 | 20.29 | 20.74 |        |
| 11                               | 21.01 | 21.92 | 20.61                                           | 20.73 | 21.01 | 21.54 | 21.10 | 22.02 | 23.01 | 20.52 | 20.30 | 20.74 |        |
| 12                               | 21.06 | 21.70 | 20.77                                           | 20.85 | 21.07 | 21.89 | 21.04 | 22.53 | 22.51 | 20.47 | 20.33 | 20.76 |        |
| 13                               | 21.05 | 20.97 | 21.94                                           | 21.36 | 21.11 | 22.41 | 21.12 | 23.42 | 21.86 | 20.45 | 20.61 | 20.91 |        |
| 14                               | 21.03 | 20.77 | 22.71                                           | 20.73 | 21.04 | 22.14 | 20.71 | 23.51 | 21.36 | 20.43 | 20.70 | 20.94 |        |
| 15                               | 21.02 | 20.72 | 23.03                                           | 20.64 | 20.98 | 21.51 | 20.54 | 23.45 | 21.23 | 20.41 | 20.66 | 20.95 |        |
| 16                               | 21.21 | 20.66 | 23.12                                           | 20.62 | 20.95 | 21.30 | 20.57 | 23.23 | 21.17 | 20.39 | 20.55 | 20.95 |        |
| 17                               | 21.33 | 20.63 | 22.65                                           | 20.63 | 20.93 | 21.19 | 21.35 | 22.84 | 21.67 | 20.37 | 20.53 | 21.00 |        |
| 18                               | 21.48 | 22.64 | 22.41                                           | 20.62 | 20.93 | 21.12 | 22.53 | 22.55 | 22.96 | 20.35 | 20.54 | 20.98 |        |
| 19                               | 21.15 | 22.50 | 22.05                                           | 20.55 | 20.93 | 21.08 | 24.67 | 22.34 | 23.01 | 20.34 | 20.56 | 20.98 |        |
| 20                               | 20.53 | 21.98 | 21.93                                           | 20.52 | 20.92 | 21.05 | 24.82 | 22.22 | 21.83 | 20.32 | 20.52 | 20.97 |        |
| 21                               | 20.42 | 21.42 | 21.72                                           | 20.49 | 20.91 | 21.03 | 24.54 | 23.31 | 21.31 | 20.43 | 20.53 | 20.97 |        |
| 22                               | 20.39 | 20.96 | 21.27                                           | 20.47 | 20.92 | 21.00 | 24.31 | 23.98 | 21.18 | 20.42 | 20.53 | 20.96 |        |
| 23                               | 20.69 | 20.77 | 21.10                                           | 20.45 | 20.92 | 20.98 | 24.15 | 24.34 | 21.08 | 20.41 | 20.52 | 20.94 |        |
| 24                               | 20.51 | 20.71 | 20.98                                           | 20.44 | 20.92 | 20.96 | 24.10 | 24.30 | 20.99 | 20.40 | 20.52 | 20.97 |        |
| 25                               | 21.64 | 20.68 | 20.89                                           | 20.43 | 20.92 | 20.94 | 24.54 | 24.08 | 21.24 | 20.42 | 20.52 | 20.96 |        |
| 26                               | 21.14 | 20.65 | 20.84                                           | 20.42 | 20.91 | 20.92 | 23.92 | 23.72 | 21.09 | 20.37 | 20.52 | 20.96 |        |
| 27                               | 21.07 | 20.58 | 21.30                                           | 20.41 | 20.91 | 20.92 | 23.11 | 23.01 | 20.87 | 20.37 | 20.52 | 20.98 |        |
| 28                               | 21.03 | 20.57 | 21.93                                           | 20.37 | 20.91 | 20.92 | 22.13 | 22.26 | 20.83 | 20.35 | 20.50 | 20.96 |        |
| 29                               | 20.99 | 20.55 | 21.20                                           | 20.36 | 20.91 | 21.01 | 22.91 | 23.19 | 20.77 | 20.36 |       | 20.97 |        |
| 30                               | 20.97 | 20.56 | 20.92                                           | 20.42 | 20.92 | 21.08 | 23.51 | 23.18 | 20.75 | 20.36 |       | 20.97 |        |
| 31                               |       | 20.52 |                                                 | 20.38 | 20.92 |       | 23.21 |       | 20.71 | 20.34 |       | 20.98 |        |
| Mean                             | 21.00 | 21.23 | 21.30                                           | 20.71 | 20.98 | 21.53 | 22.30 | 22.72 | 22.00 | 20.45 | 20.45 | 20.80 |        |
| Max                              | 21.64 | 22.87 | 23.12                                           | 21.69 | 21.64 | 23.48 | 24.82 | 24.34 | 24.08 | 20.66 | 20.70 | 21.00 | 24.82  |
| Min                              | 20.39 | 20.49 | 20.43                                           | 20.36 | 20.31 | 20.92 | 20.54 | 21.46 | 20.71 | 20.32 | 20.28 | 20.31 | 20.28  |
| Annual Max Momentary Gage Height |       | 24.93 | m. (MSL.) , at 18.00 Hours , on Oct 19 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 19.70 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 26.18 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 26.12 | m. (MSL.) , Drainage Area 493 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                      | Jun    | Jul   | Aug                  | Sep    | Oct    | Nov    | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|--------|----------------------------------------------------------|--------|-------|----------------------|--------|--------|--------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 3.94   | 2.90                                                     | 1.98   | 3.06  | 1.14                 | 3.94   | 4.88   | 11.72  | 13.67                    | 2.54  | 1.22  | 1.62  |         |        |
| 2              | 3.90   | 1.86                                                     | 1.90   | 2.90  | 4.70                 | 8.03   | 4.62   | 8.80   | 10.42                    | 2.46  | 1.18  | 1.58  |         |        |
| 3              | 3.94   | 3.38                                                     | 1.74   | 5.38  | 6.82                 | 13.15  | 4.54   | 6.87   | 13.02                    | 2.38  | 1.18  | 1.38  |         |        |
| 4              | 4.18   | 5.47                                                     | 1.62   | 7.10  | 5.02                 | 14.71  | 4.18   | 6.10   | 19.15                    | 2.34  | 1.14  | 1.30  |         |        |
| 5              | 4.30   | 5.19                                                     | 2.54   | 5.11  | 4.26                 | 18.70  | 4.42   | 5.90   | 23.09                    | 2.26  | 1.10  | 1.14  |         |        |
| 6              | 4.10   | 3.98                                                     | 2.26   | 3.70  | 4.10                 | 17.88  | 4.83   | 6.40   | 25.12                    | 2.14  | 1.14  | 1.22  |         |        |
| 7              | 4.02   | 10.24                                                    | 2.50   | 3.22  | 3.90                 | 8.42   | 6.20   | 6.82   | 19.96                    | 2.02  | 1.10  | 1.78  |         |        |
| 8              | 4.06   | 14.01                                                    | 2.86   | 3.58  | 3.86                 | 5.11   | 6.25   | 8.58   | 14.71                    | 1.90  | 1.06  | 2.78  |         |        |
| 9              | 4.02   | 14.29                                                    | 1.98   | 3.38  | 3.86                 | 4.66   | 5.33   | 8.86   | 10.30                    | 1.82  | 1.02  | 2.82  |         |        |
| 10             | 3.98   | 8.19                                                     | 1.74   | 2.98  | 3.90                 | 4.88   | 4.58   | 7.98   | 11.98                    | 1.90  | 1.06  | 2.86  |         |        |
| 11             | 3.94   | 8.36                                                     | 2.34   | 2.82  | 3.94                 | 6.30   | 4.30   | 8.92   | 15.27                    | 1.98  | 1.10  | 2.86  |         |        |
| 12             | 4.14   | 7.15                                                     | 2.98   | 3.30  | 4.18                 | 8.19   | 4.06   | 12.05  | 11.92                    | 1.78  | 1.22  | 2.94  |         |        |
| 13             | 4.10   | 3.78                                                     | 8.47   | 5.42  | 4.34                 | 11.27  | 4.38   | 18.25  | 8.03                     | 1.70  | 2.34  | 3.54  |         |        |
| 14             | 4.02   | 2.98                                                     | 13.21  | 2.82  | 4.06                 | 9.64   | 2.74   | 18.92  | 5.42                     | 1.62  | 2.70  | 3.66  |         |        |
| 15             | 3.98   | 2.78                                                     | 15.41  | 2.46  | 3.82                 | 6.15   | 2.06   | 18.48  | 4.83                     | 1.54  | 2.54  | 3.70  |         |        |
| 16             | 4.74   | 2.54                                                     | 16.04  | 2.38  | 3.70                 | 5.15   | 2.18   | 16.82  | 4.58                     | 1.46  | 2.10  | 3.70  |         |        |
| 17             | 5.28   | 2.42                                                     | 12.83  | 2.42  | 3.62                 | 4.66   | 5.38   | 14.08  | 6.98                     | 1.38  | 2.02  | 3.90  |         |        |
| 18             | 6.00   | 12.76                                                    | 11.27  | 2.38  | 3.62                 | 4.38   | 12.05  | 12.17  | 14.92                    | 1.30  | 2.06  | 3.82  |         |        |
| 19             | 4.50   | 11.85                                                    | 9.10   | 2.10  | 3.62                 | 4.22   | 36.90  | 10.84  | 15.27                    | 1.26  | 2.14  | 3.82  |         |        |
| 20             | 2.02   | 8.69                                                     | 8.42   | 1.98  | 3.58                 | 4.10   | 41.46  | 10.12  | 7.86                     | 1.18  | 1.98  | 3.78  |         |        |
| 21             | 1.58   | 5.70                                                     | 7.26   | 1.86  | 3.54                 | 4.02   | 33.48  | 17.42  | 5.19                     | 1.62  | 2.02  | 3.78  |         |        |
| 22             | 1.46   | 3.74                                                     | 5.02   | 1.78  | 3.58                 | 3.90   | 28.78  | 23.74  | 4.62                     | 1.58  | 2.02  | 3.74  |         |        |
| 23             | 2.66   | 2.98                                                     | 4.30   | 1.70  | 3.58                 | 3.82   | 26.10  | 29.32  | 4.22                     | 1.54  | 1.98  | 3.66  |         |        |
| 24             | 1.94   | 2.74                                                     | 3.82   | 1.66  | 3.58                 | 3.74   | 25.40  | 28.60  | 3.86                     | 1.50  | 1.98  | 3.78  |         |        |
| 25             | 6.82   | 2.62                                                     | 3.46   | 1.62  | 3.58                 | 3.66   | 33.48  | 25.12  | 4.88                     | 1.58  | 1.98  | 3.74  |         |        |
| 26             | 4.46   | 2.50                                                     | 3.26   | 1.58  | 3.54                 | 3.58   | 22.96  | 20.68  | 4.26                     | 1.38  | 1.98  | 3.74  |         |        |
| 27             | 4.18   | 2.22                                                     | 5.15   | 1.54  | 3.54                 | 3.58   | 15.97  | 15.27  | 3.38                     | 1.38  | 1.98  | 3.82  |         |        |
| 28             | 4.02   | 2.18                                                     | 8.42   | 1.38  | 3.54                 | 3.58   | 9.58   | 10.36  | 3.22                     | 1.30  | 1.90  | 3.74  |         |        |
| 29             | 3.86   | 2.10                                                     | 4.70   | 1.34  | 3.54                 | 3.94   | 14.57  | 16.53  | 2.98                     | 1.34  |       | 3.78  |         |        |
| 30             | 3.78   | 2.14                                                     | 3.58   | 1.58  | 3.58                 | 4.22   | 18.92  | 16.46  | 2.90                     | 1.34  |       | 3.78  |         |        |
| 31             |        | 1.98                                                     |        | 1.42  | 3.58                 |        | 16.67  |        | 2.74                     | 1.26  |       | 3.82  |         |        |
| Total          | 117.92 | 163.72                                                   | 170.16 | 85.95 | 119.22               | 201.58 | 411.25 | 422.18 | 298.75                   | 52.78 | 47.24 | 95.58 | 2186.33 | CMSDAY |
| Mean           | 3.93   | 5.28                                                     | 5.67   | 2.77  | 3.85                 | 6.72   | 13.27  | 14.07  | 9.64                     | 1.70  | 1.69  | 3.08  | 5.99    | CMS    |
| Max            | 6.82   | 14.29                                                    | 16.04  | 7.10  | 6.82                 | 18.70  | 41.46  | 29.32  | 25.12                    | 2.54  | 2.70  | 3.90  | 41.46   | CMS    |
| Min            | 1.46   | 1.86                                                     | 1.62   | 1.34  | 1.14                 | 3.58   | 2.06   | 5.90   | 2.74                     | 1.18  | 1.02  | 1.14  | 1.02    | CMS    |
| Runoff         | 10.19  | 14.15                                                    | 14.70  | 7.43  | 10.30                | 17.42  | 35.53  | 36.48  | 25.81                    | 4.56  | 4.08  | 8.26  | 188.90  | MCM    |
| Momentary Peak | 45.09  | CMS. at 24.93 m. (MSL.) at 18.00 Hours , on Oct 19, 2013 |        |       |                      |        |        |        |                          |       |       |       |         |        |
| Runoff Yield   | 12.15  | Liters/Second/Square KM.                                 |        |       | Momentary Peak Yield |        |        | 91.460 | Liters/Second/Square KM. |       |       |       |         |        |

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 31.84 | 33.18 | 31.86                                           | 31.93 | 31.86 | 31.96 | 32.30 | 32.11 | 31.93 | 31.82 | 31.80 |       |        |
| 2                                | 31.84 | 32.08 | 31.86                                           | 32.01 | 33.04 | 34.74 | 32.06 | 32.02 | 32.27 | 31.92 | 31.82 | 31.80 |        |
| 3                                | 31.84 | 32.03 | 31.86                                           | 33.47 | 32.10 | 33.25 | 31.93 | 32.00 | 32.95 | 31.92 | 31.82 | 31.80 |        |
| 4                                | 31.98 | 33.01 | 31.95                                           | 32.19 | 31.92 | 35.04 | 31.96 | 32.01 | 33.44 | 31.91 | 31.82 | 31.80 |        |
| 5                                | 31.87 | 32.06 | 31.87                                           | 32.06 | 31.91 | 32.75 | 32.11 | 31.97 | 33.54 | 31.91 | 31.82 | 31.79 |        |
| 6                                | 31.86 | 33.58 | 31.89                                           | 31.99 | 31.89 | 32.02 | 32.56 | 31.97 | 33.02 | 31.90 | 31.82 | 31.79 |        |
| 7                                | 31.86 | 33.37 | 32.18                                           | 31.98 | 31.88 | 31.97 | 32.53 | 32.04 | 32.27 | 31.90 | 31.82 | 31.79 |        |
| 8                                | 31.85 | 32.54 | 31.88                                           | 32.15 | 31.87 | 31.94 | 32.06 | 32.57 | 32.15 | 31.88 | 31.81 | 31.79 |        |
| 9                                | 31.85 | 32.04 | 31.86                                           | 31.99 | 31.89 | 31.92 | 31.96 | 31.97 | 32.10 | 31.88 | 31.81 | 31.79 |        |
| 10                               | 31.85 | 33.93 | 31.86                                           | 31.97 | 31.86 | 31.98 | 31.93 | 32.69 | 33.18 | 31.89 | 31.81 | 31.79 |        |
| 11                               | 31.85 | 32.31 | 31.87                                           | 31.95 | 31.85 | 32.13 | 31.92 | 34.22 | 32.57 | 31.88 | 31.81 | 31.79 |        |
| 12                               | 31.86 | 31.96 | 32.68                                           | 33.60 | 31.86 | 33.98 | 31.89 | 32.68 | 32.11 | 31.89 | 31.81 | 31.79 |        |
| 13                               | 31.85 | 31.95 | 33.16                                           | 31.95 | 31.88 | 32.37 | 31.88 | 32.64 | 32.04 | 31.88 | 31.83 | 31.79 |        |
| 14                               | 31.85 | 31.92 | 33.95                                           | 31.94 | 31.87 | 32.03 | 31.88 | 32.31 | 32.01 | 31.88 | 31.83 | 31.79 |        |
| 15                               | 31.86 | 31.93 | 33.16                                           | 31.93 | 31.86 | 31.97 | 31.88 | 32.03 | 31.98 | 31.88 | 31.83 | 31.79 |        |
| 16                               | 32.31 | 31.91 | 32.67                                           | 31.93 | 31.86 | 31.93 | 32.80 | 31.98 | 31.97 | 31.88 | 31.83 | 31.79 |        |
| 17                               | 31.99 | 32.23 | 33.34                                           | 31.96 | 31.86 | 31.92 | 32.66 | 31.99 | 34.80 | 31.88 | 31.83 | 31.86 |        |
| 18                               | 31.98 | 33.44 | 32.45                                           | 31.93 | 31.86 | 31.92 | 34.92 | 31.98 | 33.11 | 31.88 | 31.83 | 31.84 |        |
| 19                               | 31.87 | 32.62 | 32.36                                           | 31.91 | 31.85 | 31.91 | 34.44 | 31.95 | 32.15 | 31.88 | 31.83 | 31.82 |        |
| 20                               | 31.85 | 32.95 | 32.65                                           | 31.90 | 31.85 | 31.90 | 34.22 | 32.11 | 32.02 | 31.86 | 31.83 | 31.80 |        |
| 21                               | 31.85 | 32.01 | 32.08                                           | 31.89 | 31.85 | 31.91 | 32.62 | 33.19 | 32.01 | 31.86 | 31.83 | 31.78 |        |
| 22                               | 31.85 | 31.94 | 32.01                                           | 31.88 | 31.85 | 31.89 | 33.56 | 33.72 | 32.00 | 31.86 | 31.82 | 31.78 |        |
| 23                               | 31.85 | 31.92 | 32.00                                           | 31.87 | 31.85 | 31.88 | 32.68 | 33.07 | 31.99 | 31.85 | 31.82 | 31.78 |        |
| 24                               | 32.04 | 31.91 | 31.99                                           | 31.87 | 31.85 | 31.88 | 33.03 | 33.03 | 32.04 | 31.85 | 31.82 | 31.78 |        |
| 25                               | 32.25 | 31.92 | 31.97                                           | 31.87 | 31.85 | 31.87 | 33.80 | 32.30 | 32.22 | 31.84 | 31.81 | 31.78 |        |
| 26                               | 31.93 | 31.90 | 31.96                                           | 31.87 | 31.84 | 31.87 | 32.34 | 32.10 | 31.99 | 31.84 | 31.81 | 31.78 |        |
| 27                               | 32.12 | 31.89 | 32.09                                           | 31.87 | 31.83 | 31.86 | 32.13 | 32.04 | 31.95 | 31.84 | 31.81 | 31.78 |        |
| 28                               | 32.21 | 31.88 | 31.99                                           | 31.87 | 31.83 | 31.97 | 32.28 | 32.45 | 31.95 | 31.83 | 31.80 | 31.78 |        |
| 29                               | 31.91 | 31.87 | 31.97                                           | 31.86 | 31.86 | 31.89 | 33.88 | 33.73 | 31.94 | 31.83 |       | 31.77 |        |
| 30                               | 32.00 | 31.87 | 31.94                                           | 31.86 | 31.84 | 32.33 | 32.83 | 32.38 | 31.94 | 31.83 |       | 31.77 |        |
| 31                               |       | 31.87 |                                                 | 31.86 | 31.84 |       | 32.10 |       | 31.93 | 31.83 |       | 32.22 |        |
| Mean                             | 31.93 | 32.32 | 32.25                                           | 32.04 | 31.91 | 32.30 | 32.61 | 32.45 | 32.38 | 31.87 | 31.82 | 31.81 |        |
| Max                              | 32.31 | 33.93 | 33.95                                           | 33.60 | 33.04 | 35.04 | 34.92 | 34.22 | 34.80 | 31.93 | 31.83 | 32.22 | 35.04  |
| Min                              | 31.84 | 31.87 | 31.86                                           | 31.86 | 31.83 | 31.86 | 31.88 | 31.95 | 31.93 | 31.83 | 31.80 | 31.77 | 31.77  |
| Annual Max Momentary Gage Height | 35.24 |       | m. (MSL.) , at 08.00 Hours , on Sep 4 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 31.40 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 37.89 |       | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 37.89 |       | m. (MSL.) , Drainage Area 118 Square Kilometers |       |       |       |       |       |       |       |       |       |        |

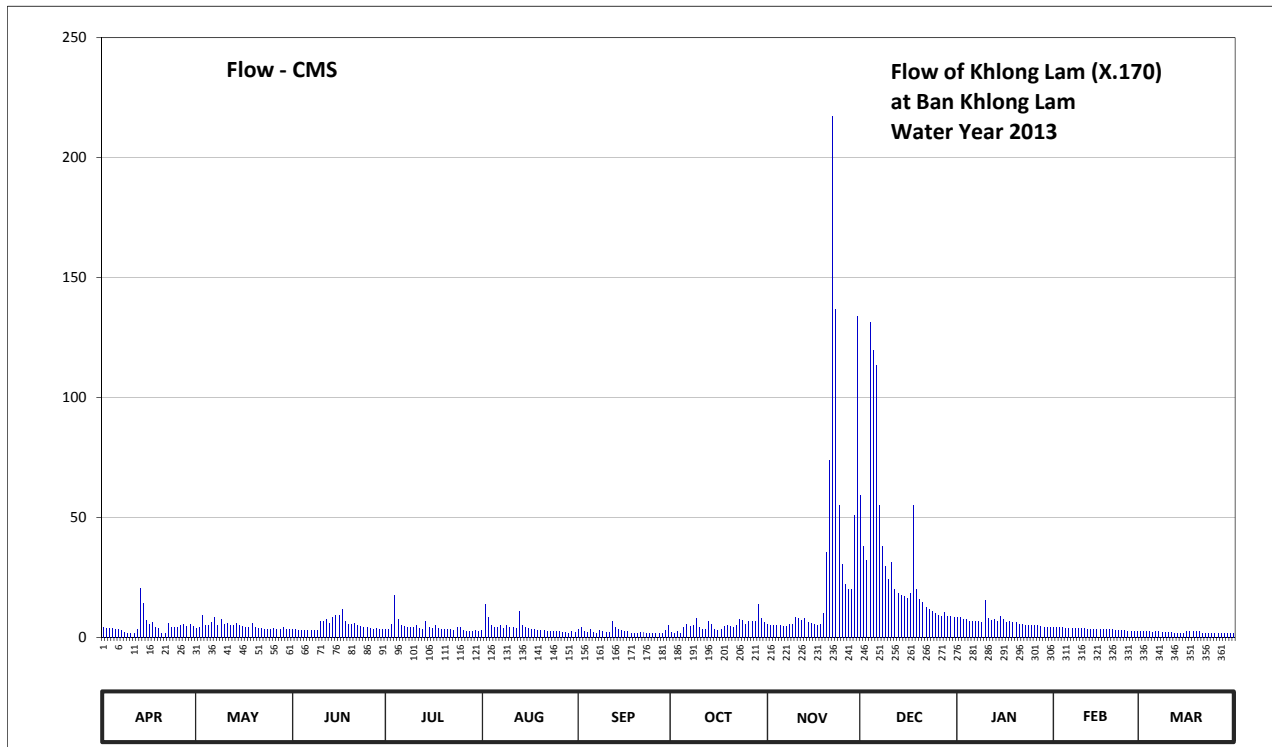


Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                      | Jun   | Jul   | Aug                  | Sep   | Oct     | Nov                      | Dec   | Jan   | Feb   | Mar   | Annual |        |
|----------------|-------|----------------------------------------------------------|-------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|--------|--------|
| 1              | 0.48  | 4.32                                                     | 0.52  | 0.66  | 0.66                 | 0.52  | 0.72    | 1.45                     | 1.02  | 0.66  | 0.44  | 0.40  |        |        |
| 2              | 0.48  | 0.96                                                     | 0.52  | 0.82  | 3.76                 | 22.54 | 0.92    | 0.84                     | 1.37  | 0.64  | 0.44  | 0.40  |        |        |
| 3              | 0.48  | 0.86                                                     | 0.52  | 5.55  | 1.00                 | 4.60  | 0.66    | 0.80                     | 3.43  | 0.64  | 0.44  | 0.40  |        |        |
| 4              | 0.76  | 3.64                                                     | 0.70  | 1.18  | 0.64                 | 33.76 | 0.72    | 0.82                     | 5.40  | 0.62  | 0.44  | 0.40  |        |        |
| 5              | 0.54  | 0.92                                                     | 0.54  | 0.92  | 0.62                 | 2.75  | 1.02    | 0.74                     | 5.90  | 0.62  | 0.44  | 0.38  |        |        |
| 6              | 0.52  | 6.10                                                     | 0.58  | 0.78  | 0.58                 | 0.84  | 2.18    | 0.74                     | 3.68  | 0.60  | 0.44  | 0.38  |        |        |
| 7              | 0.52  | 5.08                                                     | 1.16  | 0.76  | 0.56                 | 0.74  | 2.09    | 0.88                     | 1.37  | 0.60  | 0.44  | 0.38  |        |        |
| 8              | 0.50  | 2.12                                                     | 0.56  | 1.10  | 0.54                 | 0.68  | 0.92    | 2.21                     | 1.10  | 0.56  | 0.42  | 0.38  |        |        |
| 9              | 0.50  | 0.88                                                     | 0.52  | 0.78  | 0.58                 | 0.64  | 0.72    | 0.74                     | 1.00  | 0.56  | 0.42  | 0.38  |        |        |
| 10             | 0.50  | 8.15                                                     | 0.52  | 0.74  | 0.52                 | 0.76  | 0.66    | 2.57                     | 4.32  | 0.58  | 0.42  | 0.38  |        |        |
| 11             | 0.50  | 1.48                                                     | 0.54  | 0.70  | 0.50                 | 1.06  | 0.64    | 10.90                    | 2.21  | 0.56  | 0.42  | 0.38  |        |        |
| 12             | 0.52  | 0.72                                                     | 2.54  | 6.20  | 0.52                 | 8.47  | 0.58    | 2.54                     | 1.02  | 0.58  | 0.42  | 0.38  |        |        |
| 13             | 0.50  | 0.70                                                     | 4.24  | 0.70  | 0.56                 | 1.62  | 0.56    | 2.42                     | 0.88  | 0.56  | 0.46  | 0.38  |        |        |
| 14             | 0.50  | 0.64                                                     | 8.28  | 0.68  | 0.54                 | 0.86  | 0.56    | 1.48                     | 0.82  | 0.56  | 0.46  | 0.38  |        |        |
| 15             | 0.52  | 0.66                                                     | 4.24  | 0.66  | 0.52                 | 0.74  | 0.56    | 0.86                     | 0.76  | 0.56  | 0.46  | 0.38  |        |        |
| 16             | 1.48  | 0.62                                                     | 2.51  | 0.66  | 0.52                 | 0.66  | 2.90    | 0.76                     | 0.74  | 0.56  | 0.46  | 0.38  |        |        |
| 17             | 0.78  | 1.27                                                     | 4.96  | 0.72  | 0.52                 | 0.64  | 2.48    | 0.78                     | 24.40 | 0.56  | 0.46  | 0.52  |        |        |
| 18             | 0.76  | 5.40                                                     | 1.85  | 0.66  | 0.52                 | 0.64  | 28.96   | 0.76                     | 4.04  | 0.56  | 0.46  | 0.48  |        |        |
| 19             | 0.54  | 2.36                                                     | 1.60  | 0.62  | 0.50                 | 0.62  | 14.52   | 0.70                     | 1.10  | 0.56  | 0.46  | 0.44  |        |        |
| 20             | 0.50  | 3.43                                                     | 2.45  | 0.60  | 0.50                 | 0.60  | 10.90   | 1.02                     | 0.84  | 0.52  | 0.46  | 0.40  |        |        |
| 21             | 0.50  | 0.82                                                     | 0.96  | 0.58  | 0.50                 | 0.62  | 2.36    | 4.36                     | 0.82  | 0.52  | 0.46  | 0.36  |        |        |
| 22             | 0.50  | 0.68                                                     | 0.82  | 0.56  | 0.50                 | 0.58  | 6.00    | 6.86                     | 0.80  | 0.52  | 0.44  | 0.36  |        |        |
| 23             | 0.50  | 0.64                                                     | 0.80  | 0.54  | 0.50                 | 0.56  | 2.54    | 3.88                     | 0.78  | 0.50  | 0.44  | 0.36  |        |        |
| 24             | 0.88  | 0.62                                                     | 0.78  | 0.54  | 0.50                 | 0.56  | 3.72    | 3.72                     | 0.88  | 0.50  | 0.44  | 0.36  |        |        |
| 25             | 1.32  | 0.64                                                     | 0.74  | 0.54  | 0.50                 | 0.54  | 7.30    | 1.45                     | 1.25  | 0.48  | 0.42  | 0.36  |        |        |
| 26             | 0.66  | 0.60                                                     | 0.72  | 0.54  | 0.48                 | 0.54  | 1.55    | 1.00                     | 0.78  | 0.48  | 0.42  | 0.36  |        |        |
| 27             | 1.04  | 0.58                                                     | 0.98  | 0.54  | 0.46                 | 0.52  | 1.06    | 0.88                     | 0.70  | 0.48  | 0.42  | 0.36  |        |        |
| 28             | 1.22  | 0.56                                                     | 0.78  | 0.54  | 0.46                 | 0.74  | 1.40    | 1.85                     | 0.70  | 0.46  | 0.40  | 0.36  |        |        |
| 29             | 0.62  | 0.54                                                     | 0.74  | 0.52  | 0.52                 | 0.58  | 7.82    | 6.92                     | 0.68  | 0.46  |       | 0.34  |        |        |
| 30             | 0.80  | 0.54                                                     | 0.68  | 0.52  | 0.48                 | 1.53  | 3.01    | 1.65                     | 0.68  | 0.46  |       | 0.34  |        |        |
| 31             |       | 0.54                                                     |       | 0.52  | 0.48                 |       | 1.00    |                          | 0.66  | 0.46  |       | 1.25  |        |        |
| Total          | 19.92 | 57.07                                                    | 47.35 | 31.43 | 20.04                | 90.51 | 111.03  | 66.58                    | 74.13 | 16.98 | 12.30 | 12.81 | 560.15 | CMSDAY |
| Mean           | 0.66  | 1.84                                                     | 1.58  | 1.01  | 0.65                 | 3.02  | 3.58    | 2.22                     | 2.39  | 0.55  | 0.44  | 0.41  | 1.53   | CMS    |
| Max            | 1.48  | 8.15                                                     | 8.28  | 6.20  | 3.76                 | 33.76 | 28.96   | 10.90                    | 24.40 | 0.66  | 0.46  | 1.25  | 33.76  | CMS    |
| Min            | 0.48  | 0.54                                                     | 0.52  | 0.52  | 0.46                 | 0.52  | 0.56    | 0.70                     | 0.66  | 0.46  | 0.40  | 0.34  | 0.34   | CMS    |
| Runoff         | 1.72  | 4.93                                                     | 4.09  | 2.72  | 1.73                 | 7.82  | 9.59    | 5.75                     | 6.41  | 1.47  | 1.06  | 1.11  | 48.40  | MCM    |
| Momentary Peak | 42.84 | CMS. at 35.24 m. (MSL.) at 08.00 Hours , on Sep 4 , 2013 |       |       |                      |       |         |                          |       |       |       |       |        |        |
| Runoff Yield   | 12.96 | Liters/Second/Square KM.                                 |       |       | Momentary Peak Yield |       | 361.672 | Liters/Second/Square KM. |       |       |       |       |        |        |

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 20.29 | 20.28 | 20.26                                           | 20.26 | 20.25 | 20.26 | 20.21 | 20.34 | 21.66 | 20.45 | 20.30 | 20.22 |        |
| 2                                | 20.28 | 20.30 | 20.26                                           | 20.26 | 20.64 | 20.30 | 20.20 | 20.32 | 21.24 | 20.45 | 20.29 | 20.22 |        |
| 3                                | 20.28 | 20.48 | 20.25                                           | 20.34 | 20.46 | 20.23 | 20.22 | 20.32 | 21.11 | 20.43 | 20.29 | 20.22 |        |
| 4                                | 20.28 | 20.32 | 20.25                                           | 20.74 | 20.32 | 20.21 | 20.20 | 20.32 | 22.74 | 20.43 | 20.29 | 20.22 |        |
| 5                                | 20.27 | 20.33 | 20.25                                           | 20.42 | 20.30 | 20.27 | 20.29 | 20.33 | 22.58 | 20.40 | 20.28 | 20.21 |        |
| 6                                | 20.26 | 20.37 | 20.24                                           | 20.33 | 20.30 | 20.21 | 20.34 | 20.31 | 22.50 | 20.40 | 20.28 | 20.22 |        |
| 7                                | 20.24 | 20.46 | 20.24                                           | 20.31 | 20.32 | 20.20 | 20.31 | 20.31 | 21.58 | 20.40 | 20.28 | 20.22 |        |
| 8                                | 20.21 | 20.33 | 20.24                                           | 20.30 | 20.28 | 20.25 | 20.33 | 20.34 | 21.24 | 20.40 | 20.28 | 20.21 |        |
| 9                                | 20.19 | 20.42 | 20.24                                           | 20.30 | 20.32 | 20.23 | 20.44 | 20.35 | 21.04 | 20.38 | 20.28 | 20.21 |        |
| 10                               | 20.17 | 20.35 | 20.40                                           | 20.29 | 20.29 | 20.21 | 20.30 | 20.46 | 20.91 | 20.68 | 20.28 | 20.21 |        |
| 11                               | 20.17 | 20.36 | 20.39                                           | 20.32 | 20.30 | 20.21 | 20.27 | 20.44 | 21.09 | 20.44 | 20.28 | 20.21 |        |
| 12                               | 20.27 | 20.32 | 20.43                                           | 20.28 | 20.28 | 20.40 | 20.27 | 20.41 | 20.80 | 20.41 | 20.27 | 20.20 |        |
| 13                               | 20.82 | 20.33 | 20.36                                           | 20.27 | 20.54 | 20.29 | 20.40 | 20.44 | 20.76 | 20.42 | 20.27 | 20.20 |        |
| 14                               | 20.65 | 20.36 | 20.45                                           | 20.39 | 20.33 | 20.26 | 20.35 | 20.37 | 20.74 | 20.40 | 20.27 | 20.20 |        |
| 15                               | 20.41 | 20.32 | 20.49                                           | 20.29 | 20.30 | 20.24 | 20.27 | 20.36 | 20.73 | 20.47 | 20.27 | 20.20 |        |
| 16                               | 20.34 | 20.31 | 20.49                                           | 20.28 | 20.28 | 20.23 | 20.25 | 20.34 | 20.71 | 20.42 | 20.26 | 20.22 |        |
| 17                               | 20.38 | 20.29 | 20.58                                           | 20.32 | 20.27 | 20.22 | 20.26 | 20.33 | 20.76 | 20.38 | 20.26 | 20.23 |        |
| 18                               | 20.30 | 20.30 | 20.39                                           | 20.28 | 20.26 | 20.20 | 20.31 | 20.34 | 21.58 | 20.39 | 20.26 | 20.23 |        |
| 19                               | 20.28 | 20.36 | 20.35                                           | 20.27 | 20.25 | 20.20 | 20.32 | 20.51 | 20.80 | 20.38 | 20.26 | 20.22 |        |
| 20                               | 20.20 | 20.29 | 20.34                                           | 20.27 | 20.24 | 20.20 | 20.31 | 21.19 | 20.69 | 20.37 | 20.26 | 20.22 |        |
| 21                               | 20.20 | 20.28 | 20.36                                           | 20.26 | 20.24 | 20.21 | 20.29 | 21.93 | 20.66 | 20.34 | 20.25 | 20.20 |        |
| 22                               | 20.36 | 20.28 | 20.33                                           | 20.26 | 20.23 | 20.21 | 20.32 | 23.79 | 20.61 | 20.34 | 20.24 | 20.20 |        |
| 23                               | 20.30 | 20.27 | 20.31                                           | 20.25 | 20.23 | 20.20 | 20.42 | 22.81 | 20.57 | 20.33 | 20.24 | 20.20 |        |
| 24                               | 20.29 | 20.27 | 20.30                                           | 20.30 | 20.23 | 20.19 | 20.41 | 21.58 | 20.55 | 20.33 | 20.24 | 20.20 |        |
| 25                               | 20.29 | 20.27 | 20.29                                           | 20.29 | 20.22 | 20.19 | 20.34 | 21.07 | 20.52 | 20.32 | 20.23 | 20.19 |        |
| 26                               | 20.32 | 20.28 | 20.28                                           | 20.25 | 20.22 | 20.18 | 20.39 | 20.86 | 20.49 | 20.32 | 20.23 | 20.19 |        |
| 27                               | 20.34 | 20.26 | 20.27                                           | 20.23 | 20.21 | 20.18 | 20.39 | 20.80 | 20.47 | 20.32 | 20.23 | 20.19 |        |
| 28                               | 20.31 | 20.26 | 20.28                                           | 20.23 | 20.21 | 20.17 | 20.40 | 20.81 | 20.53 | 20.31 | 20.23 | 20.19 |        |
| 29                               | 20.35 | 20.29 | 20.27                                           | 20.23 | 20.20 | 20.24 | 20.64 | 21.50 | 20.47 | 20.30 |       | 20.19 |        |
| 30                               | 20.31 | 20.27 | 20.26                                           | 20.24 | 20.22 | 20.32 | 20.44 | 22.77 | 20.47 | 20.30 |       | 20.18 |        |
| 31                               |       | 20.27 |                                                 | 20.22 | 20.21 |       | 20.38 |       | 20.46 | 20.30 |       | 20.18 |        |
| Mean                             | 20.31 | 20.32 | 20.33                                           | 20.30 | 20.29 | 20.23 | 20.33 | 20.87 | 21.00 | 20.39 | 20.26 | 20.21 |        |
| Max                              | 20.82 | 20.48 | 20.58                                           | 20.74 | 20.64 | 20.40 | 20.64 | 23.79 | 22.74 | 20.68 | 20.30 | 20.23 | 23.79  |
| Min                              | 20.17 | 20.26 | 20.24                                           | 20.22 | 20.20 | 20.17 | 20.20 | 20.31 | 20.46 | 20.30 | 20.23 | 20.18 | 20.17  |
| Annual Max Momentary Gage Height | 24.79 |       | m. (MSL.) , at 04.00 Hours , on Nov 23 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 18.72 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 28.85 |       | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 29.06 |       | m. (MSL.) , Drainage Area 258 Square Kilometers |       |       |       |       |       |       |       |       |       |        |

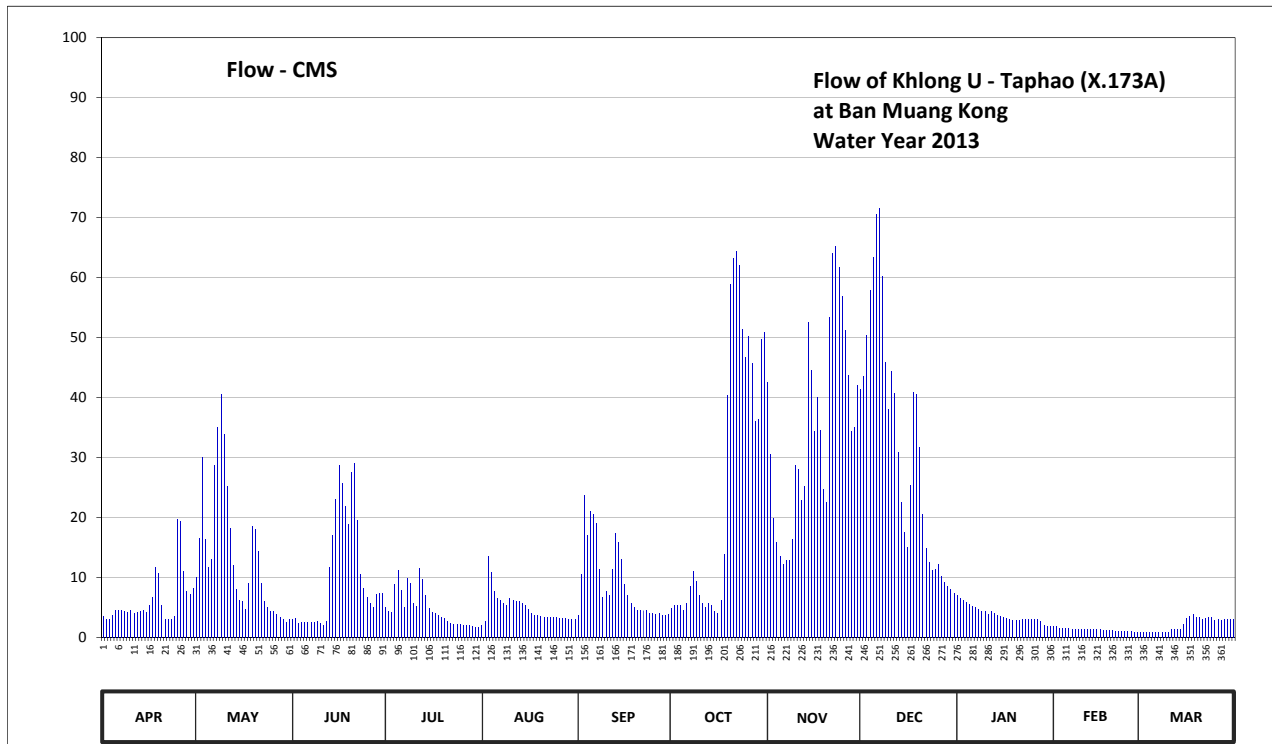




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                       | Jun    | Jul    | Aug                  | Sep   | Oct    | Nov      | Dec                      | Jan    | Feb    | Mar   | Annual  |        |
|----------------|--------|-----------------------------------------------------------|--------|--------|----------------------|-------|--------|----------|--------------------------|--------|--------|-------|---------|--------|
| 1              | 4.25   | 4.00                                                      | 3.50   | 3.50   | 3.25                 | 3.50  | 2.25   | 5.50     | 59.30                    | 8.38   | 4.50   | 2.50  |         |        |
| 2              | 4.00   | 4.50                                                      | 3.50   | 3.50   | 14.00                | 4.50  | 2.00   | 5.00     | 38.00                    | 8.38   | 4.25   | 2.50  |         |        |
| 3              | 4.00   | 9.20                                                      | 3.25   | 5.50   | 8.65                 | 2.75  | 2.50   | 5.00     | 32.40                    | 7.83   | 4.25   | 2.50  |         |        |
| 4              | 4.00   | 5.00                                                      | 3.25   | 17.75  | 5.00                 | 2.25  | 2.00   | 5.00     | 131.50                   | 7.83   | 4.25   | 2.50  |         |        |
| 5              | 3.75   | 5.25                                                      | 3.25   | 7.55   | 4.50                 | 3.75  | 4.25   | 5.25     | 119.50                   | 7.00   | 4.00   | 2.25  |         |        |
| 6              | 3.50   | 6.25                                                      | 3.00   | 5.25   | 4.50                 | 2.25  | 5.50   | 4.75     | 113.50                   | 7.00   | 4.00   | 2.50  |         |        |
| 7              | 3.00   | 8.65                                                      | 3.00   | 4.75   | 5.00                 | 2.00  | 4.75   | 4.75     | 55.00                    | 7.00   | 4.00   | 2.50  |         |        |
| 8              | 2.25   | 5.25                                                      | 3.00   | 4.50   | 4.00                 | 3.25  | 5.25   | 5.50     | 38.00                    | 7.00   | 4.00   | 2.25  |         |        |
| 9              | 1.90   | 7.55                                                      | 3.00   | 4.50   | 5.00                 | 2.75  | 8.10   | 5.75     | 29.60                    | 6.50   | 4.00   | 2.25  |         |        |
| 10             | 1.70   | 5.75                                                      | 7.00   | 4.25   | 4.25                 | 2.25  | 4.50   | 8.65     | 24.40                    | 15.50  | 4.00   | 2.25  |         |        |
| 11             | 1.70   | 6.00                                                      | 6.75   | 5.00   | 4.50                 | 2.25  | 3.75   | 8.10     | 31.60                    | 8.10   | 4.00   | 2.25  |         |        |
| 12             | 3.75   | 5.00                                                      | 7.83   | 4.00   | 4.00                 | 7.00  | 3.75   | 7.28     | 20.00                    | 7.28   | 3.75   | 2.00  |         |        |
| 13             | 20.80  | 5.25                                                      | 6.00   | 3.75   | 10.85                | 4.25  | 7.00   | 8.10     | 18.50                    | 7.55   | 3.75   | 2.00  |         |        |
| 14             | 14.37  | 6.00                                                      | 8.38   | 6.75   | 5.25                 | 3.50  | 5.75   | 6.25     | 17.75                    | 7.00   | 3.75   | 2.00  |         |        |
| 15             | 7.28   | 5.00                                                      | 9.47   | 4.25   | 4.50                 | 3.00  | 3.75   | 6.00     | 17.37                    | 8.92   | 3.75   | 2.00  |         |        |
| 16             | 5.50   | 4.75                                                      | 9.47   | 4.00   | 4.00                 | 2.75  | 3.25   | 5.50     | 16.62                    | 7.55   | 3.50   | 2.50  |         |        |
| 17             | 6.50   | 4.25                                                      | 11.95  | 5.00   | 3.75                 | 2.50  | 3.50   | 5.25     | 18.50                    | 6.50   | 3.50   | 2.75  |         |        |
| 18             | 4.50   | 4.50                                                      | 6.75   | 4.00   | 3.50                 | 2.00  | 4.75   | 5.50     | 55.00                    | 6.75   | 3.50   | 2.75  |         |        |
| 19             | 4.00   | 6.00                                                      | 5.75   | 3.75   | 3.25                 | 2.00  | 5.00   | 10.03    | 20.00                    | 6.50   | 3.50   | 2.50  |         |        |
| 20             | 2.00   | 4.25                                                      | 5.50   | 3.75   | 3.00                 | 2.00  | 4.75   | 35.60    | 15.88                    | 6.25   | 3.50   | 2.50  |         |        |
| 21             | 2.00   | 4.00                                                      | 6.00   | 3.50   | 3.00                 | 2.25  | 4.25   | 74.15    | 14.75                    | 5.50   | 3.25   | 2.00  |         |        |
| 22             | 6.00   | 4.00                                                      | 5.25   | 3.50   | 2.75                 | 2.25  | 5.00   | 217.15   | 12.88                    | 5.50   | 3.00   | 2.00  |         |        |
| 23             | 4.50   | 3.75                                                      | 4.75   | 3.25   | 2.75                 | 2.00  | 7.55   | 136.75   | 11.67                    | 5.25   | 3.00   | 2.00  |         |        |
| 24             | 4.25   | 3.75                                                      | 4.50   | 4.50   | 2.75                 | 1.90  | 7.28   | 55.00    | 11.12                    | 5.25   | 3.00   | 2.00  |         |        |
| 25             | 4.25   | 3.75                                                      | 4.25   | 4.25   | 2.50                 | 1.90  | 5.50   | 30.80    | 10.30                    | 5.00   | 2.75   | 1.90  |         |        |
| 26             | 5.00   | 4.00                                                      | 4.00   | 3.25   | 2.50                 | 1.80  | 6.75   | 22.40    | 9.47                     | 5.00   | 2.75   | 1.90  |         |        |
| 27             | 5.50   | 3.50                                                      | 3.75   | 2.75   | 2.25                 | 1.80  | 6.75   | 20.00    | 8.92                     | 5.00   | 2.75   | 1.90  |         |        |
| 28             | 4.75   | 3.50                                                      | 4.00   | 2.75   | 2.25                 | 1.70  | 7.00   | 20.40    | 10.58                    | 4.75   | 2.75   | 1.90  |         |        |
| 29             | 5.75   | 4.25                                                      | 3.75   | 2.75   | 2.00                 | 3.00  | 14.00  | 51.00    | 8.92                     | 4.50   |        | 1.90  |         |        |
| 30             | 4.75   | 3.75                                                      | 3.50   | 3.00   | 2.50                 | 5.00  | 8.10   | 133.75   | 8.92                     | 4.50   |        | 1.80  |         |        |
| 31             |        | 3.75                                                      |        | 2.50   | 2.25                 |       | 6.50   |          | 8.65                     | 4.50   |        | 1.80  |         |        |
| Total          | 149.50 | 154.40                                                    | 157.35 | 141.30 | 132.25               | 84.10 | 165.03 | 914.16   | 988.60                   | 209.57 | 101.00 | 68.35 | 3265.61 | CMSDAY |
| Mean           | 4.98   | 4.98                                                      | 5.25   | 4.56   | 4.27                 | 2.80  | 5.32   | 30.47    | 31.89                    | 6.76   | 3.61   | 2.20  | 8.95    | CMS    |
| Max            | 20.80  | 9.20                                                      | 11.95  | 17.75  | 14.00                | 7.00  | 14.00  | 217.15   | 131.50                   | 15.50  | 4.50   | 2.75  | 217.15  | CMS    |
| Min            | 1.70   | 3.50                                                      | 3.00   | 2.50   | 2.00                 | 1.70  | 2.00   | 4.75     | 8.65                     | 4.50   | 2.75   | 1.80  | 1.70    | CMS    |
| Runoff         | 12.92  | 13.34                                                     | 13.60  | 12.21  | 11.43                | 7.27  | 14.26  | 78.98    | 85.42                    | 18.11  | 8.73   | 5.91  | 282.15  | MCM    |
| Momentary Peak | 310.05 | CMS. at 24.79 m. (MSL.) at 04.00 Hours , on Nov 23 , 2013 |        |        |                      |       |        |          |                          |        |        |       |         |        |
| Runoff Yield   | 34.68  | Liters/Second/Square KM.                                  |        |        | Momentary Peak Yield |       |        | 1201.744 | Liters/Second/Square KM. |        |        |       |         |        |

| Date                             | Apr   | May   | Jun                                              | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb  | Mar  | Annual |
|----------------------------------|-------|-------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|
| 1                                | 9.87  | 10.56 | 9.80                                             | 10.05 | 9.67  | 9.91  | 10.04 | 12.92 | 12.85 | 10.26 | 9.65 | 9.53 |        |
| 2                                | 9.82  | 11.13 | 9.84                                             | 9.98  | 9.77  | 10.61 | 10.10 | 12.19 | 12.97 | 10.21 | 9.65 | 9.53 |        |
| 3                                | 9.82  | 12.16 | 9.71                                             | 9.96  | 10.89 | 11.71 | 10.10 | 11.40 | 13.35 | 10.17 | 9.62 | 9.53 |        |
| 4                                | 9.89  | 11.12 | 9.75                                             | 10.44 | 10.64 | 11.18 | 10.10 | 11.08 | 13.75 | 10.14 | 9.62 | 9.53 |        |
| 5                                | 10.00 | 10.72 | 9.75                                             | 10.68 | 10.33 | 11.50 | 10.00 | 10.89 | 14.04 | 10.11 | 9.62 | 9.53 |        |
| 6                                | 10.00 | 10.85 | 9.75                                             | 10.34 | 10.20 | 11.45 | 10.12 | 10.78 | 14.41 | 10.08 | 9.62 | 9.53 |        |
| 7                                | 10.00 | 12.07 | 9.75                                             | 10.06 | 10.18 | 11.34 | 10.40 | 10.83 | 14.46 | 10.05 | 9.59 | 9.53 |        |
| 8                                | 9.98  | 12.47 | 9.75                                             | 10.54 | 10.12 | 10.70 | 10.65 | 10.84 | 13.87 | 10.02 | 9.59 | 9.53 |        |
| 9                                | 9.97  | 12.80 | 9.76                                             | 10.45 | 10.10 | 10.23 | 10.49 | 11.12 | 13.10 | 9.99  | 9.59 | 9.53 |        |
| 10                               | 10.00 | 12.40 | 9.72                                             | 10.12 | 10.20 | 10.33 | 10.26 | 12.07 | 12.65 | 9.98  | 9.59 | 9.53 |        |
| 11                               | 9.95  | 11.82 | 9.67                                             | 10.07 | 10.17 | 10.25 | 10.12 | 12.02 | 13.02 | 9.92  | 9.59 | 9.60 |        |
| 12                               | 9.97  | 11.27 | 9.77                                             | 10.71 | 10.15 | 10.70 | 10.05 | 11.64 | 12.81 | 9.99  | 9.59 | 9.60 |        |
| 13                               | 9.98  | 10.76 | 10.72                                            | 10.52 | 10.15 | 11.20 | 10.12 | 11.82 | 12.21 | 9.94  | 9.59 | 9.60 |        |
| 14                               | 10.00 | 10.36 | 11.18                                            | 10.25 | 10.13 | 11.08 | 10.10 | 13.47 | 11.61 | 9.91  | 9.58 | 9.60 |        |
| 15                               | 9.97  | 10.17 | 11.65                                            | 10.04 | 10.10 | 10.85 | 9.98  | 13.03 | 11.21 | 9.88  | 9.58 | 9.70 |        |
| 16                               | 10.10 | 10.15 | 12.07                                            | 9.96  | 10.03 | 10.44 | 9.95  | 12.43 | 11.01 | 9.85  | 9.58 | 9.84 |        |
| 17                               | 10.22 | 10.02 | 11.85                                            | 9.95  | 9.95  | 10.25 | 10.17 | 12.77 | 11.83 | 9.84  | 9.57 | 9.88 |        |
| 18                               | 10.73 | 10.45 | 11.56                                            | 9.90  | 9.91  | 10.13 | 10.92 | 12.44 | 12.82 | 9.81  | 9.57 | 9.92 |        |
| 19                               | 10.63 | 11.30 | 11.32                                            | 9.86  | 9.90  | 10.05 | 12.79 | 11.78 | 12.80 | 9.79  | 9.57 | 9.85 |        |
| 20                               | 10.10 | 11.26 | 11.98                                            | 9.83  | 9.88  | 10.00 | 13.80 | 11.61 | 12.27 | 9.79  | 9.57 | 9.85 |        |
| 21                               | 9.82  | 10.96 | 12.09                                            | 9.76  | 9.86  | 10.00 | 14.03 | 13.51 | 11.46 | 9.79  | 9.55 | 9.82 |        |
| 22                               | 9.82  | 10.46 | 11.37                                            | 9.73  | 9.85  | 10.00 | 14.09 | 14.07 | 11.00 | 9.80  | 9.55 | 9.84 |        |
| 23                               | 9.81  | 10.15 | 10.61                                            | 9.70  | 9.85  | 10.00 | 13.97 | 14.13 | 10.81 | 9.81  | 9.55 | 9.85 |        |
| 24                               | 9.88  | 10.05 | 10.38                                            | 9.70  | 9.85  | 9.95  | 13.41 | 13.95 | 10.67 | 9.82  | 9.54 | 9.85 |        |
| 25                               | 11.39 | 9.99  | 10.23                                            | 9.69  | 9.85  | 9.95  | 13.15 | 13.70 | 10.70 | 9.81  | 9.54 | 9.78 |        |
| 26                               | 11.36 | 9.98  | 10.13                                            | 9.68  | 9.83  | 9.92  | 13.34 | 13.40 | 10.78 | 9.81  | 9.54 | 9.80 |        |
| 27                               | 10.65 | 9.92  | 10.06                                            | 9.67  | 9.83  | 9.95  | 13.09 | 12.98 | 10.58 | 9.82  | 9.53 | 9.78 |        |
| 28                               | 10.32 | 9.85  | 10.27                                            | 9.67  | 9.83  | 9.91  | 12.53 | 12.43 | 10.47 | 9.76  | 9.53 | 9.82 |        |
| 29                               | 10.27 | 9.80  | 10.30                                            | 9.65  | 9.82  | 9.90  | 12.55 | 12.47 | 10.41 | 9.67  |      | 9.82 |        |
| 30                               | 10.38 | 9.75  | 10.29                                            | 9.64  | 9.82  | 9.93  | 13.32 | 12.89 | 10.35 | 9.66  |      | 9.80 |        |
| 31                               |       | 9.80  |                                                  | 9.64  | 9.82  |       | 13.38 |       | 10.30 | 9.65  |      | 9.80 |        |
| Mean                             | 10.16 | 10.79 | 10.50                                            | 10.01 | 10.02 | 10.45 | 11.52 | 12.36 | 12.08 | 9.91  | 9.58 | 9.70 |        |
| Max                              | 11.39 | 12.80 | 12.09                                            | 10.71 | 10.89 | 11.71 | 14.09 | 14.13 | 14.46 | 10.26 | 9.65 | 9.92 | 14.46  |
| Min                              | 9.81  | 9.75  | 9.67                                             | 9.64  | 9.67  | 9.90  | 9.95  | 10.78 | 10.30 | 9.65  | 9.53 | 9.53 | 9.53   |
| Annual Max Momentary Gage Height | 14.55 |       | m. (MSL.) , at 06.00 Hours , on Dec 7 , 2013     |       |       |       |       |       |       |       |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 9.23 m. (MSL.)             |       |       |       |       |       |       |       |      |      |        |
| Left Bank Elevation              | 16.89 |       | m. (MSL.) ,                                      |       |       |       |       |       |       |       |      |      |        |
| Right Bank Elevation             | 16.93 |       | m. (MSL.) , Drainage Area 1063 Square Kilometers |       |       |       |       |       |       |       |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                            | May                      | Jun    | Jul    | Aug                  | Sep    | Oct    | Nov     | Dec                      | Jan    | Feb   | Mar   | Annual  |        |
|----------------|----------------------------------------------------------------|--------------------------|--------|--------|----------------------|--------|--------|---------|--------------------------|--------|-------|-------|---------|--------|
| 1              | 3.52                                                           | 10.10                    | 3.00   | 5.00   | 2.03                 | 3.82   | 4.90   | 42.60   | 41.38                    | 7.10   | 1.87  | 0.98  |         |        |
| 2              | 3.15                                                           | 16.52                    | 3.30   | 4.35   | 2.78                 | 10.60  | 5.50   | 30.55   | 43.48                    | 6.60   | 1.87  | 0.98  |         |        |
| 3              | 3.15                                                           | 30.12                    | 2.33   | 4.20   | 13.58                | 23.83  | 5.50   | 19.90   | 50.30                    | 6.20   | 1.65  | 0.98  |         |        |
| 4              | 3.68                                                           | 16.40                    | 2.63   | 8.90   | 10.90                | 17.15  | 5.50   | 15.90   | 57.85                    | 5.90   | 1.65  | 0.98  |         |        |
| 5              | 4.50                                                           | 11.70                    | 2.63   | 11.30  | 7.80                 | 21.15  | 4.50   | 13.58   | 63.38                    | 5.60   | 1.65  | 0.98  |         |        |
| 6              | 4.50                                                           | 13.10                    | 2.63   | 7.90   | 6.50                 | 20.52  | 5.70   | 12.30   | 70.59                    | 5.30   | 1.65  | 0.98  |         |        |
| 7              | 4.50                                                           | 28.81                    | 2.63   | 5.10   | 6.30                 | 19.15  | 8.50   | 12.86   | 71.57                    | 5.00   | 1.43  | 0.98  |         |        |
| 8              | 4.35                                                           | 35.06                    | 2.63   | 9.90   | 5.70                 | 11.50  | 11.00  | 12.98   | 60.13                    | 4.70   | 1.43  | 0.98  |         |        |
| 9              | 4.28                                                           | 40.50                    | 2.70   | 9.00   | 5.50                 | 6.80   | 9.40   | 16.40   | 45.80                    | 4.42   | 1.43  | 0.98  |         |        |
| 10             | 4.50                                                           | 33.90                    | 2.40   | 5.70   | 6.50                 | 7.80   | 7.10   | 28.81   | 38.02                    | 4.35   | 1.43  | 0.98  |         |        |
| 11             | 4.12                                                           | 25.28                    | 2.03   | 5.20   | 6.20                 | 7.00   | 5.70   | 28.09   | 44.36                    | 3.90   | 1.43  | 1.50  |         |        |
| 12             | 4.28                                                           | 18.28                    | 2.78   | 11.60  | 6.00                 | 11.50  | 5.00   | 22.92   | 40.68                    | 4.42   | 1.43  | 1.50  |         |        |
| 13             | 4.35                                                           | 12.10                    | 11.70  | 9.70   | 6.00                 | 17.40  | 5.70   | 25.28   | 30.86                    | 4.05   | 1.43  | 1.50  |         |        |
| 14             | 4.50                                                           | 8.10                     | 17.15  | 7.00   | 5.80                 | 15.90  | 5.50   | 52.53   | 22.53                    | 3.82   | 1.35  | 1.50  |         |        |
| 15             | 4.28                                                           | 6.20                     | 23.05  | 4.90   | 5.50                 | 13.10  | 4.35   | 44.54   | 17.52                    | 3.60   | 1.35  | 2.25  |         |        |
| 16             | 5.50                                                           | 6.00                     | 28.81  | 4.20   | 4.80                 | 8.90   | 4.12   | 34.40   | 15.03                    | 3.38   | 1.35  | 3.30  |         |        |
| 17             | 6.70                                                           | 4.70                     | 25.70  | 4.12   | 4.12                 | 7.00   | 6.20   | 40.01   | 25.42                    | 3.30   | 1.27  | 3.60  |         |        |
| 18             | 11.80                                                          | 9.00                     | 21.90  | 3.75   | 3.82                 | 5.80   | 13.94  | 34.56   | 40.85                    | 3.08   | 1.27  | 3.90  |         |        |
| 19             | 10.80                                                          | 18.65                    | 18.90  | 3.45   | 3.75                 | 5.00   | 40.33  | 24.74   | 40.50                    | 2.93   | 1.27  | 3.38  |         |        |
| 20             | 5.50                                                           | 18.15                    | 27.52  | 3.23   | 3.60                 | 4.50   | 58.80  | 22.53   | 31.82                    | 2.93   | 1.27  | 3.38  |         |        |
| 21             | 3.15                                                           | 14.42                    | 29.11  | 2.70   | 3.45                 | 4.50   | 63.18  | 53.29   | 20.65                    | 2.93   | 1.13  | 3.15  |         |        |
| 22             | 3.15                                                           | 9.10                     | 19.52  | 2.47   | 3.38                 | 4.50   | 64.36  | 63.96   | 14.90                    | 3.00   | 1.13  | 3.30  |         |        |
| 23             | 3.08                                                           | 6.00                     | 10.60  | 2.25   | 3.38                 | 4.50   | 62.03  | 65.13   | 12.62                    | 3.08   | 1.13  | 3.38  |         |        |
| 24             | 3.60                                                           | 5.00                     | 8.30   | 2.25   | 3.38                 | 4.12   | 51.39  | 61.65   | 11.20                    | 3.15   | 1.05  | 3.38  |         |        |
| 25             | 19.78                                                          | 4.42                     | 6.80   | 2.17   | 3.38                 | 4.12   | 46.70  | 56.90   | 11.50                    | 3.08   | 1.05  | 2.85  |         |        |
| 26             | 19.40                                                          | 4.35                     | 5.80   | 2.10   | 3.23                 | 3.90   | 50.12  | 51.20   | 12.30                    | 3.08   | 1.05  | 3.00  |         |        |
| 27             | 11.00                                                          | 3.90                     | 5.10   | 2.03   | 3.23                 | 4.12   | 45.62  | 43.65   | 10.30                    | 3.15   | 0.98  | 2.85  |         |        |
| 28             | 7.70                                                           | 3.38                     | 7.20   | 2.03   | 3.23                 | 3.82   | 36.04  | 34.40   | 9.20                     | 2.70   | 0.98  | 3.15  |         |        |
| 29             | 7.20                                                           | 3.00                     | 7.50   | 1.87   | 3.15                 | 3.75   | 36.38  | 35.06   | 8.60                     | 2.03   |       | 3.15  |         |        |
| 30             | 8.30                                                           | 2.63                     | 7.40   | 1.80   | 3.15                 | 3.98   | 49.76  | 42.08   | 8.00                     | 1.95   |       | 3.00  |         |        |
| 31             |                                                                | 3.00                     |        | 1.80   | 3.15                 |        | 50.84  |         | 7.50                     | 1.87   |       | 3.00  |         |        |
| Total          | 188.32                                                         | 421.87                   | 313.75 | 151.97 | 153.29               | 279.73 | 773.66 | 1042.80 | 978.84                   | 120.60 | 37.98 | 69.82 | 4532.63 | CMSDAY |
| Mean           | 6.28                                                           | 13.61                    | 10.46  | 4.90   | 4.94                 | 9.32   | 24.96  | 34.76   | 31.58                    | 3.89   | 1.36  | 2.25  | 12.42   | CMS    |
| Max            | 19.78                                                          | 40.50                    | 29.11  | 11.60  | 13.58                | 23.83  | 64.36  | 65.13   | 71.57                    | 7.10   | 1.87  | 3.90  | 71.57   | CMS    |
| Min            | 3.08                                                           | 2.63                     | 2.03   | 1.80   | 2.03                 | 3.75   | 4.12   | 12.30   | 7.50                     | 1.87   | 0.98  | 0.98  | 0.98    | CMS    |
| Runoff         | 16.27                                                          | 36.45                    | 27.11  | 13.13  | 13.24                | 24.17  | 66.84  | 90.10   | 84.57                    | 10.42  | 3.28  | 6.03  | 391.62  | MCM    |
| Momentary Peak | 73.32 CMS. at 14.55 m. (MSL.) at 06.00 Hours , on Dec 7 , 2013 |                          |        |        |                      |        |        |         |                          |        |       |       |         |        |
| Runoff Yield   | 11.67                                                          | Liters/Second/Square KM. |        |        | Momentary Peak Yield |        |        | 68.916  | Liters/Second/Square KM. |        |       |       |         |        |

## WATER YEAR : 2013

## THALE SAP SONGKHLA

**Khlong Wa at Ban Khlong Wa , Songkhla (X.174**

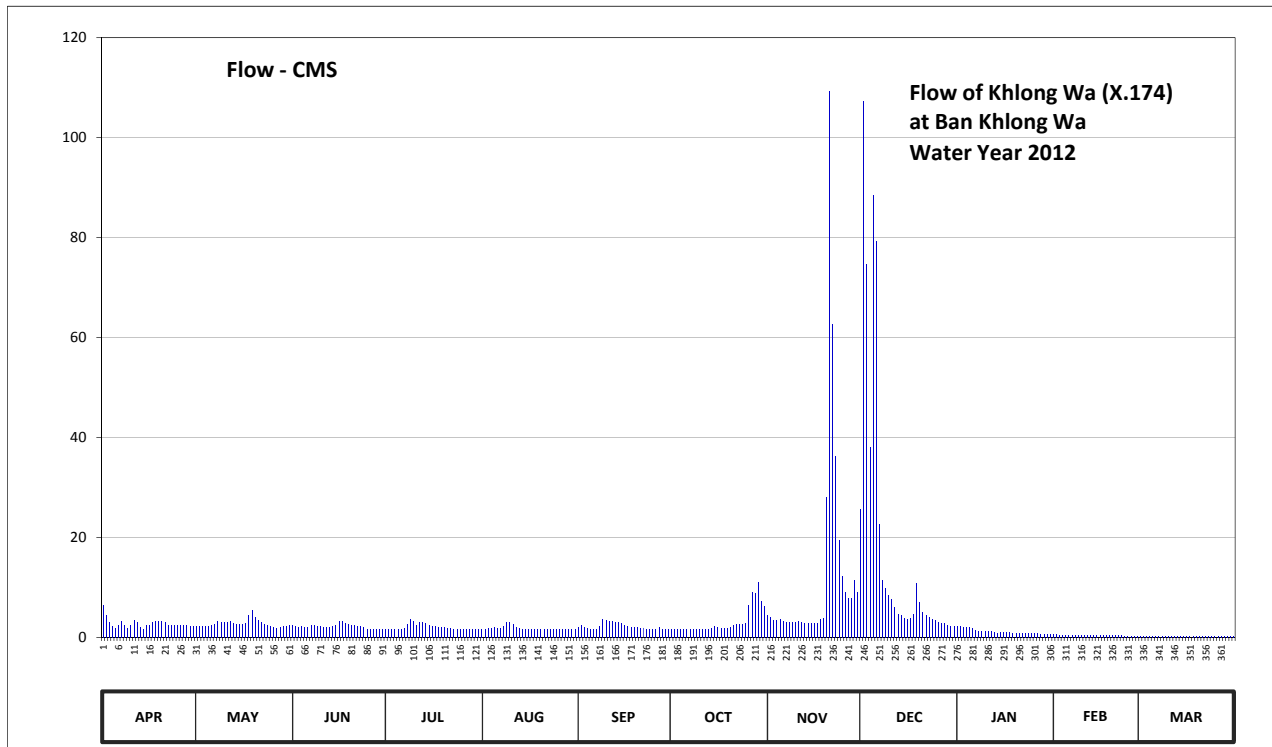
Lat 06 - 59 - 42 N    Long 100 - 29 - 05 E

**Location : on right bank at the bridge**

|                                         |                                                                                           |           |               |         |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|---------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Khlong Wa | <b>Amphoe</b> | Hat Yai | <b>Changwat</b>  | Songkhla          |
| <b>Drainage Area</b>                    | 116                                                                                       | sq.km.    |               |         |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |         |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |         |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |         |                  |                   |
| <b>Location BM</b>                      | On right bank at the abutment of the bridge.                                              |           |               |         | <b>Elevation</b> | +10.954 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |         |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |         |                  |                   |
| <b>Period of Available Gage Records</b> | 1989 to date                                                                              |           |               |         |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |         |                  |                   |
| <b>Period of Rating</b>                 | 1989 to date                                                                              |           |               |         |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |         |                  |                   |
| <b>Rated by Current Meter</b>           | 1989 to date                                                                              |           |               |         |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |         |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |         |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 21 discharge measurements made in 1913. |           |               |         |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             |    | Apr  | May   | Jun                                             | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|----|------|-------|-------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
|                                  | 1  | 4.93 | 4.58  | 4.61                                            | 4.49 | 4.48 | 4.54 | 4.49 | 4.79 | 5.56 | 4.56 | 4.35 | 4.25 |        |
|                                  | 2  | 4.79 | 4.56  | 4.58                                            | 4.50 | 4.50 | 4.59 | 4.49 | 4.75 | 6.59 | 4.56 | 4.34 | 4.25 |        |
|                                  | 3  | 4.66 | 4.57  | 4.55                                            | 4.50 | 4.52 | 4.55 | 4.49 | 4.70 | 6.25 | 4.55 | 4.31 | 4.25 |        |
|                                  | 4  | 4.56 | 4.58  | 4.56                                            | 4.50 | 4.53 | 4.53 | 4.49 | 4.70 | 5.78 | 4.55 | 4.30 | 4.25 |        |
|                                  | 5  | 4.52 | 4.57  | 4.54                                            | 4.50 | 4.54 | 4.50 | 4.50 | 4.71 | 6.40 | 4.54 | 4.30 | 4.25 |        |
|                                  | 6  | 4.59 | 4.61  | 4.55                                            | 4.50 | 4.53 | 4.50 | 4.50 | 4.67 | 6.30 | 4.51 | 4.29 | 4.26 |        |
|                                  | 7  | 4.67 | 4.62  | 4.59                                            | 4.51 | 4.53 | 4.49 | 4.50 | 4.66 | 5.50 | 4.46 | 4.29 | 4.26 |        |
|                                  | 8  | 4.60 | 4.67  | 4.59                                            | 4.62 | 4.57 | 4.56 | 4.50 | 4.66 | 5.19 | 4.45 | 4.29 | 4.26 |        |
|                                  | 9  | 4.51 | 4.65  | 4.58                                            | 4.71 | 4.66 | 4.71 | 4.50 | 4.66 | 5.11 | 4.45 | 4.28 | 4.27 |        |
|                                  | 10 | 4.60 | 4.65  | 4.57                                            | 4.69 | 4.65 | 4.70 | 4.50 | 4.66 | 5.05 | 4.44 | 4.28 | 4.27 |        |
|                                  | 11 | 4.70 | 4.65  | 4.54                                            | 4.61 | 4.62 | 4.69 | 4.50 | 4.68 | 5.01 | 4.43 | 4.28 | 4.27 |        |
|                                  | 12 | 4.65 | 4.67  | 4.55                                            | 4.65 | 4.54 | 4.67 | 4.50 | 4.66 | 4.90 | 4.43 | 4.28 | 4.27 |        |
|                                  | 13 | 4.54 | 4.64  | 4.55                                            | 4.65 | 4.51 | 4.66 | 4.50 | 4.64 | 4.81 | 4.41 | 4.29 | 4.27 |        |
|                                  | 14 | 4.50 | 4.62  | 4.58                                            | 4.64 | 4.50 | 4.65 | 4.52 | 4.64 | 4.79 | 4.40 | 4.29 | 4.27 |        |
|                                  | 15 | 4.59 | 4.62  | 4.61                                            | 4.60 | 4.50 | 4.63 | 4.57 | 4.63 | 4.74 | 4.42 | 4.29 | 4.27 |        |
|                                  | 16 | 4.61 | 4.62  | 4.68                                            | 4.58 | 4.50 | 4.60 | 4.54 | 4.63 | 4.72 | 4.41 | 4.29 | 4.27 |        |
|                                  | 17 | 4.65 | 4.63  | 4.68                                            | 4.57 | 4.50 | 4.58 | 4.52 | 4.64 | 4.73 | 4.41 | 4.29 | 4.27 |        |
|                                  | 18 | 4.67 | 4.79  | 4.64                                            | 4.54 | 4.50 | 4.54 | 4.52 | 4.71 | 4.81 | 4.41 | 4.29 | 4.27 |        |
|                                  | 19 | 4.67 | 4.86  | 4.62                                            | 4.54 | 4.50 | 4.54 | 4.52 | 4.73 | 5.16 | 4.40 | 4.29 | 4.27 |        |
|                                  | 20 | 4.67 | 4.75  | 4.61                                            | 4.54 | 4.49 | 4.54 | 4.55 | 5.61 | 4.97 | 4.40 | 4.29 | 4.27 |        |
|                                  | 21 | 4.65 | 4.70  | 4.59                                            | 4.53 | 4.49 | 4.52 | 4.60 | 6.61 | 4.84 | 4.39 | 4.29 | 4.27 |        |
|                                  | 22 | 4.60 | 4.65  | 4.58                                            | 4.51 | 4.49 | 4.52 | 4.62 | 6.11 | 4.79 | 4.38 | 4.28 | 4.27 |        |
|                                  | 23 | 4.60 | 4.62  | 4.56                                            | 4.50 | 4.49 | 4.50 | 4.62 | 5.75 | 4.75 | 4.38 | 4.28 | 4.27 |        |
|                                  | 24 | 4.60 | 4.61  | 4.54                                            | 4.50 | 4.49 | 4.49 | 4.62 | 5.43 | 4.72 | 4.37 | 4.27 | 4.26 |        |
|                                  | 25 | 4.60 | 4.58  | 4.50                                            | 4.50 | 4.48 | 4.48 | 4.63 | 5.22 | 4.70 | 4.37 | 4.26 | 4.26 |        |
|                                  | 26 | 4.61 | 4.54  | 4.50                                            | 4.50 | 4.48 | 4.49 | 4.94 | 5.08 | 4.66 | 4.36 | 4.26 | 4.26 |        |
|                                  | 27 | 4.60 | 4.51  | 4.50                                            | 4.50 | 4.48 | 4.55 | 5.08 | 5.02 | 4.63 | 4.36 | 4.25 | 4.26 |        |
|                                  | 28 | 4.59 | 4.55  | 4.50                                            | 4.49 | 4.48 | 4.50 | 5.07 | 5.02 | 4.63 | 4.35 | 4.25 | 4.25 |        |
|                                  | 29 | 4.58 | 4.57  | 4.49                                            | 4.49 | 4.48 | 4.50 | 5.17 | 5.19 | 4.61 | 4.35 |      | 4.25 |        |
|                                  | 30 | 4.58 | 4.58  | 4.49                                            | 4.48 | 4.48 | 4.50 | 4.99 | 5.08 | 4.58 | 4.35 |      | 4.25 |        |
|                                  | 31 |      | 4.61  |                                                 | 4.48 | 4.48 |      | 4.92 |      | 4.56 | 4.35 |      | 4.26 |        |
| Mean                             |    | 4.62 | 4.63  | 4.57                                            | 4.55 | 4.52 | 4.56 | 4.63 | 4.97 | 5.09 | 4.43 | 4.29 | 4.26 |        |
| Max                              |    | 4.93 | 4.86  | 4.68                                            | 4.71 | 4.66 | 4.71 | 5.17 | 6.61 | 6.59 | 4.56 | 4.35 | 4.27 | 6.61   |
| Min                              |    | 4.5  | 4.51  | 4.49                                            | 4.48 | 4.48 | 4.48 | 4.49 | 4.63 | 4.56 | 4.35 | 4.25 | 4.25 | 4.25   |
| Annual Max Momentary Gage Height |    |      | 6.99  | m. (MSL.) , at 23.00 Hours , on Nov 20 , 2013   |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    |    |      | 0.00  | m. (MSL.) , River Bed 3.81 m. (MSL.)            |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              |    |      | 11.40 | m. (MSL.) ,                                     |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             |    |      | 11.32 | m. (MSL.) , Drainage Area 116 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                      | May                      | Jun   | Jul   | Aug                  | Sep   | Oct   | Nov      | Dec                      | Jan   | Feb   | Mar  | Annual  |        |
|----------------|----------------------------------------------------------|--------------------------|-------|-------|----------------------|-------|-------|----------|--------------------------|-------|-------|------|---------|--------|
| 1              | 6.45                                                     | 2.35                     | 2.60  | 1.67  | 1.60                 | 2.05  | 1.67  | 4.40     | 25.60                    | 2.20  | 0.75  | 0.25 |         |        |
| 2              | 4.40                                                     | 2.20                     | 2.35  | 1.75  | 1.75                 | 2.43  | 1.67  | 4.00     | 107.22                   | 2.20  | 0.70  | 0.25 |         |        |
| 3              | 3.10                                                     | 2.28                     | 2.13  | 1.75  | 1.90                 | 2.13  | 1.67  | 3.50     | 74.63                    | 2.13  | 0.55  | 0.25 |         |        |
| 4              | 2.20                                                     | 2.35                     | 2.20  | 1.75  | 1.98                 | 1.98  | 1.67  | 3.50     | 38.03                    | 2.13  | 0.50  | 0.25 |         |        |
| 5              | 1.90                                                     | 2.28                     | 2.05  | 1.75  | 2.05                 | 1.75  | 1.75  | 3.60     | 88.50                    | 2.05  | 0.50  | 0.25 |         |        |
| 6              | 2.43                                                     | 2.60                     | 2.13  | 1.75  | 1.98                 | 1.75  | 1.75  | 3.20     | 79.25                    | 1.83  | 0.45  | 0.30 |         |        |
| 7              | 3.20                                                     | 2.70                     | 2.43  | 1.83  | 1.98                 | 1.67  | 1.75  | 3.10     | 22.75                    | 1.45  | 0.45  | 0.30 |         |        |
| 8              | 2.50                                                     | 3.20                     | 2.43  | 2.70  | 2.28                 | 2.20  | 1.75  | 3.10     | 11.49                    | 1.37  | 0.45  | 0.30 |         |        |
| 9              | 1.83                                                     | 3.00                     | 2.35  | 3.60  | 3.10                 | 3.60  | 1.75  | 3.10     | 9.81                     | 1.37  | 0.40  | 0.35 |         |        |
| 10             | 2.50                                                     | 3.00                     | 2.28  | 3.40  | 3.00                 | 3.50  | 1.75  | 3.10     | 8.55                     | 1.30  | 0.40  | 0.35 |         |        |
| 11             | 3.50                                                     | 3.00                     | 2.05  | 2.60  | 2.70                 | 3.40  | 1.75  | 3.30     | 7.71                     | 1.22  | 0.40  | 0.35 |         |        |
| 12             | 3.00                                                     | 3.20                     | 2.13  | 3.00  | 2.05                 | 3.20  | 1.75  | 3.10     | 6.00                     | 1.22  | 0.40  | 0.35 |         |        |
| 13             | 2.05                                                     | 2.90                     | 2.13  | 3.00  | 1.83                 | 3.10  | 1.75  | 2.90     | 4.65                     | 1.07  | 0.45  | 0.35 |         |        |
| 14             | 1.75                                                     | 2.70                     | 2.35  | 2.90  | 1.75                 | 3.00  | 1.90  | 2.90     | 4.40                     | 1.00  | 0.45  | 0.35 |         |        |
| 15             | 2.43                                                     | 2.70                     | 2.60  | 2.50  | 1.75                 | 2.80  | 2.28  | 2.80     | 3.90                     | 1.15  | 0.45  | 0.35 |         |        |
| 16             | 2.60                                                     | 2.70                     | 3.30  | 2.35  | 1.75                 | 2.50  | 2.05  | 2.80     | 3.70                     | 1.07  | 0.45  | 0.35 |         |        |
| 17             | 3.00                                                     | 2.80                     | 3.30  | 2.28  | 1.75                 | 2.35  | 1.90  | 2.90     | 3.80                     | 1.07  | 0.45  | 0.35 |         |        |
| 18             | 3.20                                                     | 4.40                     | 2.90  | 2.05  | 1.75                 | 2.05  | 1.90  | 3.60     | 4.65                     | 1.07  | 0.45  | 0.35 |         |        |
| 19             | 3.20                                                     | 5.40                     | 2.70  | 2.05  | 1.75                 | 2.05  | 1.90  | 3.80     | 10.86                    | 1.00  | 0.45  | 0.35 |         |        |
| 20             | 3.20                                                     | 4.00                     | 2.60  | 2.05  | 1.67                 | 2.05  | 2.13  | 28.09    | 7.05                     | 1.00  | 0.45  | 0.35 |         |        |
| 21             | 3.00                                                     | 3.50                     | 2.43  | 1.98  | 1.67                 | 1.90  | 2.50  | 109.26   | 5.10                     | 0.95  | 0.45  | 0.35 |         |        |
| 22             | 2.50                                                     | 3.00                     | 2.35  | 1.83  | 1.67                 | 1.90  | 2.70  | 62.58    | 4.40                     | 0.90  | 0.40  | 0.35 |         |        |
| 23             | 2.50                                                     | 2.70                     | 2.20  | 1.75  | 1.67                 | 1.75  | 2.70  | 36.27    | 4.00                     | 0.90  | 0.40  | 0.35 |         |        |
| 24             | 2.50                                                     | 2.60                     | 2.05  | 1.75  | 1.67                 | 1.67  | 2.70  | 19.42    | 3.70                     | 0.85  | 0.35  | 0.30 |         |        |
| 25             | 2.50                                                     | 2.35                     | 1.75  | 1.75  | 1.60                 | 1.60  | 2.80  | 12.33    | 3.50                     | 0.85  | 0.30  | 0.30 |         |        |
| 26             | 2.60                                                     | 2.05                     | 1.75  | 1.75  | 1.60                 | 1.67  | 6.60  | 9.18     | 3.10                     | 0.80  | 0.30  | 0.30 |         |        |
| 27             | 2.50                                                     | 1.83                     | 1.75  | 1.75  | 1.60                 | 2.13  | 9.18  | 7.92     | 2.80                     | 0.80  | 0.25  | 0.30 |         |        |
| 28             | 2.43                                                     | 2.13                     | 1.75  | 1.67  | 1.60                 | 1.75  | 8.97  | 7.92     | 2.80                     | 0.75  | 0.25  | 0.25 |         |        |
| 29             | 2.35                                                     | 2.28                     | 1.67  | 1.67  | 1.60                 | 1.75  | 11.07 | 11.49    | 2.60                     | 0.75  |       | 0.25 |         |        |
| 30             | 2.35                                                     | 2.35                     | 1.67  | 1.60  | 1.60                 | 1.75  | 7.35  | 9.18     | 2.35                     | 0.75  |       | 0.25 |         |        |
| 31             |                                                          | 2.60                     |       | 1.60  | 1.60                 |       | 6.30  |          | 2.20                     | 0.75  |       | 0.30 |         |        |
| Total          | 83.67                                                    | 87.15                    | 68.38 | 65.83 | 58.25                | 67.43 | 99.36 | 376.34   | 559.10                   | 37.95 | 12.25 | 9.65 | 1525.36 | CMSDAY |
| Mean           | 2.79                                                     | 2.81                     | 2.28  | 2.12  | 1.88                 | 2.25  | 3.21  | 12.54    | 18.04                    | 1.22  | 0.44  | 0.31 | 4.18    | CMS    |
| Max            | 6.45                                                     | 5.40                     | 3.30  | 3.60  | 3.10                 | 3.60  | 11.07 | 109.26   | 107.22                   | 2.20  | 0.75  | 0.35 | 109.26  | CMS    |
| Min            | 1.75                                                     | 1.83                     | 1.67  | 1.60  | 1.60                 | 1.60  | 1.67  | 2.80     | 2.20                     | 0.75  | 0.25  | 0.25 | 0.25    | CMS    |
| Runoff         | 7.23                                                     | 7.53                     | 5.91  | 5.69  | 5.03                 | 5.83  | 8.59  | 32.52    | 48.31                    | 3.28  | 1.06  | 0.83 | 131.79  | MCM    |
| Momentary Peak | CMS. at 6.99 m. (MSL.) at 23.00 Hours , on Nov 20 , 2013 |                          |       |       |                      |       |       |          |                          |       |       |      |         |        |
| Runoff Yield   | 36.05                                                    | Liters/Second/Square KM. |       |       | Momentary Peak Yield |       |       | 1294.970 | Liters/Second/Square KM. |       |       |      |         |        |

**WATER YEAR : 2013**

## THALE SAP SONGKHLA

### Khlong Pa Bon at Ban Lo Han , Phatthalung (X.266)

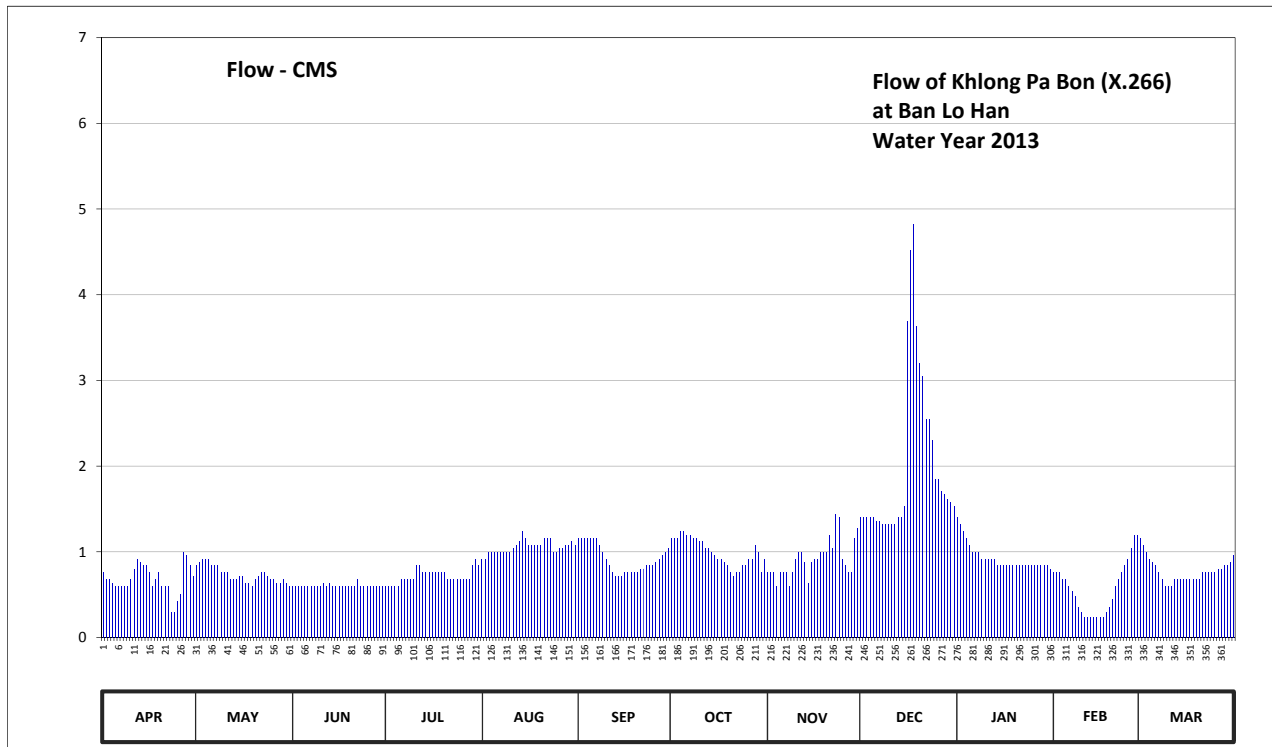
Lat 07 - 01 - 35 N    Long 100 - 05 - 51 E

**Location :** on left bank at Ban Lo Han.

|                                         |                                                                                           |           |               |        |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Lo Han    | <b>Amphoe</b> | Pa Bon | <b>Changwat</b>  | Phatthalung      |
| <b>Drainage Area</b>                    | 38                                                                                        | sq.km.    |               |        |                  |                  |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (A.D.) |               |        |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                  |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |           |               |        | <b>Elevation</b> | +7.165 m. (A.D.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 5 readings                                                            |           |               |        |                  |                  |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |           |               |        |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                  |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |           |               |        |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                  |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |           |               |        |                  |                  |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |        |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                  |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 23 discharge measurements made in 1913. |           |               |        |                  |                  |

**Gage Height in Meter (A.D.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                            | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 0.24 | 0.26 | 0.20                                           | 0.20 | 0.28 | 0.34 | 0.34 | 0.24 | 0.40 | 0.40 | 0.24 | 0.34 |        |
| 2                                | 0.22 | 0.27 | 0.20                                           | 0.20 | 0.28 | 0.34 | 0.34 | 0.24 | 0.40 | 0.38 | 0.24 | 0.32 |        |
| 3                                | 0.22 | 0.28 | 0.20                                           | 0.20 | 0.30 | 0.34 | 0.34 | 0.24 | 0.40 | 0.36 | 0.24 | 0.30 |        |
| 4                                | 0.21 | 0.28 | 0.20                                           | 0.20 | 0.30 | 0.34 | 0.36 | 0.20 | 0.40 | 0.34 | 0.22 | 0.28 |        |
| 5                                | 0.20 | 0.28 | 0.20                                           | 0.20 | 0.30 | 0.34 | 0.36 | 0.24 | 0.40 | 0.32 | 0.22 | 0.27 |        |
| 6                                | 0.20 | 0.26 | 0.20                                           | 0.22 | 0.30 | 0.34 | 0.35 | 0.24 | 0.39 | 0.30 | 0.20 | 0.26 |        |
| 7                                | 0.20 | 0.26 | 0.20                                           | 0.22 | 0.30 | 0.34 | 0.35 | 0.24 | 0.39 | 0.30 | 0.18 | 0.24 |        |
| 8                                | 0.20 | 0.26 | 0.20                                           | 0.22 | 0.30 | 0.32 | 0.34 | 0.20 | 0.38 | 0.30 | 0.16 | 0.22 |        |
| 9                                | 0.20 | 0.24 | 0.20                                           | 0.22 | 0.30 | 0.30 | 0.34 | 0.24 | 0.38 | 0.28 | 0.12 | 0.20 |        |
| 10                               | 0.22 | 0.24 | 0.20                                           | 0.22 | 0.30 | 0.28 | 0.33 | 0.28 | 0.38 | 0.28 | 0.10 | 0.20 |        |
| 11                               | 0.25 | 0.24 | 0.21                                           | 0.26 | 0.31 | 0.26 | 0.33 | 0.30 | 0.38 | 0.28 | 0.08 | 0.20 |        |
| 12                               | 0.28 | 0.22 | 0.20                                           | 0.26 | 0.32 | 0.24 | 0.31 | 0.30 | 0.38 | 0.28 | 0.08 | 0.22 |        |
| 13                               | 0.27 | 0.22 | 0.21                                           | 0.24 | 0.33 | 0.23 | 0.31 | 0.27 | 0.40 | 0.28 | 0.08 | 0.22 |        |
| 14                               | 0.26 | 0.22 | 0.20                                           | 0.24 | 0.36 | 0.23 | 0.30 | 0.21 | 0.40 | 0.26 | 0.08 | 0.22 |        |
| 15                               | 0.26 | 0.23 | 0.20                                           | 0.24 | 0.34 | 0.23 | 0.29 | 0.27 | 0.43 | 0.26 | 0.08 | 0.22 |        |
| 16                               | 0.24 | 0.23 | 0.20                                           | 0.24 | 0.32 | 0.24 | 0.28 | 0.28 | 0.87 | 0.26 | 0.08 | 0.22 |        |
| 17                               | 0.20 | 0.21 | 0.20                                           | 0.24 | 0.32 | 0.24 | 0.28 | 0.28 | 1.02 | 0.26 | 0.08 | 0.22 |        |
| 18                               | 0.22 | 0.21 | 0.20                                           | 0.24 | 0.32 | 0.24 | 0.27 | 0.30 | 1.07 | 0.26 | 0.10 | 0.22 |        |
| 19                               | 0.24 | 0.20 | 0.20                                           | 0.24 | 0.32 | 0.24 | 0.26 | 0.30 | 0.86 | 0.26 | 0.12 | 0.22 |        |
| 20                               | 0.20 | 0.22 | 0.20                                           | 0.24 | 0.32 | 0.24 | 0.24 | 0.30 | 0.78 | 0.26 | 0.15 | 0.22 |        |
| 21                               | 0.20 | 0.23 | 0.20                                           | 0.22 | 0.34 | 0.25 | 0.23 | 0.35 | 0.75 | 0.26 | 0.20 | 0.24 |        |
| 22                               | 0.20 | 0.24 | 0.22                                           | 0.22 | 0.34 | 0.25 | 0.24 | 0.31 | 0.65 | 0.26 | 0.22 | 0.24 |        |
| 23                               | 0.10 | 0.24 | 0.20                                           | 0.22 | 0.34 | 0.26 | 0.24 | 0.41 | 0.65 | 0.26 | 0.24 | 0.24 |        |
| 24                               | 0.10 | 0.23 | 0.20                                           | 0.22 | 0.30 | 0.26 | 0.26 | 0.40 | 0.60 | 0.26 | 0.26 | 0.24 |        |
| 25                               | 0.14 | 0.22 | 0.20                                           | 0.22 | 0.30 | 0.26 | 0.26 | 0.28 | 0.50 | 0.26 | 0.28 | 0.24 |        |
| 26                               | 0.17 | 0.22 | 0.20                                           | 0.22 | 0.31 | 0.27 | 0.28 | 0.26 | 0.50 | 0.26 | 0.31 | 0.25 |        |
| 27                               | 0.30 | 0.21 | 0.20                                           | 0.22 | 0.31 | 0.28 | 0.28 | 0.24 | 0.47 | 0.26 | 0.35 | 0.25 |        |
| 28                               | 0.29 | 0.21 | 0.20                                           | 0.22 | 0.32 | 0.29 | 0.32 | 0.24 | 0.46 | 0.26 | 0.35 | 0.26 |        |
| 29                               | 0.26 | 0.22 | 0.20                                           | 0.26 | 0.32 | 0.30 | 0.30 | 0.34 | 0.45 | 0.26 |      | 0.26 |        |
| 30                               | 0.23 | 0.21 | 0.20                                           | 0.28 | 0.33 | 0.31 | 0.24 | 0.37 | 0.44 | 0.26 |      | 0.27 |        |
| 31                               |      | 0.20 |                                                | 0.26 | 0.32 |      | 0.28 |      | 0.43 | 0.25 |      | 0.29 |        |
| Mean                             | 0.22 | 0.23 | 0.20                                           | 0.23 | 0.31 | 0.28 | 0.30 | 0.28 | 0.53 | 0.28 | 0.18 | 0.24 |        |
| Max                              | 0.30 | 0.28 | 0.22                                           | 0.28 | 0.36 | 0.34 | 0.36 | 0.41 | 1.07 | 0.40 | 0.35 | 0.34 | 1.07   |
| Min                              | 0.10 | 0.20 | 0.20                                           | 0.20 | 0.28 | 0.23 | 0.23 | 0.20 | 0.38 | 0.25 | 0.08 | 0.20 | 0.08   |
| Annual Max Momentary Gage Height | 1.14 |      | m. (A.D.) , at 12.00 Hours , on Dec 18 , 2013  |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (A.D.) , River Bed -0.29 m. (A.D.)          |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 7.11 |      | m. (A.D.) ,                                    |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 7.10 |      | m. (A.D.) , Drainage Area 38 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                           | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|---------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 0.76                                                          | 0.84                     | 0.60  | 0.60                 | 0.92  | 1.16    | 1.16                     | 0.76  | 1.40  | 1.40  | 0.76  | 1.16  |               |
| 2              | 0.68                                                          | 0.88                     | 0.60  | 0.60                 | 0.92  | 1.16    | 1.16                     | 0.76  | 1.40  | 1.32  | 0.76  | 1.08  |               |
| 3              | 0.68                                                          | 0.92                     | 0.60  | 0.60                 | 1.00  | 1.16    | 1.16                     | 0.76  | 1.40  | 1.24  | 0.76  | 1.00  |               |
| 4              | 0.64                                                          | 0.92                     | 0.60  | 0.60                 | 1.00  | 1.16    | 1.24                     | 0.60  | 1.40  | 1.16  | 0.68  | 0.92  |               |
| 5              | 0.60                                                          | 0.92                     | 0.60  | 0.60                 | 1.00  | 1.16    | 1.24                     | 0.76  | 1.40  | 1.08  | 0.68  | 0.88  |               |
| 6              | 0.60                                                          | 0.84                     | 0.60  | 0.68                 | 1.00  | 1.16    | 1.20                     | 0.76  | 1.36  | 1.00  | 0.60  | 0.84  |               |
| 7              | 0.60                                                          | 0.84                     | 0.60  | 0.68                 | 1.00  | 1.16    | 1.20                     | 0.76  | 1.36  | 1.00  | 0.54  | 0.76  |               |
| 8              | 0.60                                                          | 0.84                     | 0.60  | 0.68                 | 1.00  | 1.08    | 1.16                     | 0.60  | 1.32  | 1.00  | 0.48  | 0.68  |               |
| 9              | 0.60                                                          | 0.76                     | 0.60  | 0.68                 | 1.00  | 1.00    | 1.16                     | 0.76  | 1.32  | 0.92  | 0.36  | 0.60  |               |
| 10             | 0.68                                                          | 0.76                     | 0.60  | 0.68                 | 1.00  | 0.92    | 1.12                     | 0.92  | 1.32  | 0.92  | 0.30  | 0.60  |               |
| 11             | 0.80                                                          | 0.76                     | 0.64  | 0.84                 | 1.04  | 0.84    | 1.12                     | 1.00  | 1.32  | 0.92  | 0.24  | 0.60  |               |
| 12             | 0.92                                                          | 0.68                     | 0.60  | 0.84                 | 1.08  | 0.76    | 1.04                     | 1.00  | 1.32  | 0.92  | 0.24  | 0.68  |               |
| 13             | 0.88                                                          | 0.68                     | 0.64  | 0.76                 | 1.12  | 0.72    | 1.04                     | 0.88  | 1.40  | 0.92  | 0.24  | 0.68  |               |
| 14             | 0.84                                                          | 0.68                     | 0.60  | 0.76                 | 1.24  | 0.72    | 1.00                     | 0.64  | 1.40  | 0.84  | 0.24  | 0.68  |               |
| 15             | 0.84                                                          | 0.72                     | 0.60  | 0.76                 | 1.16  | 0.72    | 0.96                     | 0.88  | 1.53  | 0.84  | 0.24  | 0.68  |               |
| 16             | 0.76                                                          | 0.72                     | 0.60  | 0.76                 | 1.08  | 0.76    | 0.92                     | 0.92  | 3.69  | 0.84  | 0.24  | 0.68  |               |
| 17             | 0.60                                                          | 0.64                     | 0.60  | 0.76                 | 1.08  | 0.76    | 0.92                     | 0.92  | 4.52  | 0.84  | 0.24  | 0.68  |               |
| 18             | 0.68                                                          | 0.64                     | 0.60  | 0.76                 | 1.08  | 0.76    | 0.88                     | 1.00  | 4.82  | 0.84  | 0.30  | 0.68  |               |
| 19             | 0.76                                                          | 0.60                     | 0.60  | 0.76                 | 1.08  | 0.76    | 0.84                     | 1.00  | 3.63  | 0.84  | 0.36  | 0.68  |               |
| 20             | 0.60                                                          | 0.68                     | 0.60  | 0.76                 | 1.08  | 0.76    | 0.76                     | 1.00  | 3.20  | 0.84  | 0.45  | 0.68  |               |
| 21             | 0.60                                                          | 0.72                     | 0.60  | 0.68                 | 1.16  | 0.80    | 0.72                     | 1.20  | 3.05  | 0.84  | 0.60  | 0.76  |               |
| 22             | 0.60                                                          | 0.76                     | 0.68  | 0.68                 | 1.16  | 0.80    | 0.76                     | 1.04  | 2.55  | 0.84  | 0.68  | 0.76  |               |
| 23             | 0.30                                                          | 0.76                     | 0.60  | 0.68                 | 1.16  | 0.84    | 0.76                     | 1.44  | 2.55  | 0.84  | 0.76  | 0.76  |               |
| 24             | 0.30                                                          | 0.72                     | 0.60  | 0.68                 | 1.00  | 0.84    | 0.84                     | 1.40  | 2.30  | 0.84  | 0.84  | 0.76  |               |
| 25             | 0.42                                                          | 0.68                     | 0.60  | 0.68                 | 1.00  | 0.84    | 0.84                     | 0.92  | 1.85  | 0.84  | 0.92  | 0.76  |               |
| 26             | 0.51                                                          | 0.68                     | 0.60  | 0.68                 | 1.04  | 0.88    | 0.92                     | 0.84  | 1.85  | 0.84  | 1.04  | 0.80  |               |
| 27             | 1.00                                                          | 0.64                     | 0.60  | 0.68                 | 1.04  | 0.92    | 0.92                     | 0.76  | 1.71  | 0.84  | 1.20  | 0.80  |               |
| 28             | 0.96                                                          | 0.64                     | 0.60  | 0.68                 | 1.08  | 0.96    | 1.08                     | 0.76  | 1.67  | 0.84  | 1.20  | 0.84  |               |
| 29             | 0.84                                                          | 0.68                     | 0.60  | 0.84                 | 1.08  | 1.00    | 1.00                     | 1.16  | 1.62  | 0.84  |       | 0.84  |               |
| 30             | 0.72                                                          | 0.64                     | 0.60  | 0.92                 | 1.12  | 1.04    | 0.76                     | 1.28  | 1.58  | 0.84  |       | 0.88  |               |
| 31             |                                                               | 0.60                     |       | 0.84                 | 1.08  |         | 0.92                     |       | 1.53  | 0.80  |       | 0.96  |               |
| Total          | 20.37                                                         | 22.84                    | 18.16 | 22.20                | 32.80 | 27.60   | 30.80                    | 27.48 | 62.77 | 28.88 | 15.95 | 24.16 | 334.01 CMSDAY |
| Mean           | 0.68                                                          | 0.74                     | 0.61  | 0.72                 | 1.06  | 0.92    | 0.99                     | 0.92  | 2.02  | 0.93  | 0.57  | 0.78  | 0.92 CMS      |
| Max            | 1.00                                                          | 0.92                     | 0.68  | 0.92                 | 1.24  | 1.16    | 1.24                     | 1.44  | 4.82  | 1.40  | 1.20  | 1.16  | 4.82 CMS      |
| Min            | 0.30                                                          | 0.60                     | 0.60  | 0.60                 | 0.92  | 0.72    | 0.72                     | 0.60  | 1.32  | 0.80  | 0.24  | 0.60  | 0.24 CMS      |
| Runoff         | 1.76                                                          | 1.97                     | 1.57  | 1.92                 | 2.83  | 2.39    | 2.66                     | 2.37  | 5.42  | 2.50  | 1.38  | 2.09  | 28.86 MCM     |
| Momentary Peak | 5.24 CMS. at 1.14 m. (A.D.) at 12.00 Hours , on Dec 18 , 2013 |                          |       |                      |       |         |                          |       |       |       |       |       |               |
| Runoff Yield   | 24.08                                                         | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 137.895 | Liters/Second/Square KM. |       |       |       |       |       |               |

**WATER YEAR : 2013****THALE SAP SONGKHLA****Khlong Tamot at Ban Mae Khree , Phatthalung (X.267)**

Lat 07 - 20 - 18 N Long 100 - 06 - 36 E

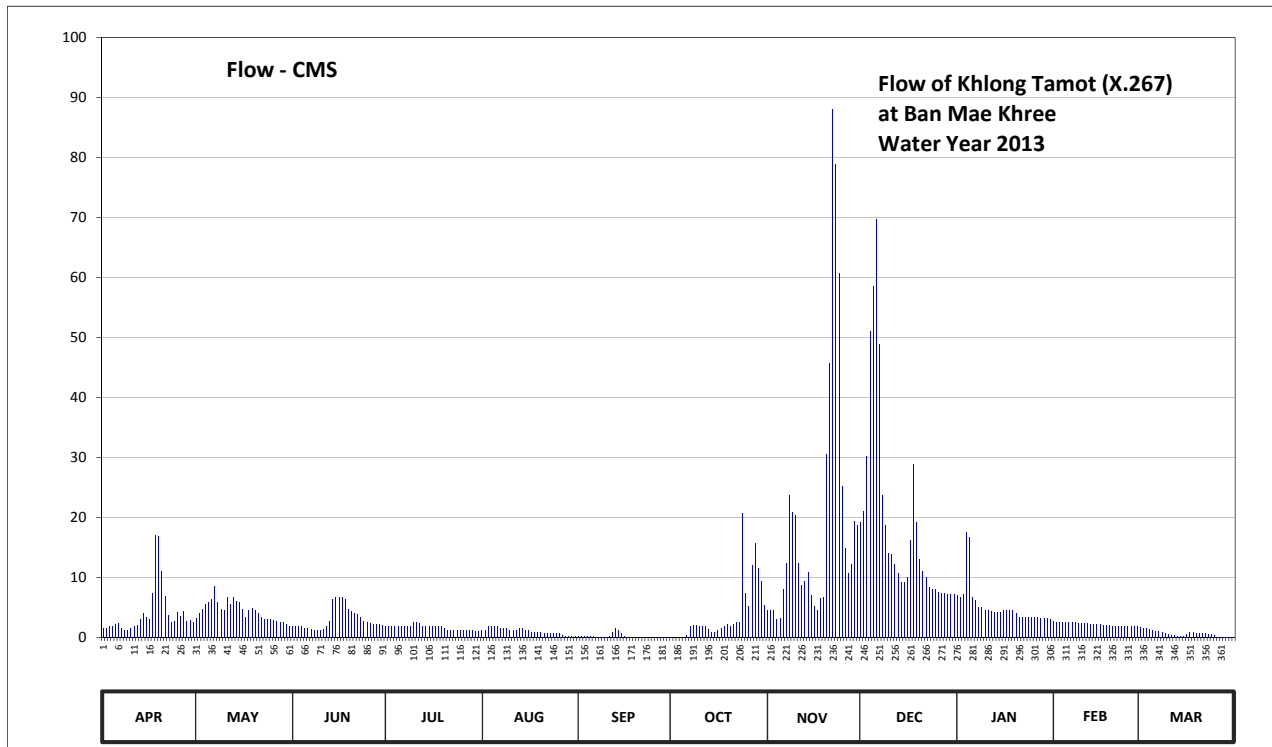
Location : on left bank at Ban Mae Khree.

|                                         |                                                                                           |                  |               |              |                  |                    |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------------|---------------|--------------|------------------|--------------------|
|                                         | <b>Ban</b>                                                                                | <b>Mae Khree</b> | <b>Amphoe</b> | <b>Tamot</b> | <b>Changwat</b>  | <b>Phatthalung</b> |
| <b>Drainage Area</b>                    | 295                                                                                       | sq.km.           |               |              |                  |                    |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage             |               |              |                  |                    |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)        |               |              |                  |                    |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |                  |               |              |                  |                    |
| <b>Location BM</b>                      | On left bank near the top staff gage.                                                     |                  |               |              | <b>Elevation</b> | +27.868 m. (MSL.)  |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |                  |               |              |                  |                    |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 5 readings                                                             |                  |               |              |                  |                    |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |                  |               |              |                  |                    |
| <b>Rating Operation</b>                 |                                                                                           |                  |               |              |                  |                    |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |                  |               |              |                  |                    |
| <b>Rated by Flot</b>                    | -                                                                                         |                  |               |              |                  |                    |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |                  |               |              |                  |                    |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |                  |               |              |                  |                    |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                  |               |              |                  |                    |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2013. |                  |               |              |                  |                    |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun         | Jul   | Aug   | Sep           | Oct                               | Nov               | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------|-------|-------|---------------|-----------------------------------|-------------------|-------|-------|-------|-------|--------|
| 1                                | 21.85 | 22.08 | 21.90       | 21.91 | 21.80 | 21.60         | 21.50                             | 22.20             | 23.20 | 22.42 | 22.03 | 21.88 |        |
| 2                                | 21.87 | 22.15 | 21.90       | 21.90 | 21.80 | 21.60         | 21.50                             | 22.20             | 23.30 | 22.40 | 22.01 | 21.86 |        |
| 3                                | 21.90 | 22.22 | 21.90       | 21.90 | 21.90 | 21.60         | 21.50                             | 22.20             | 23.76 | 22.44 | 22.00 | 21.85 |        |
| 4                                | 21.92 | 22.30 | 21.90       | 21.90 | 21.90 | 21.60         | 21.50                             | 22.05             | 24.55 | 23.11 | 22.00 | 21.83 |        |
| 5                                | 21.96 | 22.32 | 21.87       | 21.90 | 21.90 | 21.60         | 21.56                             | 22.08             | 24.78 | 23.06 | 22.00 | 21.81 |        |
| 6                                | 21.99 | 22.36 | 21.85       | 21.90 | 21.90 | 21.60         | 21.64                             | 22.50             | 25.09 | 22.40 | 22.00 | 21.78 |        |
| 7                                | 21.85 | 22.55 | 21.84       | 21.90 | 21.85 | 21.58         | 21.91                             | 22.81             | 24.48 | 22.35 | 22.00 | 21.76 |        |
| 8                                | 21.80 | 22.32 | 21.80       | 21.90 | 21.85 | 21.57         | 21.93                             | 23.44             | 23.44 | 22.25 | 22.00 | 21.73 |        |
| 9                                | 21.80 | 22.22 | 21.80       | 21.91 | 21.85 | 21.55         | 21.93                             | 23.29             | 23.17 | 22.25 | 21.99 | 21.70 |        |
| 10                               | 21.85 | 22.21 | 21.80       | 22.00 | 21.80 | 21.55         | 21.90                             | 23.26             | 22.91 | 22.20 | 21.99 | 21.67 |        |
| 11                               | 21.90 | 22.39 | 21.83       | 22.01 | 21.80 | 21.62         | 21.90                             | 22.81             | 22.90 | 22.20 | 21.98 | 21.65 |        |
| 12                               | 21.94 | 22.30 | 21.91       | 21.99 | 21.80 | 21.74         | 21.90                             | 22.56             | 22.80 | 22.19 | 21.98 | 21.64 |        |
| 13                               | 22.05 | 22.39 | 22.03       | 21.92 | 21.85 | 21.87         | 21.83                             | 22.61             | 22.70 | 22.18 | 21.97 | 21.61 |        |
| 14                               | 22.16 | 22.34 | 22.36       | 21.90 | 21.86 | 21.80         | 21.75                             | 22.71             | 22.60 | 22.18 | 21.97 | 21.60 |        |
| 15                               | 22.09 | 22.32 | 22.39       | 21.90 | 21.81 | 21.72         | 21.73                             | 22.42             | 22.60 | 22.18 | 21.96 | 21.60 |        |
| 16                               | 22.06 | 22.22 | 22.40       | 21.90 | 21.80 | 21.62         | 21.80                             | 22.27             | 22.66 | 22.20 | 21.95 | 21.68 |        |
| 17                               | 22.45 | 22.10 | 22.40       | 21.90 | 21.75 | 21.55         | 21.85                             | 22.20             | 23.03 | 22.20 | 21.94 | 21.73 |        |
| 18                               | 23.08 | 22.20 | 22.37       | 21.90 | 21.75 | 21.55         | 21.90                             | 22.38             | 23.70 | 22.20 | 21.93 | 21.75 |        |
| 19                               | 23.07 | 22.23 | 22.22       | 21.90 | 21.75 | 21.50         | 21.96                             | 22.39             | 23.20 | 22.20 | 21.93 | 21.72 |        |
| 20                               | 22.72 | 22.20 | 22.19       | 21.87 | 21.75 | 21.50         | 21.92                             | 23.77             | 22.85 | 22.15 | 21.92 | 21.70 |        |
| 21                               | 22.41 | 22.16 | 22.16       | 21.80 | 21.70 | 21.50         | 21.96                             | 24.37             | 22.73 | 22.10 | 21.92 | 21.70 |        |
| 22                               | 22.13 | 22.10 | 22.14       | 21.80 | 21.70 | 21.50         | 22.00                             | 25.56             | 22.66 | 22.10 | 21.92 | 21.70 |        |
| 23                               | 22.00 | 22.05 | 22.09       | 21.80 | 21.70 | 21.50         | 22.00                             | 25.33             | 22.54 | 22.10 | 21.92 | 21.68 |        |
| 24                               | 22.03 | 22.05 | 22.02       | 21.80 | 21.70 | 21.50         | 23.28                             | 24.84             | 22.50 | 22.10 | 21.91 | 21.67 |        |
| 25                               | 22.17 | 22.05 | 22.00       | 21.80 | 21.70 | 21.50         | 22.45                             | 23.52             | 22.50 | 22.10 | 21.91 | 21.65 |        |
| 26                               | 22.11 | 22.04 | 21.98       | 21.80 | 21.70 | 21.52         | 22.27                             | 22.96             | 22.46 | 22.10 | 21.91 | 21.57 |        |
| 27                               | 22.19 | 22.02 | 21.97       | 21.80 | 21.65 | 21.55         | 22.79                             | 22.70             | 22.45 | 22.10 | 21.90 | 21.55 |        |
| 28                               | 22.02 | 22.01 | 21.96       | 21.80 | 21.62 | 21.53         | 23.00                             | 22.80             | 22.45 | 22.07 | 21.90 | 21.54 |        |
| 29                               | 22.04 | 22.00 | 21.95       | 21.80 | 21.60 | 21.51         | 22.76                             | 23.21             | 22.44 | 22.07 |       | 21.53 |        |
| 30                               | 22.00 | 21.95 | 21.93       | 21.78 | 21.60 | 21.50         | 22.61                             | 23.17             | 22.44 | 22.07 |       | 21.53 |        |
| 31                               |       | 21.90 |             | 21.78 | 21.60 |               | 22.28                             |                   | 22.43 | 22.06 |       | 21.52 |        |
| Mean                             | 22.11 | 22.19 | 22.03       | 21.87 | 21.77 | 21.58         | 22.03                             | 23.02             | 23.07 | 22.25 | 21.96 | 21.68 |        |
| Max                              | 23.08 | 22.55 | 22.40       | 22.01 | 21.90 | 21.87         | 23.28                             | 25.56             | 25.09 | 23.11 | 22.03 | 21.88 | 25.56  |
| Min                              | 21.80 | 21.90 | 21.80       | 21.78 | 21.60 | 21.50         | 21.50                             | 22.05             | 22.43 | 22.06 | 21.90 | 21.52 | 21.50  |
| Annual Max Momentary Gage Height | 25.69 |       | m. (MSL.) , |       |       |               | at 18.00 Hours , on Nov 22 , 2013 |                   |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , |       |       | River Bed     | 20.88                             | m. (MSL.)         |       |       |       |       |        |
| Left Bank Elevation              | 27.88 |       | m. (MSL.) , |       |       |               |                                   |                   |       |       |       |       |        |
| Right Bank Elevation             | 27.92 |       | m. (MSL.) , |       |       | Drainage Area | 295                               | Square Kilometers |       |       |       |       |        |

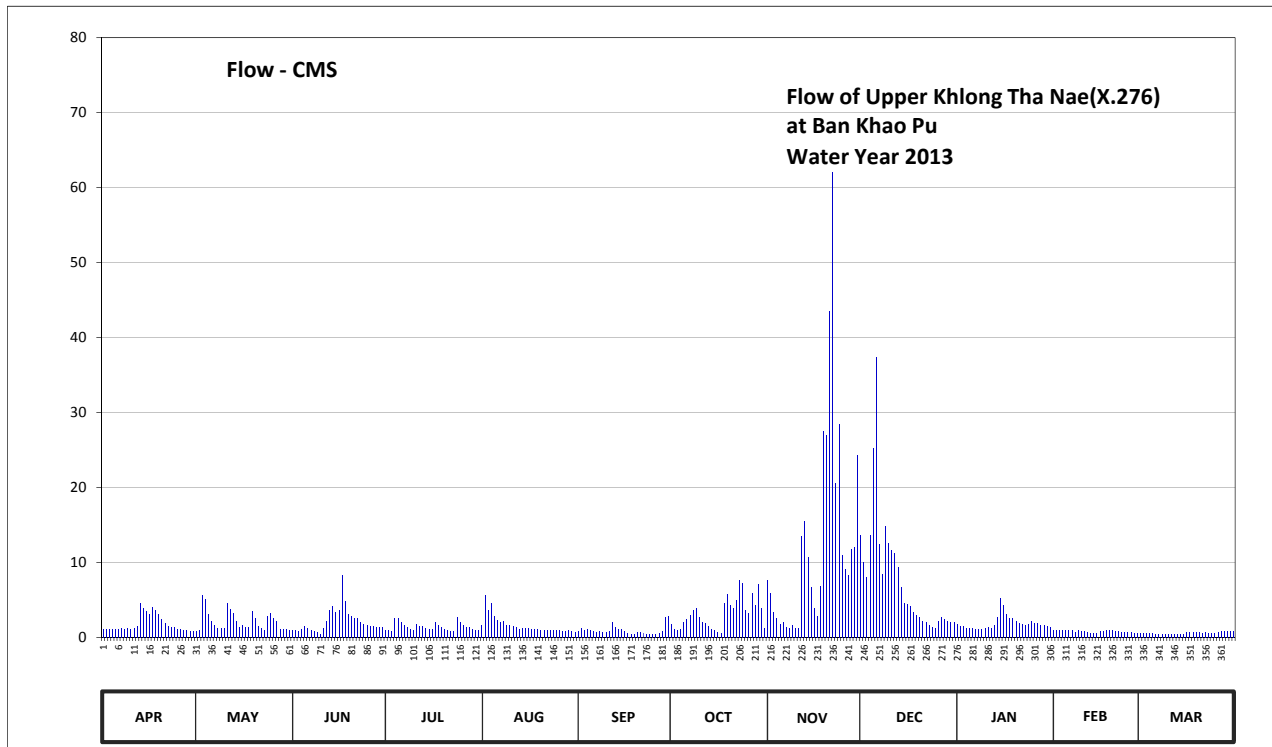




Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr    | May                                                       | Jun   | Jul   | Aug                  | Sep  | Oct    | Nov     | Dec                      | Jan    | Feb   | Mar   | Annual  |        |
|----------------|--------|-----------------------------------------------------------|-------|-------|----------------------|------|--------|---------|--------------------------|--------|-------|-------|---------|--------|
| 1              | 1.53   | 3.30                                                      | 1.85  | 1.92  | 1.20                 | 0.20 | 0.00   | 4.50    | 19.20                    | 7.04   | 2.80  | 1.72  |         |        |
| 2              | 1.66   | 4.00                                                      | 1.85  | 1.85  | 1.20                 | 0.20 | 0.00   | 4.50    | 21.10                    | 6.80   | 2.60  | 1.59  |         |        |
| 3              | 1.85   | 4.73                                                      | 1.85  | 1.85  | 1.85                 | 0.20 | 0.00   | 4.50    | 30.32                    | 7.28   | 2.50  | 1.53  |         |        |
| 4              | 1.98   | 5.65                                                      | 1.85  | 1.85  | 1.85                 | 0.20 | 0.00   | 3.00    | 51.00                    | 17.63  | 2.50  | 1.40  |         |        |
| 5              | 2.24   | 5.88                                                      | 1.66  | 1.85  | 1.85                 | 0.20 | 0.12   | 3.30    | 58.53                    | 16.75  | 2.50  | 1.27  |         |        |
| 6              | 2.43   | 6.34                                                      | 1.53  | 1.85  | 1.85                 | 0.20 | 0.40   | 8.00    | 69.62                    | 6.80   | 2.50  | 1.10  |         |        |
| 7              | 1.53   | 8.60                                                      | 1.46  | 1.85  | 1.53                 | 0.16 | 1.92   | 12.38   | 48.90                    | 6.23   | 2.50  | 1.00  |         |        |
| 8              | 1.20   | 5.88                                                      | 1.20  | 1.85  | 1.53                 | 0.14 | 2.05   | 23.76   | 23.76                    | 5.07   | 2.50  | 0.85  |         |        |
| 9              | 1.20   | 4.73                                                      | 1.20  | 1.92  | 1.53                 | 0.10 | 2.05   | 20.91   | 18.67                    | 5.07   | 2.43  | 0.70  |         |        |
| 10             | 1.53   | 4.61                                                      | 1.20  | 2.50  | 1.20                 | 0.10 | 1.85   | 20.34   | 14.13                    | 4.50   | 2.43  | 0.55  |         |        |
| 11             | 1.85   | 6.68                                                      | 1.40  | 2.60  | 1.20                 | 0.30 | 1.85   | 12.38   | 13.95                    | 4.50   | 2.37  | 0.45  |         |        |
| 12             | 2.11   | 5.65                                                      | 1.92  | 2.43  | 1.20                 | 0.90 | 1.85   | 8.72    | 12.20                    | 4.40   | 2.37  | 0.40  |         |        |
| 13             | 3.00   | 6.68                                                      | 2.80  | 1.98  | 1.53                 | 1.66 | 1.40   | 9.35    | 10.70                    | 4.30   | 2.30  | 0.25  |         |        |
| 14             | 4.10   | 6.11                                                      | 6.34  | 1.85  | 1.59                 | 1.20 | 0.95   | 10.85   | 9.20                     | 4.30   | 2.30  | 0.20  |         |        |
| 15             | 3.40   | 5.88                                                      | 6.68  | 1.85  | 1.27                 | 0.80 | 0.85   | 7.04    | 9.20                     | 4.30   | 2.24  | 0.20  |         |        |
| 16             | 3.10   | 4.73                                                      | 6.80  | 1.85  | 1.20                 | 0.30 | 1.20   | 5.31    | 10.10                    | 4.50   | 2.18  | 0.60  |         |        |
| 17             | 7.40   | 3.50                                                      | 6.80  | 1.85  | 0.95                 | 0.10 | 1.53   | 4.50    | 16.23                    | 4.50   | 2.11  | 0.85  |         |        |
| 18             | 17.10  | 4.50                                                      | 6.46  | 1.85  | 0.95                 | 0.10 | 1.85   | 6.57    | 29.00                    | 4.50   | 2.05  | 0.95  |         |        |
| 19             | 16.92  | 4.84                                                      | 4.73  | 1.85  | 0.95                 | 0.00 | 2.24   | 6.68    | 19.20                    | 4.50   | 2.05  | 0.80  |         |        |
| 20             | 11.00  | 4.50                                                      | 4.40  | 1.66  | 0.95                 | 0.00 | 1.98   | 30.54   | 13.08                    | 4.00   | 1.98  | 0.70  |         |        |
| 21             | 6.92   | 4.10                                                      | 4.10  | 1.20  | 0.70                 | 0.00 | 2.24   | 45.68   | 11.15                    | 3.50   | 1.98  | 0.70  |         |        |
| 22             | 3.80   | 3.50                                                      | 3.90  | 1.20  | 0.70                 | 0.00 | 2.50   | 88.06   | 10.10                    | 3.50   | 1.98  | 0.70  |         |        |
| 23             | 2.50   | 3.00                                                      | 3.40  | 1.20  | 0.70                 | 0.00 | 2.50   | 78.80   | 8.48                     | 3.50   | 1.98  | 0.60  |         |        |
| 24             | 2.80   | 3.00                                                      | 2.70  | 1.20  | 0.70                 | 0.00 | 20.72  | 60.60   | 8.00                     | 3.50   | 1.92  | 0.55  |         |        |
| 25             | 4.20   | 3.00                                                      | 2.50  | 1.20  | 0.70                 | 0.00 | 7.40   | 25.28   | 8.00                     | 3.50   | 1.92  | 0.45  |         |        |
| 26             | 3.60   | 2.90                                                      | 2.37  | 1.20  | 0.70                 | 0.04 | 5.31   | 15.00   | 7.52                     | 3.50   | 1.92  | 0.14  |         |        |
| 27             | 4.40   | 2.70                                                      | 2.30  | 1.20  | 0.45                 | 0.10 | 12.05  | 10.70   | 7.40                     | 3.50   | 1.85  | 0.10  |         |        |
| 28             | 2.70   | 2.60                                                      | 2.24  | 1.20  | 0.30                 | 0.06 | 15.70  | 12.20   | 7.40                     | 3.20   | 1.85  | 0.08  |         |        |
| 29             | 2.90   | 2.50                                                      | 2.18  | 1.20  | 0.20                 | 0.02 | 11.60  | 19.39   | 7.28                     | 3.20   |       | 0.06  |         |        |
| 30             | 2.50   | 2.18                                                      | 2.05  | 1.10  | 0.20                 | 0.00 | 9.35   | 18.67   | 7.28                     | 3.20   |       | 0.06  |         |        |
| 31             |        | 1.85                                                      |       | 1.10  | 0.20                 |      | 5.42   |         | 7.16                     | 3.10   |       | 0.04  |         |        |
| Total          | 123.45 | 138.12                                                    | 91.72 | 52.06 | 32.93                | 7.28 | 118.88 | 581.51  | 587.86                   | 164.17 | 62.61 | 20.59 | 1981.18 | CMSDAY |
| Mean           | 4.12   | 4.46                                                      | 3.06  | 1.68  | 1.06                 | 0.24 | 3.83   | 19.38   | 18.96                    | 5.30   | 2.24  | 0.66  | 5.43    | CMS    |
| Max            | 17.10  | 8.60                                                      | 6.80  | 2.60  | 1.85                 | 1.66 | 20.72  | 88.06   | 69.62                    | 17.63  | 2.80  | 1.72  | 88.06   | CMS    |
| Min            | 1.20   | 1.85                                                      | 1.20  | 1.10  | 0.20                 | 0.00 | 0.00   | 3.00    | 7.16                     | 3.10   | 1.85  | 0.04  | 0.00    | CMS    |
| Runoff         | 10.67  | 11.93                                                     | 7.93  | 4.50  | 2.85                 | 0.63 | 10.27  | 50.24   | 50.79                    | 14.18  | 5.41  | 1.78  | 171.17  | MCM    |
| Momentary Peak | 93.44  | CMS. at 25.69 m. (MSL.) at 18.00 Hours , on Nov 22 , 2013 |       |       |                      |      |        |         |                          |        |       |       |         |        |
| Runoff Yield   | 18.40  | Liters/Second/Square KM.                                  |       |       | Momentary Peak Yield |      |        | 316.746 | Liters/Second/Square KM. |        |       |       |         |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr   | May                                                       | Jun   | Jul   | Aug                  | Sep   | Oct    | Nov      | Dec                      | Jan   | Feb   | Mar   | Annual  |        |
|----------------|-------|-----------------------------------------------------------|-------|-------|----------------------|-------|--------|----------|--------------------------|-------|-------|-------|---------|--------|
| 1              | 1.20  | 0.85                                                      | 0.95  | 1.05  | 1.72                 | 0.90  | 1.80   | 7.63     | 13.70                    | 1.80  | 1.05  | 0.60  |         |        |
| 2              | 1.20  | 1.05                                                      | 0.95  | 0.95  | 5.70                 | 1.25  | 1.20   | 6.00     | 10.00                    | 1.50  | 1.05  | 0.60  |         |        |
| 3              | 1.15  | 5.63                                                      | 0.80  | 0.85  | 3.67                 | 1.00  | 1.00   | 3.38     | 8.12                     | 1.50  | 1.00  | 0.60  |         |        |
| 4              | 1.15  | 5.10                                                      | 1.20  | 2.55  | 4.65                 | 1.10  | 1.20   | 2.55     | 13.70                    | 1.30  | 1.00  | 0.55  |         |        |
| 5              | 1.15  | 3.07                                                      | 1.57  | 2.62  | 2.85                 | 1.00  | 2.10   | 1.80     | 25.25                    | 1.30  | 1.00  | 0.55  |         |        |
| 6              | 1.10  | 2.25                                                      | 1.25  | 2.02  | 2.32                 | 0.85  | 2.40   | 2.02     | 37.40                    | 1.30  | 0.95  | 0.50  |         |        |
| 7              | 1.25  | 1.65                                                      | 1.00  | 1.72  | 2.10                 | 0.75  | 3.00   | 1.40     | 12.50                    | 1.15  | 0.95  | 0.50  |         |        |
| 8              | 1.15  | 1.25                                                      | 0.80  | 1.45  | 2.18                 | 0.90  | 3.67   | 1.25     | 8.50                     | 1.15  | 0.70  | 0.50  |         |        |
| 9              | 1.30  | 1.25                                                      | 0.70  | 1.20  | 1.65                 | 0.75  | 3.97   | 1.72     | 14.90                    | 1.10  | 0.95  | 0.50  |         |        |
| 10             | 1.20  | 1.30                                                      | 0.50  | 1.05  | 1.65                 | 0.70  | 2.77   | 1.25     | 12.65                    | 1.30  | 0.90  | 0.47  |         |        |
| 11             | 1.25  | 4.65                                                      | 1.25  | 1.80  | 1.57                 | 0.90  | 2.10   | 1.30     | 11.60                    | 1.40  | 0.80  | 0.47  |         |        |
| 12             | 1.50  | 3.82                                                      | 2.25  | 1.50  | 1.40                 | 2.02  | 1.87   | 13.55    | 11.30                    | 1.25  | 0.70  | 0.45  |         |        |
| 13             | 4.65  | 3.23                                                      | 3.67  | 1.57  | 1.20                 | 1.40  | 1.50   | 15.50    | 9.37                     | 1.65  | 0.65  | 0.45  |         |        |
| 14             | 3.90  | 2.25                                                      | 4.20  | 1.30  | 1.25                 | 1.20  | 1.15   | 10.75    | 6.75                     | 2.77  | 0.60  | 0.45  |         |        |
| 15             | 3.52  | 1.35                                                      | 3.38  | 1.10  | 1.30                 | 1.10  | 0.95   | 6.75     | 4.65                     | 5.25  | 0.55  | 0.50  |         |        |
| 16             | 3.07  | 1.72                                                      | 3.67  | 1.10  | 1.25                 | 0.85  | 0.70   | 3.90     | 4.50                     | 4.27  | 0.85  | 0.75  |         |        |
| 17             | 4.05  | 1.45                                                      | 8.37  | 2.10  | 1.20                 | 0.65  | 0.60   | 2.92     | 4.20                     | 3.15  | 0.80  | 0.75  |         |        |
| 18             | 3.60  | 1.45                                                      | 4.80  | 1.65  | 1.15                 | 0.50  | 4.58   | 6.87     | 3.45                     | 2.62  | 1.00  | 0.70  |         |        |
| 19             | 3.07  | 3.52                                                      | 3.07  | 1.35  | 1.10                 | 0.47  | 5.78   | 27.60    | 3.00                     | 2.62  | 0.95  | 0.70  |         |        |
| 20             | 2.40  | 2.55                                                      | 2.85  | 1.15  | 1.05                 | 0.75  | 4.27   | 27.00    | 2.77                     | 2.25  | 0.95  | 0.70  |         |        |
| 21             | 1.95  | 1.57                                                      | 2.55  | 1.00  | 1.00                 | 0.70  | 3.90   | 43.50    | 2.25                     | 1.95  | 0.85  | 0.65  |         |        |
| 22             | 1.57  | 1.25                                                      | 2.55  | 0.90  | 0.95                 | 0.60  | 4.95   | 62.00    | 2.02                     | 1.80  | 0.85  | 0.70  |         |        |
| 23             | 1.45  | 1.05                                                      | 2.10  | 0.90  | 0.95                 | 0.50  | 7.63   | 20.60    | 1.65                     | 1.65  | 0.75  | 0.65  |         |        |
| 24             | 1.35  | 2.92                                                      | 1.80  | 2.70  | 1.05                 | 0.50  | 7.25   | 28.40    | 1.45                     | 1.80  | 0.70  | 0.65  |         |        |
| 25             | 1.20  | 3.23                                                      | 1.65  | 2.02  | 0.95                 | 0.47  | 3.67   | 11.00    | 1.25                     | 2.25  | 0.75  | 0.60  |         |        |
| 26             | 1.20  | 2.62                                                      | 1.50  | 1.72  | 0.95                 | 0.42  | 3.30   | 9.12     | 2.18                     | 1.95  | 0.70  | 0.75  |         |        |
| 27             | 1.00  | 2.25                                                      | 1.50  | 1.45  | 0.85                 | 0.55  | 6.00   | 8.37     | 2.70                     | 1.95  | 0.65  | 0.80  |         |        |
| 28             | 1.00  | 1.20                                                      | 1.40  | 1.35  | 0.80                 | 0.80  | 4.35   | 11.75    | 2.40                     | 1.72  | 0.65  | 0.80  |         |        |
| 29             | 0.90  | 1.20                                                      | 1.40  | 1.20  | 0.95                 | 2.70  | 7.12   | 12.05    | 2.25                     | 1.65  |       | 0.85  |         |        |
| 30             | 0.85  | 1.10                                                      | 1.40  | 1.00  | 0.85                 | 2.92  | 3.97   | 24.35    | 2.10                     | 1.50  |       | 0.85  |         |        |
| 31             |       | 1.00                                                      |       | 0.95  | 0.75                 |       | 1.25   |          | 2.10                     | 1.45  |       | 0.85  |         |        |
| Total          | 55.33 | 68.78                                                     | 65.08 | 45.27 | 51.01                | 29.20 | 100.00 | 376.28   | 240.66                   | 60.30 | 23.30 | 19.44 | 1134.65 | CMSDAY |
| Mean           | 1.84  | 2.22                                                      | 2.17  | 1.46  | 1.65                 | 0.97  | 3.23   | 12.54    | 7.76                     | 1.95  | 0.83  | 0.63  | 3.11    | CMS    |
| Max            | 4.65  | 5.63                                                      | 8.37  | 2.70  | 5.70                 | 2.92  | 7.63   | 62.00    | 37.40                    | 5.25  | 1.05  | 0.85  | 62.00   | CMS    |
| Min            | 0.85  | 0.85                                                      | 0.50  | 0.85  | 0.75                 | 0.42  | 0.60   | 1.25     | 1.25                     | 1.10  | 0.55  | 0.45  | 0.42    | CMS    |
| Runoff         | 4.78  | 5.94                                                      | 5.62  | 3.91  | 4.41                 | 2.52  | 8.64   | 32.51    | 20.79                    | 5.21  | 2.01  | 1.68  | 98.03   | MCM    |
| Momentary Peak | 98.10 | CMS. at 54.46 m. (MSL.) at 07.00 Hours , on Nov 22 , 2013 |       |       |                      |       |        |          |                          |       |       |       |         |        |
| Runoff Yield   | 65.44 | Liters/Second/Square KM.                                  |       |       | Momentary Peak Yield |       |        | 2065.263 | Liters/Second/Square KM. |       |       |       |         |        |

**WATER YEAR : 2013**

**SOUTHERN PENINSULA WEST COAST**

**along Palian at Ban Palian Nai , Trang (X.13**

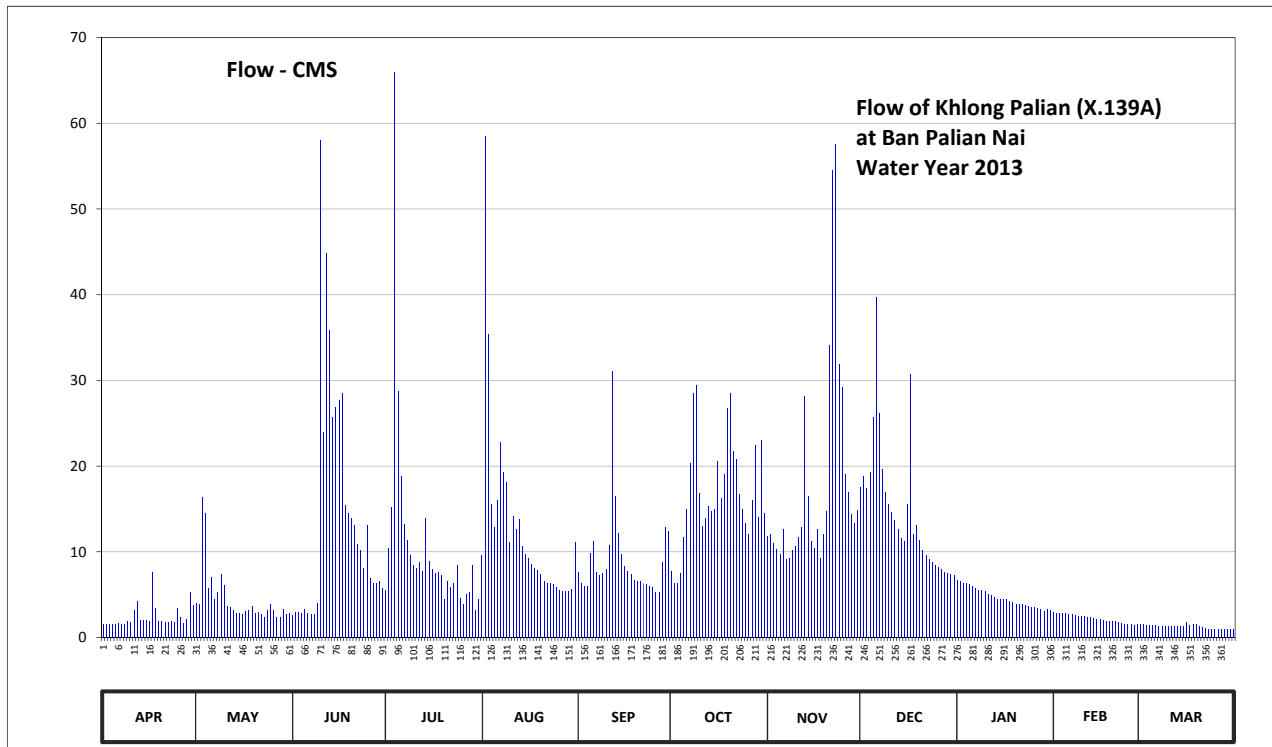
Lat 07 - 18 - 55 N    Long 99 - 49 - 32 E

**Location :** on left bank at the bridge.

|                                         | Ban                                                                                       | Palian Nai | Amphoe | Palian | Changwat         | Trang            |
|-----------------------------------------|-------------------------------------------------------------------------------------------|------------|--------|--------|------------------|------------------|
| <b>Drainage Area</b>                    | 160                                                                                       | sq.km.     |        |        |                  |                  |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |            |        |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (A.D.)  |        |        |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |            |        |        |                  |                  |
| <b>Location BM</b>                      | On left bank at the abutment of the bridge.                                               |            |        |        | <b>Elevation</b> | +6.999 m. (A.D.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |            |        |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |            |        |        |                  |                  |
| <b>Period of Available Gage Records</b> | 2009 to date                                                                              |            |        |        |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |            |        |        |                  |                  |
| <b>Period of Rating</b>                 | 2009 to date                                                                              |            |        |        |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |            |        |        |                  |                  |
| <b>Rated by Current Meter</b>           | 2009 to date                                                                              |            |        |        |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |            |        |        |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |            |        |        |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 23 discharge measurements made in 2013. |            |        |        |                  |                  |

**Gage Height in Meter (A.D.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                             | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|-------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 0.68 | 0.95 | 0.81                                            | 1.09 | 1.43 | 1.27 | 1.28 | 1.61 | 2.02 | 1.20 | 0.85 | 0.67 |        |
| 2                                | 0.67 | 0.94 | 0.85                                            | 1.50 | 3.82 | 1.17 | 1.16 | 1.62 | 2.11 | 1.19 | 0.84 | 0.67 |        |
| 3                                | 0.67 | 1.94 | 0.85                                            | 1.85 | 3.05 | 1.13 | 1.16 | 1.54 | 2.01 | 1.17 | 0.84 | 0.66 |        |
| 4                                | 0.68 | 1.80 | 0.84                                            | 3.97 | 1.88 | 1.13 | 1.26 | 1.49 | 2.14 | 1.16 | 0.84 | 0.66 |        |
| 5                                | 0.68 | 1.11 | 0.88                                            | 2.71 | 1.68 | 1.45 | 1.60 | 1.44 | 2.54 | 1.15 | 0.83 | 0.66 |        |
| 6                                | 0.69 | 1.22 | 0.83                                            | 2.11 | 1.91 | 1.56 | 1.84 | 1.67 | 3.24 | 1.13 | 0.82 | 0.66 |        |
| 7                                | 0.68 | 1.00 | 0.82                                            | 1.71 | 2.37 | 1.27 | 2.21 | 1.39 | 2.57 | 1.11 | 0.82 | 0.65 |        |
| 8                                | 0.67 | 1.07 | 0.82                                            | 1.57 | 2.14 | 1.24 | 2.70 | 1.40 | 2.16 | 1.09 | 0.81 | 0.65 |        |
| 9                                | 0.72 | 1.25 | 0.95                                            | 1.43 | 2.06 | 1.26 | 2.75 | 1.48 | 1.98 | 1.09 | 0.80 | 0.65 |        |
| 10                               | 0.70 | 1.14 | 3.81                                            | 1.34 | 1.55 | 1.30 | 1.97 | 1.51 | 1.88 | 1.08 | 0.80 | 0.65 |        |
| 11                               | 0.87 | 0.92 | 2.44                                            | 1.31 | 1.78 | 1.52 | 1.69 | 1.60 | 1.81 | 1.05 | 0.80 | 0.65 |        |
| 12                               | 0.97 | 0.90 | 3.44                                            | 1.36 | 1.67 | 2.84 | 1.76 | 1.68 | 1.74 | 1.04 | 0.79 | 0.64 |        |
| 13                               | 0.74 | 0.87 | 3.07                                            | 1.28 | 1.75 | 1.95 | 1.86 | 2.68 | 1.67 | 1.02 | 0.78 | 0.64 |        |
| 14                               | 0.74 | 0.84 | 2.54                                            | 1.76 | 1.51 | 1.63 | 1.82 | 1.95 | 1.59 | 1.00 | 0.77 | 0.64 |        |
| 15                               | 0.74 | 0.83 | 2.61                                            | 1.37 | 1.44 | 1.44 | 1.84 | 1.56 | 1.56 | 1.00 | 0.76 | 0.65 |        |
| 16                               | 0.73 | 0.82 | 2.65                                            | 1.30 | 1.40 | 1.33 | 2.22 | 1.50 | 1.88 | 1.00 | 0.75 | 0.71 |        |
| 17                               | 1.27 | 0.86 | 2.70                                            | 1.26 | 1.35 | 1.28 | 1.93 | 1.67 | 2.82 | 1.00 | 0.74 | 0.66 |        |
| 18                               | 0.89 | 0.87 | 1.87                                            | 1.27 | 1.31 | 1.25 | 2.12 | 1.40 | 1.62 | 0.98 | 0.72 | 0.67 |        |
| 19                               | 0.73 | 0.92 | 1.80                                            | 1.24 | 1.29 | 1.20 | 2.60 | 1.62 | 1.70 | 0.96 | 0.72 | 0.67 |        |
| 20                               | 0.72 | 0.84 | 1.76                                            | 1.00 | 1.25 | 1.19 | 2.70 | 1.82 | 1.57 | 0.94 | 0.72 | 0.65 |        |
| 21                               | 0.70 | 0.85 | 1.70                                            | 1.19 | 1.19 | 1.19 | 2.30 | 2.99 | 1.48 | 0.94 | 0.72 | 0.63 |        |
| 22                               | 0.71 | 0.82 | 1.53                                            | 1.12 | 1.17 | 1.16 | 2.24 | 3.72 | 1.43 | 0.94 | 0.71 | 0.61 |        |
| 23                               | 0.72 | 0.79 | 1.48                                            | 1.16 | 1.16 | 1.15 | 1.96 | 3.80 | 1.39 | 0.93 | 0.69 | 0.60 |        |
| 24                               | 0.70 | 0.87 | 1.31                                            | 1.34 | 1.15 | 1.13 | 1.84 | 2.88 | 1.36 | 0.92 | 0.68 | 0.60 |        |
| 25                               | 0.89 | 0.94 | 1.70                                            | 1.01 | 1.12 | 1.12 | 1.72 | 2.74 | 1.34 | 0.91 | 0.68 | 0.60 |        |
| 26                               | 0.79 | 0.87 | 1.21                                            | 0.94 | 1.09 | 1.07 | 1.62 | 2.12 | 1.32 | 0.90 | 0.67 | 0.59 |        |
| 27                               | 0.69 | 0.79 | 1.17                                            | 1.05 | 1.08 | 1.07 | 1.91 | 1.98 | 1.30 | 0.89 | 0.66 | 0.59 |        |
| 28                               | 0.76 | 0.78 | 1.16                                            | 1.07 | 1.08 | 1.36 | 2.35 | 1.79 | 1.27 | 0.88 | 0.68 | 0.59 |        |
| 29                               | 1.07 | 0.88 | 1.19                                            | 1.34 | 1.08 | 1.68 | 1.77 | 1.72 | 1.26 | 0.86 |      | 0.60 |        |
| 30                               | 0.93 | 0.82 | 1.11                                            | 0.87 | 1.10 | 1.65 | 2.39 | 1.83 | 1.25 | 0.88 |      | 0.60 |        |
| 31                               |      | 0.84 |                                                 | 1.00 | 1.55 |      | 1.80 |      | 1.24 | 0.87 |      | 0.60 |        |
| Mean                             | 0.77 | 0.98 | 1.66                                            | 1.44 | 1.59 | 1.37 | 1.95 | 1.94 | 1.78 | 1.01 | 0.76 | 0.64 |        |
| Max                              | 1.27 | 1.94 | 3.81                                            | 3.97 | 3.82 | 2.84 | 2.75 | 3.80 | 3.24 | 1.20 | 0.85 | 0.71 | 3.97   |
| Min                              | 0.67 | 0.78 | 0.81                                            | 0.87 | 1.08 | 1.07 | 1.16 | 1.39 | 1.24 | 0.86 | 0.66 | 0.59 | 0.59   |
| Annual Max Momentary Gage Height | 5.24 |      | m. (A.D.) , at 14.00 Hours , on Aug 2, 2013     |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (A.D.) , River Bed -0.54 m. (A.D.)           |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 6.99 |      | m. (A.D.) ,                                     |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 6.60 |      | m. (A.D.) , Drainage Area 160 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun    | Jul                  | Aug    | Sep      | Oct    | Nov                      | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|----------------------------------------------------------------|--------------------------|--------|----------------------|--------|----------|--------|--------------------------|--------|--------|-------|-------|----------------|
| 1              | 1.60                                                           | 4.00                     | 2.60   | 5.51                 | 9.62   | 7.62     | 7.75   | 11.89                    | 17.55  | 6.75   | 3.00  | 1.52  |                |
| 2              | 1.52                                                           | 3.90                     | 3.00   | 10.50                | 58.50  | 6.41     | 6.30   | 12.02                    | 18.90  | 6.64   | 2.90  | 1.52  |                |
| 3              | 1.52                                                           | 16.43                    | 3.00   | 15.19                | 35.38  | 5.96     | 6.30   | 11.00                    | 17.40  | 6.41   | 2.90  | 1.45  |                |
| 4              | 1.60                                                           | 14.50                    | 2.90   | 66.00                | 15.60  | 5.96     | 7.50   | 10.38                    | 19.35  | 6.30   | 2.90  | 1.45  |                |
| 5              | 1.60                                                           | 5.74                     | 3.30   | 28.68                | 12.85  | 9.88     | 11.75  | 9.75                     | 25.70  | 6.19   | 2.80  | 1.45  |                |
| 6              | 1.67                                                           | 7.00                     | 2.80   | 18.90                | 16.01  | 11.25    | 15.05  | 12.71                    | 39.70  | 5.96   | 2.70  | 1.45  |                |
| 7              | 1.60                                                           | 4.50                     | 2.70   | 13.26                | 22.80  | 7.62     | 20.40  | 9.13                     | 26.22  | 5.74   | 2.70  | 1.37  |                |
| 8              | 1.52                                                           | 5.29                     | 2.70   | 11.38                | 19.35  | 7.25     | 28.50  | 9.25                     | 19.65  | 5.51   | 2.60  | 1.37  |                |
| 9              | 1.90                                                           | 7.37                     | 4.00   | 9.62                 | 18.15  | 7.50     | 29.37  | 10.25                    | 16.97  | 5.51   | 2.50  | 1.37  |                |
| 10             | 1.75                                                           | 6.07                     | 58.00  | 8.50                 | 11.12  | 8.00     | 16.84  | 10.63                    | 15.60  | 5.40   | 2.50  | 1.37  |                |
| 11             | 3.20                                                           | 3.70                     | 23.95  | 8.12                 | 14.22  | 10.75    | 12.99  | 11.75                    | 14.64  | 5.06   | 2.50  | 1.37  |                |
| 12             | 4.20                                                           | 3.50                     | 44.80  | 8.75                 | 12.71  | 31.05    | 13.95  | 12.85                    | 13.68  | 4.95   | 2.43  | 1.30  |                |
| 13             | 2.05                                                           | 3.20                     | 35.82  | 7.75                 | 13.81  | 16.56    | 15.32  | 28.15                    | 12.71  | 4.73   | 2.35  | 1.30  |                |
| 14             | 2.05                                                           | 2.90                     | 25.70  | 13.95                | 10.63  | 12.16    | 14.78  | 16.56                    | 11.63  | 4.50   | 2.27  | 1.30  |                |
| 15             | 2.05                                                           | 2.80                     | 26.92  | 8.88                 | 9.75   | 9.75     | 15.05  | 11.25                    | 11.25  | 4.50   | 2.20  | 1.37  |                |
| 16             | 1.98                                                           | 2.70                     | 27.63  | 8.00                 | 9.25   | 8.38     | 20.55  | 10.50                    | 15.60  | 4.50   | 2.13  | 1.82  |                |
| 17             | 7.62                                                           | 3.10                     | 28.50  | 7.50                 | 8.63   | 7.75     | 16.29  | 12.71                    | 30.65  | 4.50   | 2.05  | 1.45  |                |
| 18             | 3.40                                                           | 3.20                     | 15.46  | 7.62                 | 8.12   | 7.37     | 19.05  | 9.25                     | 12.02  | 4.30   | 1.90  | 1.52  |                |
| 19             | 1.98                                                           | 3.70                     | 14.50  | 7.25                 | 7.87   | 6.75     | 26.75  | 12.02                    | 13.13  | 4.10   | 1.90  | 1.52  |                |
| 20             | 1.90                                                           | 2.90                     | 13.95  | 4.50                 | 7.37   | 6.64     | 28.50  | 14.78                    | 11.38  | 3.90   | 1.90  | 1.37  |                |
| 21             | 1.75                                                           | 3.00                     | 13.13  | 6.64                 | 6.64   | 6.64     | 21.75  | 34.05                    | 10.25  | 3.90   | 1.90  | 1.22  |                |
| 22             | 1.82                                                           | 2.70                     | 10.88  | 5.85                 | 6.41   | 6.30     | 20.85  | 54.50                    | 9.62   | 3.90   | 1.82  | 1.07  |                |
| 23             | 1.90                                                           | 2.43                     | 10.25  | 6.30                 | 6.30   | 6.19     | 16.70  | 57.50                    | 9.13   | 3.80   | 1.67  | 1.00  |                |
| 24             | 1.75                                                           | 3.20                     | 8.12   | 8.50                 | 6.19   | 5.96     | 15.05  | 31.85                    | 8.75   | 3.70   | 1.60  | 1.00  |                |
| 25             | 3.40                                                           | 3.90                     | 13.13  | 4.61                 | 5.85   | 5.85     | 13.40  | 29.20                    | 8.50   | 3.60   | 1.60  | 1.00  |                |
| 26             | 2.43                                                           | 3.20                     | 6.88   | 3.90                 | 5.51   | 5.29     | 12.02  | 19.05                    | 8.25   | 3.50   | 1.52  | 0.95  |                |
| 27             | 1.67                                                           | 2.43                     | 6.41   | 5.06                 | 5.40   | 5.29     | 16.01  | 16.97                    | 8.00   | 3.40   | 1.45  | 0.95  |                |
| 28             | 2.20                                                           | 2.35                     | 6.30   | 5.29                 | 5.40   | 8.75     | 22.50  | 14.36                    | 7.62   | 3.30   | 1.60  | 0.95  |                |
| 29             | 5.29                                                           | 3.30                     | 6.64   | 8.50                 | 5.40   | 12.85    | 14.09  | 13.40                    | 7.50   | 3.10   |       | 1.00  |                |
| 30             | 3.80                                                           | 2.70                     | 5.74   | 3.20                 | 5.63   | 12.44    | 23.10  | 14.91                    | 7.37   | 3.30   |       | 1.00  |                |
| 31             |                                                                | 2.90                     |        | 4.50                 | 11.12  |          | 14.50  |                          | 7.25   | 3.20   |       | 1.00  |                |
| Total          | 72.72                                                          | 138.61                   | 429.71 | 332.21               | 391.59 | 270.17   | 522.96 | 532.62                   | 455.97 | 144.15 | 62.29 | 39.78 | 3392.78 CMSDAY |
| Mean           | 2.42                                                           | 4.47                     | 14.32  | 10.72                | 12.63  | 9.01     | 16.87  | 17.75                    | 14.71  | 4.65   | 2.22  | 1.28  | 9.30 CMS       |
| Max            | 7.62                                                           | 16.43                    | 58.00  | 66.00                | 58.50  | 31.05    | 29.37  | 57.50                    | 39.70  | 6.75   | 3.00  | 1.82  | 66.00 CMS      |
| Min            | 1.52                                                           | 2.35                     | 2.60   | 3.20                 | 5.40   | 5.29     | 6.30   | 9.13                     | 7.25   | 3.10   | 1.45  | 0.95  | 0.95 CMS       |
| Runoff         | 6.28                                                           | 11.98                    | 37.13  | 28.70                | 33.83  | 23.34    | 45.18  | 46.02                    | 39.40  | 12.46  | 5.38  | 3.44  | 293.14 MCM     |
| Momentary Peak | 176.90 CMS. at 5.24 m. (A.D.) at 14.00 Hours , on Aug 2 , 2013 |                          |        |                      |        |          |        |                          |        |        |       |       |                |
| Runoff Yield   | 57.82                                                          | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 1100.467 |        | Liters/Second/Square KM. |        |        |       |       |                |

**WATER YEAR : 2013**  
**SOUTHERN PENINSULA WEST COAST**  
**ong Langu at Ban Wang Pa Khian , Satun (X**

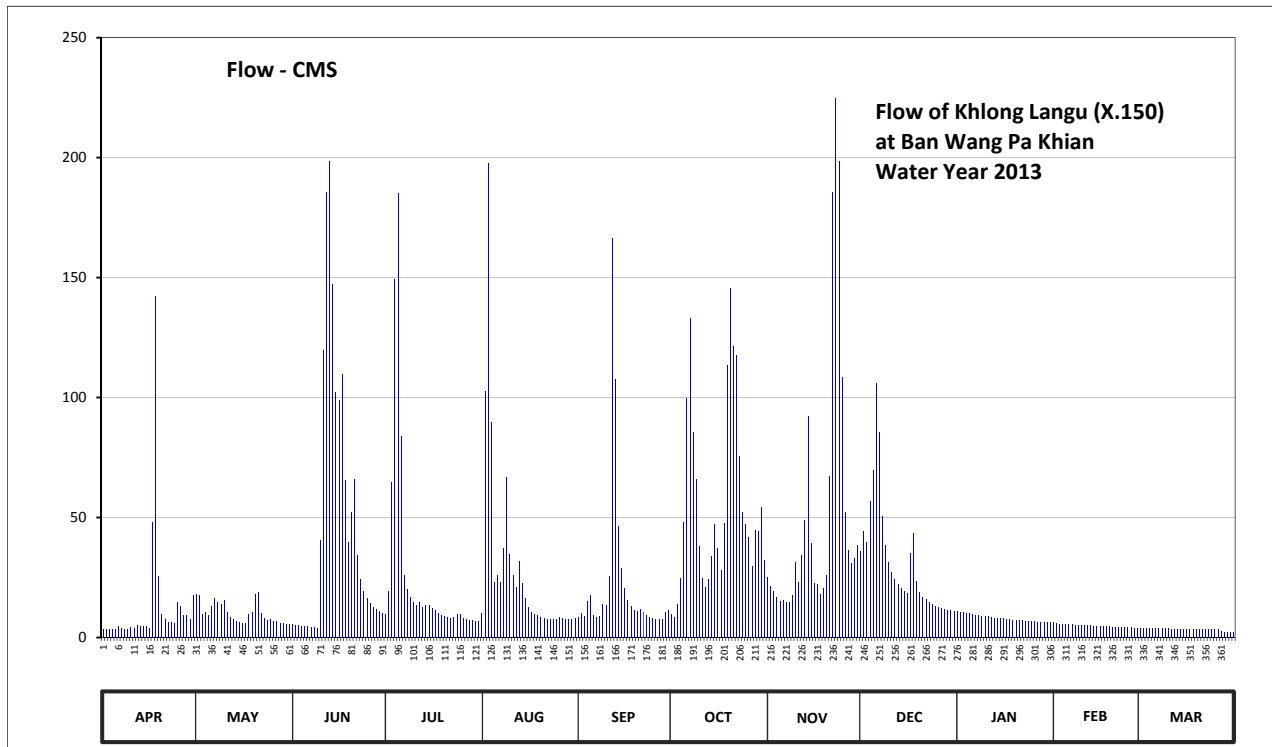
Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

**Location : on right bank at Ban Wang Pa Khian.**

|                                         |                                                                                           |               |               |       |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|---------------|---------------|-------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Wang Pa Khian | <b>Amphoe</b> | Langu | <b>Changwat</b>  | Satun             |
| <b>Drainage Area</b>                    | 480                                                                                       | sq.km.        |               |       |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |               |               |       |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)     |               |       |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |               |               |       |                  |                   |
| <b>Location BM</b>                      | On right bank about 5 meters from the top staff gage.                                     |               |               |       | <b>Elevation</b> | +16.164 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |               |               |       |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |               |               |       |                  |                   |
| <b>Period of Available Gage Records</b> | 1984 to date                                                                              |               |               |       |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |               |               |       |                  |                   |
| <b>Period of Rating</b>                 | 1984 to date                                                                              |               |               |       |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |               |               |       |                  |                   |
| <b>Rated by Current Meter</b>           | 1984 to date                                                                              |               |               |       |                  |                   |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |               |               |       |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |               |               |       |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 24 discharge measurements made in 2013. |               |               |       |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|------|------|------|------|--------|
| 1                                | 5.32  | 6.35  | 5.49                                            | 5.83  | 5.86  | 5.74  | 5.82  | 6.75  | 7.24 | 5.91 | 5.54 | 5.36 |        |
| 2                                | 5.31  | 6.33  | 5.46                                            | 6.41  | 9.53  | 5.86  | 5.72  | 6.54  | 7.57 | 5.90 | 5.53 | 5.36 |        |
| 3                                | 5.32  | 5.81  | 5.46                                            | 8.36  | 11.92 | 5.77  | 6.11  | 6.41  | 7.39 | 5.88 | 5.50 | 5.35 |        |
| 4                                | 5.32  | 5.90  | 5.43                                            | 10.73 | 9.16  | 6.18  | 6.72  | 6.28  | 8.08 | 5.87 | 5.48 | 5.35 |        |
| 5                                | 5.34  | 5.78  | 5.42                                            | 11.63 | 6.63  | 6.33  | 7.73  | 6.19  | 8.52 | 5.85 | 5.48 | 5.35 |        |
| 6                                | 5.42  | 6.06  | 5.42                                            | 8.99  | 6.81  | 5.80  | 9.44  | 6.20  | 9.63 | 5.82 | 5.48 | 5.35 |        |
| 7                                | 5.37  | 6.25  | 5.39                                            | 6.80  | 6.63  | 5.72  | 10.32 | 6.16  | 9.03 | 5.80 | 5.48 | 5.35 |        |
| 8                                | 5.32  | 6.16  | 5.38                                            | 6.47  | 7.30  | 5.75  | 9.04  | 6.15  | 7.83 | 5.78 | 5.46 | 5.35 |        |
| 9                                | 5.31  | 6.12  | 5.37                                            | 6.29  | 8.43  | 6.11  | 8.40  | 6.32  | 7.34 | 5.76 | 5.44 | 5.35 |        |
| 10                               | 5.38  | 6.20  | 7.43                                            | 6.15  | 7.19  | 6.08  | 7.33  | 7.05  | 7.05 | 5.76 | 5.44 | 5.35 |        |
| 11                               | 5.37  | 5.90  | 9.99                                            | 6.08  | 6.81  | 6.78  | 6.72  | 6.63  | 6.86 | 5.76 | 5.44 | 5.34 |        |
| 12                               | 5.45  | 5.74  | 11.64                                           | 6.15  | 6.52  | 11.16 | 6.52  | 7.17  | 6.71 | 5.72 | 5.44 | 5.33 |        |
| 13                               | 5.41  | 5.65  | 11.94                                           | 6.05  | 7.07  | 9.67  | 6.71  | 7.76  | 6.59 | 5.70 | 5.44 | 5.33 |        |
| 14                               | 5.43  | 5.60  | 10.68                                           | 6.08  | 6.62  | 7.66  | 7.16  | 9.24  | 6.49 | 5.70 | 5.43 | 5.33 |        |
| 15                               | 5.41  | 5.55  | 9.52                                            | 6.09  | 6.25  | 6.94  | 7.69  | 7.37  | 6.41 | 5.69 | 5.42 | 5.33 |        |
| 16                               | 5.35  | 5.52  | 9.42                                            | 6.01  | 6.03  | 6.50  | 7.30  | 6.62  | 6.38 | 5.69 | 5.42 | 5.33 |        |
| 17                               | 7.72  | 5.52  | 9.73                                            | 5.95  | 5.89  | 6.21  | 6.89  | 6.59  | 7.21 | 5.67 | 5.42 | 5.33 |        |
| 18                               | 10.55 | 5.83  | 8.38                                            | 5.87  | 5.82  | 6.07  | 7.71  | 6.34  | 7.54 | 5.65 | 5.42 | 5.32 |        |
| 19                               | 6.77  | 5.88  | 7.39                                            | 5.78  | 5.80  | 5.97  | 9.84  | 6.50  | 6.67 | 5.63 | 5.41 | 5.32 |        |
| 20                               | 5.82  | 6.35  | 7.89                                            | 5.76  | 5.73  | 5.93  | 10.64 | 6.80  | 6.39 | 5.62 | 5.40 | 5.32 |        |
| 21                               | 5.64  | 6.40  | 8.40                                            | 5.73  | 5.69  | 5.98  | 10.03 | 8.44  | 6.28 | 5.61 | 5.39 | 5.32 |        |
| 22                               | 5.55  | 5.86  | 7.17                                            | 5.69  | 5.66  | 5.90  | 9.94  | 11.64 | 6.23 | 5.61 | 5.39 | 5.32 |        |
| 23                               | 5.55  | 5.70  | 6.70                                            | 5.73  | 5.65  | 5.78  | 8.72  | 12.53 | 6.16 | 5.60 | 5.39 | 5.32 |        |
| 24                               | 5.53  | 5.63  | 6.43                                            | 5.82  | 5.64  | 5.73  | 7.90  | 11.94 | 6.11 | 5.59 | 5.39 | 5.32 |        |
| 25                               | 6.16  | 5.66  | 6.26                                            | 5.82  | 5.67  | 5.69  | 7.69  | 9.70  | 6.07 | 5.59 | 5.39 | 5.32 |        |
| 26                               | 6.06  | 5.58  | 6.13                                            | 5.70  | 5.73  | 5.67  | 7.47  | 7.89  | 6.04 | 5.57 | 5.39 | 5.32 |        |
| 27                               | 5.78  | 5.57  | 6.05                                            | 5.67  | 5.68  | 5.64  | 6.97  | 7.26  | 6.01 | 5.56 | 5.37 | 5.26 |        |
| 28                               | 5.78  | 5.51  | 5.99                                            | 5.63  | 5.66  | 5.65  | 7.59  | 7.02  | 5.99 | 5.56 | 5.36 | 5.22 |        |
| 29                               | 5.65  | 5.53  | 5.93                                            | 5.62  | 5.65  | 5.90  | 7.57  | 7.11  | 5.96 | 5.55 |      | 5.22 |        |
| 30                               | 6.32  | 5.49  | 5.86                                            | 5.59  | 5.64  | 5.97  | 7.97  | 7.35  | 5.95 | 5.55 |      | 5.22 |        |
| 31                               |       | 5.49  |                                                 | 5.58  | 5.68  |       | 7.08  |       | 5.93 | 5.54 |      | 5.22 |        |
| Mean                             | 5.82  | 5.84  | 7.26                                            | 6.45  | 6.59  | 6.34  | 7.83  | 7.53  | 6.89 | 5.69 | 5.43 | 5.32 |        |
| Max                              | 10.55 | 6.40  | 11.94                                           | 11.63 | 11.92 | 11.16 | 10.64 | 12.53 | 9.63 | 5.91 | 5.54 | 5.36 | 12.53  |
| Min                              | 5.31  | 5.49  | 5.37                                            | 5.58  | 5.64  | 5.64  | 5.72  | 6.15  | 5.93 | 5.54 | 5.36 | 5.22 | 5.22   |
| Annual Max Momentary Gage Height |       | 12.62 | m. (MSL.) , at 16.00 Hours , on Nov 23 , 2013   |       |       |       |       |       |      |      |      |      |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 4.18 m. (MSL.)            |       |       |       |       |       |      |      |      |      |        |
| Left Bank Elevation              |       | 15.85 | m. (MSL.) ,                                     |       |       |       |       |       |      |      |      |      |        |
| Right Bank Elevation             |       | 15.81 | m. (MSL.) , Drainage Area 480 Square Kilometers |       |       |       |       |       |      |      |      |      |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                              | May                      | Jun     | Jul    | Aug                  | Sep    | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar    | Annual  |        |
|----------------|------------------------------------------------------------------|--------------------------|---------|--------|----------------------|--------|---------|--------------------------|--------|--------|--------|--------|---------|--------|
| 1              | 3.50                                                             | 18.12                    | 5.62    | 9.88   | 10.25                | 8.75   | 9.75    | 25.12                    | 36.00  | 10.87  | 6.25   | 4.00   |         |        |
| 2              | 3.38                                                             | 17.77                    | 5.25    | 19.17  | 102.55               | 10.25  | 8.50    | 21.45                    | 44.25  | 10.75  | 6.13   | 4.00   |         |        |
| 3              | 3.50                                                             | 9.63                     | 5.25    | 64.80  | 197.60               | 9.13   | 13.93   | 19.17                    | 39.75  | 10.50  | 5.75   | 3.88   |         |        |
| 4              | 3.50                                                             | 10.75                    | 4.87    | 149.20 | 89.70                | 15.15  | 24.60   | 16.90                    | 57.00  | 10.37  | 5.50   | 3.88   |         |        |
| 5              | 3.75                                                             | 9.25                     | 4.75    | 185.27 | 23.02                | 17.77  | 48.25   | 15.33                    | 69.60  | 10.12  | 5.50   | 3.88   |         |        |
| 6              | 4.75                                                             | 13.05                    | 4.75    | 84.17  | 26.22                | 9.50   | 99.40   | 15.50                    | 106.05 | 9.75   | 5.50   | 3.88   |         |        |
| 7              | 4.13                                                             | 16.37                    | 4.38    | 26.00  | 23.02                | 8.50   | 132.80  | 14.80                    | 85.47  | 9.50   | 5.50   | 3.88   |         |        |
| 8              | 3.50                                                             | 14.80                    | 4.25    | 20.22  | 37.50                | 8.88   | 85.80   | 14.63                    | 50.75  | 9.25   | 5.25   | 3.88   |         |        |
| 9              | 3.38                                                             | 14.10                    | 4.13    | 17.07  | 66.90                | 13.93  | 66.00   | 17.60                    | 38.50  | 9.00   | 5.00   | 3.88   |         |        |
| 10             | 4.25                                                             | 15.50                    | 40.75   | 14.63  | 34.78                | 13.40  | 38.25   | 31.63                    | 31.63  | 9.00   | 5.00   | 3.88   |         |        |
| 11             | 4.13                                                             | 10.75                    | 119.60  | 13.40  | 26.22                | 25.65  | 24.60   | 23.02                    | 27.35  | 9.00   | 5.00   | 3.75   |         |        |
| 12             | 5.12                                                             | 8.75                     | 185.70  | 14.63  | 21.10                | 166.40 | 21.10   | 34.33                    | 24.42  | 8.50   | 5.00   | 3.63   |         |        |
| 13             | 4.63                                                             | 7.63                     | 198.45  | 12.88  | 32.08                | 107.45 | 24.42   | 49.00                    | 22.32  | 8.25   | 5.00   | 3.63   |         |        |
| 14             | 4.87                                                             | 7.00                     | 147.20  | 13.40  | 22.85                | 46.50  | 34.10   | 92.40                    | 20.57  | 8.25   | 4.87   | 3.63   |         |        |
| 15             | 4.63                                                             | 6.38                     | 102.20  | 13.58  | 16.37                | 29.15  | 47.25   | 39.25                    | 19.17  | 8.13   | 4.75   | 3.63   |         |        |
| 16             | 3.88                                                             | 6.00                     | 98.70   | 12.18  | 12.53                | 20.75  | 37.50   | 22.85                    | 18.65  | 8.13   | 4.75   | 3.63   |         |        |
| 17             | 48.00                                                            | 6.00                     | 109.55  | 11.37  | 10.62                | 15.68  | 28.02   | 22.32                    | 35.25  | 7.88   | 4.75   | 3.63   |         |        |
| 18             | 142.00                                                           | 9.88                     | 65.40   | 10.37  | 9.75                 | 13.23  | 47.75   | 17.95                    | 43.50  | 7.63   | 4.75   | 3.50   |         |        |
| 19             | 25.47                                                            | 10.50                    | 39.75   | 9.25   | 9.50                 | 11.62  | 113.60  | 20.75                    | 23.72  | 7.38   | 4.63   | 3.50   |         |        |
| 20             | 9.75                                                             | 18.12                    | 52.25   | 9.00   | 8.63                 | 11.12  | 145.60  | 26.00                    | 18.82  | 7.25   | 4.50   | 3.50   |         |        |
| 21             | 7.50                                                             | 19.00                    | 66.00   | 8.63   | 8.13                 | 11.75  | 121.20  | 67.20                    | 16.90  | 7.13   | 4.38   | 3.50   |         |        |
| 22             | 6.38                                                             | 10.25                    | 34.33   | 8.13   | 7.75                 | 10.75  | 117.60  | 185.70                   | 16.02  | 7.13   | 4.38   | 3.50   |         |        |
| 23             | 6.38                                                             | 8.25                     | 24.25   | 8.63   | 7.63                 | 9.25   | 75.60   | 224.85                   | 14.80  | 7.00   | 4.38   | 3.50   |         |        |
| 24             | 6.13                                                             | 7.38                     | 19.52   | 9.75   | 7.50                 | 8.63   | 52.50   | 198.45                   | 13.93  | 6.88   | 4.38   | 3.50   |         |        |
| 25             | 14.80                                                            | 7.75                     | 16.55   | 9.75   | 7.88                 | 8.13   | 47.25   | 108.50                   | 13.23  | 6.88   | 4.38   | 3.50   |         |        |
| 26             | 13.05                                                            | 6.75                     | 14.28   | 8.25   | 8.63                 | 7.88   | 41.75   | 52.25                    | 12.70  | 6.63   | 4.38   | 3.50   |         |        |
| 27             | 9.25                                                             | 6.63                     | 12.88   | 7.88   | 8.00                 | 7.50   | 29.82   | 36.50                    | 12.18  | 6.50   | 4.13   | 2.75   |         |        |
| 28             | 9.25                                                             | 5.88                     | 11.87   | 7.38   | 7.75                 | 7.63   | 44.75   | 30.95                    | 11.87  | 6.50   | 4.00   | 2.25   |         |        |
| 29             | 7.63                                                             | 6.13                     | 11.12   | 7.25   | 7.63                 | 10.75  | 44.25   | 32.98                    | 11.50  | 6.38   |        | 2.25   |         |        |
| 30             | 17.60                                                            | 5.62                     | 10.25   | 6.88   | 7.50                 | 11.62  | 54.25   | 38.75                    | 11.37  | 6.38   |        | 2.25   |         |        |
| 31             |                                                                  | 5.62                     |         | 6.75   | 8.00                 |        | 32.30   |                          | 11.12  | 6.25   |        | 2.25   |         |        |
| Total          | 388.09                                                           | 319.61                   | 1423.85 | 799.75 | 867.59               | 656.70 | 1712.49 | 1516.13                  | 958.39 | 253.17 | 137.79 | 107.82 | 9141.38 | CMSDAY |
| Mean           | 12.94                                                            | 10.31                    | 47.46   | 25.80  | 27.99                | 21.89  | 55.24   | 50.54                    | 30.92  | 8.17   | 4.92   | 3.48   | 25.04   | CMS    |
| Max            | 142.00                                                           | 19.00                    | 198.45  | 185.27 | 197.60               | 166.40 | 145.60  | 224.85                   | 106.05 | 10.87  | 6.25   | 4.00   | 224.85  | CMS    |
| Min            | 3.38                                                             | 5.62                     | 4.13    | 6.75   | 7.50                 | 7.50   | 8.50    | 14.63                    | 11.12  | 6.25   | 4.00   | 2.25   | 2.25    | CMS    |
| Runoff         | 33.53                                                            | 27.61                    | 123.21  | 69.10  | 74.96                | 56.74  | 147.96  | 130.99                   | 82.81  | 21.87  | 11.91  | 9.32   | 789.82  | MCM    |
| Momentary Peak | 228.90 CMS. at 12.62 m. (MSL.) at 16.00 Hours , on Nov 23 , 2013 |                          |         |        |                      |        |         |                          |        |        |        |        |         |        |
| Runoff Yield   | 52.15                                                            | Liters/Second/Square KM. |         |        | Momentary Peak Yield |        | 476.627 | Liters/Second/Square KM. |        |        |        |        |         |        |

**WATER YEAR : 2013**  
**SOUTHERN PENINSULA WEST COAST**  
g Ta Kuaw Pa at Ban Talat Kao , Phangnga (

Lat 08 - 49 - 47 N      Long 98 - 22 - 17 E

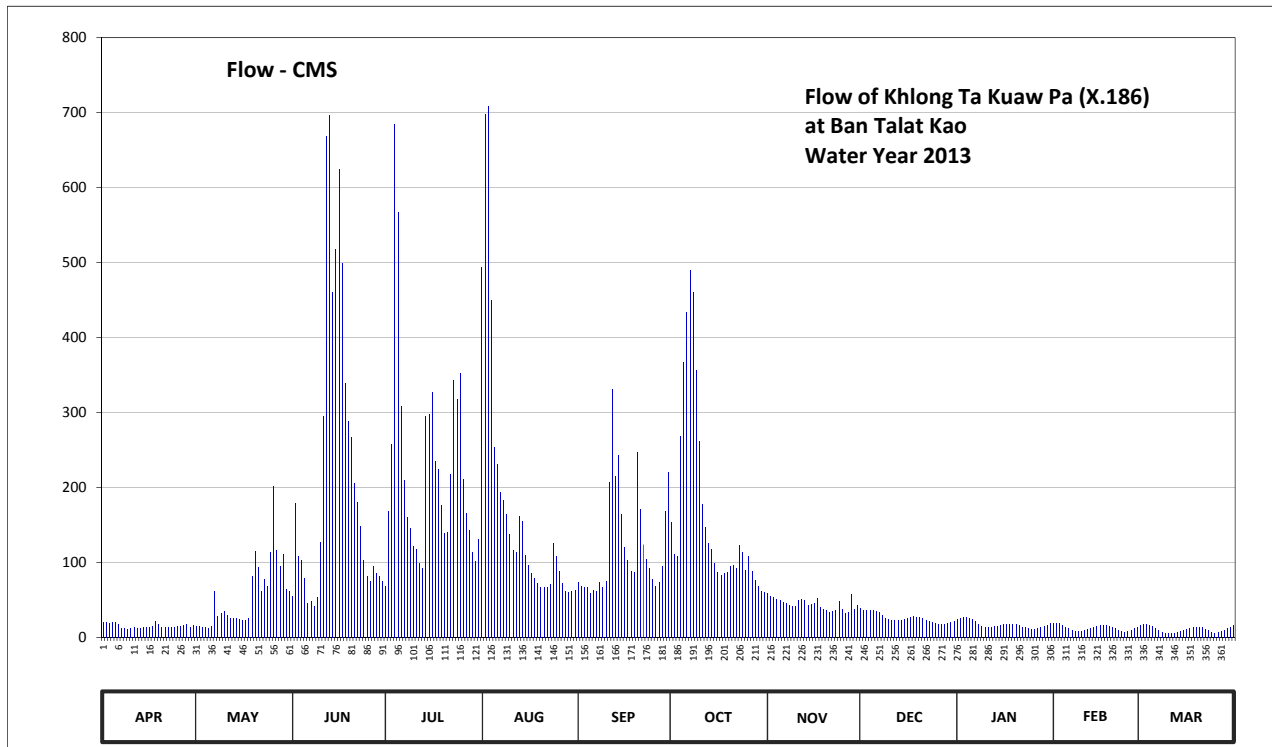
**Location : on left bank at Ban Talat Kao.**

|                                         |                                                                                           |           |               |            |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Talat Kao | <b>Amphoe</b> | Ta Kuaw Pa | <b>Changwat</b>  | Phangnga         |
| <b>Drainage Area</b>                    | 734                                                                                       | sq.km.    |               |            |                  |                  |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |            |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |            |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |            |                  |                  |
| <b>Location BM</b>                      | On left bank about 10 meters from the top staff gage.                                     |           |               |            | <b>Elevation</b> | +4.980 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |            |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |            |                  |                  |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |           |               |            |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |            |                  |                  |
| <b>Period of Rating</b>                 | 2003 to date                                                                              |           |               |            |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |            |                  |                  |
| <b>Rated by Current Meter</b>           | 2003 to date                                                                              |           |               |            |                  |                  |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |            |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |            |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 21 discharge measurements made in 2013. |           |               |            |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                             | Jul  | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | -0.70 | -0.85 | -0.10                                           | 0.08 | 3.56  | 0.14  | 1.04  | -0.04 | -0.34 | -0.61 | -0.73 | -0.82 |        |
| 2                                | -0.71 | -0.84 | 1.29                                            | 1.19 | 4.73  | 0.08  | 0.61  | -0.10 | -0.37 | -0.57 | -0.73 | -0.78 |        |
| 3                                | -0.75 | -0.89 | 0.59                                            | 1.96 | 4.79  | 0.05  | 0.58  | -0.12 | -0.37 | -0.55 | -0.75 | -0.79 |        |
| 4                                | -0.71 | -0.90 | 0.52                                            | 4.65 | 3.30  | 0.06  | 2.05  | -0.15 | -0.37 | -0.55 | -0.80 | -0.81 |        |
| 5                                | -0.70 | -0.91 | 0.22                                            | 3.98 | 1.93  | -0.04 | 2.76  | -0.17 | -0.38 | -0.57 | -0.87 | -0.86 |        |
| 6                                | -0.79 | -0.85 | -0.23                                           | 2.35 | 1.74  | 0.00  | 3.20  | -0.21 | -0.39 | -0.62 | -0.94 | -0.94 |        |
| 7                                | -0.93 | -0.02 | -0.19                                           | 1.57 | 1.43  | -0.01 | 3.54  | -0.23 | -0.43 | -0.68 | -1.01 | -1.02 |        |
| 8                                | -0.92 | -0.52 | -0.30                                           | 1.11 | 1.34  | 0.14  | 3.37  | -0.28 | -0.50 | -0.78 | -1.04 | -1.09 |        |
| 9                                | -0.95 | -0.45 | -0.13                                           | 0.96 | 1.14  | 0.06  | 2.69  | -0.29 | -0.57 | -0.85 | -1.04 | -1.14 |        |
| 10                               | -0.92 | -0.40 | 0.77                                            | 0.72 | 0.88  | 0.17  | 1.99  | -0.29 | -0.62 | -0.88 | -1.03 | -1.15 |        |
| 11                               | -0.88 | -0.50 | 2.25                                            | 0.68 | 0.66  | 1.54  | 1.28  | -0.17 | -0.64 | -0.88 | -1.00 | -1.14 |        |
| 12                               | -0.93 | -0.57 | 4.56                                            | 0.48 | 0.64  | 2.51  | 0.97  | -0.16 | -0.63 | -0.87 | -0.96 | -1.12 |        |
| 13                               | -0.93 | -0.58 | 4.72                                            | 0.40 | 1.12  | 1.61  | 0.76  | -0.17 | -0.63 | -0.86 | -0.92 | -1.09 |        |
| 14                               | -0.90 | -0.58 | 3.37                                            | 2.25 | 1.06  | 1.84  | 0.68  | -0.28 | -0.63 | -0.84 | -0.89 | -1.06 |        |
| 15                               | -0.90 | -0.61 | 3.70                                            | 2.27 | 0.60  | 1.15  | 0.48  | -0.25 | -0.61 | -0.80 | -0.86 | -1.02 |        |
| 16                               | -0.88 | -0.64 | 4.31                                            | 2.48 | 0.44  | 0.71  | 0.33  | -0.23 | -0.57 | -0.76 | -0.83 | -0.97 |        |
| 17                               | -0.86 | -0.65 | 3.59                                            | 1.78 | 0.31  | 0.52  | 0.27  | -0.14 | -0.55 | -0.77 | -0.81 | -0.92 |        |
| 18                               | -0.68 | -0.59 | 2.57                                            | 1.69 | 0.22  | 0.35  | 0.30  | -0.31 | -0.53 | -0.77 | -0.82 | -0.88 |        |
| 19                               | -0.77 | 0.26  | 2.20                                            | 1.26 | 0.12  | 0.33  | 0.33  | -0.35 | -0.54 | -0.76 | -0.85 | -0.87 |        |
| 20                               | -0.87 | 0.65  | 2.03                                            | 0.90 | 0.06  | 1.88  | 0.43  | -0.38 | -0.55 | -0.78 | -0.88 | -0.88 |        |
| 21                               | -0.90 | 0.41  | 1.53                                            | 0.91 | 0.06  | 1.21  | 0.45  | -0.41 | -0.59 | -0.83 | -0.93 | -0.90 |        |
| 22                               | -0.90 | -0.01 | 1.30                                            | 1.63 | 0.05  | 0.74  | 0.40  | -0.39 | -0.64 | -0.88 | -0.99 | -0.96 |        |
| 23                               | -0.90 | 0.20  | 0.99                                            | 2.60 | 0.11  | 0.54  | 0.74  | -0.38 | -0.68 | -0.90 | -1.05 | -1.00 |        |
| 24                               | -0.88 | 0.08  | 0.52                                            | 2.42 | 0.76  | 0.39  | 0.64  | -0.20 | -0.71 | -0.94 | -1.07 | -1.08 |        |
| 25                               | -0.85 | 0.64  | 0.25                                            | 2.66 | 0.58  | 0.20  | 0.36  | -0.36 | -0.74 | -0.97 | -1.05 | -1.13 |        |
| 26                               | -0.84 | 1.50  | 0.17                                            | 1.58 | 0.34  | 0.08  | 0.59  | -0.45 | -0.78 | -0.96 | -0.99 | -1.11 |        |
| 27                               | -0.81 | 0.67  | 0.43                                            | 1.16 | 0.13  | 0.14  | 0.35  | -0.43 | -0.79 | -0.93 | -0.94 | -1.05 |        |
| 28                               | -0.78 | 0.43  | 0.31                                            | 0.93 | -0.01 | 0.42  | 0.18  | -0.06 | -0.77 | -0.90 | -0.88 | -1.00 |        |
| 29                               | -0.87 | 0.61  | 0.26                                            | 0.64 | -0.03 | 1.19  | 0.07  | -0.36 | -0.75 | -0.86 |       | -0.94 |        |
| 30                               | -0.83 | 0.02  | 0.16                                            | 0.50 | -0.02 | 1.65  | -0.01 | -0.28 | -0.72 | -0.80 |       | -0.88 |        |
| 31                               |       | -0.02 |                                                 | 0.81 | 0.01  |       | -0.03 |       | -0.67 | -0.75 |       | -0.82 |        |
| Mean                             | -0.84 | -0.19 | 1.39                                            | 1.57 | 1.03  | 0.66  | 1.01  | -0.25 | -0.58 | -0.79 | -0.92 | -0.97 |        |
| Max                              | -0.68 | 1.50  | 4.72                                            | 4.65 | 4.79  | 2.51  | 3.54  | -0.04 | -0.34 | -0.55 | -0.73 | -0.78 | 4.79   |
| Min                              | -0.95 | -0.91 | -0.30                                           | 0.08 | -0.03 | -0.04 | -0.03 | -0.45 | -0.79 | -0.97 | -1.07 | -1.15 | -1.15  |
| Annual Max Momentary Gage Height | 5.54  |       | m. (MSL.) , at 22.00 Hours , on Aug 2 , 2013    |      |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed -2.13 m. (MSL.)           |      |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 5.79  |       | m. (MSL.) ,                                     |      |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 5.82  |       | m. (MSL.) , Drainage Area 734 Square Kilometers |      |       |       |       |       |       |       |       |       |        |





Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                            | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov      | Dec                      | Jan    | Feb    | Mar    | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|----------|--------------------------|--------|--------|--------|----------|--------|
| 1              | 21.00                                                          | 15.25                    | 55.50   | 69.00   | 493.00               | 73.50   | 154.00  | 60.00    | 38.90                    | 24.60  | 19.80  | 16.30  |          |        |
| 2              | 20.60                                                          | 15.60                    | 179.00  | 169.00  | 697.75               | 69.00   | 111.00  | 55.50    | 36.95                    | 26.50  | 19.80  | 17.80  |          |        |
| 3              | 19.00                                                          | 13.85                    | 109.15  | 258.00  | 708.25               | 66.75   | 108.30  | 54.00    | 36.95                    | 27.50  | 19.00  | 17.40  |          |        |
| 4              | 20.60                                                          | 13.50                    | 103.20  | 683.75  | 449.00               | 67.50   | 269.25  | 51.75    | 36.95                    | 27.50  | 17.00  | 16.65  |          |        |
| 5              | 21.00                                                          | 13.15                    | 79.50   | 566.50  | 254.25               | 60.00   | 367.00  | 50.25    | 36.30                    | 26.50  | 14.55  | 14.90  |          |        |
| 6              | 17.40                                                          | 15.25                    | 46.05   | 308.25  | 230.80               | 63.00   | 433.00  | 47.35    | 35.65                    | 24.20  | 12.10  | 12.10  |          |        |
| 7              | 12.45                                                          | 61.50                    | 48.75   | 210.40  | 193.60               | 62.25   | 489.50  | 46.05    | 33.50                    | 21.80  | 9.70   | 9.40   |          |        |
| 8              | 12.80                                                          | 29.00                    | 41.50   | 161.00  | 184.00               | 73.50   | 460.20  | 42.80    | 30.00                    | 17.80  | 8.80   | 7.30   |          |        |
| 9              | 11.75                                                          | 32.50                    | 53.25   | 146.00  | 164.00               | 67.50   | 356.50  | 42.15    | 26.50                    | 15.25  | 8.80   | 5.80   |          |        |
| 10             | 12.80                                                          | 35.00                    | 127.00  | 122.00  | 138.00               | 75.75   | 261.75  | 42.15    | 24.20                    | 14.20  | 9.10   | 5.50   |          |        |
| 11             | 14.20                                                          | 30.00                    | 294.75  | 118.00  | 116.00               | 206.80  | 178.00  | 50.25    | 23.40                    | 14.20  | 10.00  | 5.80   |          |        |
| 12             | 12.45                                                          | 26.50                    | 668.00  | 99.80   | 114.00               | 330.40  | 147.00  | 51.00    | 23.80                    | 14.55  | 11.40  | 6.40   |          |        |
| 13             | 12.45                                                          | 26.00                    | 696.00  | 93.00   | 162.00               | 215.20  | 126.00  | 50.25    | 23.80                    | 14.90  | 12.80  | 7.30   |          |        |
| 14             | 13.50                                                          | 26.00                    | 460.20  | 294.75  | 156.00               | 243.00  | 118.00  | 42.80    | 23.80                    | 15.60  | 13.85  | 8.20   |          |        |
| 15             | 13.50                                                          | 24.60                    | 517.50  | 297.45  | 110.00               | 165.00  | 99.80   | 44.75    | 24.60                    | 17.00  | 14.90  | 9.40   |          |        |
| 16             | 14.20                                                          | 23.40                    | 624.25  | 326.20  | 96.40                | 121.00  | 87.75   | 46.05    | 26.50                    | 18.60  | 15.95  | 11.05  |          |        |
| 17             | 14.90                                                          | 23.00                    | 498.25  | 235.60  | 86.25                | 103.20  | 83.25   | 52.50    | 27.50                    | 18.20  | 16.65  | 12.80  |          |        |
| 18             | 21.80                                                          | 25.50                    | 338.80  | 224.80  | 79.50                | 89.25   | 85.50   | 40.85    | 28.50                    | 18.20  | 16.30  | 14.20  |          |        |
| 19             | 18.20                                                          | 82.50                    | 288.00  | 176.00  | 72.00                | 87.75   | 87.75   | 38.25    | 28.00                    | 18.60  | 15.25  | 14.55  |          |        |
| 20             | 14.55                                                          | 115.00                   | 266.75  | 140.00  | 67.50                | 248.00  | 95.55   | 36.30    | 27.50                    | 17.80  | 14.20  | 14.20  |          |        |
| 21             | 13.50                                                          | 93.85                    | 205.60  | 141.00  | 67.50                | 171.00  | 97.25   | 34.50    | 25.50                    | 15.95  | 12.45  | 13.50  |          |        |
| 22             | 13.50                                                          | 62.25                    | 180.00  | 217.60  | 66.75                | 124.00  | 93.00   | 35.65    | 23.40                    | 14.20  | 10.35  | 11.40  |          |        |
| 23             | 13.50                                                          | 78.00                    | 149.00  | 343.00  | 71.25                | 104.90  | 124.00  | 36.30    | 21.80                    | 13.50  | 8.50   | 10.00  |          |        |
| 24             | 14.20                                                          | 69.00                    | 103.20  | 317.80  | 126.00               | 92.25   | 114.00  | 48.00    | 20.60                    | 12.10  | 7.90   | 7.60   |          |        |
| 25             | 15.25                                                          | 114.00                   | 81.75   | 352.00  | 108.30               | 78.00   | 90.00   | 37.60    | 19.40                    | 11.05  | 8.50   | 6.10   |          |        |
| 26             | 15.60                                                          | 202.00                   | 75.75   | 211.60  | 88.50                | 69.00   | 109.15  | 32.50    | 17.80                    | 11.40  | 10.35  | 6.70   |          |        |
| 27             | 16.65                                                          | 117.00                   | 95.55   | 166.00  | 72.75                | 73.50   | 89.25   | 33.50    | 17.40                    | 12.45  | 12.10  | 8.50   |          |        |
| 28             | 17.80                                                          | 95.55                    | 86.25   | 143.00  | 62.25                | 94.70   | 76.50   | 58.50    | 18.20                    | 13.50  | 14.20  | 10.00  |          |        |
| 29             | 14.55                                                          | 111.00                   | 82.50   | 114.00  | 60.75                | 169.00  | 68.25   | 37.60    | 19.00                    | 14.90  |        | 12.10  |          |        |
| 30             | 15.95                                                          | 64.50                    | 75.00   | 101.50  | 61.50                | 220.00  | 62.25   | 42.80    | 20.20                    | 17.00  |        | 14.20  |          |        |
| 31             |                                                                | 61.50                    |         | 131.00  | 63.75                |         | 60.75   |          | 22.20                    | 19.00  |        | 16.30  |          |        |
| Total          | 469.65                                                         | 1715.75                  | 6630.00 | 6938.00 | 5421.60              | 3684.70 | 5103.50 | 1341.95  | 818.80                   | 548.55 | 364.30 | 343.45 | 33380.25 | CMSDAY |
| Mean           | 15.65                                                          | 55.35                    | 221.00  | 223.81  | 174.89               | 122.82  | 164.63  | 44.73    | 26.41                    | 17.70  | 13.01  | 11.08  | 91.45    | CMS    |
| Max            | 21.80                                                          | 202.00                   | 696.00  | 683.75  | 708.25               | 330.40  | 489.50  | 60.00    | 38.90                    | 27.50  | 19.80  | 17.80  | 708.25   | CMS    |
| Min            | 11.75                                                          | 13.15                    | 41.50   | 69.00   | 60.75                | 60.00   | 60.75   | 32.50    | 17.40                    | 11.05  | 7.90   | 5.50   | 5.50     | CMS    |
| Runoff         | 40.58                                                          | 148.24                   | 572.83  | 599.44  | 468.43               | 318.36  | 440.94  | 115.94   | 70.74                    | 47.40  | 31.48  | 29.67  | 2884.05  | MCM    |
| Momentary Peak | 850.60 CMS. at 5.54 m. (MSL.) at 22.00 Hours , on Aug 2 , 2013 |                          |         |         |                      |         |         |          |                          |        |        |        |          |        |
| Runoff Yield   | 124.65                                                         | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | 1159.361 | Liters/Second/Square KM. |        |        |        |          |        |

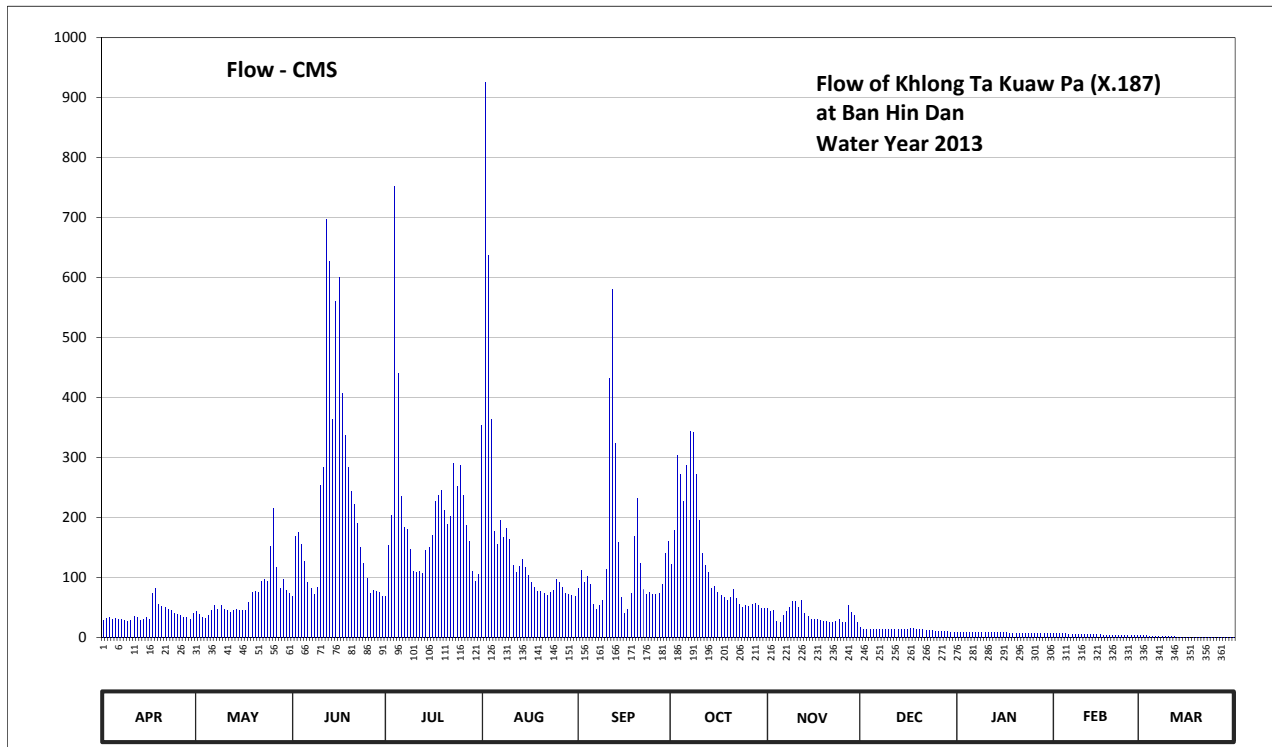
Lat 08 - 46 - 25 N    Long 98 - 23 - 36 E

**Location :** on left bank at the bridge on Surat Thanu - Phang Nga Highway.

|                                         |                                                                                           |           |               |            |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|------------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Hin Dan   | <b>Amphoe</b> | Ta Kuaw Pa | <b>Changwat</b>  | Phangnga         |
| <b>Drainage Area</b>                    | 546                                                                                       | sq.km.    |               |            |                  |                  |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |            |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |            |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |            |                  |                  |
| <b>Location BM</b>                      | On left bank about 4 meters from the top staff gage.                                      |           |               |            | <b>Elevation</b> | +9.230 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |            |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 5 readings                                                            |           |               |            |                  |                  |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |           |               |            |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |            |                  |                  |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |           |               |            |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |            |                  |                  |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |           |               |            |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |            |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |            |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 22 discharge measurements made in 2013. |           |               |            |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr               | May  | Jun                                             | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------------------|------|-------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 5.18              | 5.34 | 5.58                                            | 5.57 | 7.13 | 5.67 | 5.96 | 5.39 | 4.96 | 4.78 | 4.69 | 4.57 |        |
| 2                                | 5.22              | 5.29 | 6.25                                            | 6.16 | 8.96 | 5.89 | 6.30 | 5.34 | 4.90 | 4.78 | 4.69 | 4.55 |        |
| 3                                | 5.24              | 5.25 | 6.28                                            | 6.43 | 8.14 | 5.74 | 6.92 | 5.36 | 4.90 | 4.78 | 4.69 | 4.53 |        |
| 4                                | 5.21              | 5.22 | 6.17                                            | 8.48 | 7.17 | 5.82 | 6.77 | 5.16 | 4.89 | 4.78 | 4.69 | 4.50 |        |
| 5                                | 5.23              | 5.27 | 5.99                                            | 7.47 | 6.29 | 5.72 | 6.55 | 5.10 | 4.90 | 4.76 | 4.69 | 4.50 |        |
| 6                                | 5.20              | 5.35 | 5.75                                            | 6.59 | 6.17 | 5.45 | 6.84 | 5.27 | 4.89 | 4.76 | 4.67 | 4.49 |        |
| 7                                | 5.20              | 5.43 | 5.68                                            | 6.33 | 6.39 | 5.37 | 7.09 | 5.34 | 4.88 | 4.76 | 4.67 | 4.47 |        |
| 8                                | 5.18              | 5.38 | 5.60                                            | 6.31 | 6.24 | 5.44 | 7.08 | 5.41 | 4.88 | 4.76 | 4.67 | 4.45 |        |
| 9                                | 5.16              | 5.43 | 5.69                                            | 6.12 | 6.32 | 5.52 | 6.77 | 5.49 | 4.88 | 4.76 | 4.67 | 4.42 |        |
| 10                               | 5.19              | 5.38 | 6.68                                            | 5.88 | 6.22 | 5.90 | 6.39 | 5.50 | 4.88 | 4.75 | 4.67 | 4.40 |        |
| 11                               | 5.26              | 5.35 | 6.83                                            | 5.87 | 5.95 | 7.44 | 6.08 | 5.40 | 4.88 | 4.75 | 4.67 | 4.39 |        |
| 12                               | 5.24              | 5.32 | 8.32                                            | 5.88 | 5.87 | 7.97 | 5.95 | 5.51 | 4.87 | 4.75 | 4.67 | 4.37 |        |
| 13                               | 5.19              | 5.35 | 8.11                                            | 5.85 | 5.94 | 7.01 | 5.86 | 5.30 | 4.87 | 4.75 | 4.67 | 4.35 |        |
| 14                               | 5.21              | 5.38 | 7.17                                            | 6.11 | 6.02 | 6.19 | 5.68 | 5.26 | 4.88 | 4.75 | 4.67 | 4.32 |        |
| 15                               | 5.25              | 5.35 | 7.90                                            | 6.14 | 5.93 | 5.55 | 5.70 | 5.20 | 4.89 | 4.75 | 4.67 | 4.30 |        |
| 16                               | 5.21              | 5.35 | 8.03                                            | 6.26 | 5.83 | 5.31 | 5.63 | 5.20 | 4.90 | 4.75 | 4.66 | 4.28 |        |
| 17                               | 5.62              | 5.36 | 7.34                                            | 6.55 | 5.74 | 5.38 | 5.59 | 5.20 | 4.91 | 4.75 | 4.62 | 4.26 |        |
| 18                               | 5.68              | 5.48 | 7.06                                            | 6.60 | 5.69 | 5.62 | 5.55 | 5.18 | 4.91 | 4.74 | 4.62 | 4.22 |        |
| 19                               | 5.46              | 5.63 | 6.83                                            | 6.64 | 5.64 | 6.25 | 5.52 | 5.14 | 4.90 | 4.72 | 4.62 | 4.20 |        |
| 20                               | 5.42              | 5.64 | 6.63                                            | 6.47 | 5.64 | 6.57 | 5.55 | 5.14 | 4.89 | 4.72 | 4.62 | 4.18 |        |
| 21                               | 5.40              | 5.63 | 6.52                                            | 6.35 | 5.62 | 5.97 | 5.66 | 5.10 | 4.88 | 4.72 | 4.62 | 4.18 |        |
| 22                               | 5.38              | 5.76 | 6.36                                            | 6.42 | 5.59 | 5.66 | 5.54 | 5.11 | 4.85 | 4.72 | 4.62 | 4.18 |        |
| 23                               | 5.35              | 5.78 | 6.14                                            | 6.86 | 5.63 | 5.60 | 5.46 | 5.15 | 4.85 | 4.72 | 4.60 | 4.18 |        |
| 24                               | 5.30              | 5.76 | 5.97                                            | 6.67 | 5.65 | 5.63 | 5.41 | 5.20 | 4.84 | 4.71 | 4.60 | 4.18 |        |
| 25                               | 5.29              | 6.15 | 5.79                                            | 6.84 | 5.78 | 5.60 | 5.43 | 5.10 | 4.83 | 4.71 | 4.60 | 4.17 |        |
| 26                               | 5.28              | 6.49 | 5.62                                            | 6.60 | 5.74 | 5.60 | 5.42 | 5.11 | 4.82 | 4.71 | 4.60 | 4.15 |        |
| 27                               | 5.25              | 5.92 | 5.65                                            | 6.34 | 5.69 | 5.62 | 5.45 | 5.44 | 4.80 | 4.70 | 4.59 | 4.15 |        |
| 28                               | 5.25              | 5.68 | 5.64                                            | 6.20 | 5.62 | 5.72 | 5.47 | 5.32 | 4.80 | 4.70 | 4.59 | 4.15 |        |
| 29                               | 5.21              | 5.78 | 5.63                                            | 5.88 | 5.60 | 6.08 | 5.44 | 5.28 | 4.80 | 4.70 |      | 4.15 |        |
| 30                               | 5.31              | 5.65 | 5.57                                            | 5.76 | 5.59 | 6.20 | 5.39 | 5.10 | 4.75 | 4.69 |      | 4.15 |        |
| 31                               |                   | 5.61 |                                                 | 5.84 | 5.58 |      | 5.39 |      | 4.75 | 4.69 |      | 4.15 |        |
| Mean                             | 5.29              | 5.54 | 6.43                                            | 6.37 | 6.11 | 5.92 | 5.93 | 5.26 | 4.87 | 4.74 | 4.65 | 4.31 |        |
| Max                              | 5.68              | 6.49 | 8.32                                            | 8.48 | 8.96 | 7.97 | 7.09 | 5.51 | 4.96 | 4.78 | 4.69 | 4.57 | 8.96   |
| Min                              | 5.16              | 5.22 | 5.57                                            | 5.57 | 5.58 | 5.31 | 5.39 | 5.10 | 4.75 | 4.69 | 4.59 | 4.15 | 4.15   |
| Annual Max Momentary Gage Height | 9.30              |      | m. (MSL.) , at 16.00 Hours , on Aug 2 , 2013    |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00              |      | m. (MSL.) , River Bed 3.46 m. (MSL.)            |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 11.63 m. (MSL.) , |      |                                                 |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 11.65             |      | m. (MSL.) , Drainage Area 546 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul                  | Aug     | Sep      | Oct     | Nov                      | Dec    | Jan    | Feb    | Mar   | Annual          |
|----------------|-----------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|---------|--------------------------|--------|--------|--------|-------|-----------------|
| 1              | 29.00                                                           | 44.00                    | 69.80   | 68.70                | 354.50  | 81.80    | 122.40  | 49.00                    | 18.00  | 9.40   | 6.70   | 3.70  |                 |
| 2              | 32.00                                                           | 39.00                    | 169.50  | 153.60               | 924.80  | 112.60   | 179.00  | 44.00                    | 15.00  | 9.40   | 6.70   | 3.50  |                 |
| 3              | 34.00                                                           | 35.00                    | 175.20  | 204.00               | 636.20  | 91.60    | 304.40  | 46.00                    | 15.00  | 9.40   | 6.70   | 3.30  |                 |
| 4              | 31.00                                                           | 32.00                    | 155.20  | 752.00               | 364.50  | 102.80   | 272.00  | 28.00                    | 14.50  | 9.40   | 6.70   | 3.00  |                 |
| 5              | 33.00                                                           | 37.00                    | 126.60  | 440.90               | 177.10  | 88.80    | 228.00  | 25.00                    | 15.00  | 8.80   | 6.70   | 3.00  |                 |
| 6              | 30.00                                                           | 45.00                    | 93.00   | 236.00               | 155.20  | 55.50    | 286.80  | 37.00                    | 14.50  | 8.80   | 6.10   | 2.90  |                 |
| 7              | 30.00                                                           | 53.30                    | 83.20   | 184.70               | 196.10  | 47.00    | 344.50  | 44.00                    | 14.00  | 8.80   | 6.10   | 2.70  |                 |
| 8              | 29.00                                                           | 48.00                    | 72.00   | 180.90               | 167.60  | 54.40    | 342.00  | 51.10                    | 14.00  | 8.80   | 6.10   | 2.50  |                 |
| 9              | 28.00                                                           | 53.30                    | 84.60   | 147.20               | 182.80  | 63.20    | 272.00  | 59.90                    | 14.00  | 8.80   | 6.10   | 2.20  |                 |
| 10             | 29.50                                                           | 48.00                    | 254.00  | 111.20               | 163.80  | 114.00   | 196.10  | 61.00                    | 14.00  | 8.50   | 6.10   | 2.00  |                 |
| 11             | 36.00                                                           | 45.00                    | 284.60  | 109.80               | 121.00  | 432.80   | 140.80  | 50.00                    | 14.00  | 8.50   | 6.10   | 1.92  |                 |
| 12             | 34.00                                                           | 42.00                    | 696.80  | 111.20               | 109.80  | 581.00   | 121.00  | 62.10                    | 13.50  | 8.50   | 6.10   | 1.76  |                 |
| 13             | 29.50                                                           | 45.00                    | 626.30  | 107.00               | 119.60  | 324.50   | 108.40  | 40.00                    | 13.50  | 8.50   | 6.10   | 1.60  |                 |
| 14             | 31.00                                                           | 48.00                    | 364.50  | 145.60               | 131.20  | 158.40   | 83.20   | 36.00                    | 14.00  | 8.50   | 6.10   | 1.36  |                 |
| 15             | 35.00                                                           | 45.00                    | 560.00  | 150.40               | 118.20  | 66.50    | 86.00   | 30.00                    | 14.50  | 8.50   | 6.10   | 1.20  |                 |
| 16             | 31.00                                                           | 45.00                    | 599.90  | 171.40               | 104.20  | 41.00    | 76.20   | 30.00                    | 15.00  | 8.50   | 5.80   | 1.04  |                 |
| 17             | 74.80                                                           | 46.00                    | 407.00  | 228.00               | 91.60   | 48.00    | 70.90   | 30.00                    | 15.50  | 8.50   | 4.60   | 0.88  |                 |
| 18             | 83.20                                                           | 58.80                    | 337.00  | 238.00               | 84.60   | 74.80    | 66.50   | 29.00                    | 15.50  | 8.20   | 4.60   | 0.56  |                 |
| 19             | 56.60                                                           | 76.20                    | 284.60  | 246.00               | 77.60   | 169.50   | 63.20   | 27.00                    | 15.00  | 7.60   | 4.60   | 0.40  |                 |
| 20             | 52.20                                                           | 77.60                    | 244.00  | 212.00               | 77.60   | 232.00   | 66.50   | 27.00                    | 14.50  | 7.60   | 4.60   | 0.32  |                 |
| 21             | 50.00                                                           | 76.20                    | 222.00  | 188.50               | 74.80   | 123.80   | 80.40   | 25.00                    | 14.00  | 7.60   | 4.60   | 0.32  |                 |
| 22             | 48.00                                                           | 94.40                    | 190.40  | 202.00               | 70.90   | 80.40    | 65.40   | 25.50                    | 12.50  | 7.60   | 4.60   | 0.32  |                 |
| 23             | 45.00                                                           | 97.20                    | 150.40  | 291.20               | 76.20   | 72.00    | 56.60   | 27.50                    | 12.50  | 7.60   | 4.00   | 0.32  |                 |
| 24             | 40.00                                                           | 94.40                    | 123.80  | 252.00               | 79.00   | 76.20    | 51.10   | 30.00                    | 12.00  | 7.30   | 4.00   | 0.32  |                 |
| 25             | 39.00                                                           | 152.00                   | 98.60   | 286.80               | 97.20   | 72.00    | 53.30   | 25.00                    | 11.50  | 7.30   | 4.00   | 0.28  |                 |
| 26             | 38.00                                                           | 216.00                   | 74.80   | 238.00               | 91.60   | 72.00    | 52.20   | 25.50                    | 11.00  | 7.30   | 4.00   | 0.20  |                 |
| 27             | 35.00                                                           | 116.80                   | 79.00   | 186.60               | 84.60   | 74.80    | 55.50   | 54.40                    | 10.00  | 7.00   | 3.90   | 0.20  |                 |
| 28             | 35.00                                                           | 83.20                    | 77.60   | 160.00               | 74.80   | 88.80    | 57.70   | 42.00                    | 10.00  | 7.00   | 3.90   | 0.20  |                 |
| 29             | 31.00                                                           | 97.20                    | 76.20   | 111.20               | 72.00   | 140.80   | 54.40   | 38.00                    | 10.00  | 7.00   |        | 0.20  |                 |
| 30             | 41.00                                                           | 79.00                    | 68.70   | 94.40                | 70.90   | 160.00   | 49.00   | 25.00                    | 8.50   | 6.70   |        | 0.20  |                 |
| 31             |                                                                 | 73.40                    |         | 105.60               | 69.80   |          | 49.00   |                          | 8.50   | 6.70   |        | 0.20  |                 |
| Total          | 1170.80                                                         | 2143.00                  | 6849.30 | 6314.90              | 5219.80 | 3901.00  | 4054.50 | 1124.00                  | 413.50 | 252.10 | 151.70 | 42.60 | 31637.20 CMSDAY |
| Mean           | 39.03                                                           | 69.13                    | 228.31  | 203.71               | 168.38  | 130.03   | 130.79  | 37.47                    | 13.34  | 8.13   | 5.42   | 1.37  | 86.68 CMS       |
| Max            | 83.20                                                           | 216.00                   | 696.80  | 752.00               | 924.80  | 581.00   | 344.50  | 62.10                    | 18.00  | 9.40   | 6.70   | 3.70  | 924.80 CMS      |
| Min            | 28.00                                                           | 32.00                    | 68.70   | 68.70                | 69.80   | 41.00    | 49.00   | 25.00                    | 8.50   | 6.70   | 3.90   | 0.20  | 0.20 CMS        |
| Runoff         | 101.16                                                          | 185.16                   | 591.78  | 545.61               | 450.99  | 337.05   | 350.31  | 97.11                    | 35.73  | 21.78  | 13.11  | 3.68  | 2733.45 MCM     |
| Momentary Peak | 1055.00 CMS. at 9.30 m. (MSL.) at 16.00 Hours , on Aug 2 , 2013 |                          |         |                      |         |          |         |                          |        |        |        |       |                 |
| Runoff Yield   | 158.83                                                          | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 1933.226 |         | Liters/Second/Square KM. |        |        |        |       |                 |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA WEST COAST

**Khlong Rommanee at Ban Rommanee , Phangnga (X.188A)**

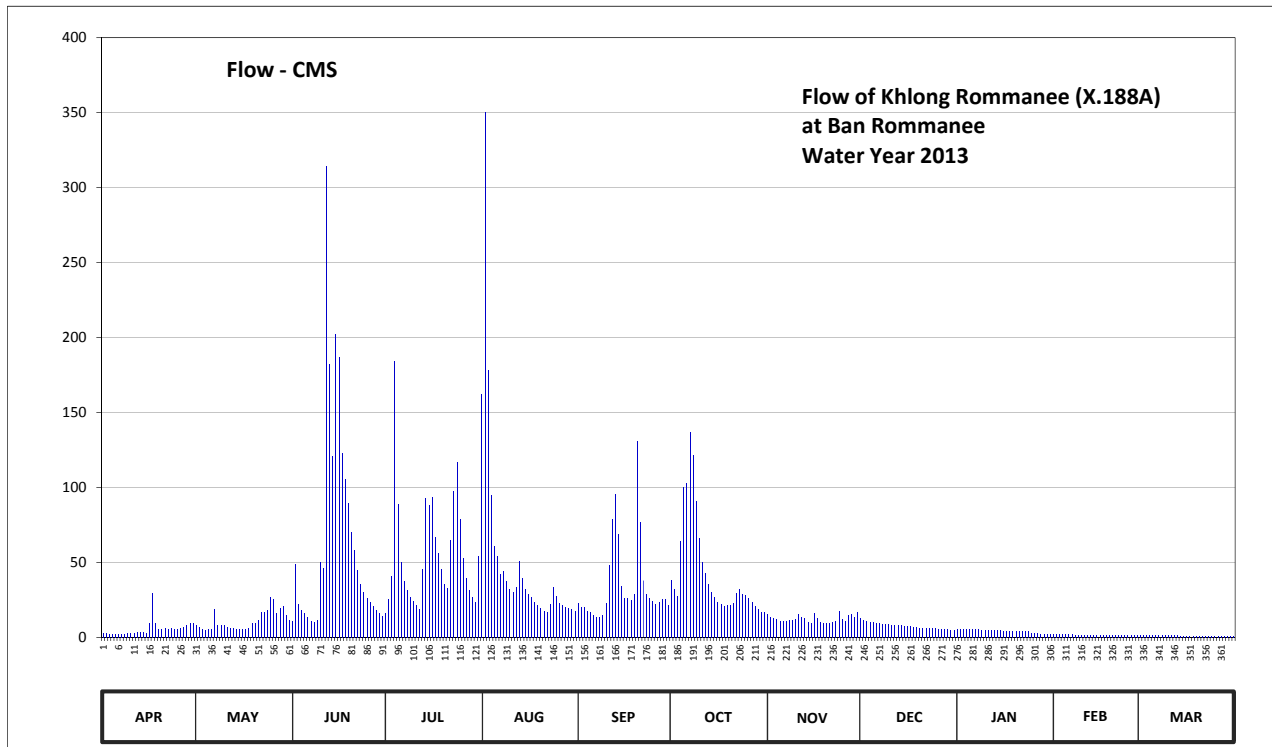
Lat 08 - 45 - 50 N    Long 98 - 27 - 35 E

**Location : on left bank at the bridge.**

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Rommanee  | <b>Amphoe</b> | Kapong | <b>Changwat</b>  | Phangnga          |
| <b>Drainage Area</b>                    | 232                                                                                       | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Staff                                                                                     | gage.     |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | On left bank at the abutmentof the bridge.                                                |           |               |        | <b>Elevation</b> | +18.740 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 5 readings                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2009 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2009 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2009 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable.                                                                          |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | Overbank flow starts at elevation +18.640 m.(MSL.), records are channel flow only.        |           |               |        |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 13.45 | 13.80 | 14.01                                           | 14.18 | 16.80 | 14.39 | 14.83 | 14.15 | 14.07 | 13.65 | 13.40 | 13.33 |        |
| 2                                | 13.45 | 13.71 | 15.04                                           | 14.48 | 18.55 | 14.32 | 14.69 | 14.10 | 14.02 | 13.65 | 13.40 | 13.32 |        |
| 3                                | 13.43 | 13.63 | 14.37                                           | 14.88 | 16.98 | 14.30 | 14.55 | 14.07 | 13.98 | 13.64 | 13.40 | 13.32 |        |
| 4                                | 13.40 | 13.60 | 14.24                                           | 17.04 | 15.89 | 14.23 | 15.35 | 14.04 | 13.96 | 13.65 | 13.40 | 13.31 |        |
| 5                                | 13.40 | 13.63 | 14.18                                           | 15.80 | 15.28 | 14.20 | 15.97 | 14.01 | 13.94 | 13.64 | 13.40 | 13.31 |        |
| 6                                | 13.40 | 13.65 | 14.08                                           | 15.07 | 15.15 | 14.14 | 16.01 | 13.99 | 13.92 | 13.64 | 13.40 | 13.31 |        |
| 7                                | 13.43 | 14.26 | 14.00                                           | 14.82 | 14.91 | 14.10 | 16.49 | 14.01 | 13.90 | 13.63 | 13.39 | 13.31 |        |
| 8                                | 13.42 | 13.80 | 13.94                                           | 14.67 | 14.94 | 14.10 | 16.28 | 14.03 | 13.88 | 13.62 | 13.35 | 13.30 |        |
| 9                                | 13.45 | 13.83 | 14.02                                           | 14.54 | 14.81 | 14.14 | 15.83 | 14.03 | 13.86 | 13.61 | 13.35 | 13.30 |        |
| 10                               | 13.45 | 13.80 | 15.06                                           | 14.45 | 14.69 | 14.40 | 15.38 | 14.05 | 13.85 | 13.61 | 13.35 | 13.29 |        |
| 11                               | 13.46 | 13.72 | 14.99                                           | 14.35 | 14.63 | 15.02 | 15.07 | 14.15 | 13.84 | 13.60 | 13.35 | 13.29 |        |
| 12                               | 13.50 | 13.70 | 18.25                                           | 14.26 | 14.72 | 15.63 | 14.92 | 14.09 | 13.83 | 13.60 | 13.35 | 13.30 |        |
| 13                               | 13.49 | 13.67 | 17.02                                           | 14.98 | 15.08 | 15.90 | 14.77 | 14.07 | 13.81 | 13.59 | 13.35 | 13.30 |        |
| 14                               | 13.49 | 13.64 | 16.27                                           | 15.86 | 14.85 | 15.44 | 14.63 | 13.97 | 13.80 | 13.59 | 13.35 | 13.25 |        |
| 15                               | 13.48 | 13.62 | 17.23                                           | 15.79 | 14.69 | 14.73 | 14.53 | 13.93 | 13.78 | 13.58 | 13.35 | 13.19 |        |
| 16                               | 13.89 | 13.62 | 17.07                                           | 15.87 | 14.59 | 14.50 | 14.43 | 14.17 | 13.78 | 13.57 | 13.36 | 13.18 |        |
| 17                               | 14.62 | 13.66 | 16.30                                           | 15.40 | 14.52 | 14.50 | 14.38 | 14.07 | 13.77 | 13.57 | 13.38 | 13.18 |        |
| 18                               | 13.90 | 13.70 | 16.05                                           | 15.19 | 14.43 | 14.46 | 14.34 | 13.96 | 13.74 | 13.56 | 13.37 | 13.17 |        |
| 19                               | 13.63 | 13.93 | 15.81                                           | 14.97 | 14.35 | 14.59 | 14.35 | 13.92 | 13.71 | 13.56 | 13.35 | 13.17 |        |
| 20                               | 13.62 | 13.92 | 15.47                                           | 14.76 | 14.29 | 16.41 | 14.36 | 13.90 | 13.70 | 13.55 | 13.34 | 13.17 |        |
| 21                               | 13.68 | 14.03 | 15.22                                           | 14.70 | 14.23 | 15.60 | 14.39 | 13.89 | 13.70 | 13.55 | 13.30 | 13.16 |        |
| 22                               | 13.64 | 14.19 | 14.96                                           | 15.36 | 14.20 | 14.82 | 14.62 | 13.94 | 13.69 | 13.54 | 13.30 | 13.15 |        |
| 23                               | 13.68 | 14.19 | 14.77                                           | 15.93 | 14.37 | 14.60 | 14.69 | 13.99 | 13.68 | 13.54 | 13.30 | 13.17 |        |
| 24                               | 13.65 | 14.24 | 14.63                                           | 16.21 | 14.72 | 14.50 | 14.59 | 14.22 | 13.67 | 13.54 | 13.30 | 13.17 |        |
| 25                               | 13.65 | 14.53 | 14.51                                           | 15.63 | 14.56 | 14.45 | 14.58 | 14.05 | 13.67 | 13.46 | 13.30 | 13.16 |        |
| 26                               | 13.70 | 14.48 | 14.41                                           | 15.12 | 14.40 | 14.38 | 14.51 | 13.98 | 13.66 | 13.45 | 13.30 | 13.16 |        |
| 27                               | 13.72 | 14.17 | 14.33                                           | 14.85 | 14.36 | 14.43 | 14.43 | 14.13 | 13.64 | 13.45 | 13.30 | 13.16 |        |
| 28                               | 13.84 | 14.28 | 14.25                                           | 14.67 | 14.30 | 14.49 | 14.33 | 14.16 | 13.63 | 13.40 | 13.30 | 13.16 |        |
| 29                               | 13.92 | 14.34 | 14.18                                           | 14.53 | 14.29 | 14.48 | 14.26 | 14.08 | 13.62 | 13.40 |       | 13.18 |        |
| 30                               | 13.89 | 14.13 | 14.12                                           | 14.43 | 14.26 | 14.35 | 14.21 | 14.20 | 13.61 | 13.40 |       | 13.16 |        |
| 31                               |       | 14.02 |                                                 | 15.15 | 14.23 |       | 14.21 |       | 13.61 | 13.40 |       | 13.16 |        |
| Mean                             | 13.62 | 13.92 | 15.09                                           | 15.09 | 14.91 | 14.65 | 14.84 | 14.05 | 13.78 | 13.56 | 13.35 | 13.23 |        |
| Max                              | 14.62 | 14.53 | 18.25                                           | 17.04 | 18.55 | 16.41 | 16.49 | 14.22 | 14.07 | 13.65 | 13.40 | 13.33 | 18.55  |
| Min                              | 13.40 | 13.60 | 13.94                                           | 14.18 | 14.20 | 14.10 | 14.21 | 13.89 | 13.61 | 13.40 | 13.30 | 13.15 | 13.15  |
| Annual Max Momentary Gage Height |       | 19.46 | m. (MSL.) , at 10.00 Hours , on Aug 2 , 2013    |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 12.31 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 18.63 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 18.64 | m. (MSL.) , Drainage Area 232 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



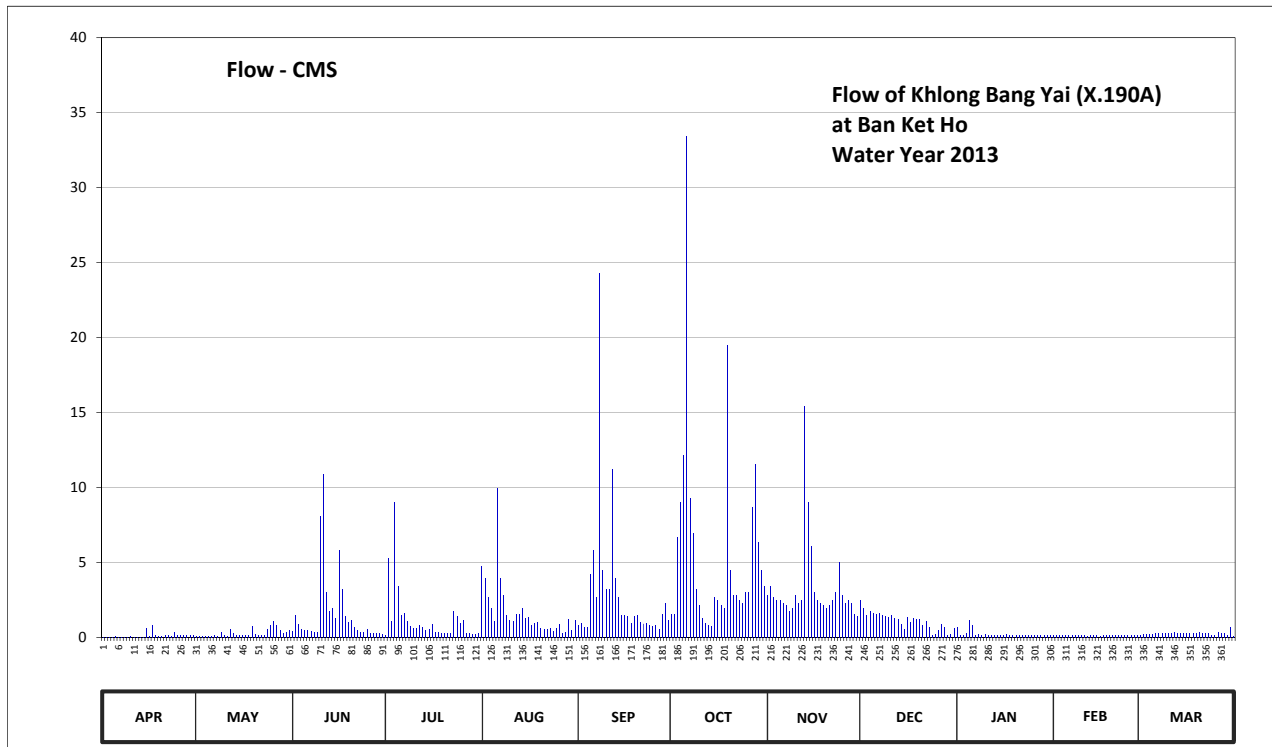
Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr                                                             | May                      | Jun     | Jul     | Aug                  | Sep     | Oct     | Nov     | Dec                      | Jan    | Feb   | Mar   | Annual  |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|---------|----------------------|---------|---------|---------|--------------------------|--------|-------|-------|---------|--------|
| 1              | 2.75                                                            | 8.00                     | 11.30   | 16.40   | 162.00               | 22.70   | 38.50   | 15.50   | 13.10                    | 5.75   | 2.00  | 1.65  |         |        |
| 2              | 2.75                                                            | 6.65                     | 49.00   | 25.40   | 350.00               | 20.60   | 32.60   | 14.00   | 11.60                    | 5.75   | 2.00  | 1.60  |         |        |
| 3              | 2.45                                                            | 5.45                     | 22.10   | 41.00   | 178.20               | 20.00   | 27.50   | 13.10   | 10.70                    | 5.60   | 2.00  | 1.60  |         |        |
| 4              | 2.00                                                            | 5.00                     | 18.20   | 183.80  | 94.85                | 17.90   | 64.50   | 12.20   | 10.40                    | 5.75   | 2.00  | 1.55  |         |        |
| 5              | 2.00                                                            | 5.45                     | 16.40   | 89.00   | 61.00                | 17.00   | 100.05  | 11.30   | 10.10                    | 5.60   | 2.00  | 1.55  |         |        |
| 6              | 2.00                                                            | 5.75                     | 13.40   | 50.50   | 54.50                | 15.20   | 102.70  | 10.85   | 9.80                     | 5.60   | 2.00  | 1.55  |         |        |
| 7              | 2.45                                                            | 18.80                    | 11.00   | 38.00   | 42.50                | 14.00   | 136.75  | 11.30   | 9.50                     | 5.45   | 1.95  | 1.55  |         |        |
| 8              | 2.30                                                            | 8.00                     | 10.10   | 31.80   | 44.00                | 14.00   | 121.60  | 11.90   | 9.20                     | 5.30   | 1.75  | 1.50  |         |        |
| 9              | 2.75                                                            | 8.45                     | 11.60   | 27.20   | 37.50                | 15.20   | 90.95   | 11.90   | 8.90                     | 5.15   | 1.75  | 1.50  |         |        |
| 10             | 2.75                                                            | 8.00                     | 50.00   | 24.50   | 32.60                | 23.00   | 66.00   | 12.50   | 8.75                     | 5.15   | 1.75  | 1.45  |         |        |
| 11             | 2.90                                                            | 6.80                     | 46.50   | 21.50   | 30.20                | 48.00   | 50.50   | 15.50   | 8.60                     | 5.00   | 1.75  | 1.45  |         |        |
| 12             | 3.50                                                            | 6.50                     | 314.00  | 18.80   | 33.80                | 78.80   | 43.00   | 13.70   | 8.45                     | 5.00   | 1.75  | 1.50  |         |        |
| 13             | 3.35                                                            | 6.05                     | 181.90  | 46.00   | 51.00                | 95.50   | 35.80   | 13.10   | 8.15                     | 4.85   | 1.75  | 1.50  |         |        |
| 14             | 3.35                                                            | 5.60                     | 120.90  | 92.90   | 39.50                | 69.00   | 30.20   | 10.55   | 8.00                     | 4.85   | 1.75  | 1.25  |         |        |
| 15             | 3.20                                                            | 5.30                     | 202.00  | 88.40   | 32.60                | 34.20   | 26.90   | 9.95    | 7.70                     | 4.70   | 1.75  | 0.95  |         |        |
| 16             | 9.35                                                            | 5.30                     | 186.65  | 93.55   | 28.70                | 26.00   | 23.90   | 16.10   | 7.70                     | 4.55   | 1.80  | 0.90  |         |        |
| 17             | 29.80                                                           | 5.90                     | 123.00  | 67.00   | 26.60                | 26.00   | 22.40   | 13.10   | 7.55                     | 4.55   | 1.90  | 0.90  |         |        |
| 18             | 9.50                                                            | 6.50                     | 105.50  | 56.50   | 23.90                | 24.80   | 21.20   | 10.40   | 7.10                     | 4.40   | 1.85  | 0.85  |         |        |
| 19             | 5.45                                                            | 9.95                     | 89.65   | 45.50   | 21.50                | 28.70   | 21.50   | 9.80    | 6.65                     | 4.40   | 1.75  | 0.85  |         |        |
| 20             | 5.30                                                            | 9.80                     | 70.50   | 35.40   | 19.70                | 130.75  | 21.80   | 9.50    | 6.50                     | 4.25   | 1.70  | 0.85  |         |        |
| 21             | 6.20                                                            | 11.90                    | 58.00   | 33.00   | 17.90                | 77.00   | 22.70   | 9.35    | 6.50                     | 4.25   | 1.50  | 0.80  |         |        |
| 22             | 5.60                                                            | 16.70                    | 45.00   | 65.00   | 17.00                | 38.00   | 29.80   | 10.10   | 6.35                     | 4.10   | 1.50  | 0.75  |         |        |
| 23             | 6.20                                                            | 16.70                    | 35.80   | 97.45   | 22.10                | 29.00   | 32.60   | 10.85   | 6.20                     | 4.10   | 1.50  | 0.85  |         |        |
| 24             | 5.75                                                            | 18.20                    | 30.20   | 116.70  | 33.80                | 26.00   | 28.70   | 17.60   | 6.05                     | 4.10   | 1.50  | 0.85  |         |        |
| 25             | 5.75                                                            | 26.90                    | 26.30   | 78.80   | 27.80                | 24.50   | 28.40   | 12.50   | 6.05                     | 2.90   | 1.50  | 0.80  |         |        |
| 26             | 6.50                                                            | 25.40                    | 23.30   | 53.00   | 23.00                | 22.40   | 26.30   | 10.70   | 5.90                     | 2.75   | 1.50  | 0.80  |         |        |
| 27             | 6.80                                                            | 16.10                    | 20.90   | 39.50   | 21.80                | 23.90   | 23.90   | 14.90   | 5.60                     | 2.75   | 1.50  | 0.80  |         |        |
| 28             | 8.60                                                            | 19.40                    | 18.50   | 31.80   | 20.00                | 25.70   | 20.90   | 15.80   | 5.45                     | 2.00   | 1.50  | 0.80  |         |        |
| 29             | 9.80                                                            | 21.20                    | 16.40   | 26.90   | 19.70                | 25.40   | 18.80   | 13.40   | 5.30                     | 2.00   |       | 0.90  |         |        |
| 30             | 9.35                                                            | 14.90                    | 14.60   | 23.90   | 18.80                | 21.50   | 17.30   | 17.00   | 5.15                     | 2.00   |       | 0.80  |         |        |
| 31             |                                                                 | 11.60                    |         | 54.50   | 17.90                |         | 17.30   |         | 5.15                     | 2.00   |       | 0.80  |         |        |
| Total          | 170.45                                                          | 346.25                   | 1942.70 | 1713.70 | 1604.45              | 1054.75 | 1345.05 | 378.45  | 242.15                   | 134.60 | 48.95 | 35.45 | 9016.95 | CMSDAY |
| Mean           | 5.68                                                            | 11.17                    | 64.76   | 55.28   | 51.76                | 35.16   | 43.39   | 12.62   | 7.81                     | 4.34   | 1.75  | 1.14  | 24.70   | CMS    |
| Max            | 29.80                                                           | 26.90                    | 314.00  | 183.80  | 350.00               | 130.75  | 136.75  | 17.60   | 13.10                    | 5.75   | 2.00  | 1.65  | 350.00  | CMS    |
| Min            | 2.00                                                            | 5.00                     | 10.10   | 16.40   | 17.00                | 14.00   | 17.30   | 9.35    | 5.15                     | 2.00   | 1.50  | 0.75  | 0.75    | CMS    |
| Runoff         | 14.73                                                           | 29.92                    | 167.85  | 148.06  | 138.62               | 91.13   | 116.21  | 32.70   | 20.92                    | 11.63  | 4.23  | 3.06  | 779.07  | MCM    |
| Momentary Peak | 469.70 CMS. at 19.46 m. (MSL.) at 10.00 Hours , on Aug 2 , 2013 |                          |         |         |                      |         |         |         |                          |        |       |       |         |        |
| Runoff Yield   | 106.35                                                          | Liters/Second/Square KM. |         |         | Momentary Peak Yield |         |         | 221.954 | Liters/Second/Square KM. |        |       |       |         |        |

**Location :** on left bank at Ban Ket Ho.

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 14.29 | 14.45 | 14.76                                          | 14.59 | 15.35 | 15.00 | 15.19 | 15.27 | 15.25 | 14.96 | 14.51 | 14.59 |        |
| 2                                | 14.28 | 14.46 | 15.18                                          | 15.37 | 15.32 | 15.08 | 15.19 | 15.30 | 15.22 | 14.58 | 14.52 | 14.60 |        |
| 3                                | 14.27 | 14.45 | 15.04                                          | 15.12 | 15.26 | 14.96 | 15.42 | 15.26 | 15.18 | 14.53 | 14.53 | 14.61 |        |
| 4                                | 14.28 | 14.46 | 14.89                                          | 15.50 | 15.22 | 14.94 | 15.50 | 15.25 | 15.21 | 14.67 | 14.54 | 14.63 |        |
| 5                                | 14.34 | 14.44 | 14.79                                          | 15.30 | 15.12 | 15.33 | 15.60 | 15.25 | 15.20 | 15.13 | 14.53 | 14.63 |        |
| 6                                | 14.33 | 14.43 | 14.79                                          | 15.18 | 15.53 | 15.39 | 16.07 | 15.24 | 15.19 | 15.01 | 14.53 | 14.64 |        |
| 7                                | 14.31 | 14.50 | 14.74                                          | 15.20 | 15.32 | 15.26 | 15.51 | 15.23 | 15.20 | 14.59 | 14.52 | 14.65 |        |
| 8                                | 14.29 | 14.42 | 14.73                                          | 15.11 | 15.27 | 15.90 | 15.43 | 15.21 | 15.18 | 14.61 | 14.48 | 14.67 |        |
| 9                                | 14.28 | 14.70 | 14.73                                          | 14.98 | 15.18 | 15.34 | 15.29 | 15.22 | 15.17 | 14.57 | 14.49 | 14.67 |        |
| 10                               | 14.44 | 14.51 | 15.47                                          | 14.93 | 15.13 | 15.29 | 15.23 | 15.27 | 15.16 | 14.60 | 14.47 | 14.64 |        |
| 11                               | 14.33 | 14.45 | 15.56                                          | 14.93 | 15.12 | 15.29 | 15.15 | 15.24 | 15.18 | 14.57 | 14.47 | 14.67 |        |
| 12                               | 14.29 | 14.86 | 15.28                                          | 15.00 | 15.19 | 15.57 | 15.09 | 15.25 | 15.15 | 14.55 | 14.46 | 14.70 |        |
| 13                               | 14.30 | 14.67 | 15.21                                          | 14.95 | 15.19 | 15.32 | 15.02 | 15.69 | 15.14 | 14.57 | 14.48 | 14.65 |        |
| 14                               | 14.33 | 14.58 | 15.22                                          | 14.81 | 15.22 | 15.26 | 14.99 | 15.50 | 15.06 | 14.56 | 14.47 | 14.64 |        |
| 15                               | 14.93 | 14.53 | 15.15                                          | 14.86 | 15.15 | 15.18 | 15.26 | 15.40 | 14.88 | 14.57 | 14.47 | 14.64 |        |
| 16                               | 14.38 | 14.51 | 15.39                                          | 15.06 | 15.16 | 15.18 | 15.25 | 15.28 | 15.16 | 14.58 | 14.46 | 14.67 |        |
| 17                               | 15.03 | 14.54 | 15.29                                          | 14.73 | 15.03 | 15.17 | 15.23 | 15.25 | 15.10 | 14.60 | 14.49 | 14.65 |        |
| 18                               | 14.48 | 14.55 | 15.17                                          | 14.72 | 15.08 | 15.08 | 15.22 | 15.24 | 15.15 | 14.57 | 14.48 | 14.64 |        |
| 19                               | 14.41 | 14.99 | 15.10                                          | 14.69 | 15.10 | 15.17 | 15.79 | 15.23 | 15.14 | 14.56 | 14.49 | 14.68 |        |
| 20                               | 14.41 | 14.63 | 15.13                                          | 14.67 | 14.93 | 15.18 | 15.34 | 15.22 | 15.14 | 14.55 | 14.49 | 14.70 |        |
| 21                               | 14.55 | 14.56 | 14.94                                          | 14.67 | 14.90 | 15.10 | 15.27 | 15.23 | 15.00 | 14.53 | 14.48 | 14.69 |        |
| 22                               | 14.55 | 14.54 | 14.78                                          | 14.68 | 14.84 | 15.06 | 15.27 | 15.25 | 15.12 | 14.52 | 14.48 | 14.67 |        |
| 23                               | 14.45 | 14.54 | 14.72                                          | 15.21 | 14.93 | 15.09 | 15.25 | 15.28 | 14.96 | 14.51 | 14.50 | 14.66 |        |
| 24                               | 14.72 | 14.88 | 14.73                                          | 15.17 | 14.76 | 15.01 | 15.24 | 15.36 | 14.58 | 14.50 | 14.50 | 14.55 |        |
| 25                               | 14.49 | 15.03 | 14.87                                          | 15.08 | 14.92 | 14.97 | 15.28 | 15.27 | 14.62 | 14.51 | 14.53 | 14.57 |        |
| 26                               | 14.48 | 15.12 | 14.69                                          | 15.13 | 15.06 | 15.03 | 15.28 | 15.24 | 14.81 | 14.55 | 14.55 | 14.72 |        |
| 27                               | 14.49 | 15.02 | 14.69                                          | 14.65 | 14.68 | 14.87 | 15.49 | 15.25 | 15.04 | 14.55 | 14.57 | 14.66 |        |
| 28                               | 14.49 | 14.82 | 14.69                                          | 14.64 | 14.71 | 15.19 | 15.58 | 15.24 | 14.95 | 14.53 | 14.58 | 14.69 |        |
| 29                               | 14.48 | 14.69 | 14.66                                          | 14.62 | 15.14 | 15.24 | 15.41 | 15.19 | 14.55 | 14.51 |       | 14.55 |        |
| 30                               | 14.51 | 14.72 | 14.60                                          | 14.61 | 14.82 | 15.13 | 15.34 | 15.17 | 14.62 | 14.49 |       | 14.94 |        |
| 31                               |       | 14.80 |                                                | 14.65 | 15.13 |       | 15.30 |       | 14.93 | 14.49 |       | 14.36 |        |
| Mean                             | 14.44 | 14.64 | 14.97                                          | 14.93 | 15.09 | 15.19 | 15.34 | 15.28 | 15.04 | 14.60 | 14.50 | 14.65 |        |
| Max                              | 15.03 | 15.12 | 15.56                                          | 15.50 | 15.53 | 15.90 | 16.07 | 15.69 | 15.25 | 15.13 | 14.58 | 14.94 | 16.07  |
| Min                              | 14.27 | 14.42 | 14.60                                          | 14.59 | 14.68 | 14.87 | 14.99 | 15.17 | 14.55 | 14.49 | 14.46 | 14.36 | 14.27  |
| Annual Max Momentary Gage Height | 16.76 |       | m. (MSL.) , at 13.00 Hours , on Oct 6 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00  |       | m. (MSL.) , River Bed 13.87 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              | 17.32 |       | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             | 17.32 |       | m. (MSL.) , Drainage Area 28 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date           | Apr   | May                                                     | Jun   | Jul   | Aug                  | Sep   | Oct    | Nov   | Dec                               | Jan  | Feb  | Mar  | Annual |        |
|----------------|-------|---------------------------------------------------------|-------|-------|----------------------|-------|--------|-------|-----------------------------------|------|------|------|--------|--------|
| 1              | 0.05  | 0.12                                                    | 0.44  | 0.19  | 4.75                 | 0.80  | 1.54   | 2.86  | 2.50                              | 0.72 | 0.15 | 0.19 |        |        |
| 2              | 0.04  | 0.13                                                    | 1.48  | 5.29  | 3.94                 | 0.96  | 1.54   | 3.40  | 1.96                              | 0.19 | 0.16 | 0.20 |        |        |
| 3              | 0.04  | 0.12                                                    | 0.88  | 1.12  | 2.68                 | 0.72  | 6.68   | 2.68  | 1.48                              | 0.16 | 0.16 | 0.21 |        |        |
| 4              | 0.04  | 0.13                                                    | 0.59  | 9.00  | 1.96                 | 0.68  | 9.00   | 2.50  | 1.78                              | 0.30 | 0.17 | 0.24 |        |        |
| 5              | 0.07  | 0.12                                                    | 0.48  | 3.40  | 1.12                 | 4.21  | 12.20  | 2.50  | 1.60                              | 1.18 | 0.16 | 0.24 |        |        |
| 6              | 0.06  | 0.12                                                    | 0.48  | 1.48  | 9.96                 | 5.83  | 33.40  | 2.32  | 1.54                              | 0.82 | 0.16 | 0.26 |        |        |
| 7              | 0.06  | 0.15                                                    | 0.41  | 1.60  | 3.94                 | 2.68  | 9.32   | 2.14  | 1.60                              | 0.19 | 0.16 | 0.27 |        |        |
| 8              | 0.05  | 0.11                                                    | 0.39  | 1.06  | 2.86                 | 24.30 | 6.97   | 1.78  | 1.48                              | 0.21 | 0.14 | 0.30 |        |        |
| 9              | 0.04  | 0.35                                                    | 0.39  | 0.76  | 1.48                 | 4.48  | 3.22   | 1.96  | 1.42                              | 0.18 | 0.14 | 0.30 |        |        |
| 10             | 0.12  | 0.15                                                    | 8.13  | 0.66  | 1.18                 | 3.22  | 2.14   | 2.86  | 1.36                              | 0.20 | 0.14 | 0.26 |        |        |
| 11             | 0.06  | 0.12                                                    | 10.92 | 0.66  | 1.12                 | 3.22  | 1.30   | 2.32  | 1.48                              | 0.18 | 0.14 | 0.30 |        |        |
| 12             | 0.05  | 0.56                                                    | 3.04  | 0.80  | 1.54                 | 11.24 | 0.98   | 2.50  | 1.30                              | 0.17 | 0.13 | 0.35 |        |        |
| 13             | 0.05  | 0.30                                                    | 1.78  | 0.70  | 1.54                 | 3.94  | 0.84   | 15.44 | 1.24                              | 0.18 | 0.14 | 0.27 |        |        |
| 14             | 0.06  | 0.19                                                    | 1.96  | 0.51  | 1.96                 | 2.68  | 0.78   | 9.00  | 0.92                              | 0.18 | 0.14 | 0.26 |        |        |
| 15             | 0.66  | 0.16                                                    | 1.30  | 0.56  | 1.30                 | 1.48  | 2.68   | 6.10  | 0.58                              | 0.18 | 0.14 | 0.26 |        |        |
| 16             | 0.09  | 0.15                                                    | 5.83  | 0.92  | 1.36                 | 1.48  | 2.50   | 3.04  | 1.36                              | 0.19 | 0.13 | 0.30 |        |        |
| 17             | 0.86  | 0.17                                                    | 3.22  | 0.39  | 0.86                 | 1.42  | 2.14   | 2.50  | 1.00                              | 0.20 | 0.14 | 0.27 |        |        |
| 18             | 0.14  | 0.17                                                    | 1.42  | 0.38  | 0.96                 | 0.96  | 1.96   | 2.32  | 1.30                              | 0.18 | 0.14 | 0.26 |        |        |
| 19             | 0.10  | 0.78                                                    | 1.00  | 0.33  | 1.00                 | 1.42  | 19.49  | 2.14  | 1.24                              | 0.18 | 0.14 | 0.32 |        |        |
| 20             | 0.10  | 0.24                                                    | 1.18  | 0.30  | 0.66                 | 1.48  | 4.48   | 1.96  | 1.24                              | 0.17 | 0.14 | 0.35 |        |        |
| 21             | 0.17  | 0.18                                                    | 0.68  | 0.30  | 0.60                 | 1.00  | 2.86   | 2.14  | 0.80                              | 0.16 | 0.14 | 0.33 |        |        |
| 22             | 0.17  | 0.17                                                    | 0.47  | 0.32  | 0.54                 | 0.92  | 2.86   | 2.50  | 1.12                              | 0.16 | 0.14 | 0.30 |        |        |
| 23             | 0.12  | 0.17                                                    | 0.38  | 1.78  | 0.66                 | 0.98  | 2.50   | 3.04  | 0.72                              | 0.15 | 0.15 | 0.29 |        |        |
| 24             | 0.38  | 0.58                                                    | 0.39  | 1.42  | 0.44                 | 0.82  | 2.32   | 5.02  | 0.19                              | 0.15 | 0.15 | 0.17 |        |        |
| 25             | 0.14  | 0.86                                                    | 0.57  | 0.96  | 0.64                 | 0.74  | 3.04   | 2.86  | 0.23                              | 0.15 | 0.16 | 0.18 |        |        |
| 26             | 0.14  | 1.12                                                    | 0.33  | 1.18  | 0.92                 | 0.86  | 3.04   | 2.32  | 0.51                              | 0.17 | 0.17 | 0.38 |        |        |
| 27             | 0.14  | 0.84                                                    | 0.33  | 0.27  | 0.32                 | 0.57  | 8.71   | 2.50  | 0.88                              | 0.17 | 0.18 | 0.29 |        |        |
| 28             | 0.14  | 0.52                                                    | 0.33  | 0.26  | 0.36                 | 1.54  | 11.56  | 2.32  | 0.70                              | 0.16 | 0.19 | 0.33 |        |        |
| 29             | 0.14  | 0.33                                                    | 0.29  | 0.23  | 1.24                 | 2.32  | 6.39   | 1.54  | 0.17                              | 0.15 |      | 0.17 |        |        |
| 30             | 0.15  | 0.38                                                    | 0.20  | 0.21  | 0.52                 | 1.18  | 4.48   | 1.42  | 0.23                              | 0.14 |      | 0.68 |        |        |
| 31             |       | 0.50                                                    |       | 0.27  | 1.18                 |       | 3.40   |       | 0.66                              | 0.14 |      | 0.08 |        |        |
| Total          | 4.43  | 9.99                                                    | 49.29 | 37.31 | 53.59                | 88.13 | 174.32 | 97.98 | 34.59                             | 7.66 | 4.20 | 8.61 | 570.10 | CMSDAY |
| Mean           | 0.15  | 0.32                                                    | 1.64  | 1.20  | 1.73                 | 2.94  | 5.62   | 3.27  | 1.12                              | 0.25 | 0.15 | 0.28 | 1.56   | CMS    |
| Max            | 0.86  | 1.12                                                    | 10.92 | 9.00  | 9.96                 | 24.30 | 33.40  | 15.44 | 2.50                              | 1.18 | 0.19 | 0.68 | 33.40  | CMS    |
| Min            | 0.04  | 0.11                                                    | 0.20  | 0.19  | 0.32                 | 0.57  | 0.78   | 1.42  | 0.17                              | 0.14 | 0.13 | 0.08 | 0.04   | CMS    |
| Runoff         | 0.38  | 0.86                                                    | 4.26  | 3.22  | 4.63                 | 7.61  | 15.06  | 8.47  | 2.99                              | 0.66 | 0.36 | 0.74 | 49.26  | MCM    |
| Momentary Peak | 90.16 | CMS. at 16.76 m. (MSL.) at 13.00 Hours , on Oct 6, 2013 |       |       |                      |       |        |       |                                   |      |      |      |        |        |
| Runoff Yield   | 54.01 | Liters/Second/Square KM.                                |       |       | Momentary Peak Yield |       |        |       | 3117.566 Liters/Second/Square KM. |      |      |      |        |        |

**WATER YEAR : 2013**

## SOUTHERN PENINSULA WEST COAST

**Khlong Bang Yai at Satree Phuket School , Phuket (X.191)**

Lat 07 - 53 - 20 N      Long 98 - 23 - 40 E

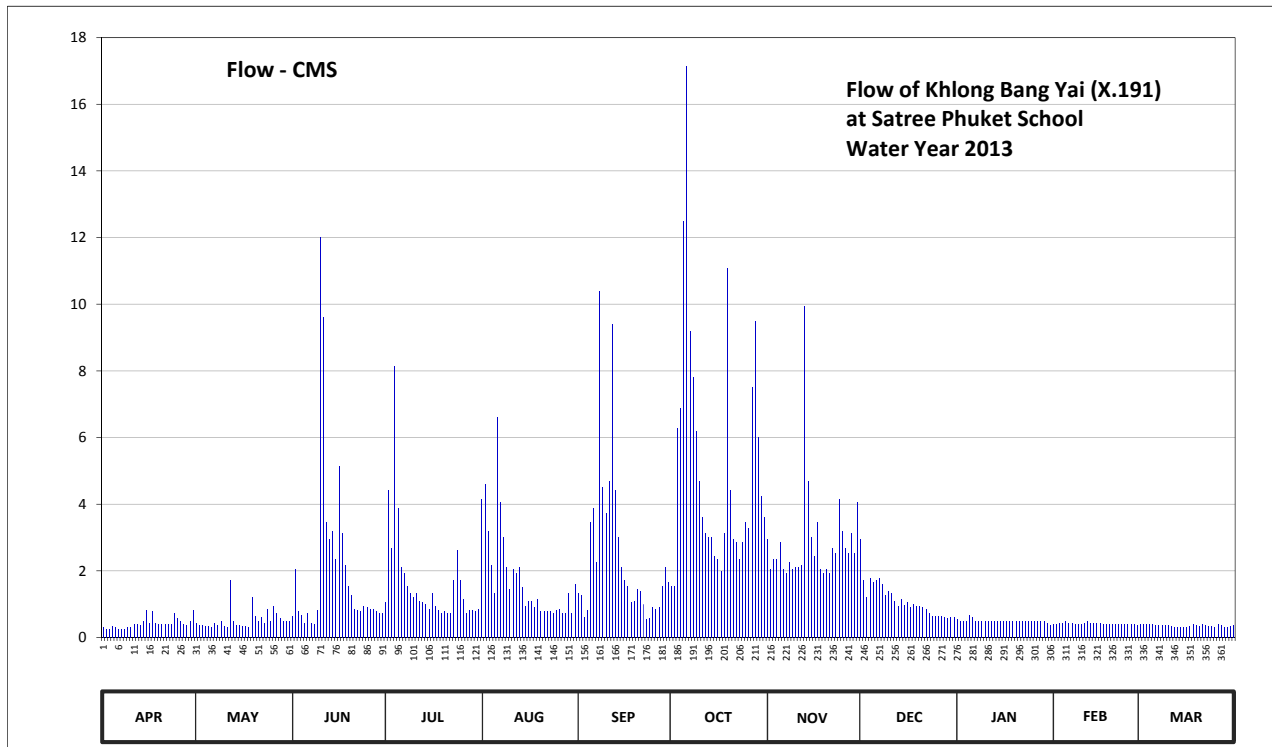
**Location : on left bank at Sathree Phuket School**

|                                         |                                                                                           |           |               |        |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | -         | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Phuket           |
| <b>Drainage Area</b>                    | 54                                                                                        | sq.km.    |               |        |                  |                  |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |        |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                  |
| <b>Location BM</b>                      | On left bank about 8 meters from the top staff gage.                                      |           |               |        | <b>Elevation</b> | +4.964 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |        |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 24 readings                                                           |           |               |        |                  |                  |
| <b>Period of Available Gage Records</b> | 1996 to date                                                                              |           |               |        |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                  |
| <b>Period of Rating</b>                 | 1996 to date                                                                              |           |               |        |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                  |
| <b>Rated by Current Meter</b>           | 1996 to date                                                                              |           |               |        |                  |                  |
| <b>Stability of Channel Regimes</b>     | Stable.                                                                                   |           |               |        |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                  |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 19 discharge measurements made in 2013. |           |               |        |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                            | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 1.40 | 1.44 | 1.50                                           | 1.61 | 2.04 | 1.66 | 1.70 | 1.90 | 1.90 | 1.47 | 1.43 | 1.43 |        |
| 2                                | 1.39 | 1.42 | 1.79                                           | 2.07 | 2.09 | 1.65 | 1.70 | 1.79 | 1.73 | 1.46 | 1.43 | 1.43 |        |
| 3                                | 1.38 | 1.42 | 1.54                                           | 1.87 | 1.93 | 1.49 | 2.27 | 1.83 | 1.64 | 1.45 | 1.44 | 1.43 |        |
| 4                                | 1.41 | 1.41 | 1.51                                           | 2.45 | 1.81 | 1.55 | 2.33 | 1.83 | 1.74 | 1.45 | 1.44 | 1.43 |        |
| 5                                | 1.40 | 1.41 | 1.44                                           | 2.01 | 1.66 | 1.96 | 2.84 | 1.89 | 1.72 | 1.51 | 1.45 | 1.43 |        |
| 6                                | 1.39 | 1.40 | 1.52                                           | 1.80 | 2.30 | 2.01 | 3.21 | 1.79 | 1.73 | 1.49 | 1.44 | 1.42 |        |
| 7                                | 1.39 | 1.44 | 1.44                                           | 1.77 | 2.03 | 1.82 | 2.55 | 1.77 | 1.74 | 1.45 | 1.44 | 1.42 |        |
| 8                                | 1.39 | 1.42 | 1.43                                           | 1.70 | 1.91 | 2.66 | 2.42 | 1.82 | 1.71 | 1.45 | 1.43 | 1.42 |        |
| 9                                | 1.40 | 1.45 | 1.55                                           | 1.66 | 1.80 | 2.08 | 2.26 | 1.79 | 1.65 | 1.45 | 1.43 | 1.42 |        |
| 10                               | 1.40 | 1.41 | 2.80                                           | 1.64 | 1.68 | 1.99 | 2.10 | 1.80 | 1.67 | 1.45 | 1.43 | 1.42 |        |
| 11                               | 1.43 | 1.40 | 2.59                                           | 1.66 | 1.79 | 2.10 | 1.98 | 1.80 | 1.66 | 1.45 | 1.44 | 1.41 |        |
| 12                               | 1.43 | 1.73 | 1.96                                           | 1.62 | 1.77 | 2.57 | 1.92 | 1.81 | 1.62 | 1.45 | 1.46 | 1.40 |        |
| 13                               | 1.42 | 1.45 | 1.90                                           | 1.61 | 1.80 | 2.07 | 1.91 | 2.62 | 1.58 | 1.45 | 1.44 | 1.40 |        |
| 14                               | 1.45 | 1.42 | 1.93                                           | 1.60 | 1.69 | 1.91 | 1.91 | 2.10 | 1.63 | 1.45 | 1.44 | 1.40 |        |
| 15                               | 1.55 | 1.42 | 1.83                                           | 1.56 | 1.58 | 1.80 | 1.84 | 1.91 | 1.59 | 1.45 | 1.44 | 1.40 |        |
| 16                               | 1.44 | 1.41 | 2.15                                           | 1.66 | 1.62 | 1.73 | 1.83 | 1.84 | 1.61 | 1.45 | 1.44 | 1.40 |        |
| 17                               | 1.54 | 1.41 | 1.92                                           | 1.58 | 1.62 | 1.70 | 1.78 | 1.96 | 1.57 | 1.45 | 1.43 | 1.41 |        |
| 18                               | 1.44 | 1.40 | 1.81                                           | 1.55 | 1.57 | 1.61 | 1.92 | 1.79 | 1.60 | 1.45 | 1.43 | 1.43 |        |
| 19                               | 1.43 | 1.64 | 1.70                                           | 1.53 | 1.63 | 1.62 | 2.72 | 1.77 | 1.58 | 1.45 | 1.43 | 1.42 |        |
| 20                               | 1.43 | 1.50 | 1.65                                           | 1.54 | 1.54 | 1.68 | 2.07 | 1.79 | 1.58 | 1.45 | 1.43 | 1.41 |        |
| 21                               | 1.43 | 1.45 | 1.56                                           | 1.52 | 1.54 | 1.67 | 1.90 | 1.77 | 1.57 | 1.45 | 1.43 | 1.43 |        |
| 22                               | 1.43 | 1.49 | 1.55                                           | 1.52 | 1.54 | 1.60 | 1.89 | 1.87 | 1.56 | 1.45 | 1.43 | 1.42 |        |
| 23                               | 1.43 | 1.44 | 1.54                                           | 1.73 | 1.54 | 1.47 | 1.83 | 1.85 | 1.53 | 1.45 | 1.43 | 1.41 |        |
| 24                               | 1.52 | 1.56 | 1.58                                           | 1.86 | 1.53 | 1.48 | 1.89 | 2.04 | 1.50 | 1.45 | 1.43 | 1.41 |        |
| 25                               | 1.48 | 1.45 | 1.57                                           | 1.73 | 1.55 | 1.57 | 1.96 | 1.93 | 1.50 | 1.45 | 1.43 | 1.40 |        |
| 26                               | 1.46 | 1.58 | 1.56                                           | 1.63 | 1.56 | 1.56 | 1.94 | 1.87 | 1.50 | 1.45 | 1.43 | 1.43 |        |
| 27                               | 1.43 | 1.53 | 1.56                                           | 1.53 | 1.52 | 1.57 | 2.39 | 1.85 | 1.50 | 1.45 | 1.43 | 1.42 |        |
| 28                               | 1.42 | 1.48 | 1.54                                           | 1.55 | 1.53 | 1.70 | 2.58 | 1.92 | 1.49 | 1.45 | 1.42 | 1.40 |        |
| 29                               | 1.45 | 1.46 | 1.53                                           | 1.55 | 1.66 | 1.80 | 2.24 | 1.85 | 1.48 | 1.45 |      | 1.40 |        |
| 30                               | 1.55 | 1.46 | 1.53                                           | 1.54 | 1.53 | 1.72 | 2.05 | 2.03 | 1.49 | 1.44 |      | 1.41 |        |
| 31                               |      | 1.46 |                                                | 1.56 | 1.71 |      | 1.98 |      | 1.49 | 1.42 |      | 1.42 |        |
| Mean                             | 1.44 | 1.46 | 1.72                                           | 1.68 | 1.71 | 1.79 | 2.13 | 1.89 | 1.61 | 1.45 | 1.43 | 1.42 |        |
| Max                              | 1.55 | 1.73 | 2.80                                           | 2.45 | 2.30 | 2.66 | 3.21 | 2.62 | 1.90 | 1.51 | 1.46 | 1.43 | 3.21   |
| Min                              | 1.38 | 1.40 | 1.43                                           | 1.52 | 1.52 | 1.47 | 1.70 | 1.77 | 1.48 | 1.42 | 1.42 | 1.40 | 1.38   |
| Annual Max Momentary Gage Height | 4.10 |      | m. (MSL.) , at 12.00 Hours , on Oct 6 , 2013   |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (MSL.) , River Bed 1.05 m. (MSL.)           |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 4.90 |      | m. (MSL.) ,                                    |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 4.89 |      | m. (MSL.) , Drainage Area 54 Square Kilometers |      |      |      |      |      |      |      |      |      |        |





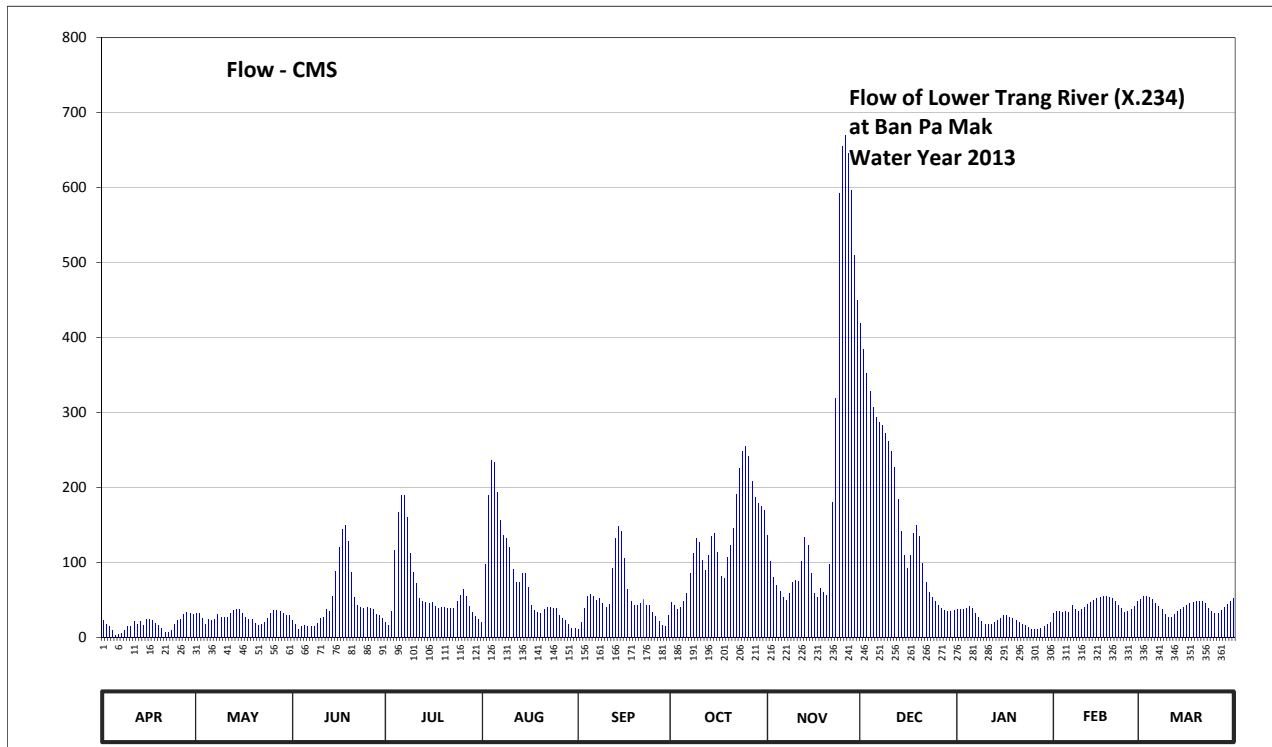
**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                           | May                      | Jun   | Jul                  | Aug   | Sep     | Oct                      | Nov   | Dec   | Jan   | Feb   | Mar   | Annual        |
|----------------|---------------------------------------------------------------|--------------------------|-------|----------------------|-------|---------|--------------------------|-------|-------|-------|-------|-------|---------------|
| 1              | 0.30                                                          | 0.44                     | 0.65  | 1.05                 | 4.16  | 1.33    | 1.55                     | 2.95  | 2.95  | 0.55  | 0.40  | 0.40  |               |
| 2              | 0.27                                                          | 0.37                     | 2.05  | 4.43                 | 4.61  | 1.27    | 1.55                     | 2.05  | 1.72  | 0.51  | 0.40  | 0.40  |               |
| 3              | 0.24                                                          | 0.37                     | 0.79  | 2.70                 | 3.20  | 0.62    | 6.30                     | 2.36  | 1.22  | 0.48  | 0.44  | 0.40  |               |
| 4              | 0.33                                                          | 0.33                     | 0.68  | 8.13                 | 2.18  | 0.82    | 6.90                     | 2.36  | 1.77  | 0.48  | 0.44  | 0.40  |               |
| 5              | 0.30                                                          | 0.33                     | 0.44  | 3.89                 | 1.33  | 3.46    | 12.48                    | 2.87  | 1.66  | 0.68  | 0.48  | 0.40  |               |
| 6              | 0.27                                                          | 0.30                     | 0.72  | 2.10                 | 6.60  | 3.89    | 17.13                    | 2.05  | 1.72  | 0.62  | 0.44  | 0.37  |               |
| 7              | 0.27                                                          | 0.44                     | 0.44  | 1.94                 | 4.07  | 2.27    | 9.18                     | 1.94  | 1.77  | 0.48  | 0.44  | 0.37  |               |
| 8              | 0.27                                                          | 0.37                     | 0.40  | 1.55                 | 3.03  | 10.39   | 7.81                     | 2.27  | 1.61  | 0.48  | 0.40  | 0.37  |               |
| 9              | 0.30                                                          | 0.48                     | 0.82  | 1.33                 | 2.10  | 4.52    | 6.20                     | 2.05  | 1.27  | 0.48  | 0.40  | 0.37  |               |
| 10             | 0.30                                                          | 0.33                     | 12.00 | 1.22                 | 1.44  | 3.72    | 4.70                     | 2.10  | 1.38  | 0.48  | 0.40  | 0.37  |               |
| 11             | 0.40                                                          | 0.30                     | 9.60  | 1.33                 | 2.05  | 4.70    | 3.63                     | 2.10  | 1.33  | 0.48  | 0.44  | 0.33  |               |
| 12             | 0.40                                                          | 1.72                     | 3.46  | 1.11                 | 1.94  | 9.39    | 3.12                     | 2.18  | 1.11  | 0.48  | 0.51  | 0.30  |               |
| 13             | 0.37                                                          | 0.48                     | 2.95  | 1.05                 | 2.10  | 4.43    | 3.03                     | 9.93  | 0.93  | 0.48  | 0.44  | 0.30  |               |
| 14             | 0.48                                                          | 0.37                     | 3.20  | 1.00                 | 1.50  | 3.03    | 3.03                     | 4.70  | 1.16  | 0.48  | 0.44  | 0.30  |               |
| 15             | 0.82                                                          | 0.37                     | 2.36  | 0.86                 | 0.93  | 2.10    | 2.44                     | 3.03  | 0.97  | 0.48  | 0.44  | 0.30  |               |
| 16             | 0.44                                                          | 0.33                     | 5.15  | 1.33                 | 1.11  | 1.72    | 2.36                     | 2.44  | 1.05  | 0.48  | 0.44  | 0.30  |               |
| 17             | 0.79                                                          | 0.33                     | 3.12  | 0.93                 | 1.11  | 1.55    | 1.99                     | 3.46  | 0.90  | 0.48  | 0.40  | 0.33  |               |
| 18             | 0.44                                                          | 0.30                     | 2.18  | 0.82                 | 0.90  | 1.05    | 3.12                     | 2.05  | 1.00  | 0.48  | 0.40  | 0.40  |               |
| 19             | 0.40                                                          | 1.22                     | 1.55  | 0.75                 | 1.16  | 1.11    | 11.08                    | 1.94  | 0.93  | 0.48  | 0.40  | 0.37  |               |
| 20             | 0.40                                                          | 0.65                     | 1.27  | 0.79                 | 0.79  | 1.44    | 4.43                     | 2.05  | 0.93  | 0.48  | 0.40  | 0.33  |               |
| 21             | 0.40                                                          | 0.48                     | 0.86  | 0.72                 | 0.79  | 1.38    | 2.95                     | 1.94  | 0.90  | 0.48  | 0.40  | 0.40  |               |
| 22             | 0.40                                                          | 0.62                     | 0.82  | 0.72                 | 0.79  | 1.00    | 2.87                     | 2.70  | 0.86  | 0.48  | 0.40  | 0.37  |               |
| 23             | 0.40                                                          | 0.44                     | 0.79  | 1.72                 | 0.79  | 0.55    | 2.36                     | 2.53  | 0.75  | 0.48  | 0.40  | 0.33  |               |
| 24             | 0.72                                                          | 0.86                     | 0.93  | 2.61                 | 0.75  | 0.58    | 2.87                     | 4.16  | 0.65  | 0.48  | 0.40  | 0.33  |               |
| 25             | 0.58                                                          | 0.48                     | 0.90  | 1.72                 | 0.82  | 0.90    | 3.46                     | 3.20  | 0.65  | 0.48  | 0.40  | 0.30  |               |
| 26             | 0.51                                                          | 0.93                     | 0.86  | 1.16                 | 0.86  | 0.86    | 3.29                     | 2.70  | 0.65  | 0.48  | 0.40  | 0.40  |               |
| 27             | 0.40                                                          | 0.75                     | 0.86  | 0.75                 | 0.72  | 0.90    | 7.50                     | 2.53  | 0.65  | 0.48  | 0.40  | 0.37  |               |
| 28             | 0.37                                                          | 0.58                     | 0.79  | 0.82                 | 0.75  | 1.55    | 9.49                     | 3.12  | 0.62  | 0.48  | 0.37  | 0.30  |               |
| 29             | 0.48                                                          | 0.51                     | 0.75  | 0.82                 | 1.33  | 2.10    | 6.00                     | 2.53  | 0.58  | 0.48  |       | 0.30  |               |
| 30             | 0.82                                                          | 0.51                     | 0.75  | 0.79                 | 0.75  | 1.66    | 4.25                     | 4.07  | 0.62  | 0.44  |       | 0.33  |               |
| 31             |                                                               | 0.51                     |       | 0.86                 | 1.61  |         | 3.63                     |       | 0.62  | 0.37  |       | 0.37  |               |
| Total          | 12.87                                                         | 16.50                    | 62.14 | 51.00                | 56.27 | 74.29   | 160.70                   | 86.36 | 34.93 | 15.17 | 11.72 | 10.91 | 592.86 CMSDAY |
| Mean           | 0.43                                                          | 0.53                     | 2.07  | 1.65                 | 1.82  | 2.48    | 5.18                     | 2.88  | 1.13  | 0.49  | 0.42  | 0.35  | 1.62 CMS      |
| Max            | 0.82                                                          | 1.72                     | 12.00 | 8.13                 | 6.60  | 10.39   | 17.13                    | 9.93  | 2.95  | 0.68  | 0.51  | 0.40  | 17.13 CMS     |
| Min            | 0.24                                                          | 0.30                     | 0.40  | 0.72                 | 0.72  | 0.55    | 1.55                     | 1.94  | 0.58  | 0.37  | 0.37  | 0.30  | 0.24 CMS      |
| Runoff         | 1.11                                                          | 1.43                     | 5.37  | 4.41                 | 4.86  | 6.42    | 13.88                    | 7.46  | 3.02  | 1.31  | 1.01  | 0.94  | 51.22 MCM     |
| Momentary Peak | 29.75 CMS. at 4.10 m. (MSL.) at 12.00 Hours , on Oct 6 , 2013 |                          |       |                      |       |         |                          |       |       |       |       |       |               |
| Runoff Yield   | 30.05                                                         | Liters/Second/Square KM. |       | Momentary Peak Yield |       | 550.314 | Liters/Second/Square KM. |       |       |       |       |       |               |

**Location :** on left bank at Ban Pa Mak.

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                              | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|------|------|--------------------------------------------------|------|------|------|------|------|------|------|------|------|--------|
| 1                                | 0.82 | 1.10 | 0.85                                             | 0.77 | 0.76 | 0.48 | 1.46 | 3.13 | 5.79 | 1.24 | 1.09 | 1.57 |        |
| 2                                | 0.67 | 1.11 | 0.67                                             | 0.64 | 2.49 | 0.76 | 1.39 | 2.57 | 5.56 | 1.26 | 1.18 | 1.64 |        |
| 3                                | 0.59 | 0.91 | 0.47                                             | 1.19 | 3.87 | 1.29 | 1.26 | 2.17 | 5.34 | 1.26 | 1.18 | 1.66 |        |
| 4                                | 0.41 | 0.68 | 0.60                                             | 2.80 | 4.39 | 1.66 | 1.32 | 1.97 | 5.15 | 1.29 | 1.13 | 1.63 |        |
| 5                                | 0.16 | 0.89 | 0.63                                             | 3.60 | 4.35 | 1.71 | 1.51 | 1.79 | 4.99 | 1.36 | 1.19 | 1.55 |        |
| 6                                | 0.20 | 0.82 | 0.62                                             | 3.87 | 3.91 | 1.65 | 1.74 | 1.63 | 4.88 | 1.28 | 1.14 | 1.45 |        |
| 7                                | 0.30 | 0.87 | 0.59                                             | 3.86 | 3.43 | 1.53 | 2.26 | 1.54 | 4.83 | 1.09 | 1.39 | 1.34 |        |
| 8                                | 0.44 | 1.05 | 0.62                                             | 3.50 | 3.14 | 1.60 | 2.74 | 1.73 | 4.79 | 0.94 | 1.25 | 1.23 |        |
| 9                                | 0.61 | 0.96 | 0.73                                             | 2.75 | 3.08 | 1.44 | 3.07 | 2.05 | 4.71 | 0.80 | 1.18 | 1.06 |        |
| 10                               | 0.61 | 0.94 | 0.91                                             | 2.29 | 2.87 | 1.31 | 2.98 | 2.09 | 4.62 | 0.70 | 1.23 | 0.94 |        |
| 11                               | 0.78 | 0.95 | 0.95                                             | 2.01 | 2.38 | 1.41 | 2.59 | 2.07 | 4.50 | 0.68 | 1.33 | 0.97 |        |
| 12                               | 0.69 | 1.10 | 1.24                                             | 1.60 | 2.05 | 2.39 | 2.34 | 2.56 | 4.28 | 0.70 | 1.42 | 1.08 |        |
| 13                               | 0.78 | 1.20 | 1.19                                             | 1.49 | 2.03 | 3.08 | 2.69 | 3.09 | 3.81 | 0.75 | 1.48 | 1.17 |        |
| 14                               | 0.63 | 1.24 | 1.65                                             | 1.47 | 2.26 | 3.31 | 3.11 | 2.93 | 3.21 | 0.82 | 1.54 | 1.25 |        |
| 15                               | 0.87 | 1.24 | 2.33                                             | 1.43 | 2.26 | 3.21 | 3.18 | 2.26 | 2.70 | 0.92 | 1.59 | 1.33 |        |
| 16                               | 0.86 | 1.11 | 2.87                                             | 1.47 | 1.91 | 2.63 | 2.77 | 1.74 | 2.40 | 1.03 | 1.62 | 1.40 |        |
| 17                               | 0.84 | 0.95 | 3.25                                             | 1.36 | 1.38 | 1.84 | 2.21 | 1.63 | 2.70 | 1.04 | 1.64 | 1.44 |        |
| 18                               | 0.72 | 0.89 | 3.34                                             | 1.27 | 1.21 | 1.50 | 2.15 | 1.87 | 3.17 | 0.96 | 1.64 | 1.46 |        |
| 19                               | 0.66 | 0.88 | 3.01                                             | 1.30 | 1.14 | 1.39 | 2.65 | 1.78 | 3.33 | 0.90 | 1.62 | 1.50 |        |
| 20                               | 0.52 | 0.71 | 2.29                                             | 1.31 | 1.09 | 1.38 | 2.91 | 1.68 | 3.12 | 0.84 | 1.58 | 1.51 |        |
| 21                               | 0.33 | 0.66 | 1.61                                             | 1.27 | 1.26 | 1.43 | 3.28 | 2.50 | 2.52 | 0.77 | 1.51 | 1.51 |        |
| 22                               | 0.31 | 0.67 | 1.38                                             | 1.28 | 1.30 | 1.56 | 3.88 | 3.75 | 2.04 | 0.70 | 1.39 | 1.43 |        |
| 23                               | 0.45 | 0.76 | 1.31                                             | 1.28 | 1.32 | 1.39 | 4.27 | 5.08 | 1.78 | 0.64 | 1.27 | 1.29 |        |
| 24                               | 0.68 | 0.92 | 1.27                                             | 1.49 | 1.28 | 1.38 | 4.50 | 6.82 | 1.61 | 0.55 | 1.16 | 1.17 |        |
| 25                               | 0.85 | 1.11 | 1.30                                             | 1.69 | 1.28 | 1.16 | 4.56 | 7.15 | 1.49 | 0.49 | 1.18 | 1.10 |        |
| 26                               | 0.89 | 1.22 | 1.29                                             | 1.86 | 1.04 | 0.98 | 4.43 | 7.23 | 1.37 | 0.46 | 1.26 | 1.12 |        |
| 27                               | 1.06 | 1.21 | 1.25                                             | 1.66 | 0.90 | 0.79 | 4.08 | 7.10 | 1.27 | 0.46 | 1.36 | 1.21 |        |
| 28                               | 1.16 | 1.17 | 1.08                                             | 1.36 | 0.83 | 0.64 | 3.84 | 6.84 | 1.21 | 0.53 | 1.49 | 1.32 |        |
| 29                               | 1.11 | 1.12 | 1.02                                             | 1.13 | 0.69 | 0.59 | 3.74 | 6.37 | 1.18 | 0.62 |      | 1.42 |        |
| 30                               | 1.07 | 1.04 | 0.92                                             | 0.98 | 0.54 | 1.02 | 3.69 | 6.00 | 1.19 | 0.70 |      | 1.51 |        |
| 31                               |      | 1.02 |                                                  | 0.89 | 0.51 |      | 3.62 |      | 1.22 | 0.75 |      | 1.60 |        |
| Mean                             | 0.67 | 0.98 | 1.37                                             | 1.77 | 1.97 | 1.55 | 2.91 | 3.37 | 3.25 | 0.86 | 1.36 | 1.35 |        |
| Max                              | 1.16 | 1.24 | 3.34                                             | 3.87 | 4.39 | 3.31 | 4.56 | 7.23 | 5.79 | 1.36 | 1.64 | 1.66 | 7.23   |
| Min                              | 0.16 | 0.66 | 0.47                                             | 0.64 | 0.51 | 0.48 | 1.26 | 1.54 | 1.18 | 0.46 | 1.09 | 0.94 | 0.16   |
| Annual Max Momentary Gage Height | 7.25 |      | m. (MSL.) , at 07.00 Hours , on Nov 26 , 2013    |      |      |      |      |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (MSL.) , River Bed -2.16 m. (MSL.)            |      |      |      |      |      |      |      |      |      |        |
| Left Bank Elevation              | 6.65 |      | m. (MSL.) ,                                      |      |      |      |      |      |      |      |      |      |        |
| Right Bank Elevation             | 6.68 |      | m. (MSL.) , Drainage Area 2808 Square Kilometers |      |      |      |      |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun     | Jul                  | Aug     | Sep     | Oct                      | Nov     | Dec     | Jan    | Feb     | Mar     | Annual   |        |
|----------------|-----------------------------------------------------------------|--------------------------|---------|----------------------|---------|---------|--------------------------|---------|---------|--------|---------|---------|----------|--------|
| 1              | 22.70                                                           | 32.50                    | 23.75   | 20.95                | 20.60   | 11.40   | 46.70                    | 136.45  | 418.50  | 37.60  | 32.15   | 51.65   |          |        |
| 2              | 17.45                                                           | 32.85                    | 17.45   | 16.40                | 97.95   | 20.60   | 43.60                    | 102.35  | 384.00  | 38.40  | 35.30   | 54.80   |          |        |
| 3              | 14.70                                                           | 25.85                    | 11.10   | 35.65                | 190.30  | 39.60   | 38.40                    | 80.50   | 352.20  | 38.40  | 35.30   | 55.70   |          |        |
| 4              | 9.30                                                            | 17.80                    | 15.00   | 116.00               | 237.10  | 55.70   | 40.80                    | 70.50   | 327.50  | 39.60  | 33.55   | 54.35   |          |        |
| 5              | 3.20                                                            | 25.15                    | 16.05   | 168.00               | 233.50  | 57.95   | 48.95                    | 61.55   | 306.80  | 42.40  | 35.65   | 50.75   |          |        |
| 6              | 4.00                                                            | 22.70                    | 15.70   | 190.30               | 193.90  | 55.25   | 59.30                    | 54.35   | 293.60  | 39.20  | 33.90   | 46.25   |          |        |
| 7              | 6.50                                                            | 24.45                    | 14.70   | 189.40               | 156.10  | 49.85   | 85.30                    | 50.30   | 287.60  | 32.15  | 43.60   | 41.60   |          |        |
| 8              | 10.20                                                           | 30.75                    | 15.70   | 161.00               | 137.10  | 53.00   | 112.40                   | 58.85   | 282.80  | 26.90  | 38.00   | 37.20   |          |        |
| 9              | 15.35                                                           | 27.60                    | 19.55   | 113.00               | 133.20  | 45.80   | 132.55                   | 74.50   | 273.20  | 22.00  | 35.30   | 31.10   |          |        |
| 10             | 15.35                                                           | 26.90                    | 25.85   | 86.95                | 120.20  | 40.40   | 126.80                   | 76.50   | 262.40  | 18.50  | 37.20   | 26.90   |          |        |
| 11             | 21.30                                                           | 27.25                    | 27.25   | 72.50                | 91.90   | 44.45   | 103.45                   | 75.50   | 249.00  | 17.80  | 41.20   | 27.95   |          |        |
| 12             | 18.15                                                           | 32.50                    | 37.60   | 53.00                | 74.50   | 92.45   | 89.70                    | 101.80  | 227.20  | 18.50  | 44.90   | 31.80   |          |        |
| 13             | 21.30                                                           | 36.00                    | 35.65   | 48.05                | 73.50   | 133.20  | 109.40                   | 133.85  | 184.90  | 20.25  | 47.60   | 34.95   |          |        |
| 14             | 16.05                                                           | 37.60                    | 55.25   | 47.15                | 85.30   | 148.15  | 135.15                   | 123.80  | 141.65  | 22.70  | 50.30   | 38.00   |          |        |
| 15             | 24.45                                                           | 37.60                    | 89.15   | 45.35                | 85.30   | 141.65  | 139.70                   | 85.30   | 110.00  | 26.20  | 52.55   | 41.20   |          |        |
| 16             | 24.10                                                           | 32.85                    | 120.20  | 47.15                | 67.50   | 105.80  | 114.20                   | 59.30   | 93.00   | 30.05  | 53.90   | 44.00   |          |        |
| 17             | 23.40                                                           | 27.25                    | 144.25  | 42.40                | 43.20   | 64.00   | 82.55                    | 54.35   | 110.00  | 30.40  | 54.80   | 45.80   |          |        |
| 18             | 19.20                                                           | 25.15                    | 150.10  | 38.80                | 36.40   | 48.50   | 79.50                    | 65.50   | 139.05  | 27.60  | 54.80   | 46.70   |          |        |
| 19             | 17.10                                                           | 24.80                    | 128.65  | 40.00                | 33.90   | 43.60   | 107.00                   | 61.10   | 149.45  | 25.50  | 53.90   | 48.50   |          |        |
| 20             | 12.60                                                           | 18.85                    | 86.95   | 40.40                | 32.15   | 43.20   | 122.60                   | 56.60   | 135.80  | 23.40  | 52.10   | 48.95   |          |        |
| 21             | 7.25                                                            | 17.10                    | 53.45   | 38.80                | 38.40   | 45.35   | 146.20                   | 98.50   | 99.60   | 20.95  | 48.95   | 48.95   |          |        |
| 22             | 6.75                                                            | 17.45                    | 43.20   | 39.20                | 40.00   | 51.20   | 191.20                   | 180.00  | 74.00   | 18.50  | 43.60   | 45.35   |          |        |
| 23             | 10.50                                                           | 20.60                    | 40.40   | 39.20                | 40.80   | 43.60   | 226.30                   | 318.40  | 61.10   | 16.40  | 38.80   | 39.60   |          |        |
| 24             | 17.80                                                           | 26.20                    | 38.80   | 48.05                | 39.20   | 43.20   | 249.00                   | 591.80  | 53.45   | 13.50  | 34.60   | 34.95   |          |        |
| 25             | 23.75                                                           | 32.85                    | 40.00   | 57.05                | 39.20   | 34.60   | 255.60                   | 654.50  | 48.05   | 11.70  | 35.30   | 32.50   |          |        |
| 26             | 25.15                                                           | 36.80                    | 39.60   | 65.00                | 30.40   | 28.30   | 241.30                   | 670.00  | 42.80   | 10.80  | 38.40   | 33.20   |          |        |
| 27             | 31.10                                                           | 36.40                    | 38.00   | 55.70                | 25.50   | 21.65   | 209.20                   | 645.00  | 38.80   | 10.80  | 42.40   | 36.40   |          |        |
| 28             | 34.60                                                           | 34.95                    | 31.80   | 42.40                | 23.05   | 16.40   | 187.60                   | 595.60  | 36.40   | 12.90  | 48.05   | 40.80   |          |        |
| 29             | 32.85                                                           | 33.20                    | 29.70   | 33.55                | 18.15   | 14.70   | 179.20                   | 509.75  | 35.30   | 15.70  |         | 44.90   |          |        |
| 30             | 31.45                                                           | 30.40                    | 26.20   | 28.30                | 13.20   | 29.70   | 175.20                   | 450.00  | 35.65   | 18.50  |         | 48.95   |          |        |
| 31             |                                                                 | 29.70                    |         | 25.15                | 12.30   |         | 169.60                   |         | 36.80   | 20.25  |         | 53.00   |          |        |
| Total          | 537.60                                                          | 882.05                   | 1431.05 | 2044.85              | 2463.80 | 1623.25 | 4048.45                  | 6296.50 | 5290.60 | 747.55 | 1196.10 | 1316.75 | 27878.55 | CMSDAY |
| Mean           | 17.92                                                           | 28.45                    | 47.70   | 65.96                | 79.48   | 54.11   | 130.60                   | 209.88  | 170.66  | 24.11  | 42.72   | 42.48   | 76.38    | CMS    |
| Max            | 34.60                                                           | 37.60                    | 150.10  | 190.30               | 237.10  | 148.15  | 255.60                   | 670.00  | 418.50  | 42.40  | 54.80   | 55.70   | 670.00   | CMS    |
| Min            | 3.20                                                            | 17.10                    | 11.10   | 16.40                | 12.30   | 11.40   | 38.40                    | 50.30   | 35.30   | 10.80  | 32.15   | 26.90   | 3.20     | CMS    |
| Runoff         | 46.45                                                           | 76.21                    | 123.64  | 176.68               | 212.87  | 140.25  | 349.79                   | 544.02  | 457.11  | 64.59  | 103.34  | 113.77  | 2408.71  | MCM    |
| Momentary Peak | 674.00 CMS. at 7.25 m. (MSL.) at 07.00 Hours , on Nov 26 , 2013 |                          |         |                      |         |         |                          |         |         |        |         |         |          |        |
| Runoff Yield   | 27.20                                                           | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 239.988 | Liters/Second/Square KM. |         |         |        |         |         |          |        |

## WATER YEAR : 2013

## SOUTHERN PENINSULA WEST COAST

**Lower Khlong Palian at Ban Yan Ta Khaow , Trang (X.236)**

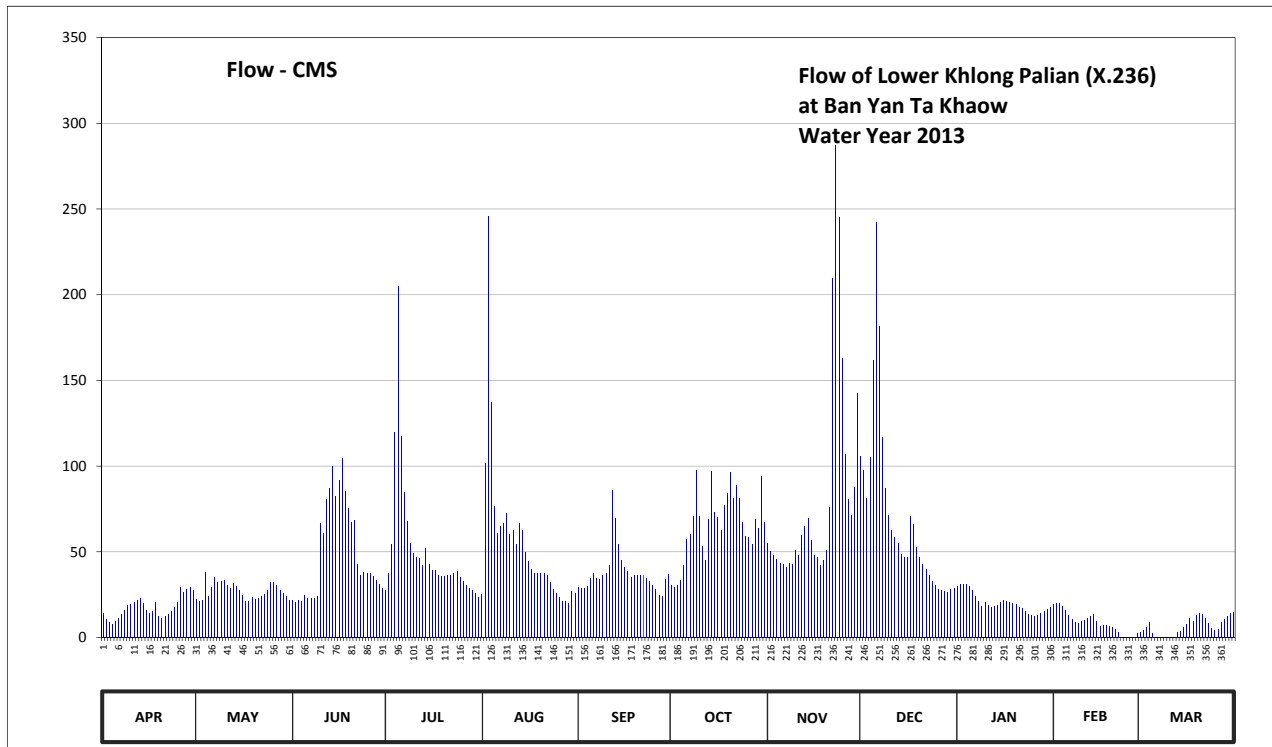
Lat 07 - 22 - 20 N    Long 99 - 40 - 39 E

**Location : on right bank at Ban Yan Ta Khaow.**

|                                         |                                                                                           |              |               |              |                  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------|--------------|---------------|--------------|------------------|------------------|
|                                         | <b>Ban</b>                                                                                | Yan Ta Khaow | <b>Amphoe</b> | Yan Ta Khaow | <b>Changwat</b>  | Trang            |
| <b>Drainage Area</b>                    | 587                                                                                       | sq.km.       |               |              |                  |                  |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |              |               |              |                  |                  |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.)    |               |              |                  |                  |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |              |               |              |                  |                  |
| <b>Location BM</b>                      | Near the gage site.                                                                       |              |               |              | <b>Elevation</b> | +5.628 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |              |               |              |                  |                  |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 24 readings                                                           |              |               |              |                  |                  |
| <b>Period of Available Gage Records</b> | 2004 to date                                                                              |              |               |              |                  |                  |
| <b>Rating Operation</b>                 |                                                                                           |              |               |              |                  |                  |
| <b>Period of Rating</b>                 | 2004 to date                                                                              |              |               |              |                  |                  |
| <b>Rated by Flot</b>                    | -                                                                                         |              |               |              |                  |                  |
| <b>Rated by Current Meter</b>           | 2004 to date                                                                              |              |               |              |                  |                  |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |              |               |              |                  |                  |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |              |               |              |                  |                  |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2013. |              |               |              |                  |                  |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr  | May  | Jun                                             | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Jan  | Feb   | Mar   | Annual |
|----------------------------------|------|------|-------------------------------------------------|------|------|------|------|------|------|------|-------|-------|--------|
| 1                                | 0.29 | 0.56 | 0.54                                            | 0.74 | 0.66 | 0.79 | 0.83 | 1.53 | 2.60 | 0.81 | 0.46  | -0.21 |        |
| 2                                | 0.14 | 0.53 | 0.50                                            | 1.04 | 2.52 | 0.77 | 0.79 | 1.41 | 2.45 | 0.85 | 0.48  | -0.16 |        |
| 3                                | 0.07 | 0.55 | 0.55                                            | 1.51 | 4.55 | 0.78 | 0.84 | 1.35 | 2.12 | 0.85 | 0.48  | -0.07 |        |
| 4                                | 0.02 | 1.06 | 0.53                                            | 2.84 | 3.11 | 0.82 | 0.92 | 1.28 | 2.59 | 0.86 | 0.43  | 0.06  |        |
| 5                                | 0.10 | 0.63 | 0.64                                            | 4.06 | 2.03 | 0.96 | 1.18 | 1.22 | 3.49 | 0.82 | 0.35  | -0.26 |        |
| 6                                | 0.17 | 0.80 | 0.59                                            | 2.81 | 1.68 | 1.05 | 1.59 | 1.20 | 4.51 | 0.73 | 0.24  | -0.58 |        |
| 7                                | 0.27 | 0.98 | 0.58                                            | 2.20 | 1.77 | 0.96 | 1.66 | 1.14 | 3.77 | 0.62 | 0.14  | -0.73 |        |
| 8                                | 0.35 | 0.89 | 0.58                                            | 1.84 | 1.82 | 0.95 | 1.90 | 1.21 | 2.80 | 0.52 | 0.06  | -0.70 |        |
| 9                                | 0.45 | 0.91 | 0.62                                            | 1.53 | 1.94 | 1.02 | 2.45 | 1.20 | 2.25 | 0.42 | 0.04  | -0.70 |        |
| 10                               | 0.47 | 0.93 | 1.82                                            | 1.38 | 1.66 | 1.04 | 1.90 | 1.43 | 1.91 | 0.50 | 0.08  | -0.66 |        |
| 11                               | 0.51 | 0.83 | 1.68                                            | 1.32 | 1.71 | 1.17 | 1.49 | 1.35 | 1.71 | 0.45 | 0.13  | -0.54 |        |
| 12                               | 0.54 | 0.78 | 2.11                                            | 1.30 | 1.52 | 2.22 | 1.27 | 1.65 | 1.62 | 0.41 | 0.18  | -0.38 |        |
| 13                               | 0.58 | 0.87 | 2.24                                            | 1.18 | 1.82 | 1.88 | 1.86 | 1.78 | 1.53 | 0.43 | 0.22  | -0.22 |        |
| 14                               | 0.48 | 0.82 | 2.49                                            | 1.46 | 1.71 | 1.52 | 2.44 | 1.88 | 1.37 | 0.45 | 0.27  | -0.19 |        |
| 15                               | 0.35 | 0.74 | 2.15                                            | 1.20 | 1.40 | 1.27 | 1.95 | 1.57 | 1.31 | 0.51 | 0.10  | -0.08 |        |
| 16                               | 0.28 | 0.64 | 2.34                                            | 1.09 | 1.25 | 1.14 | 1.89 | 1.35 | 1.31 | 0.54 | -0.03 | 0.02  |        |
| 17                               | 0.33 | 0.53 | 2.58                                            | 1.10 | 1.11 | 1.08 | 1.71 | 1.32 | 1.90 | 0.53 | -0.02 | 0.17  |        |
| 18                               | 0.51 | 0.52 | 2.21                                            | 1.02 | 1.05 | 0.98 | 2.04 | 1.18 | 1.81 | 0.50 | -0.01 | 0.08  |        |
| 19                               | 0.22 | 0.61 | 2.00                                            | 1.00 | 1.05 | 1.02 | 2.19 | 1.26 | 1.47 | 0.49 | -0.03 | 0.23  |        |
| 20                               | 0.17 | 0.57 | 1.83                                            | 0.99 | 1.05 | 1.02 | 2.43 | 1.42 | 1.32 | 0.46 | -0.06 | 0.28  |        |
| 21                               | 0.21 | 0.58 | 1.85                                            | 1.01 | 1.05 | 1.02 | 2.12 | 2.01 | 1.20 | 0.41 | -0.13 | 0.26  |        |
| 22                               | 0.26 | 0.63 | 1.19                                            | 1.02 | 1.02 | 1.01 | 2.28 | 4.12 | 1.11 | 0.38 | -0.23 | 0.17  |        |
| 23                               | 0.32 | 0.66 | 1.02                                            | 1.04 | 0.88 | 0.96 | 2.12 | 5.01 | 1.01 | 0.33 | -0.39 | 0.05  |        |
| 24                               | 0.41 | 0.73 | 1.06                                            | 1.08 | 0.75 | 0.90 | 1.83 | 4.54 | 0.90 | 0.27 | -0.55 | -0.09 |        |
| 25                               | 0.51 | 0.88 | 1.04                                            | 0.97 | 0.68 | 0.83 | 1.63 | 3.51 | 0.83 | 0.23 | -0.52 | -0.16 |        |
| 26                               | 0.79 | 0.88 | 1.04                                            | 0.90 | 0.60 | 0.75 | 1.62 | 2.62 | 0.76 | 0.22 | -0.46 | -0.12 |        |
| 27                               | 0.71 | 0.84 | 1.00                                            | 0.84 | 0.52 | 0.65 | 1.51 | 2.11 | 0.73 | 0.24 | -0.39 | 0.06  |        |
| 28                               | 0.76 | 0.74 | 0.93                                            | 0.78 | 0.52 | 0.63 | 1.86 | 1.92 | 0.72 | 0.28 | -0.27 | 0.14  |        |
| 29                               | 0.80 | 0.69 | 0.85                                            | 0.74 | 0.48 | 0.95 | 1.75 | 2.26 | 0.71 | 0.32 |       | 0.22  |        |
| 30                               | 0.73 | 0.62 | 0.77                                            | 0.68 | 0.72 | 1.03 | 2.38 | 3.19 | 0.76 | 0.36 |       | 0.28  |        |
| 31                               |      | 0.55 |                                                 | 0.60 | 0.69 |      | 1.83 |      | 0.77 | 0.41 |       | 0.31  |        |
| Mean                             | 0.39 | 0.73 | 1.31                                            | 1.33 | 1.40 | 1.04 | 1.75 | 1.97 | 1.72 | 0.49 | 0.02  | -0.11 |        |
| Max                              | 0.80 | 1.06 | 2.58                                            | 4.06 | 4.55 | 2.22 | 2.45 | 5.01 | 4.51 | 0.86 | 0.48  | 0.31  | 5.01   |
| Min                              | 0.02 | 0.52 | 0.50                                            | 0.60 | 0.48 | 0.63 | 0.79 | 1.14 | 0.71 | 0.22 | -0.55 | -0.73 | -0.73  |
| Annual Max Momentary Gage Height | 5.15 |      | m. (MSL.) , at 16.00 Hours , on Nov 23 , 2013   |      |      |      |      |      |      |      |       |       |        |
| Zero Gage at Bottom Elevation    | 0.00 |      | m. (MSL.) , River Bed -1.21 m. (MSL.)           |      |      |      |      |      |      |      |       |       |        |
| Left Bank Elevation              | 7.44 |      | m. (MSL.) ,                                     |      |      |      |      |      |      |      |       |       |        |
| Right Bank Elevation             | 7.44 |      | m. (MSL.) , Drainage Area 587 Square Kilometers |      |      |      |      |      |      |      |       |       |        |



Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014

| Date | Apr   | May   | Jun    | Jul    | Aug    | Sep   | Oct   | Nov    | Dec    | Jan   | Feb   | Mar   | Annual |
|------|-------|-------|--------|--------|--------|-------|-------|--------|--------|-------|-------|-------|--------|
| 1    | 14.47 | 22.30 | 21.70  | 27.70  | 25.30  | 29.20 | 30.47 | 55.20  | 106.00 | 29.82 | 19.30 | 3.33  |        |
| 2    | 10.65 | 21.40 | 20.50  | 37.40  | 101.60 | 28.60 | 29.20 | 50.40  | 97.75  | 31.12 | 19.90 | 4.30  |        |
| 3    | 9.07  | 22.00 | 22.00  | 54.40  | 245.75 | 28.90 | 30.80 | 48.25  | 81.20  | 31.12 | 19.90 | 6.10  |        |
| 4    | 7.95  | 38.10 | 21.40  | 119.60 | 137.15 | 30.15 | 33.40 | 45.80  | 105.45 | 31.45 | 18.40 | 8.85  |        |
| 5    | 9.75  | 24.40 | 24.70  | 204.80 | 76.92  | 34.70 | 42.30 | 43.70  | 161.85 | 30.15 | 16.12 | 2.45  |        |
| 6    | 11.32 | 29.50 | 23.20  | 117.65 | 61.20  | 37.75 | 57.60 | 43.00  | 242.35 | 27.40 | 13.10 | 0.00  |        |
| 7    | 13.93 | 35.35 | 22.90  | 85.00  | 64.80  | 34.70 | 60.40 | 40.90  | 181.75 | 24.10 | 10.65 | 0.00  |        |
| 8    | 16.12 | 32.43 | 22.90  | 67.90  | 66.95  | 34.38 | 70.75 | 43.35  | 117.00 | 21.10 | 8.85  | 0.00  |        |
| 9    | 19.00 | 33.08 | 24.10  | 55.20  | 72.65  | 36.70 | 97.75 | 43.00  | 87.50  | 18.10 | 8.40  | 0.00  |        |
| 10   | 19.60 | 33.73 | 66.95  | 49.30  | 60.40  | 37.40 | 70.75 | 51.20  | 71.22  | 20.50 | 9.30  | 0.00  |        |
| 11   | 20.80 | 30.47 | 61.20  | 47.20  | 62.40  | 41.95 | 53.60 | 48.25  | 62.40  | 19.00 | 10.43 | 0.00  |        |
| 12   | 21.70 | 28.90 | 80.72  | 46.50  | 54.80  | 86.00 | 45.45 | 60.00  | 58.80  | 17.80 | 11.55 | 0.35  |        |
| 13   | 22.90 | 31.77 | 87.00  | 42.30  | 66.95  | 69.80 | 68.85 | 65.20  | 55.20  | 18.40 | 12.55 | 3.15  |        |
| 14   | 19.90 | 30.15 | 99.95  | 52.40  | 62.40  | 54.80 | 97.20 | 69.80  | 48.95  | 19.00 | 13.93 | 3.70  |        |
| 15   | 16.12 | 27.70 | 82.62  | 43.00  | 50.00  | 45.45 | 73.12 | 56.80  | 46.85  | 20.80 | 9.75  | 5.90  |        |
| 16   | 14.20 | 24.70 | 92.00  | 39.15  | 44.75  | 40.90 | 70.27 | 48.25  | 46.85  | 21.70 | 6.90  | 7.95  |        |
| 17   | 15.58 | 21.40 | 104.90 | 39.50  | 39.85  | 38.80 | 62.40 | 47.20  | 70.75  | 21.40 | 7.10  | 11.32 |        |
| 18   | 20.80 | 21.10 | 85.50  | 36.70  | 37.75  | 35.35 | 77.40 | 42.30  | 66.47  | 20.50 | 7.30  | 9.30  |        |
| 19   | 12.55 | 23.80 | 75.50  | 36.00  | 37.75  | 36.70 | 84.52 | 45.10  | 52.80  | 20.20 | 6.90  | 12.82 |        |
| 20   | 11.32 | 22.60 | 67.43  | 35.68  | 37.75  | 36.70 | 96.65 | 50.80  | 47.20  | 19.30 | 6.30  | 14.20 |        |
| 21   | 12.27 | 22.90 | 68.37  | 36.35  | 37.75  | 36.70 | 81.20 | 75.97  | 43.00  | 17.80 | 4.90  | 13.65 |        |
| 22   | 13.65 | 24.40 | 42.65  | 36.70  | 36.70  | 36.35 | 89.00 | 209.60 | 39.85  | 16.95 | 2.98  | 11.32 |        |
| 23   | 15.30 | 25.30 | 36.70  | 37.40  | 32.10  | 34.70 | 81.20 | 286.90 | 36.35  | 15.58 | 0.18  | 8.63  |        |
| 24   | 17.80 | 27.40 | 38.10  | 38.80  | 28.00  | 32.75 | 67.43 | 244.90 | 32.75  | 13.93 | 0.00  | 5.70  |        |
| 25   | 20.80 | 32.10 | 37.40  | 35.03  | 25.90  | 30.47 | 59.20 | 163.15 | 30.47  | 12.82 | 0.00  | 4.30  |        |
| 26   | 29.20 | 32.10 | 37.40  | 32.75  | 23.50  | 28.00 | 58.80 | 107.10 | 28.30  | 12.55 | 0.00  | 5.10  |        |
| 27   | 26.80 | 30.80 | 36.00  | 30.80  | 21.10  | 25.00 | 54.40 | 80.72  | 27.40  | 13.10 | 0.18  | 8.85  |        |
| 28   | 28.30 | 27.70 | 33.73  | 28.90  | 21.10  | 24.40 | 68.85 | 71.70  | 27.10  | 14.20 | 2.27  | 10.65 |        |
| 29   | 29.50 | 26.20 | 31.12  | 27.70  | 19.90  | 34.38 | 64.00 | 88.00  | 26.80  | 15.30 |       | 12.55 |        |
| 30   | 27.40 | 24.10 | 28.60  | 25.90  | 27.10  | 37.05 | 94.00 | 142.35 | 28.30  | 16.40 |       | 14.20 |        |

**WATER YEAR : 2013**  
**SOUTHERN PENINSULA WEST COAST**  
g Phangnga at Ban Bang Tong , Phangnga (X

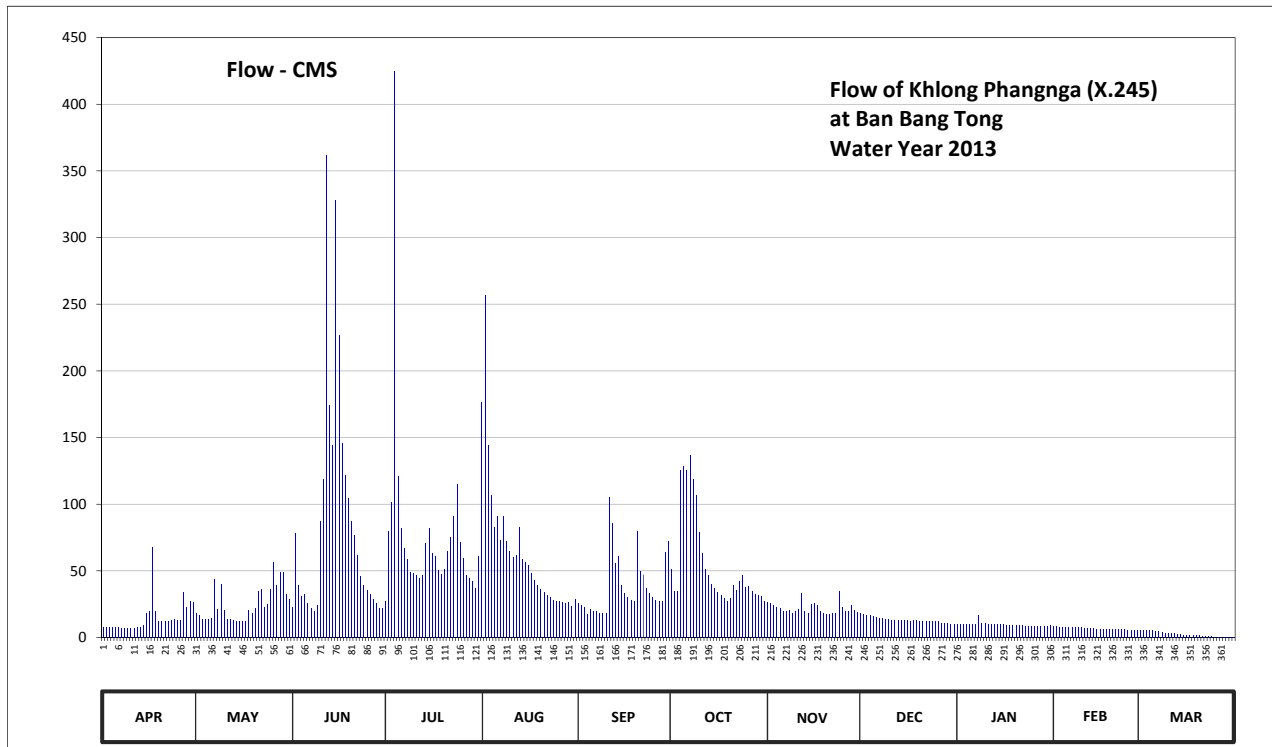
Lat 08 - 30 - 49 N      Long 98 - 30 - 15 W

**Location : on right bank at Ban Bang Tong.**

|                                         |                                                                                           |           |               |        |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Bang Tong | <b>Amphoe</b> | Mueang | <b>Changwat</b>  | Phangnga          |
| <b>Drainage Area</b>                    | 242                                                                                       | sq.km.    |               |        |                  |                   |
| <b>Type of Gage</b>                     | Staff gage                                                                                |           |               |        |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |        |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |        |                  |                   |
| <b>Location BM</b>                      | Near the gage site.                                                                       |           |               |        | <b>Elevation</b> | +16.857 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | 5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.                      |           |               |        |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic means of 5 readings                                                            |           |               |        |                  |                   |
| <b>Period of Available Gage Records</b> | 2006 to date                                                                              |           |               |        |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |        |                  |                   |
| <b>Period of Rating</b>                 | 2006 to date                                                                              |           |               |        |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |        |                  |                   |
| <b>Rated by Current Meter</b>           | 2006 to date                                                                              |           |               |        |                  |                   |
| <b>Stability of Channel Regimes</b>     | Rather unstable by some scouring.                                                         |           |               |        |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |        |                  |                   |
| <b>General Description</b>              | Records good. Stage-discharge relation defined by 22 discharge measurements made in 2013. |           |               |        |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May  | Jun                                             | Jul   | Aug   | Sep  | Oct   | Nov  | Dec  | Jan  | Feb  | Mar  | Annual |
|----------------------------------|-------|------|-------------------------------------------------|-------|-------|------|-------|------|------|------|------|------|--------|
| 1                                | 8.08  | 8.40 | 8.49                                            | 8.58  | 10.37 | 8.56 | 8.97  | 8.57 | 8.40 | 8.17 | 8.09 | 7.99 |        |
| 2                                | 8.08  | 8.36 | 9.34                                            | 9.36  | 10.95 | 8.53 | 8.71  | 8.55 | 8.38 | 8.17 | 8.09 | 7.99 |        |
| 3                                | 8.08  | 8.28 | 8.79                                            | 9.62  | 10.08 | 8.49 | 8.71  | 8.53 | 8.37 | 8.17 | 8.08 | 7.98 |        |
| 4                                | 8.08  | 8.28 | 8.65                                            | 11.95 | 9.68  | 8.38 | 9.89  | 8.50 | 8.36 | 8.16 | 8.08 | 7.97 |        |
| 5                                | 8.06  | 8.29 | 8.68                                            | 9.84  | 9.40  | 8.46 | 9.92  | 8.48 | 8.34 | 8.16 | 8.08 | 7.97 |        |
| 6                                | 8.06  | 8.30 | 8.55                                            | 9.39  | 9.50  | 8.44 | 9.89  | 8.44 | 8.32 | 8.16 | 8.08 | 7.95 |        |
| 7                                | 8.05  | 8.86 | 8.48                                            | 9.19  | 9.27  | 8.43 | 10.01 | 8.43 | 8.31 | 8.16 | 8.07 | 7.93 |        |
| 8                                | 8.05  | 8.47 | 8.44                                            | 9.08  | 9.50  | 8.41 | 9.82  | 8.45 | 8.30 | 8.36 | 8.07 | 7.91 |        |
| 9                                | 8.05  | 8.80 | 8.52                                            | 8.94  | 9.26  | 8.40 | 9.68  | 8.41 | 8.28 | 8.18 | 8.06 | 7.88 |        |
| 10                               | 8.05  | 8.45 | 9.45                                            | 8.93  | 9.16  | 8.40 | 9.35  | 8.43 | 8.28 | 8.18 | 8.06 | 7.88 |        |
| 11                               | 8.05  | 8.29 | 9.82                                            | 8.90  | 9.10  | 9.66 | 9.14  | 8.47 | 8.27 | 8.17 | 8.05 | 7.85 |        |
| 12                               | 8.06  | 8.28 | 11.60                                           | 8.87  | 9.12  | 9.43 | 8.97  | 8.69 | 8.27 | 8.17 | 8.05 | 7.85 |        |
| 13                               | 8.08  | 8.27 | 10.35                                           | 8.90  | 9.40  | 9.04 | 8.90  | 8.43 | 8.27 | 8.17 | 8.04 | 7.83 |        |
| 14                               | 8.14  | 8.25 | 10.08                                           | 9.24  | 9.08  | 9.11 | 8.80  | 8.41 | 8.27 | 8.17 | 8.04 | 7.83 |        |
| 15                               | 8.41  | 8.25 | 11.40                                           | 9.39  | 9.05  | 8.79 | 8.75  | 8.54 | 8.26 | 8.17 | 8.03 | 7.80 |        |
| 16                               | 8.43  | 8.25 | 10.75                                           | 9.14  | 9.02  | 8.69 | 8.70  | 8.55 | 8.26 | 8.16 | 8.03 | 7.78 |        |
| 17                               | 9.20  | 8.25 | 10.10                                           | 9.11  | 8.93  | 8.64 | 8.67  | 8.52 | 8.25 | 8.15 | 8.02 | 7.76 |        |
| 18                               | 8.44  | 8.45 | 9.85                                            | 8.96  | 8.85  | 8.60 | 8.63  | 8.43 | 8.26 | 8.15 | 8.02 | 7.74 |        |
| 19                               | 8.25  | 8.41 | 9.65                                            | 8.92  | 8.79  | 8.58 | 8.59  | 8.40 | 8.26 | 8.14 | 8.01 | 7.72 |        |
| 20                               | 8.25  | 8.48 | 9.45                                            | 8.98  | 8.74  | 9.36 | 8.63  | 8.39 | 8.25 | 8.13 | 8.01 | 7.71 |        |
| 21                               | 8.25  | 8.71 | 9.32                                            | 9.16  | 8.70  | 8.95 | 8.79  | 8.38 | 8.25 | 8.12 | 8.01 | 7.67 |        |
| 22                               | 8.25  | 8.74 | 9.12                                            | 9.30  | 8.67  | 8.91 | 8.73  | 8.40 | 8.25 | 8.12 | 8.01 | 7.62 |        |
| 23                               | 8.27  | 8.50 | 8.89                                            | 9.50  | 8.64  | 8.75 | 8.84  | 8.40 | 8.25 | 8.11 | 8.00 | 7.59 |        |
| 24                               | 8.28  | 8.54 | 8.79                                            | 9.78  | 8.60  | 8.69 | 8.91  | 8.71 | 8.24 | 8.11 | 8.00 | 7.55 |        |
| 25                               | 8.27  | 8.74 | 8.73                                            | 9.25  | 8.59  | 8.64 | 8.77  | 8.49 | 8.24 | 8.11 | 7.99 | 7.47 |        |
| 26                               | 8.26  | 9.05 | 8.68                                            | 9.09  | 8.58  | 8.60 | 8.78  | 8.44 | 8.24 | 8.10 | 7.99 | 7.44 |        |
| 27                               | 8.70  | 8.79 | 8.61                                            | 8.90  | 8.57  | 8.58 | 8.71  | 8.44 | 8.18 | 8.10 | 7.98 | 7.44 |        |
| 28                               | 8.50  | 8.94 | 8.55                                            | 8.87  | 8.56  | 8.58 | 8.68  | 8.53 | 8.18 | 8.09 | 7.98 | 7.44 |        |
| 29                               | 8.58  | 8.94 | 8.48                                            | 8.83  | 8.57  | 9.15 | 8.66  | 8.45 | 8.18 | 8.09 |      | 7.43 |        |
| 30                               | 8.57  | 8.68 | 8.48                                            | 8.75  | 8.51  | 9.26 | 8.65  | 8.42 | 8.17 | 8.11 |      | 7.43 |        |
| 31                               |       | 8.62 |                                                 | 9.11  | 8.61  |      | 8.59  |      | 8.17 | 8.12 |      | 7.43 |        |
| Mean                             | 8.26  | 8.51 | 9.27                                            | 9.22  | 9.09  | 8.75 | 8.99  | 8.48 | 8.27 | 8.15 | 8.04 | 7.74 |        |
| Max                              | 9.20  | 9.05 | 11.60                                           | 11.95 | 10.95 | 9.66 | 10.01 | 8.71 | 8.40 | 8.36 | 8.09 | 7.99 | 11.95  |
| Min                              | 8.05  | 8.25 | 8.44                                            | 8.58  | 8.51  | 8.38 | 8.59  | 8.38 | 8.17 | 8.09 | 7.98 | 7.43 | 7.43   |
| Annual Max Momentary Gage Height | 12.90 |      | m. (MSL.) , at 09.00 Hours , on Jul 4 , 2013    |       |       |      |       |      |      |      |      |      |        |
| Zero Gage at Bottom Elevation    | 0.00  |      | m. (MSL.) , River Bed 6.48 m. (MSL.)            |       |       |      |       |      |      |      |      |      |        |
| Left Bank Elevation              | 16.60 |      | m. (MSL.) ,                                     |       |       |      |       |      |      |      |      |      |        |
| Right Bank Elevation             | 17.62 |      | m. (MSL.) , Drainage Area 242 Square Kilometers |       |       |      |       |      |      |      |      |      |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                            | May                      | Jun     | Jul                  | Aug     | Sep      | Oct                      | Nov    | Dec    | Jan    | Feb    | Mar   | Annual   |        |
|----------------|----------------------------------------------------------------|--------------------------|---------|----------------------|---------|----------|--------------------------|--------|--------|--------|--------|-------|----------|--------|
| 1              | 8.00                                                           | 18.00                    | 22.50   | 27.00                | 176.40  | 26.00    | 51.05                    | 26.50  | 18.00  | 10.25  | 8.25   | 5.80  |          |        |
| 2              | 8.00                                                           | 16.60                    | 78.50   | 80.00                | 256.50  | 24.50    | 34.60                    | 25.50  | 17.30  | 10.25  | 8.25   | 5.80  |          |        |
| 3              | 8.00                                                           | 13.80                    | 39.40   | 101.70               | 144.00  | 22.50    | 34.60                    | 24.50  | 16.95  | 10.25  | 8.00   | 5.60  |          |        |
| 4              | 8.00                                                           | 13.80                    | 31.00   | 425.00               | 106.80  | 17.30    | 125.55                   | 23.00  | 16.60  | 10.00  | 8.00   | 5.40  |          |        |
| 5              | 7.50                                                           | 14.15                    | 32.80   | 120.80               | 83.00   | 21.00    | 128.40                   | 22.00  | 15.90  | 10.00  | 8.00   | 5.40  |          |        |
| 6              | 7.50                                                           | 14.50                    | 25.50   | 82.25                | 91.50   | 20.00    | 125.55                   | 20.00  | 15.20  | 10.00  | 8.00   | 5.00  |          |        |
| 7              | 7.25                                                           | 43.90                    | 22.00   | 67.25                | 73.25   | 19.50    | 137.00                   | 19.50  | 14.85  | 10.00  | 7.75   | 4.60  |          |        |
| 8              | 7.25                                                           | 21.50                    | 20.00   | 59.00                | 91.50   | 18.50    | 118.90                   | 20.50  | 14.50  | 16.60  | 7.75   | 4.20  |          |        |
| 9              | 7.25                                                           | 40.00                    | 24.00   | 49.10                | 72.50   | 18.00    | 106.80                   | 18.50  | 13.80  | 10.50  | 7.50   | 3.60  |          |        |
| 10             | 7.25                                                           | 20.50                    | 87.25   | 48.45                | 65.00   | 18.00    | 79.25                    | 19.50  | 13.80  | 10.50  | 7.50   | 3.60  |          |        |
| 11             | 7.25                                                           | 14.15                    | 118.90  | 46.50                | 60.50   | 105.10   | 63.50                    | 21.50  | 13.45  | 10.25  | 7.25   | 3.00  |          |        |
| 12             | 7.50                                                           | 13.80                    | 362.00  | 44.55                | 62.00   | 85.55    | 51.05                    | 33.40  | 13.45  | 10.25  | 7.25   | 3.00  |          |        |
| 13             | 8.00                                                           | 13.45                    | 174.00  | 46.50                | 83.00   | 56.00    | 46.50                    | 19.50  | 13.45  | 10.25  | 7.00   | 2.60  |          |        |
| 14             | 9.50                                                           | 12.75                    | 144.00  | 71.00                | 59.00   | 61.25    | 40.00                    | 18.50  | 13.45  | 10.25  | 7.00   | 2.60  |          |        |
| 15             | 18.50                                                          | 12.75                    | 328.00  | 82.25                | 56.75   | 39.40    | 37.00                    | 25.00  | 13.10  | 10.25  | 6.75   | 2.00  |          |        |
| 16             | 19.50                                                          | 12.75                    | 226.75  | 63.50                | 54.50   | 33.40    | 34.00                    | 25.50  | 13.10  | 10.00  | 6.75   | 1.90  |          |        |
| 17             | 68.00                                                          | 12.75                    | 146.00  | 61.25                | 48.45   | 30.40    | 32.20                    | 24.00  | 12.75  | 9.75   | 6.50   | 1.80  |          |        |
| 18             | 20.00                                                          | 20.50                    | 121.75  | 50.40                | 43.25   | 28.00    | 29.80                    | 19.50  | 13.10  | 9.75   | 6.50   | 1.70  |          |        |
| 19             | 12.75                                                          | 18.50                    | 104.25  | 47.80                | 39.40   | 27.00    | 27.50                    | 18.00  | 13.10  | 9.50   | 6.25   | 1.60  |          |        |
| 20             | 12.75                                                          | 22.00                    | 87.25   | 51.70                | 36.40   | 80.00    | 29.80                    | 17.65  | 12.75  | 9.25   | 6.25   | 1.55  |          |        |
| 21             | 12.75                                                          | 34.60                    | 77.00   | 65.00                | 34.00   | 49.75    | 39.40                    | 17.30  | 12.75  | 9.00   | 6.25   | 1.35  |          |        |
| 22             | 12.75                                                          | 36.40                    | 62.00   | 75.50                | 32.20   | 47.15    | 35.80                    | 18.00  | 12.75  | 9.00   | 6.25   | 1.10  |          |        |
| 23             | 13.45                                                          | 23.00                    | 45.85   | 91.50                | 30.40   | 37.00    | 42.60                    | 18.00  | 12.75  | 8.75   | 6.00   | 0.95  |          |        |
| 24             | 13.80                                                          | 25.00                    | 39.40   | 115.30               | 28.00   | 33.40    | 47.15                    | 34.60  | 12.40  | 8.75   | 6.00   | 0.75  |          |        |
| 25             | 13.45                                                          | 36.40                    | 35.80   | 71.75                | 27.50   | 30.40    | 38.20                    | 22.50  | 12.40  | 8.75   | 5.80   | 0.35  |          |        |
| 26             | 13.10                                                          | 56.75                    | 32.80   | 59.75                | 27.00   | 28.00    | 38.80                    | 20.00  | 12.40  | 8.50   | 5.80   | 0.20  |          |        |
| 27             | 34.00                                                          | 39.40                    | 28.60   | 46.50                | 26.50   | 27.00    | 34.60                    | 20.00  | 10.50  | 8.50   | 5.60   | 0.20  |          |        |
| 28             | 23.00                                                          | 49.10                    | 25.50   | 44.55                | 26.00   | 27.00    | 32.80                    | 24.50  | 10.50  | 8.25   | 5.60   | 0.20  |          |        |
| 29             | 27.00                                                          | 49.10                    | 22.00   | 41.95                | 26.50   | 64.25    | 31.60                    | 20.50  | 10.50  | 8.25   |        | 0.15  |          |        |
| 30             | 26.50                                                          | 32.80                    | 22.00   | 37.00                | 23.50   | 72.50    | 31.00                    | 19.00  | 10.25  | 8.75   |        | 0.15  |          |        |
| 31             |                                                                | 29.20                    |         | 61.25                | 28.60   |          | 27.50                    |        | 10.25  | 9.00   |        | 0.15  |          |        |
| Total          | 449.55                                                         | 781.90                   | 2586.80 | 2336.05              | 2013.90 | 1167.85  | 1732.50                  | 656.45 | 416.05 | 303.35 | 193.80 | 76.30 | 12714.50 | CMSDAY |
| Mean           | 14.99                                                          | 25.22                    | 86.23   | 75.36                | 64.96   | 38.93    | 55.89                    | 21.88  | 13.42  | 9.79   | 6.92   | 2.46  | 34.83    | CMS    |
| Max            | 68.00                                                          | 56.75                    | 362.00  | 425.00               | 256.50  | 105.10   | 137.00                   | 34.60  | 18.00  | 16.60  | 8.25   | 5.80  | 425.00   | CMS    |
| Min            | 7.25                                                           | 12.75                    | 20.00   | 27.00                | 23.50   | 17.30    | 27.50                    | 17.30  | 10.25  | 8.25   | 5.60   | 0.15  | 0.15     | CMS    |
| Runoff         | 38.84                                                          | 67.56                    | 223.50  | 201.84               | 174.00  | 100.90   | 149.69                   | 56.72  | 35.95  | 26.21  | 16.74  | 6.59  | 1098.53  | MCM    |
| Momentary Peak | 610.50 CMS. at 12.90 m. (MSL.) at 09.00 Hours , on Jul 4, 2013 |                          |         |                      |         |          |                          |        |        |        |        |       |          |        |
| Runoff Yield   | 143.74                                                         | Liters/Second/Square KM. |         | Momentary Peak Yield |         | 2519.084 | Liters/Second/Square KM. |        |        |        |        |       |          |        |

**WATER YEAR : 2013**  
**SOUTHERN PENINSULA WEST COAST**  
**r Khlong Tha Prae at Ban Karakat , Satun (X**

Lat 06 - 50 - 19 N      Long 100 - 04 - 10 E

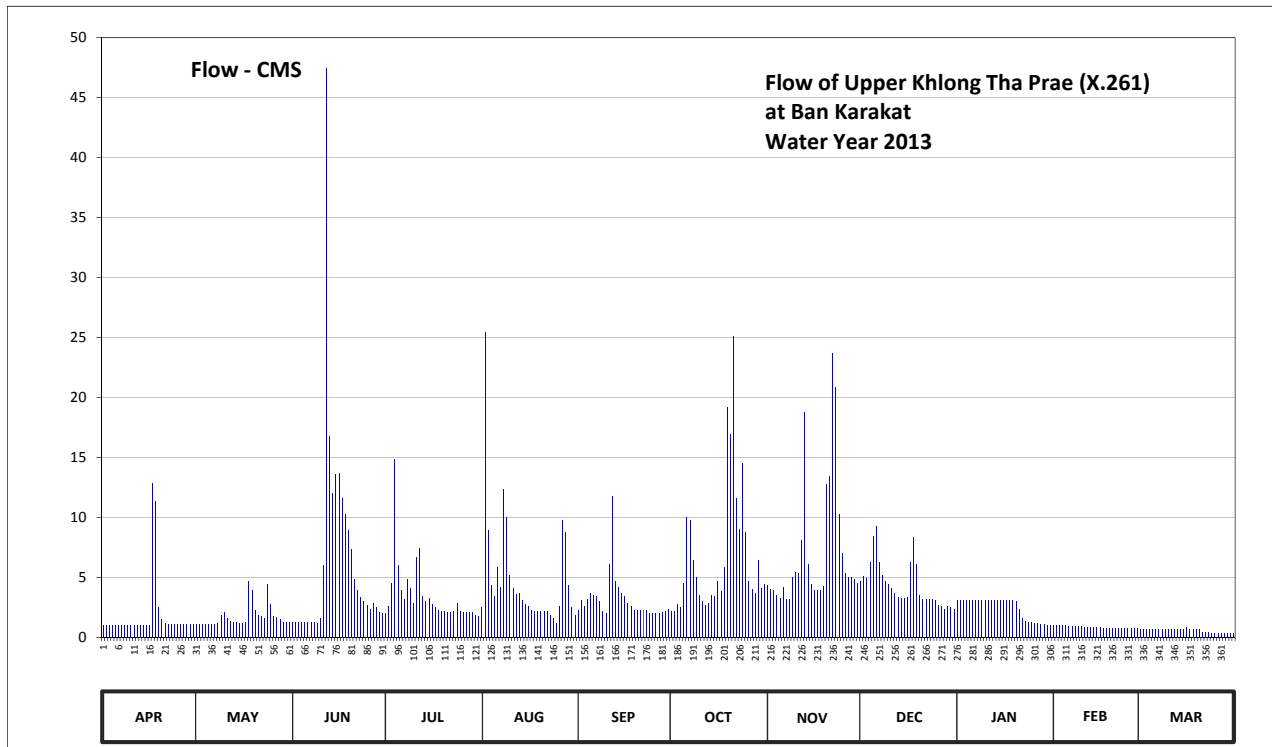
**Location : on right bank at Ban Karakat.**

|                                         |                                                                                           |           |               |              |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-----------|---------------|--------------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Karakat   | <b>Amphoe</b> | Khuan Kalong | <b>Changwat</b>  | Satun             |
| <b>Drainage Area</b>                    | 99                                                                                        | sq.km.    |               |              |                  |                   |
| <b>Type of Gage</b>                     | Water - stage recorder                                                                    |           |               |              |                  |                   |
| <b>Zero Gage at Bottom</b>              | +0.000                                                                                    | m. (MSL.) |               |              |                  |                   |
| <b>Bench Mark</b>                       | B.M.-H.D.                                                                                 |           |               |              |                  |                   |
| <b>Location BM</b>                      | On right bank near the top staff gage.                                                    |           |               |              | <b>Elevation</b> | +30.451 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |           |               |              |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |           |               |              |                  |                   |
| <b>Period of Available Gage Records</b> | 2007 to date                                                                              |           |               |              |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |           |               |              |                  |                   |
| <b>Period of Rating</b>                 | 2007 to date                                                                              |           |               |              |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |           |               |              |                  |                   |
| <b>Rated by Current Meter</b>           | 2007 to date                                                                              |           |               |              |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable.                                                                            |           |               |              |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |           |               |              |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2013. |           |               |              |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                            | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 26.78 | 26.79 | 26.81                                          | 26.88 | 26.93 | 26.91 | 26.90 | 27.13 | 27.16 | 26.99 | 26.78 | 26.71 |        |
| 2                                | 26.78 | 26.79 | 26.81                                          | 26.94 | 28.69 | 26.99 | 26.90 | 27.09 | 27.21 | 26.99 | 26.78 | 26.71 |        |
| 3                                | 26.78 | 26.79 | 26.81                                          | 27.15 | 27.55 | 26.94 | 26.96 | 27.08 | 27.19 | 26.99 | 26.78 | 26.71 |        |
| 4                                | 26.78 | 26.79 | 26.81                                          | 27.99 | 27.13 | 27.00 | 26.93 | 27.04 | 27.31 | 26.99 | 26.78 | 26.71 |        |
| 5                                | 26.78 | 26.79 | 26.81                                          | 27.29 | 27.03 | 27.06 | 27.15 | 27.01 | 27.51 | 26.99 | 26.77 | 26.71 |        |
| 6                                | 26.78 | 26.79 | 26.81                                          | 27.08 | 27.28 | 27.04 | 27.64 | 27.11 | 27.58 | 26.99 | 26.76 | 26.71 |        |
| 7                                | 26.78 | 26.79 | 26.81                                          | 27.00 | 27.11 | 27.03 | 27.62 | 27.00 | 27.31 | 26.99 | 26.76 | 26.71 |        |
| 8                                | 26.78 | 26.80 | 26.81                                          | 27.18 | 27.81 | 26.98 | 27.33 | 27.00 | 27.22 | 26.99 | 26.76 | 26.71 |        |
| 9                                | 26.78 | 26.87 | 26.80                                          | 27.10 | 27.64 | 26.90 | 27.20 | 27.20 | 27.16 | 26.99 | 26.76 | 26.71 |        |
| 10                               | 26.78 | 26.89 | 26.84                                          | 26.97 | 27.22 | 26.88 | 27.04 | 27.24 | 27.14 | 26.99 | 26.76 | 26.71 |        |
| 11                               | 26.78 | 26.84 | 27.29                                          | 27.35 | 27.10 | 27.30 | 26.98 | 27.23 | 27.10 | 26.99 | 26.75 | 26.71 |        |
| 12                               | 26.78 | 26.82 | 29.77                                          | 27.42 | 27.05 | 27.77 | 26.95 | 27.48 | 27.06 | 26.99 | 26.75 | 26.71 |        |
| 13                               | 26.78 | 26.81 | 28.12                                          | 27.03 | 27.06 | 27.17 | 26.97 | 28.25 | 27.02 | 26.99 | 26.75 | 26.71 |        |
| 14                               | 26.78 | 26.81 | 27.79                                          | 26.98 | 26.99 | 27.11 | 27.04 | 27.30 | 27.01 | 26.99 | 26.74 | 26.71 |        |
| 15                               | 26.78 | 26.80 | 27.90                                          | 27.01 | 26.96 | 27.06 | 27.03 | 27.14 | 27.01 | 26.99 | 26.74 | 26.71 |        |
| 16                               | 26.78 | 26.80 | 27.91                                          | 26.96 | 26.94 | 27.03 | 27.17 | 27.08 | 27.02 | 26.99 | 26.74 | 26.74 |        |
| 17                               | 27.85 | 26.81 | 27.76                                          | 26.93 | 26.91 | 26.97 | 27.07 | 27.08 | 27.31 | 26.99 | 26.73 | 26.72 |        |
| 18                               | 27.74 | 27.16 | 27.66                                          | 26.91 | 26.90 | 26.94 | 27.28 | 27.08 | 27.50 | 26.99 | 26.73 | 26.72 |        |
| 19                               | 26.93 | 27.08 | 27.55                                          | 26.90 | 26.90 | 26.91 | 28.28 | 27.12 | 27.30 | 26.99 | 26.73 | 26.72 |        |
| 20                               | 26.83 | 26.91 | 27.41                                          | 26.90 | 26.90 | 26.91 | 28.13 | 27.84 | 27.04 | 26.98 | 26.73 | 26.72 |        |
| 21                               | 26.80 | 26.87 | 27.18                                          | 26.89 | 26.90 | 26.91 | 28.67 | 27.89 | 27.00 | 26.92 | 26.73 | 26.68 |        |
| 22                               | 26.79 | 26.86 | 27.08                                          | 26.89 | 26.90 | 26.91 | 27.76 | 28.58 | 27.00 | 26.84 | 26.73 | 26.68 |        |
| 23                               | 26.79 | 26.84 | 27.02                                          | 26.90 | 26.87 | 26.91 | 27.56 | 28.39 | 27.00 | 26.82 | 26.73 | 26.68 |        |
| 24                               | 26.79 | 27.14 | 26.98                                          | 26.97 | 26.84 | 26.88 | 27.97 | 27.66 | 27.00 | 26.81 | 26.73 | 26.66 |        |
| 25                               | 26.79 | 26.96 | 26.95                                          | 26.90 | 26.80 | 26.88 | 27.54 | 27.38 | 26.99 | 26.81 | 26.73 | 26.66 |        |
| 26                               | 26.79 | 26.86 | 26.92                                          | 26.89 | 26.94 | 26.88 | 27.17 | 27.23 | 26.95 | 26.80 | 26.73 | 26.66 |        |
| 27                               | 26.79 | 26.85 | 26.97                                          | 26.89 | 27.62 | 26.88 | 27.09 | 27.20 | 26.94 | 26.80 | 26.73 | 26.66 |        |
| 28                               | 26.79 | 26.83 | 26.93                                          | 26.89 | 27.54 | 26.89 | 27.06 | 27.20 | 26.92 | 26.79 | 26.73 | 26.66 |        |
| 29                               | 26.79 | 26.81 | 26.89                                          | 26.89 | 27.13 | 26.90 | 27.33 | 27.18 | 26.94 | 26.79 |       | 26.66 |        |
| 30                               | 26.79 | 26.81 | 26.88                                          | 26.87 | 26.93 | 26.92 | 27.10 | 27.15 | 26.93 | 26.78 |       | 26.66 |        |
| 31                               |       | 26.81 |                                                | 26.86 | 26.87 |       | 27.14 |       | 26.92 | 26.78 |       | 26.66 |        |
| Mean                             | 26.86 | 26.86 | 27.24                                          | 27.03 | 27.14 | 27.00 | 27.32 | 27.35 | 27.12 | 26.93 | 26.75 | 26.70 |        |
| Max                              | 27.85 | 27.16 | 29.77                                          | 27.99 | 28.69 | 27.77 | 28.67 | 28.58 | 27.58 | 26.99 | 26.78 | 26.74 | 29.77  |
| Min                              | 26.78 | 26.79 | 26.80                                          | 26.86 | 26.80 | 26.88 | 26.90 | 27.00 | 26.92 | 26.78 | 26.73 | 26.66 | 26.66  |
| Annual Max Momentary Gage Height |       | 30.82 | m. (MSL.) , at 09.00 Hours , on Jun 12 , 2013  |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 0.00  | m. (MSL.) , River Bed 26.44 m. (MSL.)          |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 32.45 | m. (MSL.) ,                                    |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 32.44 | m. (MSL.) , Drainage Area 99 Square Kilometers |       |       |       |       |       |       |       |       |       |        |





**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|-------|-------|-------|----------------|
| 1              | 1.08                                                            | 1.14                     | 1.30   | 2.00                 | 2.50   | 2.30    | 2.20                     | 4.38   | 4.66   | 3.10  | 1.08  | 0.66  |                |
| 2              | 1.08                                                            | 1.14                     | 1.30   | 2.60                 | 25.44  | 3.10    | 2.20                     | 4.02   | 5.13   | 3.10  | 1.08  | 0.66  |                |
| 3              | 1.08                                                            | 1.14                     | 1.30   | 4.56                 | 8.94   | 2.60    | 2.80                     | 3.93   | 4.93   | 3.10  | 1.08  | 0.66  |                |
| 4              | 1.08                                                            | 1.14                     | 1.30   | 14.86                | 4.38   | 3.20    | 2.50                     | 3.56   | 6.25   | 3.10  | 1.08  | 0.66  |                |
| 5              | 1.08                                                            | 1.14                     | 1.30   | 6.02                 | 3.47   | 3.75    | 4.56                     | 3.29   | 8.49   | 3.10  | 1.02  | 0.66  |                |
| 6              | 1.08                                                            | 1.14                     | 1.30   | 3.93                 | 5.91   | 3.56    | 10.04                    | 4.20   | 9.27   | 3.10  | 0.96  | 0.66  |                |
| 7              | 1.08                                                            | 1.14                     | 1.30   | 3.20                 | 4.20   | 3.47    | 9.77                     | 3.20   | 6.25   | 3.10  | 0.96  | 0.66  |                |
| 8              | 1.08                                                            | 1.20                     | 1.30   | 4.84                 | 12.34  | 3.00    | 6.47                     | 3.20   | 5.24   | 3.10  | 0.96  | 0.66  |                |
| 9              | 1.08                                                            | 1.90                     | 1.20   | 4.11                 | 10.04  | 2.20    | 5.02                     | 5.02   | 4.66   | 3.10  | 0.96  | 0.66  |                |
| 10             | 1.08                                                            | 2.10                     | 1.60   | 2.90                 | 5.24   | 2.00    | 3.56                     | 5.47   | 4.47   | 3.10  | 0.96  | 0.66  |                |
| 11             | 1.08                                                            | 1.60                     | 6.02   | 6.69                 | 4.11   | 6.13    | 3.00                     | 5.35   | 4.11   | 3.10  | 0.90  | 0.66  |                |
| 12             | 1.08                                                            | 1.40                     | 47.45  | 7.48                 | 3.65   | 11.80   | 2.70                     | 8.15   | 3.75   | 3.10  | 0.90  | 0.66  |                |
| 13             | 1.08                                                            | 1.30                     | 16.80  | 3.47                 | 3.75   | 4.75    | 2.90                     | 18.75  | 3.38   | 3.10  | 0.90  | 0.66  |                |
| 14             | 1.08                                                            | 1.30                     | 12.07  | 3.00                 | 3.10   | 4.20    | 3.56                     | 6.13   | 3.29   | 3.10  | 0.84  | 0.66  |                |
| 15             | 1.08                                                            | 1.20                     | 13.60  | 3.29                 | 2.80   | 3.75    | 3.47                     | 4.47   | 3.29   | 3.10  | 0.84  | 0.66  |                |
| 16             | 1.08                                                            | 1.20                     | 13.74  | 2.80                 | 2.60   | 3.47    | 4.75                     | 3.93   | 3.38   | 3.10  | 0.84  | 0.84  |                |
| 17             | 12.90                                                           | 1.30                     | 11.66  | 2.50                 | 2.30   | 2.90    | 3.84                     | 3.93   | 6.25   | 3.10  | 0.78  | 0.72  |                |
| 18             | 11.39                                                           | 4.66                     | 10.31  | 2.30                 | 2.20   | 2.60    | 5.91                     | 3.93   | 8.38   | 3.10  | 0.78  | 0.72  |                |
| 19             | 2.50                                                            | 3.93                     | 8.94   | 2.20                 | 2.20   | 2.30    | 19.20                    | 4.29   | 6.13   | 3.10  | 0.78  | 0.72  |                |
| 20             | 1.50                                                            | 2.30                     | 7.36   | 2.20                 | 2.20   | 2.30    | 16.95                    | 12.76  | 3.56   | 3.00  | 0.78  | 0.72  |                |
| 21             | 1.20                                                            | 1.90                     | 4.84   | 2.10                 | 2.20   | 2.30    | 25.12                    | 13.46  | 3.20   | 2.40  | 0.78  | 0.48  |                |
| 22             | 1.14                                                            | 1.80                     | 3.93   | 2.10                 | 2.20   | 2.30    | 11.66                    | 23.70  | 3.20   | 1.60  | 0.78  | 0.48  |                |
| 23             | 1.14                                                            | 1.60                     | 3.38   | 2.20                 | 1.90   | 2.30    | 9.05                     | 20.85  | 3.20   | 1.40  | 0.78  | 0.48  |                |
| 24             | 1.14                                                            | 4.47                     | 3.00   | 2.90                 | 1.60   | 2.00    | 14.58                    | 10.31  | 3.20   | 1.30  | 0.78  | 0.36  |                |
| 25             | 1.14                                                            | 2.80                     | 2.70   | 2.20                 | 1.20   | 2.00    | 8.83                     | 7.03   | 3.10   | 1.30  | 0.78  | 0.36  |                |
| 26             | 1.14                                                            | 1.80                     | 2.40   | 2.10                 | 2.60   | 2.00    | 4.75                     | 5.35   | 2.70   | 1.20  | 0.78  | 0.36  |                |
| 27             | 1.14                                                            | 1.70                     | 2.90   | 2.10                 | 9.77   | 2.00    | 4.02                     | 5.02   | 2.60   | 1.20  | 0.78  | 0.36  |                |
| 28             | 1.14                                                            | 1.50                     | 2.50   | 2.10                 | 8.83   | 2.10    | 3.75                     | 5.02   | 2.40   | 1.14  | 0.78  | 0.36  |                |
| 29             | 1.14                                                            | 1.30                     | 2.10   | 2.10                 | 4.38   | 2.20    | 6.47                     | 4.84   | 2.60   | 1.14  |       | 0.36  |                |
| 30             | 1.14                                                            | 1.30                     | 2.00   | 1.90                 | 2.50   | 2.40    | 4.11                     | 4.56   | 2.50   | 1.08  |       | 0.36  |                |
| 31             |                                                                 | 1.30                     |        | 1.80                 | 1.90   |         | 4.47                     |        | 2.40   | 1.08  |       | 0.36  |                |
| Total          | 57.03                                                           | 54.84                    | 190.90 | 108.55               | 150.45 | 94.98   | 212.21                   | 212.10 | 135.97 | 76.74 | 24.72 | 17.94 | 1336.43 CMSDAY |
| Mean           | 1.90                                                            | 1.77                     | 6.36   | 3.50                 | 4.85   | 3.17    | 6.85                     | 7.07   | 4.39   | 2.48  | 0.88  | 0.58  | 3.66 CMS       |
| Max            | 12.90                                                           | 4.66                     | 47.45  | 14.86                | 25.44  | 11.80   | 25.12                    | 23.70  | 9.27   | 3.10  | 1.08  | 0.84  | 47.45 CMS      |
| Min            | 1.08                                                            | 1.14                     | 1.20   | 1.80                 | 1.20   | 2.00    | 2.20                     | 3.20   | 2.40   | 1.08  | 0.78  | 0.36  | 0.36 CMS       |
| Runoff         | 4.93                                                            | 4.74                     | 16.49  | 9.38                 | 13.00  | 8.21    | 18.34                    | 18.33  | 11.75  | 6.63  | 2.14  | 1.55  | 115.47 MCM     |
| Momentary Peak | 75.10 CMS. at 30.82 m. (MSL.) at 09.00 Hours , on Jun 12 , 2013 |                          |        |                      |        |         |                          |        |        |       |       |       |                |
| Runoff Yield   | 36.98                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 758.586 | Liters/Second/Square KM. |        |        |       |       |       |                |

## WATER YEAR : 2013

## SOUTHERN PENINSULA WEST COAST

**Khlong Duson at Ban Panjor , Satun (X.279)**

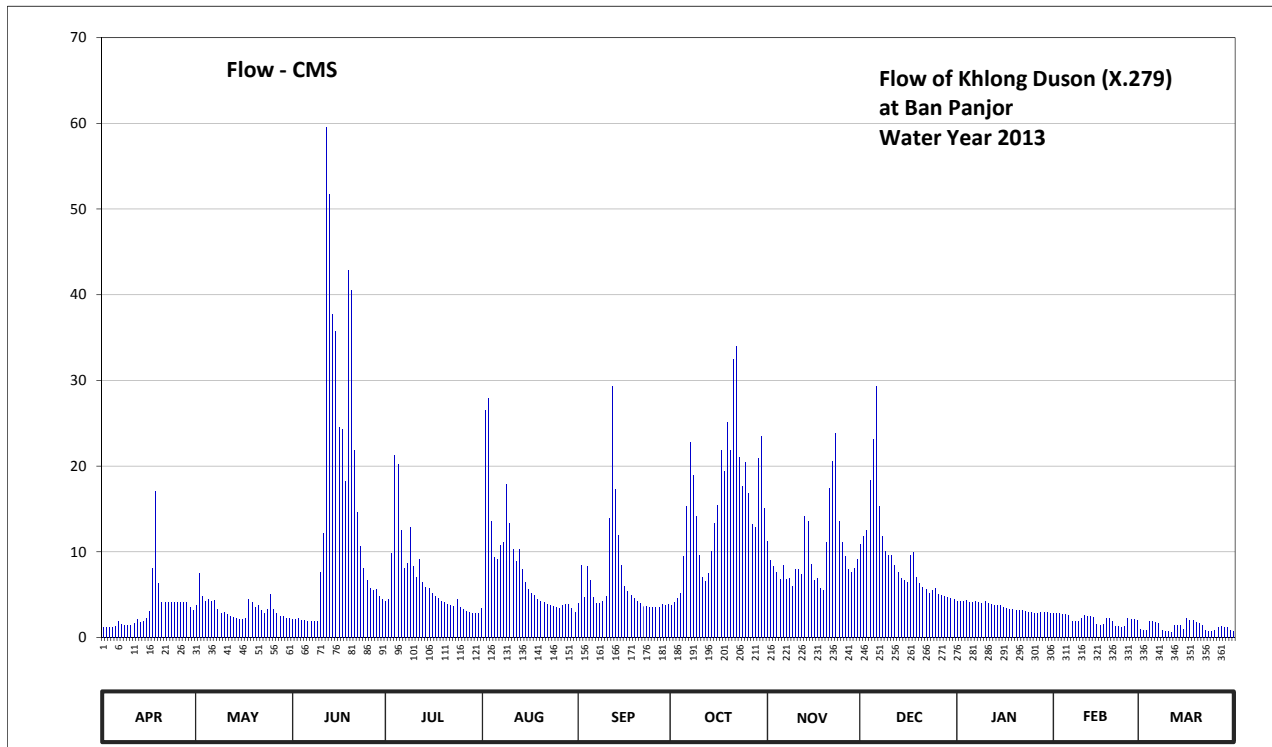
Lat 06 - 46 - 39 N    Long 100 - 04 - 16 E

**Location : on right bank at Ban Panjor.**

|                                         |                                                                                           |                |               |           |                  |                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------|-----------|------------------|-------------------|
|                                         | <b>Ban</b>                                                                                | Panjor         | <b>Amphoe</b> | Khuan Don | <b>Changwat</b>  | Satun             |
| <b>Drainage Area</b>                    | 262                                                                                       | sq.km.         |               |           |                  |                   |
| <b>Type of Gage</b>                     | Water -                                                                                   | stage recorder |               |           |                  |                   |
| <b>Zero Gage at Bottom</b>              | +18.423                                                                                   | m. (MSL.)      |               |           |                  |                   |
| <b>Bench Mark</b>                       | B.M.-                                                                                     | H.D.           |               |           |                  |                   |
| <b>Location BM</b>                      | On right bank near the top staff gage.                                                    |                |               |           | <b>Elevation</b> | +24.423 m. (MSL.) |
| <b>Gage Reading Frequency</b>           | Recording                                                                                 |                |               |           |                  |                   |
| <b>Basis of Mean Daily Gage Height</b>  | Arithmetic mean of 24 readings                                                            |                |               |           |                  |                   |
| <b>Period of Available Gage Records</b> | 2011 to date                                                                              |                |               |           |                  |                   |
| <b>Rating Operation</b>                 |                                                                                           |                |               |           |                  |                   |
| <b>Period of Rating</b>                 | 2011 to date                                                                              |                |               |           |                  |                   |
| <b>Rated by Flot</b>                    | -                                                                                         |                |               |           |                  |                   |
| <b>Rated by Current Meter</b>           | 2011 to date                                                                              |                |               |           |                  |                   |
| <b>Stability of Channel Regimes</b>     | Fairly stable because of backwater effect.                                                |                |               |           |                  |                   |
| <b>Overbank Flow Conditions</b>         | No overbank flow.                                                                         |                |               |           |                  |                   |
| <b>General Description</b>              | Records fair. Stage-discharge relation defined by 24 discharge measurements made in 2013. |                |               |           |                  |                   |

**Gage Height in Meter (MSL.) Water Year April 1, 2013 to March 31, 2014**

| Date                             | Apr   | May   | Jun                                             | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Annual |
|----------------------------------|-------|-------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1                                | 19.19 | 19.48 | 19.30                                           | 19.52 | 19.44 | 19.50 | 19.47 | 20.06 | 20.04 | 19.52 | 19.39 | 19.15 |        |
| 2                                | 19.19 | 19.78 | 19.30                                           | 19.54 | 21.06 | 19.85 | 19.51 | 19.90 | 20.10 | 19.52 | 19.38 | 19.14 |        |
| 3                                | 19.19 | 19.57 | 19.31                                           | 19.96 | 21.14 | 19.56 | 19.55 | 19.84 | 20.15 | 19.52 | 19.38 | 19.13 |        |
| 4                                | 19.20 | 19.52 | 19.29                                           | 20.74 | 20.23 | 19.84 | 19.61 | 19.79 | 20.56 | 19.53 | 19.37 | 19.27 |        |
| 5                                | 19.21 | 19.54 | 19.29                                           | 20.68 | 19.92 | 19.72 | 19.93 | 19.73 | 20.86 | 19.51 | 19.37 | 19.27 |        |
| 6                                | 19.28 | 19.52 | 19.28                                           | 20.15 | 19.91 | 19.56 | 20.35 | 19.85 | 21.22 | 19.51 | 19.36 | 19.26 |        |
| 7                                | 19.24 | 19.53 | 19.28                                           | 19.83 | 20.03 | 19.50 | 20.84 | 19.73 | 20.35 | 19.52 | 19.28 | 19.25 |        |
| 8                                | 19.22 | 19.43 | 19.27                                           | 19.87 | 20.05 | 19.50 | 20.60 | 19.74 | 20.10 | 19.51 | 19.28 | 19.14 |        |
| 9                                | 19.22 | 19.39 | 19.28                                           | 20.18 | 20.53 | 19.52 | 20.27 | 19.67 | 19.98 | 19.50 | 19.28 | 19.12 |        |
| 10                               | 19.23 | 19.40 | 19.79                                           | 19.84 | 20.21 | 19.57 | 19.94 | 19.82 | 19.94 | 19.52 | 19.31 | 19.12 |        |
| 11                               | 19.25 | 19.37 | 20.13                                           | 19.75 | 19.99 | 20.25 | 19.75 | 19.82 | 19.94 | 19.50 | 19.36 | 19.11 |        |
| 12                               | 19.30 | 19.34 | 22.74                                           | 19.91 | 19.89 | 21.22 | 19.71 | 19.77 | 19.85 | 19.49 | 19.35 | 19.22 |        |
| 13                               | 19.26 | 19.33 | 22.37                                           | 19.70 | 19.99 | 20.49 | 19.78 | 20.27 | 19.79 | 19.48 | 19.35 | 19.23 |        |
| 14                               | 19.27 | 19.31 | 21.67                                           | 19.66 | 19.82 | 20.11 | 19.98 | 20.23 | 19.74 | 19.48 | 19.33 | 19.22 |        |
| 15                               | 19.31 | 19.30 | 21.57                                           | 19.65 | 19.70 | 19.85 | 20.21 | 19.86 | 19.72 | 19.47 | 19.24 | 19.15 |        |
| 16                               | 19.41 | 19.30 | 20.94                                           | 19.61 | 19.64 | 19.67 | 20.36 | 19.72 | 19.70 | 19.45 | 19.23 | 19.31 |        |
| 17                               | 19.83 | 19.31 | 20.93                                           | 19.57 | 19.61 | 19.62 | 20.78 | 19.74 | 19.94 | 19.44 | 19.24 | 19.29 |        |
| 18                               | 20.47 | 19.54 | 20.55                                           | 19.55 | 19.58 | 19.58 | 20.63 | 19.65 | 19.97 | 19.43 | 19.32 | 19.29 |        |
| 19                               | 19.69 | 19.51 | 21.93                                           | 19.52 | 19.54 | 19.55 | 20.98 | 19.63 | 19.75 | 19.43 | 19.32 | 19.26 |        |
| 20                               | 19.51 | 19.45 | 21.81                                           | 19.51 | 19.52 | 19.52 | 20.78 | 20.05 | 19.69 | 19.42 | 19.28 | 19.25 |        |
| 21                               | 19.51 | 19.48 | 20.78                                           | 19.49 | 19.51 | 19.50 | 21.40 | 20.50 | 19.66 | 19.42 | 19.21 | 19.23 |        |
| 22                               | 19.51 | 19.42 | 20.30                                           | 19.47 | 19.49 | 19.46 | 21.48 | 20.70 | 19.64 | 19.42 | 19.21 | 19.13 |        |
| 23                               | 19.51 | 19.39 | 20.02                                           | 19.46 | 19.48 | 19.46 | 20.73 | 20.90 | 19.61 | 19.41 | 19.20 | 19.12 |        |
| 24                               | 19.51 | 19.43 | 19.83                                           | 19.54 | 19.46 | 19.45 | 20.51 | 20.23 | 19.63 | 19.40 | 19.21 | 19.12 |        |
| 25                               | 19.51 | 19.59 | 19.72                                           | 19.45 | 19.45 | 19.45 | 20.69 | 20.05 | 19.65 | 19.40 | 19.31 | 19.13 |        |
| 26                               | 19.51 | 19.43 | 19.65                                           | 19.43 | 19.44 | 19.45 | 20.46 | 19.93 | 19.60 | 19.39 | 19.30 | 19.20 |        |
| 27                               | 19.51 | 19.38 | 19.63                                           | 19.41 | 19.48 | 19.45 | 20.20 | 19.82 | 19.58 | 19.39 | 19.30 | 19.21 |        |
| 28                               | 19.51 | 19.34 | 19.64                                           | 19.40 | 19.49 | 19.49 | 20.18 | 19.79 | 19.57 | 19.40 | 19.29 | 19.20 |        |
| 29                               | 19.45 | 19.34 | 19.57                                           | 19.39 | 19.49 | 19.47 | 20.72 | 19.83 | 19.56 | 19.40 |       | 19.20 |        |
| 30                               | 19.42 | 19.32 | 19.54                                           | 19.39 | 19.44 | 19.49 | 20.88 | 19.91 | 19.55 | 19.40 |       | 19.13 |        |
| 31                               |       | 19.31 |                                                 | 19.38 | 19.40 |       | 20.34 |       | 19.54 | 19.39 |       | 19.12 |        |
| Mean                             | 19.41 | 19.43 | 20.22                                           | 19.70 | 19.80 | 19.69 | 20.34 | 19.95 | 19.90 | 19.46 | 19.30 | 19.19 |        |
| Max                              | 20.47 | 19.78 | 22.74                                           | 20.74 | 21.14 | 21.22 | 21.48 | 20.90 | 21.22 | 19.53 | 19.39 | 19.31 | 22.74  |
| Min                              | 19.19 | 19.30 | 19.27                                           | 19.38 | 19.40 | 19.45 | 19.47 | 19.63 | 19.54 | 19.39 | 19.20 | 19.11 | 19.11  |
| Annual Max Momentary Gage Height |       | 23.50 | m. (MSL.) , at 17.00 Hours , on Jun 12 , 2013   |       |       |       |       |       |       |       |       |       |        |
| Zero Gage at Bottom Elevation    |       | 18.42 | m. (MSL.) , River Bed 17.93 m. (MSL.)           |       |       |       |       |       |       |       |       |       |        |
| Left Bank Elevation              |       | 24.39 | m. (MSL.) ,                                     |       |       |       |       |       |       |       |       |       |        |
| Right Bank Elevation             |       | 24.40 | m. (MSL.) , Drainage Area 262 Square Kilometers |       |       |       |       |       |       |       |       |       |        |



**Discharge in Cubic Meter per Second , Water Year April 1, 2013 to March 31, 2014**

| Date           | Apr                                                             | May                      | Jun    | Jul                  | Aug    | Sep     | Oct                      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual         |
|----------------|-----------------------------------------------------------------|--------------------------|--------|----------------------|--------|---------|--------------------------|--------|--------|--------|-------|-------|----------------|
| 1              | 1.19                                                            | 3.85                     | 2.12   | 4.27                 | 3.42   | 4.06    | 3.74                     | 11.24  | 10.96  | 4.27   | 2.91  | 0.94  |                |
| 2              | 1.19                                                            | 7.49                     | 2.12   | 4.48                 | 26.55  | 8.41    | 4.17                     | 9.07   | 11.80  | 4.27   | 2.82  | 0.87  |                |
| 3              | 1.19                                                            | 4.80                     | 2.21   | 9.87                 | 27.95  | 4.70    | 4.59                     | 8.28   | 12.50  | 4.27   | 2.82  | 0.81  |                |
| 4              | 1.25                                                            | 4.27                     | 2.04   | 21.24                | 13.62  | 8.28    | 5.25                     | 7.62   | 18.40  | 4.38   | 2.74  | 1.86  |                |
| 5              | 1.34                                                            | 4.48                     | 2.04   | 20.28                | 9.34   | 6.70    | 9.47                     | 6.83   | 23.19  | 4.17   | 2.74  | 1.86  |                |
| 6              | 1.95                                                            | 4.27                     | 1.95   | 12.50                | 9.21   | 4.70    | 15.30                    | 8.41   | 29.35  | 4.17   | 2.65  | 1.77  |                |
| 7              | 1.60                                                            | 4.38                     | 1.95   | 8.15                 | 10.82  | 4.06    | 22.86                    | 6.83   | 15.30  | 4.27   | 1.95  | 1.69  |                |
| 8              | 1.42                                                            | 3.32                     | 1.86   | 8.68                 | 11.10  | 4.06    | 19.00                    | 6.96   | 11.80  | 4.17   | 1.95  | 0.87  |                |
| 9              | 1.42                                                            | 2.91                     | 1.95   | 12.92                | 17.95  | 4.27    | 14.18                    | 6.04   | 10.13  | 4.06   | 1.95  | 0.75  |                |
| 10             | 1.51                                                            | 3.00                     | 7.62   | 8.28                 | 13.34  | 4.80    | 9.61                     | 8.02   | 9.61   | 4.27   | 2.21  | 0.75  |                |
| 11             | 1.69                                                            | 2.74                     | 12.22  | 7.09                 | 10.27  | 13.90   | 7.09                     | 8.02   | 9.61   | 4.06   | 2.65  | 0.69  |                |
| 12             | 2.12                                                            | 2.48                     | 59.51  | 9.21                 | 8.94   | 29.35   | 6.57                     | 7.36   | 8.41   | 3.95   | 2.56  | 1.42  |                |
| 13             | 1.77                                                            | 2.39                     | 51.69  | 6.44                 | 10.27  | 17.35   | 7.49                     | 14.18  | 7.62   | 3.85   | 2.56  | 1.51  |                |
| 14             | 1.86                                                            | 2.21                     | 37.68  | 5.91                 | 8.02   | 11.94   | 10.13                    | 13.62  | 6.96   | 3.85   | 2.39  | 1.42  |                |
| 15             | 2.21                                                            | 2.12                     | 35.73  | 5.78                 | 6.44   | 8.41    | 13.34                    | 8.55   | 6.70   | 3.74   | 1.60  | 0.94  |                |
| 16             | 3.11                                                            | 2.12                     | 24.51  | 5.25                 | 5.65   | 6.04    | 15.44                    | 6.70   | 6.44   | 3.53   | 1.51  | 2.21  |                |
| 17             | 8.15                                                            | 2.21                     | 24.35  | 4.80                 | 5.25   | 5.38    | 21.88                    | 6.96   | 9.61   | 3.42   | 1.60  | 2.04  |                |
| 18             | 17.05                                                           | 4.48                     | 18.25  | 4.59                 | 4.91   | 4.91    | 19.48                    | 5.78   | 10.00  | 3.32   | 2.30  | 2.04  |                |
| 19             | 6.30                                                            | 4.17                     | 42.82  | 4.27                 | 4.48   | 4.59    | 25.17                    | 5.51   | 7.09   | 3.32   | 2.30  | 1.77  |                |
| 20             | 4.17                                                            | 3.53                     | 40.45  | 4.17                 | 4.27   | 4.27    | 21.88                    | 11.10  | 6.30   | 3.21   | 1.95  | 1.69  |                |
| 21             | 4.17                                                            | 3.85                     | 21.88  | 3.95                 | 4.17   | 4.06    | 32.50                    | 17.50  | 5.91   | 3.21   | 1.34  | 1.51  |                |
| 22             | 4.17                                                            | 3.21                     | 14.60  | 3.74                 | 3.95   | 3.64    | 34.02                    | 20.60  | 5.65   | 3.21   | 1.34  | 0.81  |                |
| 23             | 4.17                                                            | 2.91                     | 10.68  | 3.64                 | 3.85   | 3.64    | 21.08                    | 23.85  | 5.25   | 3.11   | 1.25  | 0.75  |                |
| 24             | 4.17                                                            | 3.32                     | 8.15   | 4.48                 | 3.64   | 3.53    | 17.65                    | 13.62  | 5.51   | 3.00   | 1.34  | 0.75  |                |
| 25             | 4.17                                                            | 5.01                     | 6.70   | 3.53                 | 3.53   | 3.53    | 20.44                    | 11.10  | 5.78   | 3.00   | 2.21  | 0.81  |                |
| 26             | 4.17                                                            | 3.32                     | 5.78   | 3.32                 | 3.42   | 3.53    | 16.90                    | 9.47   | 5.12   | 2.91   | 2.12  | 1.25  |                |
| 27             | 4.17                                                            | 2.82                     | 5.51   | 3.11                 | 3.85   | 3.53    | 13.20                    | 8.02   | 4.91   | 2.91   | 2.12  | 1.34  |                |
| 28             | 4.17                                                            | 2.48                     | 5.65   | 3.00                 | 3.95   | 3.95    | 12.92                    | 7.62   | 4.80   | 3.00   | 2.04  | 1.25  |                |
| 29             | 3.53                                                            | 2.48                     | 4.80   | 2.91                 | 3.95   | 3.74    | 20.92                    | 8.15   | 4.70   | 3.00   |       | 1.25  |                |
| 30             | 3.21                                                            | 2.30                     | 4.48   | 2.91                 | 3.42   | 3.95    | 23.52                    | 9.21   | 4.59   | 3.00   |       | 0.81  |                |
| 31             |                                                                 | 2.21                     |        | 2.82                 | 3.00   |         | 15.16                    |        | 4.48   | 2.91   |       | 0.75  |                |
| Total          | 102.59                                                          | 105.13                   | 461.30 | 205.59               | 252.53 | 197.28  | 484.95                   | 296.22 | 288.48 | 111.81 | 59.92 | 39.18 | 2604.98 CMSDAY |
| Mean           | 3.42                                                            | 3.39                     | 15.38  | 6.63                 | 8.15   | 6.58    | 15.64                    | 9.87   | 9.31   | 3.61   | 2.14  | 1.26  | 7.14 CMS       |
| Max            | 17.05                                                           | 7.49                     | 59.51  | 21.24                | 27.95  | 29.35   | 34.02                    | 23.85  | 29.35  | 4.38   | 2.91  | 2.21  | 59.51 CMS      |
| Min            | 1.19                                                            | 2.12                     | 1.86   | 2.82                 | 3.00   | 3.53    | 3.74                     | 5.51   | 4.48   | 2.91   | 1.25  | 0.69  | 0.69 CMS       |
| Runoff         | 8.86                                                            | 9.08                     | 39.86  | 17.76                | 21.82  | 17.05   | 41.90                    | 25.59  | 24.93  | 9.66   | 5.18  | 3.39  | 225.07 MCM     |
| Momentary Peak | 76.25 CMS. at 23.50 m. (MSL.) at 17.00 Hours , on Jun 12 , 2013 |                          |        |                      |        |         |                          |        |        |        |       |       |                |
| Runoff Yield   | 27.24                                                           | Liters/Second/Square KM. |        | Momentary Peak Yield |        | 291.031 | Liters/Second/Square KM. |        |        |        |       |       |                |



# Suspended Sediment Station

## Water Year 2013

**WATER YEAR : 2013****KHONG RIVER BASIN****Huai Mong at Ban Na Ang , Udon Thani (Kh.18)**

Lat 17 - 34 - 41 N Long 102 - 20 - 22 E

**Location : on right bank between Phu Pha Dang and Phu Phan about 2 kilometers from Ban Na Ang.**

|                                      | Ban Na Ang                 | Amphoe Ban Phu | Changwat Udon Thani |
|--------------------------------------|----------------------------|----------------|---------------------|
| <b>Drainage Area</b>                 | 1,309 sq.km.               |                |                     |
| <b>Method of sampling</b>            | Depth Integrating          |                |                     |
| <b>Instrument Used</b>               | US.D-49                    |                |                     |
| <b>Period of Available Records</b>   | 1999-Cont'd                |                |                     |
| <b>Actual Measurement</b>            | 1999-Cont'd                |                |                     |
| <b>Using Rating Curve Water Year</b> | 1999-2013                  |                |                     |
| <b>Number of observation</b>         | 241                        |                |                     |
| <b>R-Square</b>                      | 0.8820                     |                |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                |                     |

$$QS = 3.9782 QW^{1.20320}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun     | Jul     | Aug     | Sep     | Oct     | Nov    | Dec    | Jan    | Feb  | Mar  | Annual   |     |
|-------|------|------|---------|---------|---------|---------|---------|--------|--------|--------|------|------|----------|-----|
| 1     | 0.00 | 0.00 | 0.00    | 20.10   | 70.40   | 73.10   | 364.80  | 41.70  | 19.60  | 16.40  | 1.40 | 0.00 |          |     |
| 2     | 0.00 | 0.00 | 0.00    | 19.10   | 83.60   | 43.30   | 302.90  | 40.90  | 18.60  | 15.50  | 1.30 | 0.00 |          |     |
| 3     | 0.00 | 0.00 | 0.00    | 20.10   | 73.10   | 72.20   | 267.40  | 37.80  | 18.00  | 14.90  | 1.20 | 0.00 |          |     |
| 4     | 0.00 | 0.00 | 0.00    | 38.60   | 66.70   | 59.70   | 187.20  | 34.70  | 17.50  | 14.30  | 1.20 | 0.00 |          |     |
| 5     | 0.00 | 0.00 | 0.30    | 81.60   | 52.10   | 61.50   | 110.70  | 32.80  | 16.40  | 14.00  | 1.00 | 0.00 |          |     |
| 6     | 0.00 | 0.00 | 64.10   | 46.50   | 42.50   | 118.10  | 60.60   | 31.60  | 15.90  | 14.00  | 0.90 | 0.00 |          |     |
| 7     | 0.00 | 0.00 | 114.30  | 33.50   | 131.00  | 282.80  | 33.50   | 30.40  | 15.50  | 13.70  | 0.60 | 0.00 |          |     |
| 8     | 0.00 | 0.00 | 104.20  | 31.00   | 467.10  | 347.50  | 13.40   | 28.00  | 14.90  | 13.40  | 0.50 | 0.00 |          |     |
| 9     | 0.00 | 0.00 | 64.10   | 45.70   | 507.50  | 333.20  | 6.70    | 26.20  | 14.30  | 13.10  | 0.30 | 0.00 |          |     |
| 10    | 0.00 | 0.00 | 57.20   | 137.50  | 619.80  | 309.60  | 7.30    | 25.60  | 14.00  | 12.60  | 0.10 | 0.00 |          |     |
| 11    | 0.00 | 0.00 | 104.20  | 354.60  | 728.90  | 234.20  | 36.60   | 24.50  | 13.40  | 12.00  | 0.00 | 0.00 |          |     |
| 12    | 0.00 | 0.00 | 347.50  | 285.10  | 681.20  | 177.60  | 29.80   | 24.00  | 12.60  | 11.70  | 0.00 | 0.00 |          |     |
| 13    | 0.00 | 0.00 | 485.90  | 183.00  | 523.80  | 212.50  | 28.00   | 23.40  | 12.00  | 10.80  | 0.00 | 0.00 |          |     |
| 14    | 0.00 | 0.00 | 234.20  | 146.70  | 372.50  | 622.80  | 32.80   | 23.40  | 11.10  | 10.30  | 0.00 | 0.00 |          |     |
| 15    | 0.00 | 0.00 | 113.10  | 144.00  | 236.20  | 878.50  | 74.00   | 24.00  | 10.80  | 10.30  | 0.00 | 0.00 |          |     |
| 16    | 0.00 | 0.00 | 58.10   | 123.30  | 146.70  | 681.20  | 119.40  | 24.50  | 10.30  | 10.00  | 0.00 | 0.00 |          |     |
| 17    | 0.00 | 0.00 | 35.30   | 224.00  | 87.40   | 593.70  | 219.00  | 24.00  | 10.80  | 9.40   | 0.00 | 0.00 |          |     |
| 18    | 0.00 | 0.00 | 26.20   | 496.70  | 52.90   | 562.30  | 393.20  | 25.10  | 15.50  | 8.60   | 0.00 | 0.00 |          |     |
| 19    | 0.00 | 0.00 | 26.80   | 440.40  | 43.30   | 532.00  | 638.40  | 24.50  | 16.40  | 7.30   | 0.00 | 0.00 |          |     |
| 20    | 0.00 | 0.00 | 37.20   | 289.40  | 40.10   | 485.90  | 599.50  | 24.50  | 18.00  | 6.70   | 0.00 | 0.00 |          |     |
| 21    | 0.00 | 0.00 | 46.50   | 212.50  | 34.10   | 398.40  | 422.00  | 24.00  | 19.60  | 6.50   | 0.00 | 0.00 |          |     |
| 22    | 0.00 | 0.00 | 48.00   | 160.00  | 30.40   | 311.90  | 230.00  | 24.00  | 21.20  | 6.20   | 0.00 | 0.00 |          |     |
| 23    | 0.00 | 0.00 | 48.00   | 127.10  | 53.70   | 234.20  | 145.40  | 23.40  | 21.80  | 6.00   | 0.00 | 0.00 |          |     |
| 24    | 0.00 | 0.00 | 43.30   | 207.50  | 73.10   | 194.50  | 103.10  | 22.90  | 20.10  | 5.20   | 0.00 | 0.00 |          |     |
| 25    | 0.00 | 0.00 | 35.30   | 185.80  | 72.20   | 176.20  | 84.50   | 22.90  | 20.10  | 4.20   | 0.00 | 0.00 |          |     |
| 26    | 0.00 | 0.00 | 34.70   | 132.30  | 52.90   | 165.40  | 79.70   | 22.30  | 19.60  | 3.60   | 0.00 | 0.00 |          |     |
| 27    | 0.00 | 0.00 | 36.60   | 89.40   | 34.10   | 309.60  | 75.00   | 21.80  | 19.10  | 3.00   | 0.00 | 0.00 |          |     |
| 28    | 0.00 | 0.30 | 31.60   | 72.20   | 14.60   | 427.20  | 67.70   | 21.20  | 19.10  | 2.90   | 0.00 | 0.00 |          |     |
| 29    | 0.00 | 0.40 | 26.20   | 68.60   | 9.40    | 333.20  | 58.10   | 21.20  | 18.60  | 2.60   |      | 0.00 |          |     |
| 30    | 0.00 | 0.40 | 21.20   | 66.70   | 25.60   | 359.70  | 52.10   | 20.70  | 18.00  | 2.20   |      | 0.00 |          |     |
| 31    |      | 0.00 |         | 65.90   | 101.00  |         | 48.00   |        | 17.50  | 1.70   |      | 0.00 |          |     |
| Total | 0.00 | 1.10 | 2244.10 | 4548.90 | 5527.90 | 9592.00 | 4890.80 | 796.00 | 510.30 | 283.10 | 8.50 | 0.00 | 28402.70 | Ton |
| Mean  | 0.00 | 0.00 | 74.80   | 146.70  | 178.30  | 319.70  | 157.80  | 26.50  | 16.50  | 9.10   | 0.30 | 0.00 |          |     |
| Max   | 0.00 | 0.40 | 485.90  | 496.70  | 728.90  | 878.50  | 638.40  | 41.70  | 21.80  | 16.40  | 1.40 | 0.00 | 878.50   |     |
| Min   | 0.00 | 0.00 | 0.00    | 19.10   | 9.40    | 43.30   | 6.70    | 20.70  | 10.30  | 1.70   | 0.00 | 0.00 | 0.00     |     |

**WATER YEAR : 2013****KHONG RIVER BASIN****Loei River at Ban Na Lak , Loei (Kh.28A)**

Lat 17 - 18 - 32 N Long 101 - 46 - 25 E

**Location : on right bank at the bridge of Wang Saphung - Loei Highway.**

|                                      | <b>Ban Na Lak</b>          | <b>Amphoe Wang Saphung</b> | <b>Changwat Loei</b> |
|--------------------------------------|----------------------------|----------------------------|----------------------|
| <b>Drainage Area</b>                 | 1,271 sq.km.               |                            |                      |
| <b>Method of sampling</b>            | Depth Integrating          |                            |                      |
| <b>Instrument Used</b>               | US.D-49                    |                            |                      |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                            |                      |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                            |                      |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                            |                      |
| <b>Number of observation</b>         | 274                        |                            |                      |
| <b>R-Square</b>                      | 0.8338                     |                            |                      |
| <b>Remarks</b>                       | Continued Sediment Station |                            |                      |

$$QS = 5.3869 QW^{1.33630}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May    | Jun     | Jul      | Aug      | Sep      | Oct      | Nov     | Dec    | Jan  | Feb  | Mar  | Annual    |            |
|-------|------|--------|---------|----------|----------|----------|----------|---------|--------|------|------|------|-----------|------------|
| 1     | 0.00 | 0.00   | 128.20  | 56.40    | 752.00   | 2616.40  | 742.50   | 101.50  | 8.90   | 0.60 | 0.00 | 0.00 |           |            |
| 2     | 0.00 | 0.00   | 72.60   | 36.70    | 1397.30  | 838.50   | 705.00   | 89.60   | 7.60   | 0.60 | 0.00 | 0.00 |           |            |
| 3     | 0.00 | 0.00   | 56.40   | 26.00    | 1822.40  | 325.40   | 1632.90  | 78.10   | 6.50   | 0.20 | 0.00 | 0.00 |           |            |
| 4     | 0.00 | 0.00   | 61.70   | 59.00    | 436.30   | 254.80   | 1059.50  | 64.40   | 5.40   | 0.00 | 0.00 | 0.00 |           |            |
| 5     | 0.00 | 0.00   | 188.80  | 143.80   | 232.20   | 197.30   | 514.50   | 56.40   | 4.70   | 0.00 | 0.00 | 0.00 |           |            |
| 6     | 0.00 | 0.00   | 335.10  | 81.00    | 163.90   | 176.20   | 341.70   | 43.80   | 4.70   | 0.00 | 0.00 | 0.00 |           |            |
| 7     | 0.00 | 0.00   | 492.80  | 92.60    | 250.20   | 335.10   | 259.40   | 43.80   | 5.40   | 0.00 | 0.00 | 0.00 |           |            |
| 8     | 0.00 | 15.40  | 395.00  | 176.20   | 957.50   | 641.40   | 210.20   | 41.40   | 6.50   | 0.00 | 0.00 | 0.00 |           |            |
| 9     | 0.00 | 4.70   | 201.60  | 348.20   | 388.20   | 573.30   | 172.10   | 39.00   | 8.90   | 0.00 | 0.00 | 0.00 |           |            |
| 10    | 0.00 | 8.90   | 98.50   | 492.80   | 415.50   | 471.40   | 139.90   | 34.30   | 7.60   | 0.00 | 0.00 | 0.00 |           |            |
| 11    | 0.00 | 10.10  | 59.00   | 714.30   | 1164.10  | 368.10   | 120.60   | 30.90   | 6.50   | 0.00 | 0.00 | 0.00 |           |            |
| 12    | 0.00 | 11.40  | 39.00   | 500.00   | 907.40   | 2014.30  | 107.60   | 41.40   | 6.50   | 0.00 | 0.00 | 0.00 |           |            |
| 13    | 0.00 | 12.70  | 39.00   | 268.60   | 325.40   | 7388.30  | 95.50    | 132.10  | 6.50   | 0.00 | 0.00 | 0.00 |           |            |
| 14    | 0.00 | 7.60   | 34.30   | 193.10   | 245.70   | 3174.40  | 86.70    | 26.00   | 5.40   | 0.00 | 0.00 | 0.00 |           |            |
| 15    | 0.00 | 5.40   | 30.90   | 155.80   | 184.60   | 4734.30  | 81.00    | 75.30   | 4.70   | 0.00 | 0.00 | 0.00 |           |            |
| 16    | 0.00 | 4.70   | 30.90   | 172.10   | 128.20   | 5900.80  | 81.00    | 72.60   | 4.70   | 0.00 | 0.00 | 0.00 |           |            |
| 17    | 0.00 | 1.10   | 27.60   | 163.90   | 110.60   | 1646.30  | 1164.10  | 61.70   | 10.10  | 0.00 | 0.00 | 0.00 |           |            |
| 18    | 0.00 | 0.00   | 21.30   | 193.10   | 92.60    | 1898.80  | 5049.20  | 34.30   | 16.90  | 0.00 | 0.00 | 0.00 |           |            |
| 19    | 0.00 | 0.00   | 14.10   | 113.70   | 78.10    | 1997.70  | 3405.20  | 29.30   | 15.40  | 0.00 | 0.00 | 0.00 |           |            |
| 20    | 0.00 | 0.00   | 10.10   | 78.10    | 72.60    | 626.10   | 1436.00  | 27.60   | 10.10  | 0.00 | 0.00 | 0.60 |           |            |
| 21    | 0.00 | 4.70   | 10.10   | 56.40    | 67.10    | 819.10   | 573.30   | 22.90   | 5.40   | 0.00 | 0.00 | 0.00 |           |            |
| 22    | 0.00 | 2.70   | 14.10   | 41.40    | 172.10   | 6919.50  | 306.10   | 18.30   | 4.00   | 0.00 | 0.00 | 0.00 |           |            |
| 23    | 0.00 | 4.00   | 29.30   | 46.30    | 2947.80  | 2457.80  | 232.20   | 18.30   | 3.30   | 0.00 | 0.00 | 0.00 |           |            |
| 24    | 0.00 | 34.30  | 36.70   | 1069.90  | 2319.00  | 790.20   | 315.70   | 16.90   | 1.60   | 0.00 | 0.00 | 0.00 |           |            |
| 25    | 0.00 | 143.80 | 46.30   | 672.30   | 610.90   | 588.30   | 1122.00  | 15.40   | 1.10   | 0.00 | 0.00 | 0.00 |           |            |
| 26    | 0.00 | 92.60  | 72.60   | 436.30   | 325.40   | 752.00   | 998.00   | 14.10   | 0.60   | 0.00 | 0.00 | 0.00 |           |            |
| 27    | 0.00 | 51.30  | 110.60  | 245.70   | 310.90   | 1659.70  | 429.30   | 14.10   | 0.60   | 0.00 | 0.00 | 0.00 |           |            |
| 28    | 0.00 | 30.90  | 478.50  | 236.70   | 223.40   | 6402.10  | 245.70   | 11.40   | 0.60   | 0.00 | 0.00 | 0.00 |           |            |
| 29    | 0.00 | 18.30  | 180.40  | 2165.30  | 335.10   | 3618.40  | 180.40   | 11.40   | 0.60   | 0.00 |      | 0.00 |           |            |
| 30    | 0.00 | 14.10  | 89.60   | 3916.30  | 273.20   | 1245.60  | 139.90   | 10.10   | 0.60   | 0.00 |      | 0.00 |           |            |
| 31    |      | 14.10  |         | 1220.70  | 471.40   |          | 113.70   |         | 0.60   | 0.00 |      | 0.00 |           |            |
| Total | 0.00 | 492.80 | 3405.10 | 14172.70 | 18181.10 | 61431.60 | 22060.90 | 1276.40 | 172.00 | 1.40 | 0.00 | 0.60 | 121194.60 | <b>Ton</b> |
| Mean  | 0.00 | 15.90  | 113.50  | 457.20   | 586.50   | 2047.70  | 711.60   | 42.50   | 5.50   | 0.00 | 0.00 | 0.00 |           |            |
| Max   | 0.00 | 143.80 | 492.80  | 3916.30  | 2947.80  | 7388.30  | 5049.20  | 132.10  | 16.90  | 0.60 | 0.00 | 0.60 | 7388.30   |            |
| Min   | 0.00 | 0.00   | 10.10   | 26.00    | 67.10    | 176.20   | 81.00    | 10.10   | 0.60   | 0.00 | 0.00 | 0.00 | 0.00      |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Loei River at Ban Fak loei , Loei (Kh.58A)**

Lat 17 - 29 - 36 N Long 101 - 44 - 17 E

**Location : on left bank at the bridge on road.**

|                                      |                            |                 |               |               |                 |             |
|--------------------------------------|----------------------------|-----------------|---------------|---------------|-----------------|-------------|
|                                      | <b>Ban</b>                 | <b>Fak Loei</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b> | <b>Loei</b> |
| <b>Drainage Area</b>                 | 3,093                      | sq.km.          |               |               |                 |             |
| <b>Method of sampling</b>            | Depth                      | Integrating     |               |               |                 |             |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |               |                 |             |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                 |               |               |                 |             |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                 |               |               |                 |             |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |               |               |                 |             |
| <b>Number of observation</b>         | 28                         |                 |               |               |                 |             |
| <b>R-Square</b>                      | 0.8357                     |                 |               |               |                 |             |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |               |                 |             |

$$QS = 9.4834 QW^{1.21320}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun     | Jul      | Aug      | Sep       | Oct      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual    |     |
|-------|--------|---------|---------|----------|----------|-----------|----------|---------|---------|--------|--------|--------|-----------|-----|
| 1     | 5.60   | 8.30    | 131.20  | 97.00    | 1517.90  | 3682.50   | 3372.60  | 328.10  | 51.00   | 20.70  | 10.60  | 7.80   |           |     |
| 2     | 5.60   | 8.30    | 176.20  | 60.40    | 1320.90  | 2587.40   | 2818.50  | 333.30  | 44.90   | 20.70  | 10.60  | 7.80   |           |     |
| 3     | 5.60   | 8.30    | 114.60  | 41.90    | 3053.10  | 999.80    | 3571.30  | 333.30  | 41.90   | 19.30  | 10.60  | 7.20   |           |     |
| 4     | 5.60   | 8.90    | 162.50  | 140.00   | 1039.10  | 559.10    | 3571.30  | 267.40  | 38.90   | 19.30  | 10.60  | 6.20   |           |     |
| 5     | 5.10   | 9.50    | 635.30  | 204.30   | 512.40   | 493.90    | 1756.80  | 247.70  | 33.10   | 19.30  | 9.50   | 5.60   |           |     |
| 6     | 5.60   | 9.50    | 935.00  | 223.40   | 348.80   | 973.80    | 1131.70  | 223.40  | 30.20   | 19.30  | 8.90   | 4.60   |           |     |
| 7     | 5.60   | 11.80   | 1026.00 | 199.60   | 606.60   | 1687.90   | 732.90   | 176.20  | 30.20   | 18.10  | 8.90   | 4.60   |           |     |
| 8     | 5.60   | 27.40   | 683.80  | 237.90   | 1585.50  | 2625.70   | 645.00   | 162.50  | 27.40   | 16.80  | 8.90   | 4.10   |           |     |
| 9     | 5.60   | 19.30   | 412.20  | 674.10   | 1389.70  | 2625.70   | 503.10   | 162.50  | 27.40   | 16.80  | 8.90   | 4.10   |           |     |
| 10    | 5.60   | 18.10   | 252.60  | 1473.10  | 935.00   | 2143.90   | 359.20   | 158.00  | 27.40   | 15.50  | 8.90   | 3.60   |           |     |
| 11    | 5.60   | 18.10   | 194.90  | 1966.20  | 2664.10  | 2161.80   | 262.40   | 153.40  | 27.40   | 15.50  | 8.90   | 3.60   |           |     |
| 12    | 5.10   | 16.80   | 167.10  | 1878.50  | 2360.50  | 3372.60   | 242.80   | 144.50  | 24.70   | 15.50  | 8.30   | 3.60   |           |     |
| 13    | 5.60   | 15.50   | 262.40  | 1105.10  | 1487.00  | 15135.10  | 267.40   | 126.90  | 24.70   | 15.50  | 8.30   | 3.60   |           |     |
| 14    | 5.60   | 15.50   | 126.90  | 512.40   | 832.90   | 13422.10  | 223.40   | 135.60  | 22.00   | 14.30  | 8.30   | 3.60   |           |     |
| 15    | 5.60   | 16.80   | 83.40   | 457.20   | 674.10   | 10118.00  | 199.60   | 282.40  | 22.00   | 13.00  | 7.80   | 3.60   |           |     |
| 16    | 5.60   | 14.30   | 51.00   | 439.10   | 354.00   | 10992.70  | 180.90   | 218.60  | 24.70   | 13.00  | 7.80   | 3.60   |           |     |
| 17    | 5.60   | 10.60   | 41.90   | 616.10   | 282.40   | 6397.20   | 922.10   | 171.60  | 60.40   | 13.00  | 7.20   | 4.10   |           |     |
| 18    | 5.60   | 9.50    | 22.00   | 802.70   | 237.90   | 3839.30   | 8924.40  | 140.00  | 51.00   | 13.00  | 7.20   | 6.20   |           |     |
| 19    | 5.60   | 8.90    | 19.30   | 448.20   | 180.90   | 5529.10   | 12420.20 | 107.50  | 41.90   | 13.00  | 7.20   | 8.90   |           |     |
| 20    | 5.10   | 8.90    | 16.80   | 333.30   | 144.50   | 2179.70   | 9535.00  | 97.00   | 41.90   | 11.80  | 6.70   | 8.90   |           |     |
| 21    | 5.10   | 8.90    | 19.30   | 247.70   | 135.60   | 1619.50   | 4919.50  | 97.00   | 41.90   | 11.80  | 6.70   | 10.60  |           |     |
| 22    | 6.20   | 11.80   | 27.40   | 190.20   | 158.00   | 6260.10   | 2251.70  | 90.20   | 41.90   | 11.80  | 6.20   | 10.60  |           |     |
| 23    | 7.20   | 10.60   | 38.90   | 412.20   | 1791.40  | 6950.70   | 1293.60  | 86.80   | 41.90   | 11.80  | 5.60   | 9.50   |           |     |
| 24    | 7.20   | 63.60   | 57.20   | 2072.50  | 3211.20  | 2473.20   | 762.70   | 83.40   | 38.90   | 11.80  | 5.10   | 8.90   |           |     |
| 25    | 10.60  | 292.40  | 41.90   | 2287.90  | 1266.30  | 1375.90   | 935.00   | 80.00   | 36.00   | 11.80  | 5.60   | 8.90   |           |     |
| 26    | 8.90   | 277.40  | 83.40   | 1459.10  | 606.60   | 1487.00   | 2397.50  | 80.00   | 30.20   | 11.80  | 7.20   | 8.30   |           |     |
| 27    | 8.30   | 252.60  | 114.60  | 792.60   | 559.10   | 3929.30   | 1417.40  | 83.40   | 27.40   | 11.80  | 6.70   | 8.30   |           |     |
| 28    | 8.90   | 100.50  | 493.90  | 635.30   | 376.70   | 8857.00   | 858.20   | 73.40   | 24.70   | 11.80  | 6.70   | 8.30   |           |     |
| 29    | 8.90   | 54.10   | 421.10  | 2233.70  | 412.20   | 8789.60   | 587.50   | 63.60   | 24.70   | 11.80  |        | 8.30   |           |     |
| 30    | 8.90   | 47.90   | 194.90  | 5024.60  | 606.60   | 5289.10   | 466.40   | 57.20   | 22.00   | 10.60  |        | 8.30   |           |     |
| 31    |        | 57.20   |         | 2511.20  | 1307.20  |           | 484.70   |         | 20.70   | 10.60  |        | 7.80   |           |     |
| Total | 190.70 | 1441.30 | 7007.70 | 29777.50 | 31958.20 | 138558.70 | 68014.80 | 4764.90 | 1043.40 | 450.80 | 223.90 | 203.10 | 283635.00 | Ton |
| Mean  | 6.40   | 46.50   | 233.60  | 960.60   | 1030.90  | 4618.60   | 2194.00  | 158.80  | 33.70   | 14.50  | 8.00   | 6.60   |           |     |
| Max   | 10.60  | 292.40  | 1026.00 | 5024.60  | 3211.20  | 15135.10  | 12420.20 | 333.30  | 60.40   | 20.70  | 10.60  | 10.60  | 15135.10  |     |
| Min   | 5.10   | 8.30    | 16.80   | 41.90    | 135.60   | 493.90    | 180.90   | 57.20   | 20.70   | 10.60  | 5.10   | 3.60   | 3.60      |     |



**WATER YEAR : 2013****KHONG RIVER BASIN****Loei River at Ban Keng Bong , Loei (Kh.61)**

Lat 17 - 07 - 44 N Long 101 - 40 - 56 E

**Location : on right bank at the bridge of Amphoe Wang Saphung - Ban Nong Khan Road.**

|                                      |                            |                         |                      |
|--------------------------------------|----------------------------|-------------------------|----------------------|
|                                      | <b>Ban Keng Bong</b>       | <b>Amphoe Phu Luang</b> | <b>Changwat Loei</b> |
| <b>Drainage Area</b>                 | 549 sq.km.                 |                         |                      |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                      |
| <b>Instrument Used</b>               | US.D-49                    |                         |                      |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                         |                      |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                         |                      |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                      |
| <b>Number of observation</b>         | 20                         |                         |                      |
| <b>R-Square</b>                      | 0.8730                     |                         |                      |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                      |

$$QS = 3.8613 QW^{1.42400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun     | Jul      | Aug      | Sep      | Oct     | Nov    | Dec    | Jan    | Feb    | Mar   | Annual   |            |
|-------|-------|--------|---------|----------|----------|----------|---------|--------|--------|--------|--------|-------|----------|------------|
| 1     | 3.10  | 0.00   | 19.90   | 23.30    | 388.70   | 1644.10  | 277.00  | 53.10  | 17.40  | 12.20  | 6.30   | 2.20  |          |            |
| 2     | 9.40  | 0.00   | 10.80   | 17.40    | 3068.30  | 369.30   | 369.30  | 51.90  | 17.40  | 12.20  | 6.30   | 2.20  |          |            |
| 3     | 8.20  | 0.00   | 14.40   | 20.70    | 556.30   | 182.60   | 867.30  | 48.40  | 16.60  | 12.20  | 5.70   | 2.20  |          |            |
| 4     | 3.60  | 0.20   | 75.30   | 47.20    | 200.20   | 168.90   | 319.10  | 43.80  | 15.90  | 11.50  | 5.20   | 2.20  |          |            |
| 5     | 4.70  | 56.70  | 53.10   | 120.50   | 117.40   | 102.50   | 193.10  | 39.30  | 15.90  | 11.50  | 5.20   | 1.80  |          |            |
| 6     | 1.00  | 1.40   | 508.70  | 55.50    | 126.60   | 108.40   | 148.90  | 37.20  | 15.10  | 11.50  | 5.20   | 1.80  |          |            |
| 7     | 0.80  | 0.40   | 91.70   | 40.40    | 152.20   | 306.90   | 114.40  | 37.20  | 14.40  | 11.50  | 5.20   | 2.20  |          |            |
| 8     | 0.80  | 0.80   | 20.70   | 129.70   | 575.80   | 313.00   | 96.00   | 36.30  | 13.60  | 10.80  | 4.70   | 2.20  |          |            |
| 9     | 0.80  | 4.70   | 29.50   | 435.10   | 179.10   | 225.60   | 81.30   | 34.20  | 12.90  | 10.10  | 4.70   | 1.00  |          |            |
| 10    | 0.70  | 0.60   | 2.20    | 585.50   | 469.20   | 271.10   | 67.40   | 33.30  | 12.90  | 9.40   | 4.70   | 1.00  |          |            |
| 11    | 0.70  | 0.80   | 0.90    | 499.30   | 791.10   | 189.60   | 61.70   | 32.40  | 12.90  | 9.40   | 4.10   | 1.40  |          |            |
| 12    | 0.70  | 0.70   | 0.80    | 175.70   | 356.60   | 3411.00  | 59.20   | 31.40  | 12.90  | 8.80   | 3.60   | 1.40  |          |            |
| 13    | 0.90  | 0.40   | 12.20   | 93.90    | 168.90   | 1684.20  | 56.70   | 30.40  | 12.90  | 8.20   | 3.10   | 1.80  |          |            |
| 14    | 0.70  | 0.30   | 8.80    | 65.50    | 123.50   | 1931.10  | 51.90   | 35.20  | 12.90  | 8.20   | 3.60   | 1.80  |          |            |
| 15    | 0.70  | 0.20   | 7.50    | 65.50    | 87.50    | 4158.70  | 49.50   | 56.70  | 12.90  | 8.20   | 4.10   | 2.70  |          |            |
| 16    | 1.00  | 0.10   | 5.70    | 73.30    | 65.50    | 1910.20  | 49.50   | 39.30  | 15.10  | 7.50   | 4.70   | 1.00  |          |            |
| 17    | 0.80  | 0.10   | 3.60    | 53.10    | 63.60    | 566.00   | 1146.50 | 35.20  | 17.40  | 7.50   | 4.70   | 4.10  |          |            |
| 18    | 13.60 | 0.10   | 3.60    | 91.70    | 55.50    | 1931.10  | 1554.80 | 29.50  | 19.10  | 7.50   | 4.10   | 13.60 |          |            |
| 19    | 21.50 | 0.40   | 10.10   | 43.80    | 46.00    | 527.60   | 812.70  | 27.70  | 15.90  | 7.50   | 3.60   | 6.30  |          |            |
| 20    | 0.70  | 0.10   | 1.40    | 34.20    | 39.30    | 288.90   | 344.00  | 25.80  | 14.40  | 6.90   | 3.60   | 3.60  |          |            |
| 21    | 0.80  | 0.10   | 10.10   | 26.80    | 38.20    | 1489.60  | 168.90  | 25.00  | 13.60  | 6.90   | 3.10   | 2.20  |          |            |
| 22    | 0.80  | 0.10   | 5.20    | 28.60    | 435.10   | 3181.30  | 111.40  | 24.10  | 13.60  | 6.90   | 4.10   | 2.20  |          |            |
| 23    | 0.80  | 0.90   | 19.10   | 575.80   | 4251.30  | 546.70   | 89.60   | 23.30  | 13.60  | 6.90   | 4.10   | 1.80  |          |            |
| 24    | 0.80  | 165.50 | 14.40   | 812.70   | 1206.80  | 282.90   | 83.40   | 22.40  | 12.90  | 6.90   | 3.10   | 1.40  |          |            |
| 25    | 1.00  | 60.40  | 19.90   | 306.90   | 313.00   | 408.40   | 288.90  | 21.50  | 12.90  | 6.90   | 3.10   | 1.40  |          |            |
| 26    | 0.10  | 9.40   | 31.40   | 200.20   | 253.80   | 435.10   | 236.70  | 21.50  | 12.90  | 6.90   | 3.10   | 1.40  |          |            |
| 27    | 0.90  | 0.80   | 63.60   | 73.30    | 172.30   | 1522.10  | 114.40  | 20.70  | 12.20  | 6.90   | 2.70   | 1.40  |          |            |
| 28    | 0.30  | 0.60   | 229.30  | 490.00   | 114.40   | 2901.00  | 87.50   | 19.90  | 12.20  | 6.90   | 2.70   | 1.80  |          |            |
| 29    | 0.10  | 0.40   | 71.30   | 4546.30  | 248.00   | 979.60   | 71.30   | 19.10  | 12.20  | 6.90   |        | 3.60  |          |            |
| 30    | 0.10  | 0.80   | 32.40   | 1409.30  | 114.40   | 428.40   | 59.20   | 18.30  | 12.20  | 6.30   |        | 3.10  |          |            |
| 31    |       | 49.50  |         | 448.60   | 1361.70  |          | 54.30   |        | 12.20  | 6.30   |        | 1.40  |          |            |
| Total | 80.10 | 356.50 | 1377.60 | 11589.80 | 16140.30 | 32465.90 | 8085.90 | 974.10 | 439.00 | 267.30 | 118.40 | 78.20 | 71973.10 | <b>Ton</b> |
| Mean  | 2.70  | 11.50  | 45.90   | 373.90   | 520.70   | 1082.20  | 260.80  | 32.50  | 14.20  | 8.60   | 4.20   | 2.50  |          |            |
| Max   | 21.50 | 165.50 | 508.70  | 4546.30  | 4251.30  | 4158.70  | 1554.80 | 56.70  | 19.10  | 12.20  | 6.30   | 13.60 | 4546.30  |            |
| Min   | 0.10  | 0.00   | 0.80    | 17.40    | 38.20    | 102.50   | 49.50   | 18.30  | 12.20  | 6.30   | 2.70   | 1.00  | 0.00     |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Songkhram River at Ban Tha Huai Lua , Sakon Nakhon (Kh.74)**

Lat 17 - 49 - 07 N Long 103 - 23 - 16 E

**Location : on left bank at Ban Tha Huai Lua.**

|                                      | <b>Ban</b> Tha Huai Lua    | <b>Amphoe</b> Ban Muang | <b>Changwat</b> Sakon Nakhon |
|--------------------------------------|----------------------------|-------------------------|------------------------------|
| <b>Drainage Area</b>                 | 2,199 sq.km.               |                         |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                              |
| <b>Instrument Used</b>               | US.D-49                    |                         |                              |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                         |                              |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                         |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                              |
| <b>Number of observation</b>         | 23                         |                         |                              |
| <b>R-Square</b>                      | 0.8069                     |                         |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                              |

$$QS = 3.3184 QW^{1.07920}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May    | Jun     | Jul      | Aug      | Sep      | Oct     | Nov    | Dec   | Jan  | Feb  | Mar  | Annual   |            |
|-------|------|--------|---------|----------|----------|----------|---------|--------|-------|------|------|------|----------|------------|
| 1     | 0.00 | 0.00   | 55.50   | 393.90   | 1234.80  | 518.20   | 450.60  | 53.70  | 2.60  | 0.00 | 0.00 | 0.00 |          |            |
| 2     | 0.00 | 0.00   | 52.00   | 319.80   | 1270.80  | 511.00   | 439.80  | 52.00  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 3     | 0.00 | 0.00   | 53.70   | 228.10   | 1310.20  | 499.60   | 428.60  | 48.50  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 4     | 0.00 | 0.00   | 57.30   | 193.20   | 1313.00  | 483.10   | 387.80  | 45.00  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 5     | 0.00 | 0.00   | 73.30   | 184.50   | 1313.50  | 472.70   | 287.30  | 41.50  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 6     | 0.00 | 0.00   | 86.40   | 190.30   | 1312.40  | 466.60   | 210.60  | 39.80  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 7     | 0.00 | 0.00   | 93.30   | 170.10   | 1309.60  | 458.30   | 164.40  | 36.40  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 8     | 0.00 | 0.00   | 86.40   | 155.80   | 1299.60  | 454.20   | 128.00  | 33.00  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 9     | 0.00 | 0.00   | 76.90   | 158.70   | 1256.40  | 450.10   | 104.70  | 31.30  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 10    | 0.00 | 0.00   | 73.30   | 201.90   | 1228.20  | 444.50   | 88.70   | 31.30  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 11    | 0.00 | 0.00   | 86.40   | 204.80   | 1195.00  | 437.80   | 76.90   | 31.30  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 12    | 0.00 | 0.00   | 111.70  | 216.40   | 1162.00  | 429.10   | 67.90   | 27.90  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 13    | 0.00 | 0.00   | 130.30  | 236.90   | 1129.00  | 393.90   | 60.80   | 26.30  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 14    | 0.00 | 0.00   | 136.00  | 391.90   | 1063.20  | 357.40   | 57.30   | 24.60  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 15    | 0.00 | 0.00   | 130.30  | 443.90   | 1001.00  | 428.60   | 53.70   | 22.90  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 16    | 0.00 | 0.00   | 121.00  | 465.50   | 944.50   | 452.20   | 59.00   | 21.30  | 4.00  | 0.00 | 0.00 | 0.00 |          |            |
| 17    | 0.00 | 0.00   | 104.70  | 490.30   | 892.60   | 477.90   | 80.50   | 19.70  | 5.50  | 0.00 | 0.00 | 0.00 |          |            |
| 18    | 0.00 | 0.00   | 88.70   | 503.70   | 849.40   | 497.50   | 104.70  | 18.00  | 4.00  | 0.00 | 0.00 | 0.00 |          |            |
| 19    | 0.00 | 0.00   | 76.90   | 520.30   | 782.40   | 511.00   | 130.30  | 16.40  | 2.60  | 0.00 | 0.00 | 0.00 |          |            |
| 20    | 0.00 | 0.00   | 69.70   | 540.60   | 722.70   | 520.30   | 144.40  | 14.80  | 2.60  | 0.00 | 0.00 | 0.00 |          |            |
| 21    | 0.00 | 0.00   | 71.50   | 583.90   | 689.80   | 527.60   | 147.30  | 14.80  | 1.20  | 0.00 | 0.00 | 0.00 |          |            |
| 22    | 0.00 | 0.00   | 80.50   | 666.00   | 689.80   | 526.50   | 141.60  | 13.20  | 1.20  | 0.00 | 0.00 | 0.00 |          |            |
| 23    | 0.00 | 0.00   | 104.70  | 730.10   | 705.70   | 520.30   | 128.00  | 10.10  | 1.20  | 0.00 | 0.00 | 0.00 |          |            |
| 24    | 0.00 | 4.00   | 144.40  | 786.10   | 711.00   | 509.90   | 116.30  | 8.50   | 1.20  | 0.00 | 0.00 | 0.00 |          |            |
| 25    | 0.00 | 38.10  | 204.80  | 862.40   | 692.40   | 505.80   | 102.40  | 8.50   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 26    | 0.00 | 50.20  | 278.00  | 928.20   | 661.70   | 503.70   | 88.70   | 7.00   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 27    | 0.00 | 57.30  | 381.00  | 977.10   | 632.20   | 502.70   | 80.50   | 7.00   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 28    | 0.00 | 59.00  | 412.20  | 1025.00  | 600.70   | 494.40   | 73.30   | 5.50   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 29    | 0.00 | 55.50  | 422.40  | 1082.90  | 571.40   | 483.10   | 64.40   | 4.00   | 0.00  | 0.00 |      | 0.00 |          |            |
| 30    | 0.00 | 55.50  | 416.30  | 1148.80  | 548.40   | 467.60   | 62.60   | 2.60   | 0.00  | 0.00 |      | 0.00 |          |            |
| 31    |      | 53.70  |         | 1208.30  | 531.20   |          | 57.30   |        | 0.00  | 0.00 |      | 0.00 |          |            |
| Total | 0.00 | 373.30 | 4279.60 | 16209.40 | 29624.60 | 14305.60 | 4588.40 | 716.90 | 26.10 | 0.00 | 0.00 | 0.00 | 70123.90 | <b>Ton</b> |
| Mean  | 0.00 | 12.00  | 142.70  | 522.90   | 955.60   | 476.90   | 148.00  | 23.90  | 0.80  | 0.00 | 0.00 | 0.00 |          |            |
| Max   | 0.00 | 59.00  | 422.40  | 1208.30  | 1313.50  | 527.60   | 450.60  | 53.70  | 5.50  | 0.00 | 0.00 | 0.00 | 1313.50  |            |
| Min   | 0.00 | 0.00   | 52.00   | 155.80   | 531.20   | 357.40   | 53.70   | 2.60   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00     |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Lam Nam Phung at Ban Tong Khop , Sakon Nakhon (Kh.90)**

Lat 17 - 04 - 05 N Long 104 - 15 - 32 E

**Location : on right bank at the bridge on highway.**

|                                      |                            |                  |               |                       |                 |                     |
|--------------------------------------|----------------------------|------------------|---------------|-----------------------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | <b>Tong Khop</b> | <b>Amphoe</b> | <b>Khok Si Suphan</b> | <b>Changwat</b> | <b>Sakon Nakhon</b> |
| <b>Drainage Area</b>                 | 861                        | sq.km.           |               |                       |                 |                     |
| <b>Method of sampling</b>            | Depth                      | Integrating      |               |                       |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                  |               |                       |                 |                     |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                  |               |                       |                 |                     |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                  |               |                       |                 |                     |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                  |               |                       |                 |                     |
| <b>Number of observation</b>         | 320                        |                  |               |                       |                 |                     |
| <b>R-Square</b>                      | 0.8477                     |                  |               |                       |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                  |               |                       |                 |                     |

$$QS = 2.9927 QW^{1.34710}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul      | Aug      | Sep      | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|---------|---------|---------|----------|----------|----------|---------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 29.70   | 26.20   | 61.60   | 30.50    | 1045.10  | 98.70    | 269.00  | 22.00  | 9.20   | 3.40   | 3.00  | 1.20  |          |            |
| 2     | 29.70   | 26.20   | 64.80   | 38.00    | 958.60   | 100.50   | 309.80  | 20.70  | 9.20   | 3.40   | 3.00  | 1.20  |          |            |
| 3     | 29.00   | 24.80   | 69.60   | 81.30    | 902.00   | 102.30   | 194.90  | 19.40  | 9.20   | 3.40   | 3.00  | 1.20  |          |            |
| 4     | 26.20   | 24.80   | 86.40   | 96.90    | 837.00   | 104.10   | 128.30  | 18.70  | 9.20   | 3.40   | 3.00  | 1.20  |          |            |
| 5     | 26.20   | 19.40   | 91.60   | 64.80    | 760.50   | 105.90   | 96.90   | 18.10  | 9.20   | 3.40   | 3.00  | 1.20  |          |            |
| 6     | 26.20   | 16.20   | 107.70  | 64.80    | 601.00   | 104.10   | 64.80   | 17.40  | 8.70   | 3.40   | 2.60  | 1.20  |          |            |
| 7     | 26.90   | 18.10   | 124.50  | 64.80    | 399.10   | 117.00   | 49.30   | 17.40  | 8.70   | 3.40   | 2.60  | 1.20  |          |            |
| 8     | 29.70   | 19.40   | 124.50  | 55.30    | 375.40   | 98.70    | 46.80   | 16.80  | 8.70   | 3.40   | 2.60  | 1.20  |          |            |
| 9     | 29.70   | 22.00   | 128.30  | 60.00    | 342.20   | 35.70    | 44.40   | 16.20  | 8.70   | 3.40   | 2.60  | 1.20  |          |            |
| 10    | 29.70   | 24.80   | 146.90  | 120.70   | 313.00   | 38.00    | 41.20   | 15.60  | 8.10   | 3.40   | 2.60  | 1.20  |          |            |
| 11    | 29.00   | 32.70   | 492.70  | 236.10   | 642.10   | 29.00    | 37.30   | 14.90  | 8.10   | 3.40   | 2.20  | 1.20  |          |            |
| 12    | 26.20   | 53.80   | 402.50  | 194.90   | 831.80   | 26.90    | 35.00   | 14.30  | 8.10   | 3.40   | 2.20  | 1.20  |          |            |
| 13    | 26.20   | 104.10  | 146.90  | 180.80   | 548.20   | 64.80    | 33.40   | 13.70  | 8.10   | 3.40   | 2.20  | 1.20  |          |            |
| 14    | 26.20   | 42.00   | 96.90   | 138.20   | 388.90   | 253.70   | 35.00   | 13.10  | 7.60   | 3.40   | 2.20  | 1.20  |          |            |
| 15    | 24.80   | 38.80   | 64.80   | 105.90   | 204.40   | 388.90   | 37.30   | 12.60  | 7.60   | 3.40   | 2.20  | 1.20  |          |            |
| 16    | 19.40   | 31.20   | 60.00   | 84.70    | 132.20   | 632.50   | 41.20   | 12.00  | 7.60   | 3.40   | 2.20  | 1.20  |          |            |
| 17    | 19.40   | 29.00   | 46.00   | 81.30    | 105.90   | 442.70   | 105.90  | 11.40  | 7.60   | 3.40   | 2.20  | 1.20  |          |            |
| 18    | 48.40   | 71.30   | 49.30   | 117.00   | 98.70    | 465.60   | 98.70   | 10.80  | 7.60   | 3.40   | 2.20  | 1.20  |          |            |
| 19    | 134.10  | 117.00  | 60.00   | 176.20   | 96.90    | 627.70   | 86.40   | 10.30  | 6.60   | 3.40   | 2.20  | 1.20  |          |            |
| 20    | 140.30  | 98.70   | 79.60   | 251.10   | 89.90    | 661.50   | 72.90   | 9.70   | 6.10   | 3.40   | 2.20  | 1.20  |          |            |
| 21    | 169.30  | 104.10  | 144.70  | 352.10   | 89.90    | 852.50   | 63.20   | 9.20   | 6.10   | 3.00   | 1.90  | 1.20  |          |            |
| 22    | 153.50  | 107.70  | 297.10  | 392.30   | 89.90    | 1520.00  | 48.40   | 9.20   | 5.60   | 3.00   | 1.90  | 1.20  |          |            |
| 23    | 88.20   | 98.70   | 382.10  | 319.40   | 98.70    | 1016.10  | 39.60   | 9.20   | 5.20   | 3.00   | 1.90  | 1.20  |          |            |
| 24    | 20.00   | 89.90   | 378.80  | 316.20   | 132.20   | 651.80   | 33.40   | 9.20   | 5.20   | 3.00   | 1.90  | 1.20  |          |            |
| 25    | 21.40   | 64.80   | 153.50  | 735.40   | 117.00   | 399.10   | 29.70   | 9.20   | 4.70   | 3.00   | 1.90  | 1.20  |          |            |
| 26    | 50.80   | 64.80   | 102.30  | 666.30   | 118.90   | 402.50   | 29.70   | 9.20   | 4.70   | 3.00   | 1.90  | 1.20  |          |            |
| 27    | 96.90   | 56.90   | 89.90   | 755.40   | 169.30   | 402.50   | 28.30   | 9.20   | 4.30   | 3.00   | 1.90  | 1.20  |          |            |
| 28    | 27.60   | 49.30   | 96.90   | 975.80   | 146.90   | 345.50   | 26.90   | 9.20   | 3.80   | 3.00   | 1.90  | 1.20  |          |            |
| 29    | 25.50   | 45.20   | 98.70   | 1849.70  | 107.70   | 306.60   | 24.80   | 9.20   | 3.40   | 3.00   |       | 1.20  |          |            |
| 30    | 26.20   | 58.40   | 89.90   | 1609.00  | 102.30   | 284.50   | 24.80   | 9.20   | 3.40   | 3.00   |       | 1.20  |          |            |
| 31    |         | 58.40   |         | 1127.60  | 98.70    |          | 22.70   |        | 3.40   | 3.00   |       | 1.20  |          |            |
| Total | 1456.40 | 1638.70 | 4338.50 | 11342.50 | 10944.40 | 10679.40 | 2200.00 | 397.10 | 213.70 | 101.00 | 65.20 | 37.20 | 43414.10 | <b>Ton</b> |
| Mean  | 48.50   | 52.90   | 144.60  | 365.90   | 353.00   | 356.00   | 71.00   | 13.20  | 6.90   | 3.30   | 2.30  | 1.20  |          |            |
| Max   | 169.30  | 117.00  | 492.70  | 1849.70  | 1045.10  | 1520.00  | 309.80  | 22.00  | 9.20   | 3.40   | 3.00  | 1.20  | 1849.70  |            |
| Min   | 19.40   | 16.20   | 46.00   | 30.50    | 89.90    | 26.90    | 22.70   | 9.20   | 3.40   | 3.00   | 1.90  | 1.20  | 1.20     |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Huai Chanot at Ban Don Sawan , Nakhon Phanom (Kh.91)**

Lat 16 - 47 - 48 N Long 104 - 39 - 45 E

**Location : on left bank at the bridge on highway.**

|                                      |                            |                           |                               |
|--------------------------------------|----------------------------|---------------------------|-------------------------------|
|                                      | <b>Ban</b> Don Sawan       | <b>Amphoe</b> That Phanom | <b>Changwat</b> Nakhon Phanom |
| <b>Drainage Area</b>                 | 172 sq.km.                 |                           |                               |
| <b>Method of sampling</b>            | Depth Integrating          |                           |                               |
| <b>Instrument Used</b>               | US.D-49                    |                           |                               |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                           |                               |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                           |                               |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                           |                               |
| <b>Number of observation</b>         | 305                        |                           |                               |
| <b>R-Square</b>                      | 0.8072                     |                           |                               |
| <b>Remarks</b>                       | Continued Sediment Station |                           |                               |

$$QS = 3.9107 QW^{1.08970}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul    | Aug    | Sep     | Oct    | Nov   | Dec   | Jan   | Feb   | Mar   | Annual  |            |
|-------|-------|--------|--------|--------|--------|---------|--------|-------|-------|-------|-------|-------|---------|------------|
| 1     | 0.30  | 0.70   | 9.80   | 7.80   | 43.00  | 18.50   | 24.80  | 3.70  | 1.50  | 2.20  | 2.10  | 1.80  |         |            |
| 2     | 0.60  | 0.40   | 7.90   | 6.70   | 41.20  | 15.70   | 29.80  | 3.50  | 1.60  | 2.20  | 2.20  | 1.80  |         |            |
| 3     | 0.90  | 0.50   | 6.10   | 6.20   | 35.60  | 12.40   | 24.80  | 3.50  | 1.80  | 2.20  | 2.20  | 1.80  |         |            |
| 4     | 0.80  | 0.70   | 4.50   | 5.60   | 31.60  | 10.40   | 18.00  | 3.40  | 2.00  | 2.20  | 2.20  | 1.70  |         |            |
| 5     | 0.30  | 0.70   | 5.90   | 5.40   | 24.80  | 8.90    | 11.60  | 3.40  | 2.20  | 2.20  | 2.30  | 1.60  |         |            |
| 6     | 0.30  | 0.90   | 6.90   | 5.00   | 18.80  | 6.50    | 9.60   | 3.70  | 2.20  | 2.20  | 2.20  | 1.50  |         |            |
| 7     | 0.30  | 1.10   | 8.20   | 4.30   | 16.00  | 5.50    | 9.30   | 3.40  | 2.10  | 2.20  | 1.80  | 1.40  |         |            |
| 8     | 0.30  | 1.40   | 7.40   | 4.30   | 15.50  | 5.40    | 7.60   | 3.30  | 2.10  | 1.90  | 1.80  | 1.40  |         |            |
| 9     | 0.30  | 1.70   | 4.50   | 4.80   | 16.80  | 5.30    | 6.10   | 3.20  | 2.00  | 1.90  | 1.80  | 1.30  |         |            |
| 10    | 0.30  | 2.20   | 3.10   | 5.80   | 19.10  | 5.60    | 5.70   | 3.20  | 2.00  | 2.00  | 1.70  | 1.30  |         |            |
| 11    | 0.30  | 7.80   | 4.00   | 7.10   | 22.80  | 5.00    | 5.70   | 3.20  | 2.20  | 2.10  | 1.40  | 1.30  |         |            |
| 12    | 0.90  | 7.00   | 8.10   | 6.50   | 17.10  | 5.60    | 6.30   | 3.20  | 2.70  | 2.20  | 1.40  | 1.30  |         |            |
| 13    | 0.50  | 4.50   | 6.00   | 6.20   | 14.10  | 10.80   | 6.00   | 3.20  | 3.10  | 2.50  | 1.40  | 1.30  |         |            |
| 14    | 0.30  | 4.50   | 4.60   | 6.00   | 8.50   | 19.70   | 6.20   | 3.00  | 2.20  | 2.70  | 1.40  | 1.30  |         |            |
| 15    | 0.30  | 3.30   | 3.50   | 5.30   | 7.10   | 18.00   | 8.50   | 2.80  | 2.10  | 2.60  | 1.40  | 1.30  |         |            |
| 16    | 0.30  | 2.70   | 2.70   | 4.20   | 6.50   | 17.70   | 10.20  | 2.70  | 2.60  | 2.60  | 1.40  | 1.30  |         |            |
| 17    | 0.30  | 2.30   | 2.30   | 4.00   | 5.60   | 38.50   | 11.10  | 2.70  | 2.70  | 2.50  | 1.40  | 1.30  |         |            |
| 18    | 0.30  | 1.80   | 3.00   | 4.00   | 5.10   | 68.30   | 10.80  | 2.70  | 2.70  | 2.40  | 1.40  | 1.30  |         |            |
| 19    | 0.50  | 1.10   | 2.80   | 3.90   | 4.90   | 105.60  | 8.10   | 2.60  | 2.20  | 2.30  | 1.40  | 1.30  |         |            |
| 20    | 0.50  | 1.50   | 2.80   | 4.00   | 4.70   | 119.50  | 6.50   | 2.60  | 2.20  | 2.20  | 1.40  | 1.30  |         |            |
| 21    | 0.50  | 3.20   | 3.40   | 37.10  | 4.70   | 94.50   | 5.90   | 2.60  | 2.40  | 2.20  | 1.50  | 1.40  |         |            |
| 22    | 0.50  | 6.10   | 4.90   | 70.00  | 5.90   | 119.50  | 5.40   | 2.60  | 2.40  | 2.20  | 1.60  | 1.40  |         |            |
| 23    | 0.30  | 6.60   | 9.70   | 64.30  | 6.60   | 118.80  | 4.90   | 2.60  | 2.50  | 2.20  | 1.70  | 1.40  |         |            |
| 24    | 0.30  | 6.90   | 23.00  | 123.90 | 7.40   | 95.70   | 4.80   | 2.60  | 2.20  | 2.20  | 1.80  | 1.40  |         |            |
| 25    | 0.30  | 7.20   | 17.70  | 135.80 | 7.80   | 49.50   | 4.30   | 2.60  | 2.30  | 2.20  | 1.80  | 1.40  |         |            |
| 26    | 1.30  | 5.90   | 9.30   | 127.10 | 10.70  | 28.30   | 4.30   | 2.50  | 2.40  | 2.20  | 1.80  | 1.40  |         |            |
| 27    | 1.80  | 6.80   | 7.40   | 104.40 | 22.50  | 25.40   | 4.20   | 2.40  | 2.20  | 2.10  | 1.80  | 1.20  |         |            |
| 28    | 1.60  | 10.10  | 7.80   | 63.30  | 24.80  | 22.20   | 4.10   | 2.30  | 2.20  | 2.10  | 1.80  | 1.10  |         |            |
| 29    | 1.20  | 10.90  | 8.60   | 49.00  | 19.40  | 21.90   | 3.90   | 2.30  | 2.20  | 2.10  |       | 1.10  |         |            |
| 30    | 0.90  | 11.40  | 8.60   | 45.70  | 19.40  | 20.80   | 3.80   | 2.20  | 2.20  | 2.10  |       | 1.10  |         |            |
| 31    |       | 10.90  |        | 43.40  | 19.70  |         | 3.70   |       | 2.20  | 2.10  |       | 1.10  |         |            |
| Total | 17.30 | 132.80 | 204.50 | 971.10 | 507.70 | 1099.50 | 276.00 | 87.70 | 69.40 | 69.00 | 48.10 | 42.60 | 3525.70 | <b>Ton</b> |
| Mean  | 0.60  | 4.30   | 6.80   | 31.30  | 16.40  | 36.70   | 8.90   | 2.90  | 2.20  | 2.20  | 1.70  | 1.40  |         |            |
| Max   | 1.80  | 11.40  | 23.00  | 135.80 | 43.00  | 119.50  | 29.80  | 3.70  | 3.10  | 2.70  | 2.30  | 1.80  | 135.80  |            |
| Min   | 0.30  | 0.40   | 2.30   | 3.90   | 4.70   | 5.00    | 3.70   | 2.20  | 1.50  | 1.90  | 1.40  | 1.10  | 0.30    |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Huai Bang Sai at Ban Kan Luang Dong , Muk Dahan (Kh.92)**

Lat 16 - 44 - 06 N Long 104 - 31 - 23 E

**Location : on left bank at the bridge on highway.**

|                                      | <b>Ban</b> Kan Luang Dong  | <b>Amphoe</b> Dong Luang | <b>Changwat</b> Muk Dahan |
|--------------------------------------|----------------------------|--------------------------|---------------------------|
| <b>Drainage Area</b>                 | 1,119 sq.km.               |                          |                           |
| <b>Method of sampling</b>            | Depth Integrating          |                          |                           |
| <b>Instrument Used</b>               | US.D-49                    |                          |                           |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                          |                           |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                          |                           |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                          |                           |
| <b>Number of observation</b>         | 292                        |                          |                           |
| <b>R-Square</b>                      | 0.8637                     |                          |                           |
| <b>Remarks</b>                       | Continued Sediment Station |                          |                           |

$$QS = 2.1492 QW^{1.37310}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May    | Jun     | Jul      | Aug     | Sep      | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|------|--------|---------|----------|---------|----------|---------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 0.00 | 0.10   | 2.80    | 13.90    | 737.00  | 122.50   | 223.30  | 44.20  | 8.80   | 4.50   | 2.40  | 2.00  |          |            |
| 2     | 0.00 | 0.10   | 1.20    | 14.40    | 612.10  | 126.80   | 176.20  | 41.80  | 8.40   | 4.50   | 2.80  | 2.00  |          |            |
| 3     | 0.00 | 0.20   | 3.40    | 13.40    | 538.50  | 118.30   | 173.90  | 39.40  | 8.00   | 4.50   | 2.80  | 1.90  |          |            |
| 4     | 0.00 | 0.20   | 10.60   | 13.40    | 489.10  | 103.80   | 188.60  | 34.80  | 7.60   | 4.50   | 2.00  | 1.90  |          |            |
| 5     | 0.00 | 0.40   | 11.50   | 13.40    | 425.30  | 114.10   | 124.60  | 30.40  | 7.20   | 4.50   | 2.00  | 1.90  |          |            |
| 6     | 0.00 | 1.60   | 26.10   | 26.10    | 384.20  | 109.90   | 135.40  | 28.20  | 8.80   | 4.80   | 1.90  | 1.70  |          |            |
| 7     | 0.00 | 9.30   | 12.00   | 14.40    | 394.40  | 87.90    | 137.60  | 26.10  | 8.80   | 4.80   | 1.60  | 1.70  |          |            |
| 8     | 0.00 | 16.20  | 5.60    | 26.10    | 430.60  | 74.60    | 128.90  | 26.10  | 9.30   | 4.80   | 1.30  | 1.70  |          |            |
| 9     | 0.00 | 15.30  | 1.60    | 31.50    | 505.50  | 38.30    | 109.90  | 22.00  | 9.30   | 4.80   | 1.30  | 1.70  |          |            |
| 10    | 0.00 | 37.10  | 2.10    | 30.40    | 583.50  | 31.50    | 109.90  | 21.00  | 9.30   | 4.80   | 1.30  | 1.70  |          |            |
| 11    | 0.00 | 80.20  | 162.30  | 61.90    | 709.50  | 32.60    | 99.80   | 18.10  | 8.80   | 4.80   | 1.30  | 1.30  |          |            |
| 12    | 0.00 | 93.80  | 142.00  | 112.00   | 516.40  | 31.50    | 86.00   | 18.10  | 8.80   | 4.80   | 1.30  | 1.30  |          |            |
| 13    | 0.00 | 39.40  | 45.40   | 451.60   | 425.30  | 56.70    | 80.20   | 18.10  | 8.80   | 4.80   | 1.30  | 1.10  |          |            |
| 14    | 0.00 | 38.30  | 20.00   | 103.80   | 369.10  | 146.50   | 71.40   | 15.30  | 8.80   | 4.50   | 1.30  | 1.10  |          |            |
| 15    | 0.00 | 12.50  | 17.20   | 68.60    | 281.90  | 430.60   | 70.00   | 13.90  | 8.80   | 4.50   | 1.30  | 0.80  |          |            |
| 16    | 0.00 | 7.20   | 11.50   | 71.40    | 205.80  | 850.00   | 146.50  | 13.90  | 8.40   | 4.10   | 1.30  | 0.70  |          |            |
| 17    | 0.00 | 3.80   | 8.00    | 135.40   | 157.70  | 944.80   | 389.30  | 13.90  | 8.40   | 4.10   | 1.30  | 0.60  |          |            |
| 18    | 0.00 | 1.40   | 7.60    | 139.80   | 137.60  | 1096.60  | 248.50  | 13.90  | 8.40   | 4.10   | 1.30  | 0.60  |          |            |
| 19    | 0.00 | 0.60   | 11.10   | 135.40   | 114.10  | 2391.60  | 135.40  | 12.50  | 8.40   | 3.80   | 1.20  | 0.60  |          |            |
| 20    | 0.00 | 0.80   | 4.10    | 572.20   | 63.20   | 2541.30  | 99.80   | 11.50  | 8.40   | 3.80   | 1.20  | 0.60  |          |            |
| 21    | 0.00 | 1.30   | 3.40    | 527.50   | 71.40   | 2821.80  | 99.80   | 11.10  | 8.00   | 3.40   | 1.20  | 0.60  |          |            |
| 22    | 0.00 | 12.00  | 2.00    | 641.90   | 72.70   | 3606.20  | 87.90   | 10.60  | 8.00   | 3.10   | 1.10  | 0.60  |          |            |
| 23    | 0.00 | 67.30  | 124.60  | 648.60   | 76.50   | 1935.30  | 65.90   | 10.20  | 7.60   | 2.80   | 1.10  | 0.60  |          |            |
| 24    | 0.00 | 43.00  | 384.20  | 1172.50  | 82.10   | 1113.40  | 63.20   | 9.70   | 7.20   | 2.40   | 1.40  | 0.60  |          |            |
| 25    | 0.00 | 22.00  | 63.20   | 3422.00  | 91.80   | 1138.60  | 58.00   | 9.30   | 6.30   | 2.10   | 1.60  | 0.50  |          |            |
| 26    | 0.10 | 8.80   | 45.40   | 2914.40  | 112.00  | 1399.10  | 58.00   | 9.30   | 6.00   | 2.00   | 1.90  | 0.50  |          |            |
| 27    | 0.10 | 4.50   | 40.60   | 293.30   | 169.20  | 394.40   | 51.60   | 9.30   | 6.00   | 2.00   | 2.00  | 0.50  |          |            |
| 28    | 0.10 | 5.20   | 33.70   | 478.30   | 237.60  | 300.90   | 54.10   | 9.30   | 5.20   | 1.90   | 2.00  | 0.40  |          |            |
| 29    | 0.10 | 4.50   | 33.70   | 997.70   | 173.90  | 285.70   | 52.80   | 9.30   | 5.20   | 1.70   |       | 0.40  |          |            |
| 30    | 0.10 | 4.50   | 31.50   | 944.80   | 114.10  | 270.60   | 49.10   | 9.30   | 4.80   | 1.60   |       | 0.40  |          |            |
| 31    |      | 4.50   |         | 915.40   | 120.40  |          | 46.60   |        | 4.50   | 1.30   |       | 0.40  |          |            |
| Total | 0.50 | 536.10 | 1268.40 | 15005.50 | 9402.50 | 22715.90 | 3622.20 | 560.60 | 240.30 | 114.10 | 44.50 | 32.40 | 53543.00 | <b>Ton</b> |
| Mean  | 0.00 | 17.30  | 42.30   | 484.00   | 303.30  | 757.20   | 116.80  | 18.70  | 7.80   | 3.70   | 1.60  | 1.00  |          |            |
| Max   | 0.10 | 93.80  | 384.20  | 3422.00  | 737.00  | 3606.20  | 389.30  | 44.20  | 9.30   | 4.80   | 2.80  | 2.00  | 3606.20  |            |
| Min   | 0.00 | 0.10   | 1.20    | 13.40    | 63.20   | 31.50    | 46.60   | 9.30   | 4.50   | 1.30   | 1.10  | 0.40  | 0.00     |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Songkhram River at Ban Khok Kham Lai, Udon Thani (Kh.93)**

Lat 17 - 33 - 22 N Long 103 - 20 - 20 E

**Location : on left bank at the bridge of Amphoe Ban Duang - Amphoe Sawang Daen Din Highway.**

|                                      | <b>Ban</b> Khok Kham Lai   | <b>Amphoe</b> Ban Dung | <b>Changwat</b> Udon Thani |
|--------------------------------------|----------------------------|------------------------|----------------------------|
| <b>Drainage Area</b>                 | 760                        | sq.km.                 |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                        |                            |
| <b>Instrument Used</b>               | US.D-49                    |                        |                            |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                        |                            |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                        |                            |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                        |                            |
| <b>Number of observation</b>         | 135                        |                        |                            |
| <b>R-Square</b>                      | 0.8075                     |                        |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                        |                            |

$$QS = 8.7379 QW^{0.93460}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May    | Jun    | Jul     | Aug     | Sep     | Oct     | Nov    | Dec  | Jan  | Feb  | Mar  | Annual   |            |
|-------|------|--------|--------|---------|---------|---------|---------|--------|------|------|------|------|----------|------------|
| 1     | 0.00 | 0.00   | 1.00   | 11.60   | 469.50  | 27.10   | 190.20  | 17.30  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 2     | 0.00 | 0.00   | 1.00   | 11.20   | 561.60  | 23.50   | 166.70  | 15.10  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 3     | 0.00 | 0.00   | 0.50   | 11.20   | 616.30  | 19.20   | 129.00  | 13.20  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 4     | 0.00 | 0.00   | 0.00   | 11.20   | 549.30  | 16.70   | 101.60  | 10.80  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 5     | 0.00 | 0.00   | 0.00   | 12.00   | 508.90  | 22.30   | 70.20   | 9.10   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 6     | 0.00 | 0.00   | 0.00   | 12.00   | 489.20  | 42.50   | 43.10   | 8.30   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 7     | 0.00 | 0.00   | 0.00   | 11.60   | 439.10  | 51.70   | 28.30   | 7.90   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 8     | 0.00 | 0.00   | 0.00   | 9.60    | 404.20  | 34.30   | 19.80   | 7.90   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 9     | 0.00 | 0.00   | 0.00   | 7.90    | 338.70  | 25.90   | 15.90   | 7.50   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 10    | 0.00 | 0.00   | 0.00   | 14.70   | 318.00  | 24.10   | 11.20   | 7.10   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 11    | 0.00 | 0.00   | 0.00   | 68.10   | 309.10  | 20.40   | 16.70   | 6.70   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 12    | 0.00 | 0.00   | 0.50   | 121.40  | 312.10  | 17.90   | 56.70   | 6.30   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 13    | 0.00 | 0.00   | 0.50   | 143.10  | 326.90  | 28.30   | 42.50   | 5.80   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 14    | 0.00 | 0.00   | 0.50   | 139.40  | 355.90  | 56.00   | 25.90   | 5.40   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 15    | 0.00 | 0.00   | 0.00   | 133.70  | 374.80  | 82.20   | 34.90   | 5.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 16    | 0.00 | 0.00   | 0.00   | 131.80  | 355.90  | 99.50   | 50.30   | 4.60   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 17    | 0.00 | 0.00   | 0.00   | 142.20  | 321.00  | 115.90  | 74.50   | 4.10   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 18    | 0.00 | 0.00   | 0.00   | 147.80  | 297.20  | 138.40  | 94.00   | 3.70   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 19    | 0.00 | 0.00   | 0.00   | 163.70  | 247.60  | 190.20  | 94.70   | 3.30   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 20    | 0.00 | 0.00   | 0.00   | 188.90  | 191.50  | 232.00  | 94.00   | 2.80   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 21    | 0.00 | 0.00   | 0.50   | 230.10  | 133.70  | 241.70  | 91.20   | 2.40   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 22    | 0.00 | 3.30   | 12.00  | 288.20  | 52.40   | 253.40  | 83.60   | 1.90   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 23    | 0.00 | 19.80  | 30.70  | 352.20  | 37.30   | 264.30  | 76.60   | 1.50   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 24    | 0.00 | 63.90  | 46.60  | 367.30  | 33.10   | 279.30  | 66.00   | 1.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 25    | 0.00 | 93.30  | 57.40  | 338.70  | 27.70   | 297.20  | 60.30   | 0.50   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 26    | 0.00 | 89.80  | 57.40  | 312.10  | 14.70   | 303.20  | 56.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 27    | 0.00 | 75.90  | 53.90  | 321.00  | 15.10   | 300.20  | 51.70   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 28    | 0.00 | 50.30  | 47.40  | 378.60  | 16.70   | 285.30  | 47.40   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 29    | 0.00 | 19.80  | 33.10  | 447.80  | 16.70   | 241.70  | 43.10   | 0.00   | 0.00 | 0.00 |      | 0.00 |          |            |
| 30    | 0.00 | 7.50   | 13.20  | 447.80  | 21.00   | 216.40  | 31.30   | 0.00   | 0.00 | 0.00 |      | 0.00 |          |            |
| 31    |      | 4.60   |        | 465.10  | 25.90   |         | 22.30   |        | 0.00 | 0.00 |      | 0.00 |          |            |
| Total | 0.00 | 428.20 | 356.20 | 5442.00 | 8181.10 | 3950.80 | 1989.70 | 159.20 | 0.00 | 0.00 | 0.00 | 0.00 | 20507.20 | <b>Ton</b> |
| Mean  | 0.00 | 13.80  | 11.90  | 175.50  | 263.90  | 131.70  | 64.20   | 5.30   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| Max   | 0.00 | 93.30  | 57.40  | 465.10  | 616.30  | 303.20  | 190.20  | 17.30  | 0.00 | 0.00 | 0.00 | 0.00 | 616.30   |            |
| Min   | 0.00 | 0.00   | 0.00   | 7.90    | 14.70   | 16.70   | 11.20   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00     |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Songkhram River at Ban Tha Kok Daeng , Bueng Kan (Kh.98)**

Lat 17 - 51 - 04 N Long 103 - 46 - 52 E

**Location : on right bank at the bridge.**

|                                      |                            |                      |               |              |                 |                  |
|--------------------------------------|----------------------------|----------------------|---------------|--------------|-----------------|------------------|
|                                      | <b>Ban</b>                 | <b>Tha Kok Daeng</b> | <b>Amphoe</b> | <b>Se Ka</b> | <b>Changwat</b> | <b>Bueng Kan</b> |
| <b>Drainage Area</b>                 | 5,089                      | sq.km.               |               |              |                 |                  |
| <b>Method of sampling</b>            | Depth                      | Integrating          |               |              |                 |                  |
| <b>Instrument Used</b>               | US.D-49                    |                      |               |              |                 |                  |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                      |               |              |                 |                  |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                      |               |              |                 |                  |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |               |              |                 |                  |
| <b>Number of observation</b>         | 20                         |                      |               |              |                 |                  |
| <b>R-Square</b>                      | 0.9468                     |                      |               |              |                 |                  |
| <b>Remarks</b>                       | Continued Sediment Station |                      |               |              |                 |                  |

$$QS = 1.8724 QW^{1.19160}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May     | Jun      | Jul      | Aug       | Sep      | Oct      | Nov     | Dec    | Jan    | Feb    | Mar   | Annual    |            |
|-------|-------|---------|----------|----------|-----------|----------|----------|---------|--------|--------|--------|-------|-----------|------------|
| 1     | 2.40  | 2.70    | 176.70   | 1684.50  | 3645.20   | 3633.10  | 1766.40  | 193.70  | 18.70  | 10.60  | 3.50   | 3.80  |           |            |
| 2     | 2.40  | 3.00    | 142.00   | 1596.70  | 3693.50   | 3590.90  | 1649.10  | 177.90  | 17.10  | 8.30   | 3.50   | 3.20  |           |            |
| 3     | 2.30  | 3.50    | 121.60   | 1497.00  | 3760.10   | 3524.80  | 1544.50  | 151.80  | 15.80  | 6.90   | 3.60   | 3.20  |           |            |
| 4     | 2.20  | 4.10    | 130.40   | 1389.80  | 3814.70   | 3476.90  | 1428.20  | 128.60  | 14.60  | 6.70   | 3.60   | 3.20  |           |            |
| 5     | 2.10  | 6.90    | 229.50   | 1305.00  | 3857.30   | 3458.90  | 1246.10  | 113.80  | 13.70  | 6.70   | 3.60   | 3.00  |           |            |
| 6     | 2.10  | 9.50    | 449.20   | 1214.20  | 3889.30   | 3429.00  | 1091.40  | 102.70  | 12.70  | 5.30   | 3.60   | 3.00  |           |            |
| 7     | 2.10  | 12.10   | 667.40   | 1161.30  | 3927.70   | 3399.20  | 921.80   | 95.90   | 12.70  | 4.50   | 3.80   | 2.80  |           |            |
| 8     | 2.20  | 14.90   | 776.90   | 1098.30  | 4004.80   | 3357.50  | 731.20   | 94.20   | 12.10  | 4.10   | 3.80   | 2.80  |           |            |
| 9     | 2.20  | 17.70   | 757.90   | 1112.30  | 4036.90   | 3309.90  | 593.00   | 89.20   | 11.50  | 4.10   | 3.80   | 2.80  |           |            |
| 10    | 2.20  | 25.30   | 664.60   | 1296.50  | 4075.60   | 3274.30  | 455.40   | 82.60   | 10.90  | 4.10   | 3.90   | 2.70  |           |            |
| 11    | 2.30  | 35.80   | 588.30   | 1574.90  | 4133.70   | 3215.10  | 339.80   | 79.30   | 9.50   | 4.10   | 3.90   | 2.70  |           |            |
| 12    | 2.30  | 51.00   | 495.10   | 1743.60  | 4179.00   | 3156.10  | 262.30   | 76.90   | 8.00   | 4.10   | 3.90   | 2.70  |           |            |
| 13    | 2.40  | 79.30   | 486.30   | 1816.70  | 4238.70   | 3109.00  | 206.00   | 67.30   | 6.40   | 4.10   | 3.90   | 2.70  |           |            |
| 14    | 2.40  | 126.90  | 476.00   | 1867.20  | 4258.70   | 3062.00  | 174.30   | 56.30   | 6.90   | 4.10   | 3.90   | 2.70  |           |            |
| 15    | 2.40  | 164.70  | 432.90   | 1953.10  | 4272.00   | 3015.10  | 156.40   | 47.20   | 6.90   | 4.00   | 3.90   | 2.70  |           |            |
| 16    | 2.40  | 206.00  | 365.90   | 2027.00  | 4258.70   | 2939.20  | 149.10   | 39.80   | 7.20   | 3.80   | 3.90   | 2.70  |           |            |
| 17    | 2.40  | 252.80  | 299.40   | 2096.40  | 4245.40   | 2875.20  | 177.90   | 36.20   | 7.80   | 3.80   | 3.90   | 2.70  |           |            |
| 18    | 2.40  | 312.20  | 238.80   | 2131.20  | 4212.20   | 2805.70  | 301.30   | 33.30   | 8.30   | 3.80   | 3.90   | 2.80  |           |            |
| 19    | 2.40  | 295.80  | 187.60   | 2156.10  | 4166.00   | 2753.70  | 426.80   | 31.60   | 9.20   | 3.80   | 3.90   | 2.80  |           |            |
| 20    | 2.30  | 267.00  | 162.30   | 2171.10  | 4120.80   | 2667.70  | 435.00   | 29.10   | 12.40  | 3.80   | 3.90   | 2.80  |           |            |
| 21    | 2.10  | 248.10  | 159.90   | 2231.20  | 4082.00   | 2591.50  | 406.60   | 28.10   | 19.70  | 3.80   | 3.90   | 2.80  |           |            |
| 22    | 2.10  | 221.70  | 192.50   | 2296.60  | 4056.30   | 2515.80  | 360.30   | 23.30   | 30.80  | 3.80   | 3.90   | 2.80  |           |            |
| 23    | 2.10  | 145.50  | 312.20   | 2347.10  | 4036.90   | 2440.40  | 321.40   | 21.30   | 53.20  | 3.80   | 3.90   | 2.80  |           |            |
| 24    | 2.10  | 143.70  | 527.40   | 2413.50  | 3991.90   | 2321.80  | 295.80   | 20.00   | 64.90  | 3.80   | 3.90   | 2.80  |           |            |
| 25    | 2.20  | 188.80  | 811.90   | 2499.60  | 3934.10   | 2236.20  | 256.00   | 19.40   | 38.00  | 3.60   | 3.90   | 2.80  |           |            |
| 26    | 2.20  | 276.60  | 1094.90  | 2569.90  | 3882.90   | 2171.10  | 218.70   | 19.40   | 24.00  | 3.60   | 3.90   | 2.80  |           |            |
| 27    | 2.30  | 360.30  | 1415.40  | 2667.70  | 3845.10   | 2116.30  | 188.80   | 19.40   | 13.70  | 3.50   | 4.10   | 2.80  |           |            |
| 28    | 2.60  | 388.50  | 1675.50  | 2980.00  | 3808.60   | 2032.00  | 165.90   | 19.40   | 5.30   | 3.50   | 4.80   | 2.80  |           |            |
| 29    | 2.60  | 334.30  | 1766.40  | 3262.40  | 3760.10   | 1938.40  | 159.90   | 19.40   | 4.10   | 3.40   |        | 2.80  |           |            |
| 30    | 2.70  | 283.00  | 1743.60  | 3458.90  | 3711.60   | 1835.00  | 179.10   | 19.00   | 17.10  | 3.40   |        | 2.70  |           |            |
| 31    |       | 223.30  |          | 3572.90  | 3669.30   |          | 193.70   |         | 13.70  | 3.40   |        | 2.70  |           |            |
| Total | 68.90 | 4705.00 | 17548.50 | 63192.70 | 123569.10 | 86251.80 | 16802.20 | 1936.10 | 506.90 | 140.30 | 108.00 | 88.40 | 314917.90 | <b>Ton</b> |
| Mean  | 2.30  | 151.80  | 585.00   | 2038.50  | 3986.10   | 2875.10  | 542.00   | 64.50   | 16.40  | 4.50   | 3.90   | 2.90  |           |            |
| Max   | 2.70  | 388.50  | 1766.40  | 3572.90  | 4272.00   | 3633.10  | 1766.40  | 193.70  | 64.90  | 10.60  | 4.80   | 3.80  | 4272.00   |            |
| Min   | 2.10  | 2.70    | 121.60   | 1098.30  | 3645.20   | 1835.00  | 149.10   | 19.00   | 4.10   | 3.40   | 3.50   | 2.70  | 2.10      |            |

**WATER YEAR : 2013****KHONG RIVER BASIN****Huai Luang at Ban Non Toom , Udon Thani (Kh.103)**

Lat 17 - 28 - 56 N Long 102 - 47 - 49 E

**Location : on right bank at the bridge on highway.**

|                                      | Ban Non Toom               | Amphoe Mueang | Changwat Udon Thani |
|--------------------------------------|----------------------------|---------------|---------------------|
| <b>Drainage Area</b>                 | 1,235 sq.km.               |               |                     |
| <b>Method of sampling</b>            | Depth Integrating          |               |                     |
| <b>Instrument Used</b>               | US.D-49                    |               |                     |
| <b>Period of Available Records</b>   | 2004-Cont'd                |               |                     |
| <b>Actual Measurement</b>            | 2004-Cont'd                |               |                     |
| <b>Using Rating Curve Water Year</b> | 2007-2013                  |               |                     |
| <b>Number of observation</b>         | 144                        |               |                     |
| <b>R-Square</b>                      | 0.8411                     |               |                     |
| <b>Remarks</b>                       | Continued Sediment Station |               |                     |

$$QS = 6.1353 QW^{1.03670}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun    | Jul     | Aug     | Sep     | Oct     | Nov   | Dec   | Jan   | Feb   | Mar   | Annual   |     |
|-------|------|------|--------|---------|---------|---------|---------|-------|-------|-------|-------|-------|----------|-----|
| 1     | 0.00 | 0.00 | 0.00   | 19.40   | 115.40  | 36.10   | 123.90  | 7.90  | 0.80  | 1.20  | 0.00  | 0.60  |          |     |
| 2     | 0.00 | 0.00 | 0.00   | 12.20   | 84.80   | 58.20   | 98.10   | 6.60  | 0.90  | 1.20  | 0.20  | 0.60  |          |     |
| 3     | 0.00 | 0.00 | 0.00   | 10.80   | 96.00   | 41.80   | 120.70  | 6.00  | 0.90  | 1.20  | 0.60  | 0.40  |          |     |
| 4     | 0.00 | 0.00 | 0.00   | 8.50    | 81.10   | 32.80   | 88.00   | 5.20  | 0.90  | 1.30  | 0.90  | 0.70  |          |     |
| 5     | 0.00 | 0.00 | 0.00   | 14.20   | 79.80   | 30.90   | 43.00   | 4.70  | 0.90  | 2.10  | 0.90  | 0.90  |          |     |
| 6     | 0.00 | 0.00 | 0.20   | 16.00   | 103.10  | 32.80   | 27.20   | 5.20  | 0.90  | 2.10  | 1.00  | 0.60  |          |     |
| 7     | 0.00 | 0.00 | 4.50   | 13.40   | 148.30  | 24.80   | 20.80   | 4.90  | 0.80  | 1.90  | 0.70  | 0.60  |          |     |
| 8     | 0.00 | 0.00 | 4.10   | 7.50    | 210.00  | 29.60   | 14.90   | 4.50  | 0.80  | 1.90  | 0.70  | 0.40  |          |     |
| 9     | 0.00 | 0.00 | 4.10   | 17.00   | 257.70  | 40.50   | 11.60   | 4.10  | 0.80  | 1.50  | 0.60  | 0.30  |          |     |
| 10    | 0.00 | 0.00 | 4.10   | 32.80   | 255.50  | 100.20  | 9.10    | 3.60  | 0.80  | 1.20  | 0.60  | 0.30  |          |     |
| 11    | 0.00 | 0.00 | 5.60   | 81.10   | 277.30  | 96.00   | 7.30    | 3.00  | 0.70  | 1.20  | 0.80  | 0.30  |          |     |
| 12    | 0.00 | 0.00 | 30.70  | 159.70  | 303.60  | 91.80   | 5.80    | 2.60  | 0.70  | 1.20  | 1.00  | 0.40  |          |     |
| 13    | 0.00 | 0.00 | 110.80 | 140.90  | 334.30  | 124.90  | 5.20    | 2.30  | 0.60  | 1.00  | 1.20  | 0.40  |          |     |
| 14    | 0.00 | 0.00 | 123.90 | 115.40  | 306.20  | 166.90  | 4.90    | 1.90  | 0.60  | 0.90  | 1.30  | 0.60  |          |     |
| 15    | 0.00 | 0.00 | 50.80  | 91.10   | 281.70  | 207.80  | 4.50    | 1.70  | 1.20  | 1.00  | 1.50  | 0.70  |          |     |
| 16    | 0.00 | 0.00 | 20.00  | 58.20   | 253.40  | 268.60  | 5.80    | 1.70  | 5.80  | 1.20  | 1.20  | 0.70  |          |     |
| 17    | 0.00 | 0.00 | 10.40  | 43.00   | 172.60  | 275.20  | 18.60   | 1.50  | 7.90  | 1.50  | 1.30  | 0.70  |          |     |
| 18    | 0.00 | 0.00 | 9.10   | 57.80   | 93.20   | 311.30  | 31.70   | 1.50  | 6.40  | 2.10  | 1.20  | 0.70  |          |     |
| 19    | 0.00 | 0.00 | 7.90   | 77.90   | 55.30   | 334.30  | 55.30   | 1.30  | 5.60  | 1.90  | 1.20  | 0.60  |          |     |
| 20    | 0.00 | 0.00 | 7.90   | 79.20   | 38.80   | 331.80  | 57.80   | 1.30  | 5.10  | 1.90  | 0.90  | 0.60  |          |     |
| 21    | 0.00 | 0.00 | 11.20  | 99.50   | 25.80   | 352.30  | 47.90   | 1.30  | 4.50  | 1.70  | 0.90  | 0.40  |          |     |
| 22    | 0.00 | 0.00 | 7.90   | 122.80  | 17.60   | 295.90  | 34.70   | 1.20  | 3.90  | 1.20  | 0.70  | 0.40  |          |     |
| 23    | 0.00 | 0.00 | 7.70   | 149.80  | 35.00   | 259.90  | 28.50   | 1.20  | 3.70  | 1.00  | 0.40  | 0.30  |          |     |
| 24    | 0.00 | 0.00 | 8.90   | 198.40  | 32.80   | 212.10  | 26.60   | 1.20  | 3.40  | 1.00  | 0.40  | 0.30  |          |     |
| 25    | 0.00 | 0.00 | 13.60  | 240.30  | 36.90   | 152.60  | 26.60   | 1.00  | 3.00  | 0.90  | 0.60  | 0.40  |          |     |
| 26    | 0.00 | 0.00 | 14.70  | 257.70  | 39.70   | 122.80  | 24.80   | 1.00  | 2.60  | 0.80  | 0.60  | 0.40  |          |     |
| 27    | 0.00 | 0.00 | 12.80  | 238.10  | 35.80   | 117.50  | 20.50   | 0.90  | 2.30  | 0.60  | 0.80  | 0.60  |          |     |
| 28    | 0.00 | 0.00 | 9.90   | 194.10  | 26.90   | 116.40  | 14.20   | 0.90  | 2.10  | 0.40  | 0.60  | 0.70  |          |     |
| 29    | 0.00 | 0.00 | 7.90   | 139.80  | 25.00   | 96.70   | 13.10   | 0.90  | 1.50  | 0.20  |       | 0.80  |          |     |
| 30    | 0.00 | 0.00 | 8.90   | 79.80   | 24.80   | 108.70  | 12.20   | 0.90  | 1.20  | 0.00  |       | 1.20  |          |     |
| 31    |      | 0.00 |        | 63.60   | 24.50   |         | 9.90    |       | 1.20  | 0.00  |       | 2.40  |          |     |
| Total | 0.00 | 0.00 | 497.60 | 2840.00 | 3872.90 | 4471.20 | 1013.20 | 82.00 | 72.50 | 37.30 | 22.80 | 19.00 | 12928.50 | Ton |
| Mean  | 0.00 | 0.00 | 16.60  | 91.60   | 124.90  | 149.00  | 32.70   | 2.70  | 2.30  | 1.20  | 0.80  | 0.60  |          |     |
| Max   | 0.00 | 0.00 | 123.90 | 257.70  | 334.30  | 352.30  | 123.90  | 7.90  | 7.90  | 2.10  | 1.50  | 2.40  | 352.30   |     |
| Min   | 0.00 | 0.00 | 0.00   | 7.50    | 17.60   | 24.80   | 4.50    | 0.90  | 0.60  | 0.00  | 0.00  | 0.30  | 0.00     |     |



**WATER YEAR : 2013****NAM MAE ING RIVER BASIN****Nam Mae Ing at Ban Nam Ing , Chiang Rai (I.14)**

Lat 19 - 49 - 56 N Long 100 - 12 - 15 E

**Location : on right bank at the bridge on the road about 2 kilometers from Amphoe Khun Tan.**

|                                      | Ban Nam Ing                | Amphoe Khun Tan | Changwat Chiang Rai |
|--------------------------------------|----------------------------|-----------------|---------------------|
| <b>Drainage Area</b>                 | 6,266 sq.km.               |                 |                     |
| <b>Method of sampling</b>            | Depth Integrating          |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                 |                     |
| <b>Period of Available Records</b>   | 1994-Cont'd                |                 |                     |
| <b>Actual Measurement</b>            | 1994-Cont'd                |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |                     |
| <b>Number of observation</b>         | 21                         |                 |                     |
| <b>R-Square</b>                      | 0.8900                     |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                 |                     |

$$QS = 5.3032 QW^{1.08010}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul     | Aug      | Sep      | Oct      | Nov      | Dec     | Jan    | Feb  | Mar   | Annual    |     |
|-------|-------|--------|--------|---------|----------|----------|----------|----------|---------|--------|------|-------|-----------|-----|
| 1     | 1.80  | 1.10   | 3.20   | 0.90    | 2487.00  | 914.90   | 2249.30  | 1161.80  | 791.80  | 43.10  | 1.00 | 0.70  |           |     |
| 2     | 1.80  | 1.10   | 2.20   | 0.70    | 2411.20  | 855.10   | 1779.50  | 1147.70  | 688.50  | 43.10  | 0.90 | 0.50  |           |     |
| 3     | 1.90  | 8.00   | 1.90   | 0.60    | 2367.90  | 809.20   | 1542.70  | 1077.50  | 517.70  | 43.10  | 0.90 | 0.50  |           |     |
| 4     | 2.10  | 9.40   | 2.20   | 0.80    | 1821.90  | 762.80   | 1453.90  | 1054.10  | 386.30  | 35.70  | 0.70 | 0.50  |           |     |
| 5     | 2.20  | 28.50  | 2.20   | 0.70    | 1360.30  | 729.70   | 1381.10  | 998.30   | 335.40  | 35.70  | 0.60 | 0.60  |           |     |
| 6     | 2.20  | 69.40  | 2.20   | 0.60    | 1185.30  | 827.50   | 1375.90  | 947.30   | 281.20  | 33.30  | 0.40 | 0.80  |           |     |
| 7     | 2.20  | 72.10  | 2.20   | 0.60    | 1058.80  | 1289.20  | 1464.30  | 873.40   | 206.80  | 33.30  | 0.30 | 1.40  |           |     |
| 8     | 2.10  | 72.10  | 2.50   | 0.90    | 1021.50  | 1448.70  | 1506.10  | 850.50   | 171.40  | 40.60  | 0.30 | 1.30  |           |     |
| 9     | 2.10  | 69.40  | 5.20   | 0.70    | 1232.40  | 1438.30  | 1506.10  | 594.50   | 141.40  | 40.60  | 0.20 | 1.20  |           |     |
| 10    | 2.00  | 23.70  | 8.70   | 0.60    | 1917.50  | 1637.10  | 1480.00  | 457.60   | 115.30  | 38.20  | 0.00 | 0.80  |           |     |
| 11    | 1.80  | 13.60  | 8.00   | 0.80    | 2243.90  | 1716.10  | 1480.00  | 429.80   | 80.30   | 38.20  | 0.10 | 0.50  |           |     |
| 12    | 1.80  | 13.60  | 13.60  | 0.90    | 2254.70  | 1726.70  | 1453.90  | 374.50   | 30.90   | 35.70  | 0.00 | 0.50  |           |     |
| 13    | 1.80  | 30.90  | 20.80  | 1.20    | 2249.30  | 1726.70  | 1453.90  | 327.60   | 13.60   | 35.70  | 0.00 | 0.50  |           |     |
| 14    | 1.70  | 40.60  | 15.00  | 1.70    | 2034.70  | 1726.70  | 1453.90  | 243.00   | 20.80   | 33.30  | 0.00 | 0.40  |           |     |
| 15    | 1.70  | 13.60  | 8.70   | 10.80   | 1742.50  | 1726.70  | 1427.90  | 174.90   | 83.00   | 30.90  | 0.00 | 0.30  |           |     |
| 16    | 1.70  | 17.90  | 4.50   | 35.70   | 1637.10  | 1837.80  | 1375.90  | 157.90   | 185.50  | 30.90  | 0.00 | 0.40  |           |     |
| 17    | 1.70  | 13.60  | 8.00   | 64.00   | 1642.40  | 1874.90  | 1303.40  | 141.40   | 217.60  | 30.90  | 0.00 | 0.40  |           |     |
| 18    | 1.80  | 10.80  | 1.90   | 72.10   | 1574.10  | 1912.10  | 1208.90  | 134.80   | 250.60  | 1.60   | 0.00 | 0.60  |           |     |
| 19    | 1.80  | 9.40   | 1.40   | 85.80   | 1417.50  | 1970.70  | 1058.80  | 228.30   | 232.00  | 1.60   | 0.00 | 0.90  |           |     |
| 20    | 1.80  | 8.00   | 1.70   | 115.30  | 1279.70  | 1917.50  | 845.90   | 308.20   | 138.10  | 1.50   | 0.00 | 0.70  |           |     |
| 21    | 1.80  | 8.70   | 1.50   | 131.60  | 1204.20  | 1848.40  | 779.30   | 437.70   | 105.60  | 1.50   | 0.00 | 0.00  |           |     |
| 22    | 1.80  | 4.50   | 1.40   | 148.00  | 1293.90  | 1742.50  | 791.80   | 425.80   | 77.60   | 1.50   | 0.00 | 0.00  |           |     |
| 23    | 1.80  | 5.90   | 0.60   | 164.50  | 2168.60  | 1558.40  | 823.00   | 545.90   | 56.00   | 1.50   | 0.00 | 0.00  |           |     |
| 24    | 1.80  | 9.40   | 0.50   | 182.00  | 2346.30  | 1674.00  | 1030.80  | 618.90   | 56.00   | 1.40   | 0.20 | 0.20  |           |     |
| 25    | 1.80  | 28.50  | 0.40   | 189.10  | 2384.10  | 1663.40  | 1185.30  | 655.70   | 43.10   | 1.40   | 0.30 | 0.40  |           |     |
| 26    | 1.80  | 58.70  | 0.40   | 161.20  | 2217.00  | 1663.40  | 1138.30  | 700.90   | 35.70   | 1.40   | 0.50 | 0.50  |           |     |
| 27    | 1.60  | 50.70  | 0.40   | 178.50  | 1965.40  | 1837.80  | 1021.50  | 737.90   | 56.00   | 1.40   | 0.50 | 0.50  |           |     |
| 28    | 1.40  | 26.10  | 0.50   | 288.90  | 1584.60  | 2072.20  | 975.10   | 696.70   | 56.00   | 1.30   | 0.60 | 0.50  |           |     |
| 29    | 1.30  | 17.90  | 0.80   | 1030.80 | 1279.70  | 2206.20  | 965.80   | 882.70   | 69.40   | 1.10   |      | 0.60  |           |     |
| 30    | 1.20  | 8.00   | 1.40   | 2131.10 | 1105.50  | 2200.90  | 993.60   | 905.70   | 56.00   | 1.10   |      | 0.60  |           |     |
| 31    |       | 4.50   |        | 2487.00 | 975.10   |          | 1110.20  |          | 56.00   | 1.10   |      | 0.60  |           |     |
| Total | 54.30 | 749.70 | 124.00 | 7488.10 | 53464.10 | 47315.60 | 39616.10 | 18291.00 | 5555.60 | 641.70 | 7.50 | 17.40 | 173325.10 | Ton |
| Mean  | 1.80  | 24.20  | 4.10   | 241.60  | 1724.60  | 1577.20  | 1277.90  | 609.70   | 179.20  | 20.70  | 0.30 | 0.60  |           |     |
| Max   | 2.20  | 72.10  | 20.80  | 2487.00 | 2487.00  | 2206.20  | 2249.30  | 1161.80  | 791.80  | 43.10  | 1.00 | 1.40  | 2487.00   |     |
| Min   | 1.20  | 1.10   | 0.40   | 0.60    | 975.10   | 729.70   | 779.30   | 134.80   | 13.60   | 1.10   | 0.00 | 0.00  | 0.00      |     |

**WATER YEAR : 2013****NAM MAE KOK RIVER BASIN****Nam Mae Lao at Ban Ton Yang , Chiang Rai (G.8)**

Lat 19 - 47 - 32 N Long 99 - 45 - 11 E

**Location : on left bank at the bridge of Chiang Rai - Phayao Highway, Tambon Bua Sali.**

|                                      | <b>Ban</b> Ton Yang        | <b>Amphoe</b> Mae Lao | <b>Changwat</b> Chiang Rai |
|--------------------------------------|----------------------------|-----------------------|----------------------------|
| <b>Drainage Area</b>                 | 2,909 sq.km.               |                       |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                            |
| <b>Instrument Used</b>               | US.D-49                    |                       |                            |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                       |                            |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                       |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |                            |
| <b>Number of observation</b>         | 32                         |                       |                            |
| <b>R-Square</b>                      | 0.9240                     |                       |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                            |

$$QS = 3.9963 QW^{1.55770}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun     | Jul      | Aug      | Sep      | Oct      | Nov      | Dec      | Jan     | Feb    | Mar  | Annual    |            |
|-------|-------|--------|---------|----------|----------|----------|----------|----------|----------|---------|--------|------|-----------|------------|
| 1     | 2.60  | 1.10   | 7.50    | 1.80     | 3064.20  | 546.20   | 3961.90  | 1648.10  | 983.50   | 184.80  | 15.60  | 0.20 |           |            |
| 2     | 2.60  | 1.40   | 9.10    | 1.40     | 1832.90  | 762.00   | 2709.40  | 1767.90  | 920.40   | 112.10  | 13.60  | 0.20 |           |            |
| 3     | 2.40  | 2.00   | 30.50   | 1.40     | 1531.40  | 899.50   | 4403.00  | 983.50   | 799.00   | 93.70   | 11.80  | 0.20 |           |            |
| 4     | 2.00  | 2.80   | 61.80   | 1.60     | 1047.70  | 449.00   | 5561.00  | 879.30   | 707.70   | 102.70  | 10.00  | 0.20 |           |            |
| 5     | 2.20  | 8.30   | 43.10   | 2.60     | 654.80   | 360.30   | 4070.60  | 899.50   | 654.80   | 85.00   | 8.30   | 0.20 |           |            |
| 6     | 2.20  | 13.60  | 85.00   | 3.60     | 560.80   | 1389.80  | 2974.00  | 899.50   | 620.30   | 72.50   | 11.80  | 0.30 |           |            |
| 7     | 2.20  | 14.60  | 107.40  | 2.60     | 372.50   | 4898.60  | 2709.40  | 799.00   | 620.30   | 49.00   | 13.60  | 0.30 |           |            |
| 8     | 2.00  | 8.30   | 37.40   | 2.20     | 410.10   | 5908.80  | 1938.90  | 799.00   | 590.30   | 37.40   | 9.10   | 0.30 |           |            |
| 9     | 1.60  | 4.50   | 28.40   | 2.20     | 2083.30  | 5834.20  | 1280.10  | 799.00   | 590.30   | 43.10   | 7.00   | 0.30 |           |            |
| 10    | 2.00  | 3.20   | 15.60   | 3.60     | 8320.10  | 5765.90  | 962.20   | 838.80   | 531.80   | 40.20   | 5.90   | 0.30 |           |            |
| 11    | 2.00  | 2.80   | 30.50   | 72.50    | 8059.50  | 3109.30  | 899.50   | 799.00   | 517.50   | 37.40   | 4.10   | 0.30 |           |            |
| 12    | 1.80  | 3.20   | 372.50  | 93.70    | 7801.90  | 1832.90  | 1677.80  | 799.00   | 503.40   | 35.00   | 2.60   | 0.30 |           |            |
| 13    | 1.80  | 2.60   | 128.50  | 14.60    | 6284.10  | 1832.90  | 590.30   | 799.00   | 762.00   | 26.30   | 2.00   | 0.30 |           |            |
| 14    | 1.40  | 2.40   | 40.20   | 4.50     | 2665.90  | 2709.40  | 590.30   | 941.00   | 2047.10  | 24.20   | 0.50   | 0.30 |           |            |
| 15    | 1.30  | 1.80   | 8.30    | 1362.10  | 1531.40  | 2421.00  | 560.80   | 2382.90  | 3854.20  | 24.20   | 0.70   | 0.30 |           |            |
| 16    | 1.10  | 1.80   | 5.40    | 1474.20  | 1135.90  | 2709.40  | 503.40   | 1362.10  | 2421.00  | 22.20   | 0.60   | 0.30 |           |            |
| 17    | 1.00  | 2.00   | 4.50    | 475.60   | 859.20   | 2499.20  | 462.20   | 920.40   | 1618.70  | 16.70   | 0.30   | 0.30 |           |            |
| 18    | 1.00  | 2.00   | 3.20    | 151.60   | 590.30   | 2231.30  | 983.50   | 838.80   | 1226.50  | 15.60   | 0.30   | 0.30 |           |            |
| 19    | 1.10  | 2.00   | 2.60    | 72.50    | 489.40   | 1445.90  | 2884.90  | 1560.30  | 799.00   | 15.60   | 0.30   | 0.30 |           |            |
| 20    | 1.00  | 2.00   | 2.40    | 72.50    | 410.10   | 920.40   | 4769.80  | 4515.90  | 689.90   | 15.60   | 0.30   | 0.30 |           |            |
| 21    | 1.00  | 2.00   | 2.60    | 177.30   | 287.40   | 672.20   | 7298.50  | 3537.60  | 637.50   | 16.70   | 0.30   | 0.30 |           |            |
| 22    | 1.00  | 2.20   | 2.40    | 145.70   | 1158.10  | 560.80   | 5493.80  | 1974.40  | 560.80   | 15.60   | 0.20   | 0.30 |           |            |
| 23    | 1.00  | 2.00   | 2.00    | 208.20   | 1974.40  | 560.80   | 4347.30  | 1362.10  | 489.40   | 16.70   | 0.20   | 0.30 |           |            |
| 24    | 1.10  | 5.00   | 1.80    | 139.90   | 1158.10  | 462.20   | 3961.90  | 1069.30  | 462.20   | 16.70   | 0.20   | 0.30 |           |            |
| 25    | 1.10  | 46.00  | 1.80    | 80.80    | 1069.30  | 637.50   | 3155.30  | 983.50   | 422.90   | 16.70   | 0.20   | 0.30 |           |            |
| 26    | 1.10  | 61.80  | 1.80    | 192.50   | 762.00   | 1158.10  | 3247.40  | 899.50   | 360.30   | 16.70   | 0.20   | 0.30 |           |            |
| 27    | 1.10  | 43.10  | 2.00    | 80.80    | 620.30   | 1798.40  | 2231.30  | 879.30   | 337.80   | 18.50   | 0.20   | 0.30 |           |            |
| 28    | 1.00  | 37.40  | 1.80    | 1767.90  | 575.50   | 9029.40  | 1707.70  | 920.40   | 327.40   | 15.60   | 0.20   | 0.30 |           |            |
| 29    | 1.10  | 32.80  | 1.80    | 2841.00  | 449.00   | 10373.70 | 1531.40  | 879.30   | 307.20   | 15.60   |        | 0.30 |           |            |
| 30    | 1.00  | 26.30  | 1.80    | 9308.70  | 307.20   | 7801.90  | 1334.60  | 1047.70  | 287.40   | 16.70   |        | 0.30 |           |            |
| 31    |       | 14.60  |         | 6132.80  | 489.40   |          | 2421.00  |          | 277.70   | 15.60   |        | 0.30 |           |            |
| Total | 45.80 | 355.60 | 1043.70 | 24892.40 | 58556.20 | 81581.00 | 81223.20 | 38785.10 | 25928.30 | 1234.40 | 120.10 | 8.80 | 313774.60 | <b>Ton</b> |
| Mean  | 1.50  | 11.50  | 34.80   | 803.00   | 1888.90  | 2719.40  | 2620.10  | 1292.80  | 836.40   | 39.80   | 4.30   | 0.30 |           |            |
| Max   | 2.60  | 61.80  | 372.50  | 9308.70  | 8320.10  | 10373.70 | 7298.50  | 4515.90  | 3854.20  | 184.80  | 15.60  | 0.30 | 10373.70  |            |
| Min   | 1.00  | 1.10   | 1.80    | 1.40     | 287.40   | 360.30   | 462.20   | 799.00   | 277.70   | 15.60   | 0.20   | 0.20 | 0.20      |            |

**WATER YEAR : 2013****NAM MAE KOK RIVER BASIN****Nam Mae Suai at Ban Kariang Thung Phrao , Chiang Rai (G.9)**

Lat 19 - 44 - 51 N Long 99 - 30 - 27 E

**Location : on right bank at the bridge on road.**

|                                      |                                |                        |                            |
|--------------------------------------|--------------------------------|------------------------|----------------------------|
|                                      | <b>Ban</b> Kariang Thung Phrao | <b>Amphoe</b> Mae Suai | <b>Changwat</b> Chiang Rai |
| <b>Drainage Area</b>                 | 386                            | sq.km.                 |                            |
| <b>Method of sampling</b>            | Depth Integrating              |                        |                            |
| <b>Instrument Used</b>               | US.D-49                        |                        |                            |
| <b>Period of Available Records</b>   | 1998-Cont'd                    |                        |                            |
| <b>Actual Measurement</b>            | 1998-Cont'd                    |                        |                            |
| <b>Using Rating Curve Water Year</b> | 2013                           |                        |                            |
| <b>Number of observation</b>         | 31                             |                        |                            |
| <b>R-Square</b>                      | 0.8654                         |                        |                            |
| <b>Remarks</b>                       | Continued Sediment Station     |                        |                            |

$$QS = 0.9010 QW^{1.97710}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May   | Jun   | Jul     | Aug     | Sep     | Oct     | Nov     | Dec    | Jan    | Feb    | Mar   | Annual   |            |
|-------|------|-------|-------|---------|---------|---------|---------|---------|--------|--------|--------|-------|----------|------------|
| 1     | 1.20 | 0.00  | 0.00  | 0.00    | 27.90   | 27.90   | 248.00  | 15.20   | 37.00  | 4.50   | 8.10   | 3.50  |          |            |
| 2     | 1.20 | 0.00  | 0.00  | 0.00    | 25.20   | 25.20   | 1517.20 | 16.90   | 33.90  | 4.50   | 6.90   | 3.50  |          |            |
| 3     | 0.70 | 0.40  | 0.00  | 0.00    | 22.60   | 22.60   | 966.30  | 51.10   | 33.90  | 4.50   | 6.90   | 3.50  |          |            |
| 4     | 0.40 | 0.10  | 0.10  | 0.00    | 15.20   | 18.70   | 544.00  | 51.10   | 27.90  | 3.50   | 6.90   | 3.50  |          |            |
| 5     | 0.70 | 0.70  | 1.20  | 1.20    | 18.70   | 144.70  | 294.60  | 47.40   | 25.20  | 3.50   | 5.60   | 2.60  |          |            |
| 6     | 0.40 | 1.90  | 1.20  | 0.10    | 27.90   | 144.70  | 215.70  | 40.30   | 13.60  | 3.50   | 4.50   | 2.60  |          |            |
| 7     | 0.40 | 1.90  | 1.90  | 0.10    | 27.90   | 79.70   | 152.40  | 51.10   | 20.60  | 3.50   | 3.50   | 2.60  |          |            |
| 8     | 0.40 | 1.20  | 1.90  | 0.10    | 18.70   | 40.30   | 137.10  | 55.00   | 18.70  | 2.60   | 3.50   | 2.60  |          |            |
| 9     | 0.10 | 1.20  | 1.90  | 10.70   | 185.50  | 282.60  | 79.70   | 47.40   | 18.70  | 4.50   | 3.50   | 2.60  |          |            |
| 10    | 0.10 | 1.20  | 2.60  | 8.10    | 115.60  | 152.40  | 85.10   | 40.30   | 18.70  | 6.90   | 3.50   | 1.90  |          |            |
| 11    | 0.10 | 0.70  | 1.90  | 152.40  | 115.60  | 115.60  | 85.10   | 43.80   | 20.60  | 5.60   | 9.30   | 1.90  |          |            |
| 12    | 0.10 | 1.90  | 0.70  | 59.60   | 90.80   | 85.10   | 85.10   | 43.80   | 30.80  | 5.60   | 9.30   | 0.00  |          |            |
| 13    | 0.10 | 0.40  | 0.40  | 51.10   | 47.40   | 85.10   | 85.10   | 47.40   | 43.80  | 5.60   | 9.30   | 0.00  |          |            |
| 14    | 0.10 | 0.10  | 0.10  | 25.20   | 47.40   | 122.60  | 85.10   | 47.40   | 108.80 | 5.60   | 9.30   | 0.00  |          |            |
| 15    | 0.10 | 0.00  | 0.10  | 15.20   | 47.40   | 115.60  | 85.10   | 43.80   | 129.70 | 4.50   | 8.10   | 0.00  |          |            |
| 16    | 0.10 | 0.00  | 0.00  | 18.70   | 40.30   | 270.80  | 79.70   | 40.30   | 90.80  | 4.50   | 6.90   | 0.00  |          |            |
| 17    | 0.10 | 0.00  | 0.00  | 47.40   | 40.30   | 185.50  | 96.60   | 43.80   | 40.30  | 2.60   | 6.90   | 0.00  |          |            |
| 18    | 0.10 | 0.00  | 0.00  | 16.90   | 43.80   | 102.60  | 152.40  | 40.30   | 16.90  | 2.60   | 6.90   | 0.00  |          |            |
| 19    | 0.10 | 0.00  | 0.00  | 15.20   | 51.10   | 85.10   | 152.40  | 47.40   | 15.20  | 2.60   | 6.90   | 0.10  |          |            |
| 20    | 0.10 | 1.20  | 0.00  | 18.70   | 16.90   | 74.40   | 152.40  | 55.00   | 13.60  | 2.60   | 6.90   | 1.50  |          |            |
| 21    | 0.40 | 0.10  | 0.00  | 47.40   | 13.60   | 55.00   | 129.70  | 37.00   | 8.10   | 2.60   | 5.60   | 1.80  |          |            |
| 22    | 0.40 | 0.00  | 0.00  | 16.90   | 18.70   | 40.30   | 74.40   | 16.90   | 8.10   | 2.60   | 5.60   | 1.80  |          |            |
| 23    | 0.40 | 0.00  | 0.00  | 12.10   | 15.20   | 40.30   | 74.40   | 37.00   | 8.10   | 2.60   | 4.50   | 1.80  |          |            |
| 24    | 0.40 | 20.60 | 0.00  | 16.90   | 18.70   | 40.30   | 69.20   | 33.90   | 8.10   | 4.50   | 4.50   | 1.90  |          |            |
| 25    | 0.40 | 3.50  | 0.00  | 20.60   | 25.20   | 160.40  | 55.00   | 27.90   | 6.90   | 12.10  | 4.50   | 1.90  |          |            |
| 26    | 0.10 | 0.70  | 0.00  | 12.10   | 51.10   | 122.60  | 40.30   | 16.90   | 5.60   | 12.10  | 3.50   | 1.90  |          |            |
| 27    | 0.10 | 0.10  | 0.00  | 12.10   | 30.80   | 282.60  | 40.30   | 15.20   | 5.60   | 10.70  | 3.50   | 1.90  |          |            |
| 28    | 0.10 | 0.10  | 0.00  | 20.60   | 55.00   | 417.30  | 33.90   | 15.20   | 5.60   | 10.70  | 3.50   | 1.90  |          |            |
| 29    | 0.10 | 0.40  | 0.00  | 353.30  | 55.00   | 248.00  | 25.20   | 15.20   | 5.60   | 9.30   |        | 1.90  |          |            |
| 30    | 0.00 | 0.70  | 0.00  | 434.10  | 74.40   | 85.10   | 47.40   | 15.20   | 5.60   | 9.30   |        | 1.90  |          |            |
| 31    |      | 1.20  |       | 144.70  | 74.40   |         | 15.20   |         | 5.60   | 9.30   |        | 1.90  |          |            |
| Total | 9.00 | 40.30 | 14.00 | 1531.50 | 1458.30 | 3673.10 | 5904.10 | 1099.20 | 831.60 | 169.10 | 167.90 | 53.00 | 14951.10 | <b>Ton</b> |
| Mean  | 0.30 | 1.30  | 0.50  | 49.40   | 47.00   | 122.40  | 190.50  | 36.60   | 26.80  | 5.50   | 6.00   | 1.70  |          |            |
| Max   | 1.20 | 20.60 | 2.60  | 434.10  | 185.50  | 417.30  | 1517.20 | 55.00   | 129.70 | 12.10  | 9.30   | 3.50  | 1517.20  |            |
| Min   | 0.00 | 0.00  | 0.00  | 0.00    | 13.60   | 18.70   | 15.20   | 15.20   | 5.60   | 2.60   | 3.50   | 0.00  | 0.00     |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Non Puai , Chaiyaphum (E.5)**

Lat 15 - 46 - 08 N Long 101 - 49 - 01 E

**Location : on left bank near Ban Non Puai about 30 meters downstream from Ban Tango.**

|                                      | <b>Ban</b> Non Puai        | <b>Amphoe</b> Ban Khwao | <b>Changwat</b> Chaiyaphum |
|--------------------------------------|----------------------------|-------------------------|----------------------------|
| <b>Drainage Area</b>                 | 4,207 sq.km.               |                         |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                            |
| <b>Instrument Used</b>               | US.D-49                    |                         |                            |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                         |                            |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                         |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                            |
| <b>Number of observation</b>         | 20                         |                         |                            |
| <b>R-Square</b>                      | 0.7427                     |                         |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                            |

$$QS = 8.6095 QW^{1.05310}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date         | Apr   | May     | Jun     | Jul     | Aug     | Sep      | Oct      | Nov     | Dec     | Jan     | Feb    | Mar   | Annual    |            |
|--------------|-------|---------|---------|---------|---------|----------|----------|---------|---------|---------|--------|-------|-----------|------------|
| 1            | 17.90 | 0.00    | 42.90   | 42.90   | 832.60  | 191.30   | 9223.50  | 305.10  | 102.40  | 54.80   | 35.10  | 10.40 |           |            |
| 2            | 3.30  | 0.00    | 48.90   | 39.00   | 552.20  | 208.30   | 6919.40  | 318.10  | 97.30   | 54.80   | 35.10  | 8.60  |           |            |
| 3            | 0.00  | 0.00    | 56.80   | 37.10   | 285.60  | 233.90   | 6068.50  | 311.60  | 97.30   | 52.80   | 35.10  | 6.80  |           |            |
| 4            | 0.00  | 0.00    | 60.80   | 37.10   | 196.60  | 233.90   | 5922.20  | 298.60  | 93.20   | 52.80   | 37.10  | 6.80  |           |            |
| 5            | 0.00  | 0.00    | 72.90   | 41.00   | 164.90  | 196.60   | 5922.20  | 285.60  | 89.10   | 50.80   | 37.10  | 3.30  |           |            |
| 6            | 0.00  | 0.00    | 117.90  | 50.80   | 143.90  | 175.40   | 4889.70  | 272.60  | 89.10   | 50.80   | 37.10  | 1.60  |           |            |
| 7            | 0.00  | 0.00    | 117.90  | 93.20   | 133.50  | 186.00   | 3289.40  | 259.70  | 85.00   | 48.90   | 37.10  | 1.60  |           |            |
| 8            | 0.00  | 0.00    | 112.70  | 175.40  | 138.70  | 221.10   | 1973.50  | 233.90  | 85.00   | 48.90   | 35.10  | 0.00  |           |            |
| 9            | 0.00  | 3.30    | 107.60  | 259.70  | 154.40  | 292.10   | 1699.30  | 186.00  | 85.00   | 46.90   | 35.10  | 0.00  |           |            |
| 10           | 0.00  | 25.50   | 81.00   | 285.60  | 196.60  | 410.10   | 1417.40  | 175.40  | 81.00   | 46.90   | 33.20  | 0.00  |           |            |
| 11           | 0.00  | 41.00   | 68.80   | 272.60  | 266.10  | 507.60   | 1227.60  | 159.60  | 76.90   | 46.90   | 31.20  | 0.00  |           |            |
| 12           | 0.00  | 46.90   | 56.80   | 253.20  | 311.60  | 496.40   | 1148.10  | 170.10  | 72.90   | 46.90   | 31.20  | 0.00  |           |            |
| 13           | 0.00  | 44.90   | 50.80   | 221.10  | 1118.00 | 507.60   | 1127.30  | 180.70  | 68.80   | 46.90   | 27.40  | 3.30  |           |            |
| 14           | 0.00  | 41.00   | 52.80   | 159.60  | 1100.50 | 873.80   | 1115.70  | 191.30  | 68.80   | 46.90   | 23.50  | 0.00  |           |            |
| 15           | 0.00  | 37.10   | 60.80   | 128.30  | 574.60  | 1124.90  | 1120.30  | 186.00  | 68.80   | 44.90   | 23.50  | 0.00  |           |            |
| 16           | 0.00  | 37.10   | 72.90   | 102.40  | 374.90  | 1238.80  | 1122.60  | 175.40  | 72.90   | 44.90   | 21.60  | 0.00  |           |            |
| 17           | 0.00  | 39.00   | 81.00   | 89.10   | 311.60  | 1222.10  | 1114.50  | 170.10  | 85.00   | 44.90   | 25.50  | 0.00  |           |            |
| 18           | 0.00  | 41.00   | 64.80   | 76.90   | 259.70  | 1303.20  | 1131.90  | 164.90  | 85.00   | 44.90   | 25.50  | 0.00  |           |            |
| 19           | 0.00  | 41.00   | 52.80   | 60.80   | 208.30  | 1557.60  | 1440.00  | 154.40  | 85.00   | 42.90   | 25.50  | 0.00  |           |            |
| 20           | 0.00  | 41.00   | 44.90   | 60.80   | 170.10  | 1652.00  | 2029.30  | 149.10  | 81.00   | 42.90   | 23.50  | 0.00  |           |            |
| 21           | 0.00  | 42.90   | 44.90   | 76.90   | 149.10  | 1985.90  | 1713.50  | 143.90  | 81.00   | 42.90   | 19.80  | 0.00  |           |            |
| 22           | 0.00  | 50.80   | 44.90   | 107.60  | 138.70  | 3389.10  | 1383.70  | 138.70  | 76.90   | 42.90   | 17.90  | 0.00  |           |            |
| 23           | 0.00  | 60.80   | 44.90   | 138.70  | 138.70  | 4512.20  | 1138.90  | 133.50  | 68.80   | 41.00   | 17.90  | 0.00  |           |            |
| 24           | 0.00  | 64.80   | 44.90   | 170.10  | 196.60  | 5002.10  | 1108.60  | 128.30  | 68.80   | 41.00   | 16.00  | 3.30  |           |            |
| 25           | 0.00  | 72.90   | 46.90   | 292.10  | 259.70  | 5725.70  | 1100.50  | 123.10  | 64.80   | 41.00   | 16.00  | 3.30  |           |            |
| 26           | 0.00  | 81.00   | 48.90   | 585.80  | 246.80  | 7265.40  | 777.90   | 107.60  | 60.80   | 39.00   | 14.10  | 3.30  |           |            |
| 27           | 0.00  | 89.10   | 44.90   | 805.30  | 208.30  | 7336.70  | 608.30   | 117.90  | 56.80   | 37.10   | 14.10  | 3.30  |           |            |
| 28           | 0.00  | 89.10   | 44.90   | 723.40  | 180.70  | 7051.60  | 552.20   | 112.70  | 56.80   | 35.10   | 14.10  | 3.30  |           |            |
| 29           | 0.00  | 72.90   | 42.90   | 630.80  | 186.00  | 9931.10  | 463.10   | 107.60  | 56.80   | 31.20   |        | 1.60  |           |            |
| 30           | 0.00  | 50.80   | 42.90   | 669.10  | 196.60  | 12047.80 | 392.50   | 107.60  | 60.80   | 31.20   |        | 0.00  |           |            |
| 31           |       | 41.00   |         | 846.30  | 186.00  |          | 324.60   |         | 56.80   | 35.10   |        | 0.00  |           |            |
| <b>Total</b> | 21.20 | 1154.90 | 1876.80 | 7532.70 | 9581.60 | 77080.30 | 69466.20 | 5569.10 | 2378.60 | 1378.90 | 745.40 | 60.50 | 176846.20 | <b>Ton</b> |
| <b>Mean</b>  | 0.70  | 37.30   | 62.60   | 243.00  | 309.10  | 2569.30  | 2240.80  | 185.60  | 76.70   | 44.50   | 26.60  | 2.00  |           |            |
| <b>Max</b>   | 17.90 | 89.10   | 117.90  | 846.30  | 1118.00 | 12047.80 | 9223.50  | 318.10  | 102.40  | 54.80   | 37.10  | 10.40 | 12047.80  |            |
| <b>Min</b>   | 0.00  | 0.00    | 42.90   | 37.10   | 133.50  | 175.40   | 324.60   | 107.60  | 56.80   | 31.20   | 14.10  | 0.00  | 0.00      |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Nam Phong at Ban Tha Mao , Khon Kaen (E.22B)**

Lat 16 - 39 - 13 N Long 102 - 49 - 39 E

**Location : on right bank at Ban Tha Mao.**

|                                      | Ban Tha Mao                | Amphoe Nam Phong | Changwat Khon Kaen |
|--------------------------------------|----------------------------|------------------|--------------------|
| <b>Drainage Area</b>                 | 13,638 sq.km.              |                  |                    |
| <b>Method of sampling</b>            | Depth Integrating          |                  |                    |
| <b>Instrument Used</b>               | US.D-49                    |                  |                    |
| <b>Period of Available Records</b>   | 2004-Cont'd                |                  |                    |
| <b>Actual Measurement</b>            | 2004-Cont'd                |                  |                    |
| <b>Using Rating Curve Water Year</b> | 2004-2013                  |                  |                    |
| <b>Number of observation</b>         | 187                        |                  |                    |
| <b>R-Square</b>                      | 0.7670                     |                  |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                  |                    |

$$QS = 3.1975 QW^{1.07000}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug     | Sep     | Oct      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |     |
|-------|--------|--------|--------|--------|---------|---------|----------|---------|---------|---------|---------|---------|----------|-----|
| 1     | 25.20  | 28.30  | 25.20  | 27.70  | 27.70   | 77.90   | 992.20   | 458.00  | 92.80   | 345.60  | 138.90  | 108.80  |          |     |
| 2     | 27.10  | 27.10  | 25.20  | 27.10  | 25.80   | 70.50   | 1012.20  | 434.00  | 90.00   | 344.10  | 108.80  | 110.70  |          |     |
| 3     | 25.80  | 26.40  | 27.70  | 25.80  | 43.20   | 68.00   | 984.30   | 409.90  | 86.20   | 333.70  | 116.40  | 115.50  |          |     |
| 4     | 27.70  | 27.70  | 27.70  | 24.60  | 161.80  | 65.40   | 1070.10  | 397.90  | 79.70   | 318.90  | 117.40  | 117.40  |          |     |
| 5     | 32.80  | 28.30  | 25.80  | 24.60  | 241.70  | 62.10   | 1096.20  | 379.90  | 79.70   | 314.40  | 133.20  | 109.80  |          |     |
| 6     | 32.80  | 27.10  | 28.30  | 24.60  | 282.60  | 62.90   | 1048.10  | 373.90  | 80.60   | 283.90  | 160.60  | 89.00   |          |     |
| 7     | 27.70  | 26.40  | 32.80  | 24.60  | 347.10  | 61.30   | 1054.10  | 373.90  | 83.40   | 193.00  | 146.90  | 48.90   |          |     |
| 8     | 28.30  | 27.10  | 37.60  | 24.60  | 421.90  | 62.10   | 1004.20  | 370.90  | 86.20   | 117.40  | 125.30  | 46.50   |          |     |
| 9     | 27.70  | 27.70  | 31.20  | 24.60  | 434.00  | 62.10   | 1006.20  | 370.90  | 92.80   | 50.60   | 109.80  | 45.70   |          |     |
| 10    | 29.00  | 29.60  | 32.00  | 25.20  | 470.00  | 58.80   | 796.50   | 370.90  | 104.10  | 38.40   | 113.60  | 40.80   |          |     |
| 11    | 29.00  | 32.00  | 40.00  | 25.20  | 500.80  | 53.80   | 543.70   | 354.50  | 92.80   | 42.40   | 117.40  | 47.30   |          |     |
| 12    | 28.30  | 34.40  | 51.40  | 27.10  | 517.90  | 71.40   | 409.90   | 301.20  | 43.20   | 46.50   | 92.80   | 48.10   |          |     |
| 13    | 27.10  | 36.80  | 48.10  | 26.40  | 504.20  | 81.60   | 221.10   | 262.10  | 37.60   | 49.70   | 81.60   | 48.90   |          |     |
| 14    | 25.80  | 36.80  | 39.20  | 25.80  | 466.50  | 120.80  | 180.20   | 245.50  | 48.10   | 55.50   | 96.50   | 44.80   |          |     |
| 15    | 25.80  | 27.10  | 32.00  | 29.00  | 440.10  | 183.70  | 158.30   | 211.70  | 74.20   | 59.60   | 158.30  | 40.00   |          |     |
| 16    | 27.10  | 27.70  | 32.80  | 35.20  | 417.40  | 195.30  | 128.70   | 141.20  | 110.70  | 60.50   | 179.10  | 42.40   |          |     |
| 17    | 30.40  | 32.80  | 29.00  | 27.70  | 378.40  | 189.50  | 106.90   | 138.90  | 141.20  | 55.50   | 159.50  | 44.00   |          |     |
| 18    | 30.40  | 27.10  | 27.70  | 26.40  | 344.10  | 184.90  | 80.60    | 133.20  | 184.90  | 62.10   | 118.50  | 44.80   |          |     |
| 19    | 30.40  | 24.60  | 27.70  | 25.80  | 333.70  | 165.20  | 83.40    | 134.30  | 232.80  | 73.20   | 78.80   | 47.30   |          |     |
| 20    | 31.20  | 25.80  | 25.80  | 24.60  | 329.20  | 158.30  | 109.80   | 140.00  | 243.00  | 77.90   | 78.80   | 47.30   |          |     |
| 21    | 33.60  | 27.70  | 24.60  | 23.90  | 335.20  | 156.00  | 106.90   | 137.80  | 271.00  | 74.20   | 72.30   | 40.00   |          |     |
| 22    | 36.00  | 24.60  | 24.60  | 23.30  | 356.00  | 156.00  | 112.60   | 133.20  | 299.70  | 81.60   | 75.10   | 24.60   |          |     |
| 23    | 29.60  | 25.80  | 24.60  | 24.60  | 376.90  | 153.70  | 104.10   | 127.50  | 317.40  | 79.70   | 91.80   | 25.80   |          |     |
| 24    | 27.10  | 29.00  | 23.90  | 25.20  | 385.90  | 140.00  | 101.30   | 128.70  | 321.80  | 73.20   | 110.70  | 29.00   |          |     |
| 25    | 34.40  | 29.00  | 23.30  | 26.40  | 387.40  | 112.60  | 100.30   | 127.50  | 326.30  | 79.70   | 113.60  | 31.20   |          |     |
| 26    | 38.40  | 29.60  | 25.20  | 24.60  | 366.40  | 166.40  | 99.40    | 115.50  | 345.60  | 74.20   | 112.60  | 32.00   |          |     |
| 27    | 38.40  | 29.00  | 27.70  | 24.60  | 335.20  | 378.40  | 104.10   | 105.00  | 357.50  | 66.30   | 111.70  | 33.60   |          |     |
| 28    | 38.40  | 25.80  | 29.60  | 24.60  | 281.30  | 619.90  | 121.90   | 100.30  | 354.50  | 74.20   | 106.90  | 31.20   |          |     |
| 29    | 37.60  | 25.80  | 27.10  | 24.60  | 198.80  | 718.40  | 116.40   | 97.50   | 351.50  | 75.10   |         | 31.20   |          |     |
| 30    | 32.80  | 29.00  | 27.70  | 25.20  | 136.60  | 831.80  | 146.90   | 94.70   | 348.60  | 112.60  |         | 41.60   |          |     |
| 31    |        | 29.00  |        | 28.30  | 102.20  |         | 264.60   |         | 347.10  | 148.00  |         | 58.80   |          |     |
| Total | 915.90 | 885.10 | 905.50 | 801.90 | 9950.00 | 5488.80 | 13465.20 | 7170.50 | 5725.00 | 3861.70 | 3226.90 | 1667.00 | 54063.50 | Ton |
| Mean  | 30.50  | 28.60  | 30.20  | 25.90  | 321.00  | 183.00  | 434.40   | 239.00  | 184.70  | 124.60  | 115.20  | 53.80   |          |     |
| Max   | 38.40  | 36.80  | 51.40  | 35.20  | 517.90  | 831.80  | 1096.20  | 458.00  | 357.50  | 345.60  | 179.10  | 117.40  | 1096.20  |     |
| Min   | 25.20  | 24.60  | 23.30  | 23.30  | 25.80   | 53.80   | 80.60    | 94.70   | 37.60   | 38.40   | 72.30   | 24.60   | 23.30    |     |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Khai , Chaiyaphum (E.23)**

Lat 15 - 40 - 49 N Long 102 - 00 - 46 E

**Location : on left bank at the bridge on highway.**

|                                      |                            |                      |                            |
|--------------------------------------|----------------------------|----------------------|----------------------------|
|                                      | <b>Ban Khai</b>            | <b>Amphoe Mueang</b> | <b>Changwat Chaiyaphum</b> |
| <b>Drainage Area</b>                 | 6,282 sq.km.               |                      |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                            |
| <b>Instrument Used</b>               | US.D-49                    |                      |                            |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                      |                            |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                      |                            |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                      |                            |
| <b>Number of observation</b>         | 269                        |                      |                            |
| <b>R-Square</b>                      | 0.8374                     |                      |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                            |

$$QS = 5.3012 QW^{1.14480}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun  | Jul     | Aug     | Sep      | Oct       | Nov     | Dec    | Jan   | Feb  | Mar  | Annual    |            |
|-------|-------|-------|------|---------|---------|----------|-----------|---------|--------|-------|------|------|-----------|------------|
| 1     | 1.90  | 0.00  | 0.00 | 0.00    | 352.50  | 145.00   | 13663.70  | 1230.00 | 31.90  | 11.70 | 0.00 | 0.00 |           |            |
| 2     | 0.40  | 0.00  | 0.00 | 0.00    | 247.00  | 171.70   | 13663.70  | 1004.80 | 28.90  | 13.10 | 0.00 | 0.00 |           |            |
| 3     | 0.40  | 0.00  | 0.00 | 0.00    | 171.70  | 179.10   | 13447.80  | 799.90  | 25.90  | 10.40 | 0.00 | 0.00 |           |            |
| 4     | 1.30  | 0.00  | 0.00 | 0.00    | 126.90  | 157.10   | 13231.90  | 665.40  | 24.40  | 6.50  | 0.00 | 0.00 |           |            |
| 5     | 1.90  | 0.00  | 0.00 | 0.00    | 97.50   | 126.90   | 13023.40  | 551.80  | 23.00  | 6.50  | 0.00 | 0.00 |           |            |
| 6     | 0.80  | 4.10  | 0.00 | 0.00    | 72.80   | 99.40    | 12814.70  | 475.60  | 23.00  | 5.30  | 0.00 | 0.00 |           |            |
| 7     | 0.00  | 5.30  | 0.00 | 0.00    | 46.00   | 101.30   | 12607.00  | 418.20  | 20.10  | 4.70  | 0.00 | 0.00 |           |            |
| 8     | 0.00  | 4.10  | 0.00 | 0.00    | 59.90   | 109.10   | 11986.00  | 380.40  | 18.60  | 4.10  | 0.00 | 0.00 |           |            |
| 9     | 0.00  | 3.00  | 0.00 | 52.70   | 59.90   | 154.60   | 10053.20  | 358.60  | 17.20  | 3.00  | 0.00 | 0.00 |           |            |
| 10    | 0.00  | 3.00  | 0.00 | 113.00  | 51.00   | 231.70   | 7359.50   | 340.10  | 14.40  | 2.40  | 0.00 | 0.00 |           |            |
| 11    | 0.00  | 2.40  | 0.00 | 159.50  | 101.30  | 291.30   | 5005.80   | 324.70  | 11.70  | 1.90  | 0.00 | 0.00 |           |            |
| 12    | 0.00  | 1.90  | 0.00 | 128.90  | 247.00  | 340.10   | 3344.10   | 276.20  | 9.10   | 2.40  | 0.00 | 0.00 |           |            |
| 13    | 1.30  | 1.30  | 0.00 | 126.90  | 513.50  | 346.30   | 2456.80   | 244.40  | 7.80   | 1.90  | 0.00 | 0.00 |           |            |
| 14    | 10.40 | 0.80  | 0.00 | 93.60   | 576.30  | 396.10   | 2075.60   | 213.90  | 6.50   | 1.90  | 0.00 | 0.00 |           |            |
| 15    | 13.10 | 0.00  | 0.00 | 54.50   | 458.50  | 544.80   | 1875.40   | 201.40  | 5.30   | 1.90  | 0.00 | 0.00 |           |            |
| 16    | 10.40 | 0.00  | 0.00 | 36.50   | 330.90  | 665.40   | 1776.30   | 193.90  | 7.80   | 2.40  | 0.00 | 0.00 |           |            |
| 17    | 10.40 | 0.00  | 0.00 | 14.40   | 257.30  | 718.00   | 1700.50   | 186.50  | 10.40  | 3.00  | 0.00 | 0.00 |           |            |
| 18    | 10.40 | 0.00  | 0.00 | 0.00    | 213.90  | 709.90   | 1629.70   | 179.10  | 20.10  | 2.40  | 0.00 | 0.00 |           |            |
| 19    | 9.10  | 0.00  | 0.00 | 0.00    | 145.00  | 750.60   | 1566.70   | 169.20  | 24.40  | 2.40  | 0.00 | 0.00 |           |            |
| 20    | 4.10  | 0.00  | 0.00 | 0.00    | 117.00  | 833.60   | 1594.70   | 159.50  | 25.90  | 1.90  | 0.00 | 0.00 |           |            |
| 21    | 5.30  | 0.00  | 0.00 | 0.00    | 97.50   | 931.00   | 1671.80   | 136.90  | 25.90  | 1.30  | 0.00 | 0.00 |           |            |
| 22    | 4.10  | 0.00  | 0.00 | 0.00    | 80.30   | 1169.80  | 1745.90   | 119.00  | 21.50  | 0.80  | 0.00 | 0.00 |           |            |
| 23    | 3.00  | 0.00  | 0.00 | 0.00    | 67.30   | 1448.70  | 1799.10   | 82.20   | 18.60  | 0.40  | 0.00 | 0.00 |           |            |
| 24    | 1.90  | 0.00  | 0.00 | 3.50    | 65.40   | 1650.70  | 1844.80   | 65.40   | 15.80  | 0.00  | 0.00 | 0.00 |           |            |
| 25    | 0.00  | 0.00  | 0.00 | 130.90  | 89.80   | 1921.40  | 1867.70   | 52.70   | 13.10  | 0.00  | 0.00 | 0.00 |           |            |
| 26    | 0.00  | 0.00  | 0.00 | 303.40  | 161.90  | 2599.80  | 1844.80   | 44.40   | 13.10  | 0.00  | 0.00 | 0.00 |           |            |
| 27    | 0.00  | 0.00  | 0.00 | 396.10  | 166.80  | 5514.10  | 1791.50   | 42.80   | 15.80  | 0.00  | 0.00 | 0.00 |           |            |
| 28    | 0.00  | 0.00  | 0.00 | 318.60  | 145.00  | 11004.50 | 1738.30   | 41.20   | 14.40  | 0.00  | 0.00 | 0.00 |           |            |
| 29    | 0.00  | 0.00  | 0.00 | 198.90  | 132.90  | 12192.40 | 1664.80   | 38.10   | 14.40  | 0.00  |      | 0.00 |           |            |
| 30    | 0.00  | 0.00  | 0.00 | 229.10  | 132.90  | 13023.40 | 1566.70   | 33.50   | 13.10  | 0.00  |      | 0.00 |           |            |
| 31    |       | 0.00  |      | 358.60  | 134.90  |          | 1421.10   |         | 11.70  | 0.00  |      | 0.00 |           |            |
| Total | 90.20 | 25.90 | 0.00 | 2719.10 | 5520.60 | 58527.80 | 163833.00 | 9029.80 | 533.80 | 92.30 | 0.00 | 0.00 | 240372.50 | <b>Ton</b> |
| Mean  | 3.00  | 0.80  | 0.00 | 87.70   | 178.10  | 1950.90  | 5284.90   | 301.00  | 17.20  | 3.00  | 0.00 | 0.00 |           |            |
| Max   | 13.10 | 5.30  | 0.00 | 396.10  | 576.30  | 13023.40 | 13663.70  | 1230.00 | 31.90  | 13.10 | 0.00 | 0.00 | 13663.70  |            |
| Min   | 0.00  | 0.00  | 0.00 | 0.00    | 46.00   | 99.40    | 1421.10   | 33.50   | 5.30   | 0.00  | 0.00 | 0.00 | 0.00      |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Nam Yang at Ban Kaeng Yao , Kalasin (E.54)**

Lat 16 - 26 - 28 N Long 104 - 02 - 05 E

**Location : on left bank at Ban Kaeng Yao about 2 kilometers downstream from proposed of USBR Damsite.**

|                                      |                            |                          |                         |
|--------------------------------------|----------------------------|--------------------------|-------------------------|
|                                      | <b>Ban</b> Kaeng Yao       | <b>Amphoe</b> Kuchinarai | <b>Changwat</b> Kalasin |
| <b>Drainage Area</b>                 | 1,548 sq.km.               |                          |                         |
| <b>Method of sampling</b>            | Depth Integrating          |                          |                         |
| <b>Instrument Used</b>               | US.D-49                    |                          |                         |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                          |                         |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                          |                         |
| <b>Using Rating Curve Water Year</b> | 2007-2013                  |                          |                         |
| <b>Number of observation</b>         | 114                        |                          |                         |
| <b>R-Square</b>                      | 0.8382                     |                          |                         |
| <b>Remarks</b>                       | Continued Sediment Station |                          |                         |

$$QS = 5.7808 QW^{1.18840}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May    | Jun     | Jul      | Aug      | Sep      | Oct     | Nov     | Dec    | Jan    | Feb    | Mar    | Annual   |            |
|-------|------|--------|---------|----------|----------|----------|---------|---------|--------|--------|--------|--------|----------|------------|
| 1     | 0.00 | 0.00   | 48.60   | 187.70   | 2356.40  | 316.20   | 408.80  | 63.40   | 37.80  | 30.90  | 30.90  | 28.20  |          |            |
| 2     | 0.00 | 0.00   | 48.60   | 142.70   | 1772.70  | 262.50   | 556.90  | 63.40   | 37.80  | 30.90  | 30.90  | 28.20  |          |            |
| 3     | 0.00 | 0.00   | 53.50   | 96.10    | 1230.60  | 227.70   | 691.10  | 60.90   | 36.40  | 30.90  | 30.90  | 28.20  |          |            |
| 4     | 0.00 | 0.00   | 48.60   | 81.30    | 21.80    | 187.70   | 588.30  | 55.90   | 35.00  | 30.90  | 30.90  | 28.20  |          |            |
| 5     | 0.00 | 0.00   | 43.80   | 88.70    | 1.90     | 262.50   | 342.20  | 55.90   | 33.60  | 30.90  | 30.90  | 28.20  |          |            |
| 6     | 0.00 | 0.00   | 39.10   | 124.10   | 1.70     | 495.10   | 236.30  | 53.50   | 33.60  | 30.90  | 30.90  | 28.20  |          |            |
| 7     | 0.00 | 0.00   | 37.80   | 124.10   | 32.30    | 435.90   | 168.20  | 53.50   | 33.60  | 30.90  | 29.60  | 28.20  |          |            |
| 8     | 0.00 | 0.00   | 36.40   | 99.90    | 408.80   | 289.10   | 142.70  | 53.50   | 33.60  | 30.90  | 29.60  | 28.20  |          |            |
| 9     | 0.00 | 0.00   | 37.80   | 96.10    | 647.30   | 227.70   | 99.90   | 53.50   | 32.30  | 30.90  | 29.60  | 28.20  |          |            |
| 10    | 0.00 | 0.00   | 39.10   | 174.60   | 977.90   | 174.60   | 81.30   | 53.50   | 30.90  | 30.90  | 29.60  | 28.20  |          |            |
| 11    | 0.00 | 0.00   | 41.50   | 381.90   | 1055.90  | 142.70   | 81.30   | 53.50   | 30.90  | 30.90  | 29.60  | 28.20  |          |            |
| 12    | 0.00 | 0.00   | 118.00  | 541.40   | 691.10   | 124.10   | 81.30   | 53.50   | 30.90  | 30.90  | 29.60  | 26.90  |          |            |
| 13    | 0.00 | 0.00   | 368.60  | 625.60   | 464.70   | 142.70   | 58.40   | 51.00   | 30.90  | 30.90  | 29.60  | 25.60  |          |            |
| 14    | 0.00 | 0.00   | 355.40  | 435.90   | 408.80   | 307.10   | 58.40   | 48.60   | 30.90  | 30.90  | 29.60  | 24.30  |          |            |
| 15    | 0.00 | 0.00   | 220.90  | 236.30   | 316.20   | 1362.50  | 60.90   | 51.00   | 30.90  | 30.90  | 29.60  | 23.00  |          |            |
| 16    | 0.00 | 0.00   | 99.90   | 124.10   | 236.30   | 1614.20  | 70.50   | 46.20   | 30.90  | 30.90  | 28.20  | 21.80  |          |            |
| 17    | 0.00 | 0.00   | 77.70   | 99.90    | 174.60   | 1437.30  | 99.90   | 43.80   | 30.90  | 30.90  | 28.20  | 20.50  |          |            |
| 18    | 0.00 | 0.00   | 53.50   | 92.40    | 130.20   | 1437.30  | 161.80  | 43.80   | 30.90  | 30.90  | 28.20  | 19.20  |          |            |
| 19    | 0.00 | 0.00   | 35.00   | 96.10    | 92.40    | 1563.30  | 142.70  | 43.80   | 30.90  | 30.90  | 28.20  | 18.00  |          |            |
| 20    | 0.00 | 0.00   | 51.00   | 207.50   | 88.70    | 1701.40  | 149.00  | 43.80   | 30.90  | 30.90  | 28.20  | 18.00  |          |            |
| 21    | 0.00 | 0.00   | 63.40   | 289.10   | 92.40    | 1595.10  | 124.10  | 43.80   | 30.90  | 30.90  | 28.20  | 18.00  |          |            |
| 22    | 0.00 | 0.00   | 118.00  | 479.90   | 111.90   | 2724.10  | 96.10   | 39.10   | 30.90  | 30.90  | 28.20  | 18.00  |          |            |
| 23    | 0.00 | 0.00   | 298.10  | 510.50   | 194.30   | 3283.80  | 70.50   | 39.10   | 30.90  | 30.90  | 28.20  | 18.00  |          |            |
| 24    | 0.00 | 0.00   | 395.30  | 525.90   | 280.20   | 2676.80  | 77.70   | 39.10   | 30.90  | 32.30  | 28.20  | 18.00  |          |            |
| 25    | 0.00 | 8.60   | 495.10  | 1270.90  | 298.10   | 2060.20  | 88.70   | 39.10   | 30.90  | 33.60  | 28.20  | 18.00  |          |            |
| 26    | 0.00 | 21.80  | 541.40  | 1474.90  | 245.00   | 1758.40  | 77.70   | 39.10   | 30.90  | 30.90  | 28.20  | 18.00  |          |            |
| 27    | 0.00 | 30.90  | 408.80  | 1538.00  | 187.70   | 1873.30  | 70.50   | 39.10   | 30.90  | 30.90  | 28.20  | 16.80  |          |            |
| 28    | 0.00 | 33.60  | 395.30  | 1506.40  | 187.70   | 1652.50  | 70.50   | 39.10   | 30.90  | 30.90  | 28.20  | 16.80  |          |            |
| 29    | 0.00 | 37.80  | 355.40  | 1538.00  | 187.70   | 1324.30  | 70.50   | 39.10   | 30.90  | 30.90  |        | 16.80  |          |            |
| 30    | 0.00 | 43.80  | 298.10  | 1708.60  | 214.20   | 588.30   | 70.50   | 37.80   | 30.90  | 30.90  |        | 16.80  |          |            |
| 31    |      | 46.20  |         | 2161.10  | 329.20   |          | 70.50   |         | 30.90  | 30.90  |        | 16.80  |          |            |
| Total | 0.00 | 222.70 | 5223.70 | 17059.70 | 13438.70 | 32248.40 | 5167.20 | 1440.40 | 993.50 | 962.00 | 818.40 | 699.50 | 78274.20 | <b>Ton</b> |
| Mean  | 0.00 | 7.20   | 174.10  | 550.30   | 433.50   | 1074.90  | 166.70  | 48.00   | 32.00  | 31.00  | 29.20  | 22.60  |          |            |
| Max   | 0.00 | 46.20  | 541.40  | 2161.10  | 2356.40  | 3283.80  | 691.10  | 63.40   | 37.80  | 33.60  | 30.90  | 28.20  | 3283.80  |            |
| Min   | 0.00 | 0.00   | 35.00   | 81.30    | 1.70     | 124.10   | 58.40   | 37.80   | 30.90  | 30.90  | 28.20  | 16.80  | 0.00     |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Muang Lat , Roi Et (E.66A)**

Lat 16 - 12 - 08 N Long 103 - 31 - 41 E

**Location : on right bank at the bridge.**

|                                      |                            |                         |                        |
|--------------------------------------|----------------------------|-------------------------|------------------------|
|                                      | <b>Ban</b> Muang Lat       | <b>Amphoe</b> Chang Han | <b>Changwat</b> Roi Et |
| <b>Drainage Area</b>                 | 31,879 sq.km.              |                         |                        |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                        |
| <b>Instrument Used</b>               | US.D-49                    |                         |                        |
| <b>Period of Available Records</b>   | 2004-Cont'd                |                         |                        |
| <b>Actual Measurement</b>            | 2004-Cont'd                |                         |                        |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                        |
| <b>Number of observation</b>         | 20                         |                         |                        |
| <b>R-Square</b>                      | 0.8665                     |                         |                        |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                        |

$$QS = 7.3433 QW^{0.9690}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul     | Aug      | Sep      | Oct       | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |     |
|-------|--------|--------|---------|---------|----------|----------|-----------|----------|----------|---------|---------|---------|-----------|-----|
| 1     | 4.50   | 4.50   | 10.20   | 24.00   | 384.10   | 423.10   | 3075.20   | 3780.20  | 246.70   | 654.90  | 69.70   | 72.30   |           |     |
| 2     | 4.50   | 5.90   | 8.80    | 14.40   | 342.90   | 393.10   | 3133.80   | 3704.70  | 212.70   | 661.80  | 98.70   | 82.90   |           |     |
| 3     | 3.00   | 3.00   | 8.80    | 0.00    | 603.00   | 315.10   | 3174.90   | 3648.00  | 262.00   | 648.00  | 191.80  | 106.50  |           |     |
| 4     | 3.00   | 3.00   | 11.60   | 0.00    | 554.50   | 292.40   | 3199.70   | 3597.60  | 350.40   | 602.80  | 75.00   | 127.40  |           |     |
| 5     | 4.50   | 4.50   | 22.70   | 0.00    | 489.00   | 315.10   | 3231.30   | 3547.10  | 249.30   | 532.20  | 74.30   | 82.90   |           |     |
| 6     | 4.50   | 3.00   | 28.10   | 0.00    | 554.50   | 282.30   | 3244.00   | 3484.00  | 259.50   | 503.90  | 90.80   | 74.30   |           |     |
| 7     | 4.50   | 1.50   | 34.30   | 0.00    | 610.00   | 297.50   | 3237.70   | 3370.40  | 274.70   | 616.90  | 120.90  | 84.20   |           |     |
| 8     | 3.00   | 1.50   | 46.40   | 0.00    | 654.90   | 599.60   | 3237.70   | 3237.70  | 279.70   | 365.50  | 86.90   | 77.60   |           |     |
| 9     | 3.00   | 3.00   | 58.40   | 0.00    | 641.10   | 658.30   | 3218.70   | 3051.70  | 287.30   | 111.70  | 66.40   | 73.70   |           |     |
| 10    | 3.00   | 3.00   | 64.40   | 0.00    | 756.70   | 610.00   | 3187.10   | 2875.50  | 282.30   | 140.30  | 68.40   | 71.00   |           |     |
| 11    | 3.00   | 4.50   | 68.40   | 0.00    | 940.10   | 592.70   | 3139.70   | 2728.50  | 246.70   | 74.30   | 65.10   | 67.00   |           |     |
| 12    | 1.50   | 5.90   | 151.60  | 0.00    | 981.50   | 571.90   | 3086.90   | 2587.50  | 227.90   | 58.40   | 66.40   | 67.70   |           |     |
| 13    | 3.00   | 7.30   | 267.10  | 0.00    | 1072.40  | 616.90   | 3098.70   | 2468.00  | 208.40   | 50.40   | 70.40   | 69.00   |           |     |
| 14    | 5.90   | 7.30   | 123.50  | 0.00    | 1076.50  | 725.30   | 3151.40   | 2310.20  | 197.50   | 50.40   | 72.30   | 69.00   |           |     |
| 15    | 4.50   | 3.00   | 131.80  | 0.00    | 1055.90  | 936.00   | 3218.70   | 2022.20  | 190.90   | 57.10   | 63.10   | 70.40   |           |     |
| 16    | 8.80   | 0.00   | 147.20  | 0.00    | 1051.80  | 1193.50  | 3307.20   | 1706.00  | 188.80   | 63.10   | 55.70   | 71.00   |           |     |
| 17    | 7.30   | 0.00   | 164.70  | 0.00    | 1022.80  | 1384.40  | 3402.00   | 1398.10  | 199.70   | 63.70   | 60.40   | 71.00   |           |     |
| 18    | 4.50   | 0.00   | 151.60  | 0.00    | 993.90   | 1540.10  | 3521.90   | 1097.60  | 254.40   | 63.70   | 101.30  | 69.70   |           |     |
| 19    | 5.90   | 0.00   | 145.00  | 0.00    | 936.00   | 1660.80  | 3641.70   | 940.10   | 312.60   | 63.10   | 140.30  | 70.40   |           |     |
| 20    | 7.30   | 0.00   | 138.40  | 0.00    | 784.20   | 1620.60  | 3767.60   | 831.20   | 375.00   | 62.40   | 81.60   | 74.30   |           |     |
| 21    | 7.30   | 0.00   | 134.00  | 19.90   | 776.30   | 1512.20  | 3862.00   | 866.40   | 503.90   | 63.10   | 72.30   | 80.30   |           |     |
| 22    | 5.90   | 1.50   | 147.20  | 98.00   | 752.80   | 1731.10  | 3937.40   | 725.30   | 585.70   | 68.40   | 73.70   | 80.30   |           |     |
| 23    | 10.20  | 4.50   | 134.00  | 40.30   | 721.30   | 2103.00  | 3994.00   | 585.70   | 637.60   | 73.00   | 77.60   | 76.30   |           |     |
| 24    | 7.30   | 8.80   | 88.20   | 26.80   | 685.90   | 2163.00  | 4044.20   | 506.90   | 679.00   | 75.00   | 74.30   | 78.90   |           |     |
| 25    | 7.30   | 10.20  | 72.30   | 19.90   | 661.80   | 2217.60  | 4069.40   | 483.00   | 610.00   | 73.70   | 67.00   | 75.00   |           |     |
| 26    | 10.20  | 11.60  | 66.40   | 52.40   | 613.40   | 2266.70  | 4088.20   | 465.10   | 602.80   | 78.90   | 61.70   | 72.30   |           |     |
| 27    | 7.30   | 11.60  | 58.40   | 111.70  | 582.30   | 2397.30  | 4075.60   | 432.10   | 546.40   | 90.80   | 63.10   | 70.40   |           |     |
| 28    | 5.90   | 10.20  | 44.40   | 121.50  | 547.60   | 2598.80  | 4044.20   | 447.10   | 588.70   | 74.30   | 64.40   | 68.40   |           |     |
| 29    | 7.30   | 11.60  | 40.30   | 158.20  | 503.90   | 2822.60  | 3994.00   | 342.90   | 616.90   | 73.70   |         | 63.70   |           |     |
| 30    | 5.90   | 13.00  | 34.30   | 284.80  | 492.00   | 2981.30  | 3918.60   | 277.20   | 630.70   | 73.00   |         | 59.10   |           |     |
| 31    |        | 11.60  |         | 438.10  | 453.10   |          | 3855.70   |          | 641.10   | 70.40   |         | 57.70   |           |     |
| Total | 163.80 | 155.50 | 2602.50 | 1410.00 | 22296.20 | 37822.30 | 109159.20 | 57518.00 | 11749.30 | 6258.90 | 2273.60 | 2334.70 | 253744.00 | Ton |
| Mean  | 5.50   | 5.00   | 86.70   | 45.50   | 719.20   | 1260.70  | 3521.30   | 1917.30  | 379.00   | 201.90  | 81.20   | 75.30   |           |     |
| Max   | 10.20  | 13.00  | 267.10  | 438.10  | 1076.50  | 2981.30  | 4088.20   | 3780.20  | 679.00   | 661.80  | 191.80  | 127.40  | 4088.20   |     |
| Min   | 1.50   | 0.00   | 8.80    | 0.00    | 342.90   | 282.30   | 3075.20   | 277.20   | 188.80   | 50.40   | 55.70   | 57.70   | 0.00      |     |



**WATER YEAR : 2013****CHI RIVER BASIN****Lam Chiang at Ban Chiang , Chaiyaphum (E.72)**

Lat 16 - 01 - 26 N Long 101 - 30 - 12 E

**Location : on left bank at Ban Chiang School.**

|                                      |                            |                                                           |
|--------------------------------------|----------------------------|-----------------------------------------------------------|
|                                      | <b>Ban</b> Chiang          | <b>Amphoe</b> Phak Di Chumphon <b>Changwat</b> Chaiyaphum |
| <b>Drainage Area</b>                 | 323                        | sq.km.                                                    |
| <b>Method of sampling</b>            | Depth Integrating          |                                                           |
| <b>Instrument Used</b>               | US.D-49                    |                                                           |
| <b>Period of Available Records</b>   | 2004-Cont'd                |                                                           |
| <b>Actual Measurement</b>            | 2004-Cont'd                |                                                           |
| <b>Using Rating Curve Water Year</b> | 2013                       |                                                           |
| <b>Number of observation</b>         | 20                         |                                                           |
| <b>R-Square</b>                      | 0.7552                     |                                                           |
| <b>Remarks</b>                       | Continued Sediment Station |                                                           |

$$QS = 10.7080 QW^{0.99330}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep     | Oct     | Nov    | Dec    | Jan    | Feb    | Mar    | Annual  |            |
|-------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|---------|------------|
| 1     | 4.20   | 7.10   | 5.80   | 7.50   | 16.30  | 7.70    | 166.70  | 16.30  | 10.90  | 9.20   | 8.40   | 6.90   |         |            |
| 2     | 4.20   | 6.90   | 5.80   | 7.50   | 14.70  | 7.90    | 239.70  | 16.00  | 10.60  | 9.20   | 8.40   | 6.90   |         |            |
| 3     | 4.10   | 6.70   | 5.80   | 7.50   | 12.20  | 8.20    | 314.80  | 15.40  | 10.30  | 9.20   | 8.40   | 6.70   |         |            |
| 4     | 4.10   | 6.40   | 5.60   | 7.50   | 10.30  | 8.60    | 200.80  | 15.10  | 10.00  | 9.00   | 8.40   | 6.40   |         |            |
| 5     | 4.10   | 6.40   | 5.60   | 7.50   | 9.60   | 8.60    | 95.70   | 14.70  | 10.00  | 8.80   | 8.40   | 6.40   |         |            |
| 6     | 4.00   | 7.50   | 5.40   | 8.40   | 9.40   | 8.40    | 57.40   | 14.40  | 10.00  | 8.80   | 8.40   | 6.20   |         |            |
| 7     | 4.00   | 7.50   | 5.40   | 7.70   | 9.20   | 10.00   | 49.50   | 13.80  | 10.00  | 8.80   | 8.40   | 6.20   |         |            |
| 8     | 4.00   | 7.50   | 5.40   | 7.90   | 9.20   | 21.70   | 34.80   | 13.50  | 10.00  | 8.80   | 8.40   | 6.20   |         |            |
| 9     | 4.00   | 6.00   | 5.40   | 14.70  | 9.40   | 17.60   | 31.50   | 13.50  | 9.60   | 8.80   | 8.40   | 6.20   |         |            |
| 10    | 4.00   | 5.80   | 5.40   | 15.70  | 9.20   | 15.10   | 27.70   | 14.10  | 9.60   | 8.80   | 8.40   | 6.20   |         |            |
| 11    | 4.00   | 5.80   | 5.30   | 13.20  | 17.90  | 10.90   | 25.50   | 14.10  | 9.60   | 8.80   | 8.40   | 6.00   |         |            |
| 12    | 4.00   | 5.80   | 5.30   | 10.60  | 30.60  | 10.30   | 24.70   | 13.80  | 9.60   | 8.80   | 8.40   | 6.00   |         |            |
| 13    | 3.80   | 5.80   | 5.30   | 8.60   | 20.90  | 11.90   | 34.40   | 13.50  | 9.60   | 8.80   | 8.40   | 6.00   |         |            |
| 14    | 3.80   | 5.80   | 5.80   | 7.70   | 13.80  | 16.00   | 32.70   | 13.50  | 9.60   | 8.80   | 8.40   | 5.80   |         |            |
| 15    | 3.80   | 5.80   | 6.90   | 7.50   | 10.30  | 15.70   | 25.10   | 13.20  | 9.60   | 8.80   | 8.40   | 5.80   |         |            |
| 16    | 3.80   | 5.60   | 6.90   | 6.90   | 10.30  | 15.40   | 26.00   | 13.20  | 9.60   | 8.80   | 8.40   | 5.80   |         |            |
| 17    | 3.80   | 5.60   | 6.90   | 6.90   | 10.00  | 15.40   | 69.00   | 13.20  | 9.60   | 8.80   | 8.40   | 5.80   |         |            |
| 18    | 3.80   | 5.60   | 6.90   | 6.70   | 10.00  | 15.70   | 242.00  | 12.80  | 9.60   | 8.80   | 8.40   | 5.80   |         |            |
| 19    | 3.80   | 6.20   | 6.90   | 5.80   | 9.60   | 16.00   | 171.80  | 12.80  | 9.60   | 8.80   | 8.40   | 5.80   |         |            |
| 20    | 4.10   | 13.20  | 6.90   | 5.80   | 9.60   | 19.20   | 87.00   | 12.80  | 9.60   | 8.80   | 8.40   | 5.80   |         |            |
| 21    | 4.10   | 11.60  | 6.90   | 5.80   | 10.00  | 100.40  | 44.00   | 12.50  | 9.60   | 8.60   | 8.40   | 5.80   |         |            |
| 22    | 4.10   | 7.70   | 6.70   | 5.80   | 12.20  | 450.50  | 31.90   | 12.50  | 9.60   | 8.60   | 8.40   | 7.70   |         |            |
| 23    | 4.10   | 6.20   | 6.70   | 5.60   | 14.40  | 418.30  | 26.80   | 12.50  | 9.60   | 8.60   | 8.40   | 7.10   |         |            |
| 24    | 4.50   | 6.00   | 6.90   | 7.70   | 12.50  | 242.00  | 24.30   | 12.20  | 9.60   | 8.60   | 8.40   | 6.70   |         |            |
| 25    | 11.60  | 5.80   | 8.20   | 74.80  | 11.90  | 62.30   | 22.60   | 11.90  | 9.60   | 8.80   | 8.40   | 6.40   |         |            |
| 26    | 11.60  | 5.60   | 7.50   | 28.90  | 11.60  | 42.10   | 20.50   | 11.90  | 9.60   | 9.00   | 7.70   | 6.20   |         |            |
| 27    | 10.60  | 5.40   | 7.30   | 14.70  | 10.00  | 39.90   | 19.60   | 11.60  | 9.60   | 9.00   | 7.10   | 6.00   |         |            |
| 28    | 10.30  | 5.40   | 6.90   | 12.20  | 9.00   | 284.10  | 19.20   | 11.60  | 9.60   | 8.80   | 6.90   | 5.60   |         |            |
| 29    | 10.00  | 5.30   | 6.70   | 16.30  | 8.80   | 266.60  | 18.60   | 11.20  | 9.40   | 8.60   |        | 5.00   |         |            |
| 30    | 9.60   | 5.30   | 6.40   | 21.70  | 8.80   | 508.00  | 18.20   | 11.20  | 9.40   | 8.60   |        | 4.70   |         |            |
| 31    |        | 5.10   |        | 19.60  | 8.40   |         | 17.60   |        | 9.40   | 8.40   |        | 4.70   |         |            |
| Total | 159.90 | 202.40 | 188.90 | 384.70 | 370.10 | 2674.50 | 2220.10 | 398.80 | 302.00 | 273.00 | 231.70 | 188.80 | 7594.90 | <b>Ton</b> |
| Mean  | 5.30   | 6.50   | 6.30   | 12.40  | 11.90  | 89.20   | 71.60   | 13.30  | 9.70   | 8.80   | 8.30   | 6.10   |         |            |
| Max   | 11.60  | 13.20  | 8.20   | 74.80  | 30.60  | 508.00  | 314.80  | 16.30  | 10.90  | 9.20   | 8.40   | 7.70   | 508.00  |            |
| Min   | 3.80   | 5.10   | 5.30   | 5.60   | 8.40   | 7.70    | 17.60   | 11.20  | 9.40   | 8.40   | 6.90   | 4.70   | 3.80    |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Saphung at Ban Na Charoen , Chaiyaphum (E.83)**

Lat 16 - 09 - 21 N Long 101 - 39 - 13 E

**Location : on left bank at Ban Na Charoen.**

|                                      |                            |                              |                            |
|--------------------------------------|----------------------------|------------------------------|----------------------------|
|                                      | <b>Ban</b> Na Charoen      | <b>Amphoe</b> Nong Bua Daeng | <b>Changwat</b> Chaiyaphum |
| <b>Drainage Area</b>                 | 744 sq.km.                 |                              |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                              |                            |
| <b>Instrument Used</b>               | US.D-49                    |                              |                            |
| <b>Period of Available Records</b>   | 2005-Cont'd                |                              |                            |
| <b>Actual Measurement</b>            | 2005-Cont'd                |                              |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                              |                            |
| <b>Number of observation</b>         | 20                         |                              |                            |
| <b>R-Square</b>                      | 0.9114                     |                              |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                              |                            |

$$QS = 6.8216 QW^{1.04360}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul    | Aug     | Sep      | Oct     | Nov     | Dec    | Jan    | Feb    | Mar    | Annual   |            |
|-------|-------|--------|--------|--------|---------|----------|---------|---------|--------|--------|--------|--------|----------|------------|
| 1     | 1.90  | 0.60   | 5.20   | 4.80   | 27.50   | 89.00    | 382.40  | 68.80   | 12.70  | 6.70   | 5.00   | 3.90   |          |            |
| 2     | 1.90  | 0.60   | 5.00   | 4.80   | 24.20   | 67.60    | 371.80  | 66.30   | 12.50  | 6.70   | 4.90   | 3.80   |          |            |
| 3     | 1.90  | 0.30   | 4.80   | 4.70   | 39.50   | 51.50    | 409.60  | 63.20   | 12.30  | 6.70   | 4.80   | 3.80   |          |            |
| 4     | 1.90  | 0.60   | 5.50   | 5.50   | 31.70   | 44.60    | 361.40  | 62.60   | 11.90  | 6.60   | 4.80   | 3.70   |          |            |
| 5     | 1.90  | 0.90   | 6.10   | 5.50   | 27.50   | 40.90    | 324.20  | 61.90   | 11.70  | 6.60   | 4.80   | 3.70   |          |            |
| 6     | 1.90  | 2.30   | 9.50   | 5.80   | 20.90   | 40.00    | 266.20  | 60.70   | 11.40  | 6.60   | 4.80   | 3.70   |          |            |
| 7     | 1.60  | 4.40   | 6.50   | 11.30  | 18.80   | 37.70    | 202.80  | 58.80   | 11.30  | 6.60   | 4.80   | 3.70   |          |            |
| 8     | 1.60  | 4.40   | 6.80   | 16.70  | 20.90   | 87.70    | 178.60  | 52.00   | 11.10  | 6.50   | 4.80   | 3.70   |          |            |
| 9     | 1.60  | 4.10   | 6.00   | 31.70  | 33.50   | 84.60    | 162.30  | 40.00   | 10.90  | 6.50   | 4.80   | 3.70   |          |            |
| 10    | 1.60  | 4.10   | 5.50   | 28.10  | 77.60   | 83.90    | 150.00  | 39.00   | 10.60  | 6.50   | 4.70   | 3.60   |          |            |
| 11    | 1.30  | 4.10   | 4.80   | 19.40  | 205.30  | 106.20   | 140.90  | 38.10   | 9.80   | 6.40   | 4.70   | 3.60   |          |            |
| 12    | 1.30  | 4.10   | 5.20   | 14.90  | 155.10  | 115.80   | 132.50  | 36.70   | 9.10   | 6.30   | 4.60   | 3.60   |          |            |
| 13    | 1.30  | 4.00   | 5.40   | 14.90  | 110.70  | 171.40   | 123.50  | 35.80   | 8.80   | 6.30   | 4.60   | 3.50   |          |            |
| 14    | 1.30  | 4.10   | 5.30   | 12.00  | 90.30   | 305.10   | 112.60  | 31.30   | 8.40   | 6.30   | 4.60   | 3.50   |          |            |
| 15    | 0.90  | 4.40   | 5.40   | 11.30  | 62.60   | 291.10   | 106.80  | 30.30   | 10.30  | 6.20   | 4.50   | 3.50   |          |            |
| 16    | 0.90  | 4.10   | 5.40   | 10.10  | 55.10   | 282.10   | 122.80  | 27.80   | 11.70  | 6.20   | 4.40   | 3.40   |          |            |
| 17    | 0.90  | 4.00   | 5.30   | 9.10   | 45.50   | 503.40   | 161.00  | 27.20   | 11.90  | 6.20   | 4.40   | 3.40   |          |            |
| 18    | 0.90  | 4.00   | 5.30   | 8.30   | 34.90   | 287.10   | 235.70  | 26.90   | 11.60  | 6.10   | 4.30   | 3.40   |          |            |
| 19    | 0.60  | 4.10   | 5.10   | 7.70   | 29.40   | 183.10   | 211.00  | 26.60   | 11.30  | 6.00   | 4.30   | 3.40   |          |            |
| 20    | 0.30  | 4.60   | 4.80   | 7.50   | 27.50   | 266.20   | 159.00  | 26.00   | 11.00  | 6.00   | 4.20   | 3.40   |          |            |
| 21    | 0.30  | 4.20   | 4.80   | 8.00   | 23.60   | 696.90   | 146.70  | 24.50   | 10.90  | 5.90   | 4.10   | 3.40   |          |            |
| 22    | 0.60  | 4.10   | 4.80   | 8.80   | 25.40   | 2180.60  | 128.00  | 22.10   | 10.60  | 5.80   | 4.10   | 3.30   |          |            |
| 23    | 1.30  | 4.10   | 4.80   | 10.40  | 49.20   | 1140.50  | 110.00  | 21.20   | 10.30  | 5.50   | 4.10   | 3.30   |          |            |
| 24    | 1.60  | 4.30   | 4.80   | 46.00  | 68.80   | 719.70   | 109.40  | 20.30   | 9.80   | 5.20   | 4.00   | 3.30   |          |            |
| 25    | 1.30  | 4.60   | 4.80   | 103.00 | 51.00   | 563.70   | 120.90  | 18.80   | 9.40   | 5.30   | 4.00   | 3.30   |          |            |
| 26    | 0.90  | 5.40   | 4.80   | 51.50  | 43.60   | 451.10   | 111.30  | 17.60   | 8.70   | 5.30   | 3.90   | 3.00   |          |            |
| 27    | 0.90  | 4.60   | 4.80   | 80.10  | 67.60   | 744.60   | 107.50  | 17.00   | 8.00   | 5.20   | 3.90   | 3.00   |          |            |
| 28    | 0.90  | 4.80   | 4.70   | 92.20  | 80.10   | 677.20   | 102.40  | 16.10   | 7.50   | 5.10   | 3.90   | 3.00   |          |            |
| 29    | 0.60  | 6.30   | 4.70   | 90.90  | 78.90   | 615.20   | 94.10   | 15.50   | 7.10   | 5.10   |        | 2.60   |          |            |
| 30    | 0.60  | 5.70   | 4.60   | 55.10  | 61.90   | 534.50   | 87.70   | 15.20   | 6.80   | 5.10   |        | 2.60   |          |            |
| 31    |       | 5.50   |        | 35.80  | 55.70   |          | 83.30   |         | 6.70   | 5.00   |        | 2.60   |          |            |
| Total | 36.50 | 117.40 | 160.50 | 815.90 | 1744.30 | 11463.00 | 5516.40 | 1068.30 | 316.10 | 186.50 | 124.80 | 105.40 | 21655.10 | <b>Ton</b> |
| Mean  | 1.20  | 3.80   | 5.40   | 26.30  | 56.30   | 382.10   | 177.90  | 35.60   | 10.20  | 6.00   | 4.50   | 3.40   |          |            |
| Max   | 1.90  | 6.30   | 9.50   | 103.00 | 205.30  | 2180.60  | 409.60  | 68.80   | 12.70  | 6.70   | 5.00   | 3.90   | 2180.60  |            |
| Min   | 0.30  | 0.30   | 4.60   | 4.70   | 18.80   | 37.70    | 83.30   | 15.20   | 6.70   | 5.00   | 3.90   | 2.60   | 0.30     |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Nang Dad Khok , Chaiyaphum (E.84)**

Lat 16 - 09 - 08 N Long 101 - 35 - 07 E

**Location : on left bank at Ban Nang Dad Khok.**

|                                      |                            |                              |                            |
|--------------------------------------|----------------------------|------------------------------|----------------------------|
|                                      | <b>Ban</b> Nang Dad Khok   | <b>Amphoe</b> Nong Bua Daeng | <b>Changwat</b> Chaiyaphum |
| <b>Drainage Area</b>                 | 508 sq.km.                 |                              |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                              |                            |
| <b>Instrument Used</b>               | US.D-49                    |                              |                            |
| <b>Period of Available Records</b>   | 2004-Cont'd                |                              |                            |
| <b>Actual Measurement</b>            | 2004-Cont'd                |                              |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                              |                            |
| <b>Number of observation</b>         | 20                         |                              |                            |
| <b>R-Square</b>                      | 0.9102                     |                              |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                              |                            |

$$QS = 6.6253 QW^{1.34280}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul     | Aug     | Sep      | Oct     | Nov    | Dec    | Jan    | Feb    | Mar    | Annual   |            |
|-------|--------|--------|--------|---------|---------|----------|---------|--------|--------|--------|--------|--------|----------|------------|
| 1     | 8.00   | 8.00   | 10.90  | 10.40   | 47.00   | 42.60    | 412.90  | 39.80  | 17.90  | 14.00  | 10.90  | 8.00   |          |            |
| 2     | 8.00   | 7.50   | 15.10  | 10.40   | 35.60   | 44.10    | 390.00  | 37.00  | 17.90  | 14.00  | 10.90  | 8.50   |          |            |
| 3     | 8.00   | 7.50   | 11.40  | 9.90    | 23.90   | 31.60    | 598.20  | 34.90  | 17.90  | 13.50  | 10.90  | 8.00   |          |            |
| 4     | 7.50   | 8.00   | 11.40  | 14.60   | 22.70   | 22.10    | 655.00  | 32.90  | 17.40  | 13.50  | 10.90  | 8.00   |          |            |
| 5     | 7.50   | 8.50   | 17.40  | 22.70   | 19.70   | 19.10    | 479.30  | 31.60  | 17.40  | 13.50  | 10.40  | 8.00   |          |            |
| 6     | 7.50   | 12.50  | 14.00  | 30.30   | 17.40   | 17.40    | 386.30  | 30.90  | 16.80  | 13.50  | 10.40  | 8.00   |          |            |
| 7     | 7.50   | 12.50  | 13.00  | 93.10   | 18.50   | 16.80    | 159.80  | 29.60  | 16.80  | 13.50  | 10.40  | 7.50   |          |            |
| 8     | 7.50   | 11.90  | 11.90  | 140.00  | 23.90   | 37.70    | 110.30  | 29.00  | 16.20  | 13.50  | 10.40  | 7.50   |          |            |
| 9     | 7.50   | 10.90  | 10.40  | 67.60   | 42.60   | 76.80    | 96.00   | 29.00  | 16.20  | 13.00  | 10.40  | 7.10   |          |            |
| 10    | 7.10   | 10.40  | 8.90   | 55.20   | 38.40   | 44.80    | 65.00   | 27.00  | 16.20  | 13.00  | 10.40  | 7.10   |          |            |
| 11    | 7.10   | 9.90   | 8.90   | 70.20   | 240.30  | 33.60    | 58.80   | 26.40  | 15.70  | 13.00  | 10.40  | 6.60   |          |            |
| 12    | 7.10   | 9.40   | 13.00  | 37.00   | 244.70  | 29.60    | 54.40   | 26.40  | 15.70  | 13.00  | 10.40  | 6.60   |          |            |
| 13    | 7.10   | 8.50   | 17.90  | 25.10   | 128.50  | 75.40    | 49.90   | 25.80  | 15.70  | 12.50  | 10.40  | 6.60   |          |            |
| 14    | 6.60   | 8.00   | 13.50  | 17.90   | 82.10   | 401.40   | 79.40   | 25.80  | 15.70  | 11.90  | 9.90   | 6.30   |          |            |
| 15    | 6.60   | 8.00   | 12.50  | 16.20   | 49.90   | 443.80   | 63.80   | 25.10  | 15.70  | 11.90  | 9.90   | 6.30   |          |            |
| 16    | 6.60   | 7.50   | 11.40  | 16.20   | 49.90   | 447.70   | 51.40   | 24.50  | 15.70  | 11.40  | 9.90   | 6.30   |          |            |
| 17    | 6.60   | 7.50   | 10.40  | 13.50   | 44.10   | 548.20   | 61.30   | 24.50  | 18.50  | 11.40  | 9.90   | 5.90   |          |            |
| 18    | 6.60   | 8.90   | 9.90   | 12.50   | 31.60   | 519.50   | 266.20  | 23.90  | 16.80  | 10.90  | 9.90   | 5.90   |          |            |
| 19    | 6.60   | 9.90   | 11.40  | 11.40   | 26.40   | 192.60   | 275.10  | 23.30  | 16.80  | 11.40  | 9.90   | 6.30   |          |            |
| 20    | 6.60   | 9.40   | 11.40  | 11.40   | 22.70   | 335.20   | 227.00  | 22.70  | 16.20  | 11.40  | 9.90   | 6.30   |          |            |
| 21    | 6.30   | 9.40   | 11.90  | 11.40   | 20.90   | 581.40   | 190.50  | 22.70  | 15.70  | 11.40  | 9.40   | 6.30   |          |            |
| 22    | 6.60   | 8.90   | 10.90  | 10.90   | 22.70   | 1823.70  | 126.60  | 22.10  | 15.70  | 11.40  | 9.40   | 6.30   |          |            |
| 23    | 10.40  | 8.90   | 10.90  | 15.10   | 56.00   | 2436.60  | 63.80   | 21.50  | 15.70  | 11.40  | 9.40   | 6.60   |          |            |
| 24    | 10.90  | 8.90   | 11.40  | 98.80   | 138.10  | 1603.30  | 56.00   | 20.90  | 15.70  | 11.40  | 8.50   | 6.60   |          |            |
| 25    | 11.40  | 8.50   | 11.90  | 201.10  | 61.30   | 1283.50  | 54.40   | 20.30  | 15.70  | 11.40  | 8.00   | 6.60   |          |            |
| 26    | 10.90  | 8.00   | 12.50  | 71.50   | 46.20   | 1040.70  | 53.70   | 19.70  | 15.70  | 11.40  | 8.00   | 6.60   |          |            |
| 27    | 9.40   | 8.00   | 11.90  | 40.50   | 36.30   | 1307.40  | 52.90   | 19.70  | 15.10  | 11.40  | 8.50   | 6.60   |          |            |
| 28    | 8.90   | 6.60   | 11.40  | 79.40   | 29.00   | 1675.90  | 52.20   | 19.10  | 14.60  | 11.40  | 8.00   | 6.60   |          |            |
| 29    | 8.50   | 5.90   | 11.40  | 308.60  | 23.90   | 1446.40  | 51.40   | 19.10  | 14.00  | 11.40  |        | 6.30   |          |            |
| 30    | 8.50   | 4.90   | 10.90  | 194.70  | 18.50   | 1002.10  | 50.70   | 18.50  | 14.00  | 11.40  |        | 6.30   |          |            |
| 31    |        | 4.60   |        | 67.60   | 16.80   |          | 48.40   |        | 13.50  | 11.40  |        | 6.30   |          |            |
| Total | 235.40 | 267.30 | 359.80 | 1785.20 | 1679.60 | 17581.00 | 5340.70 | 773.70 | 498.60 | 379.20 | 275.70 | 211.90 | 29388.10 | <b>Ton</b> |
| Mean  | 7.80   | 8.60   | 12.00  | 57.60   | 54.20   | 586.00   | 172.30  | 25.80  | 16.10  | 12.20  | 9.80   | 6.80   |          |            |
| Max   | 11.40  | 12.50  | 17.90  | 308.60  | 244.70  | 2436.60  | 655.00  | 39.80  | 18.50  | 14.00  | 10.90  | 8.50   | 2436.60  |            |
| Min   | 6.30   | 4.60   | 8.90   | 9.90    | 16.80   | 16.80    | 48.40   | 18.50  | 13.50  | 10.90  | 8.00   | 5.90   | 4.60     |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Nam Choen at Ban Non Han , Khon Kaen (E.85)**

Lat 16 - 35 - 28 N Long 101 - 59 - 02 E

**Location : on left bank at Ban Non Han.**

|                                      | Ban Non Han                | Amphoe Chum Pae | Changwat Khon Kaen |
|--------------------------------------|----------------------------|-----------------|--------------------|
| <b>Drainage Area</b>                 | 1,218 sq.km.               |                 |                    |
| <b>Method of sampling</b>            | Depth Integrating          |                 |                    |
| <b>Instrument Used</b>               | US.D-49                    |                 |                    |
| <b>Period of Available Records</b>   | 2005-Cont'd                |                 |                    |
| <b>Actual Measurement</b>            | 2005-Cont'd                |                 |                    |
| <b>Using Rating Curve Water Year</b> | 2008-2013                  |                 |                    |
| <b>Number of observation</b>         | 117                        |                 |                    |
| <b>R-Square</b>                      | 0.7004                     |                 |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                 |                    |

$$QS = 4.8169 QW^{1.28180}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May   | Jun    | Jul     | Aug     | Sep     | Oct     | Nov     | Dec    | Jan    | Feb    | Mar     | Annual   |     |
|-------|--------|-------|--------|---------|---------|---------|---------|---------|--------|--------|--------|---------|----------|-----|
| 1     | 72.10  | 2.10  | 6.20   | 0.60    | 41.50   | 94.20   | 298.30  | 85.10   | 12.80  | 34.50  | 33.70  | 44.20   |          |     |
| 2     | 60.60  | 2.10  | 4.70   | 0.40    | 36.30   | 94.80   | 283.10  | 83.10   | 11.10  | 27.70  | 32.00  | 41.50   |          |     |
| 3     | 49.00  | 2.10  | 6.40   | 8.00    | 72.50   | 146.00  | 269.60  | 78.60   | 12.80  | 21.00  | 31.10  | 40.60   |          |     |
| 4     | 40.60  | 2.30  | 8.90   | 75.50   | 55.90   | 81.80   | 257.40  | 74.50   | 13.20  | 28.40  | 29.00  | 39.80   |          |     |
| 5     | 31.10  | 2.30  | 8.20   | 126.00  | 80.20   | 72.10   | 249.40  | 72.50   | 11.50  | 29.00  | 27.10  | 38.90   |          |     |
| 6     | 25.20  | 2.40  | 21.60  | 117.70  | 52.40   | 41.50   | 229.70  | 65.40   | 8.90   | 26.50  | 25.20  | 38.90   |          |     |
| 7     | 19.20  | 2.40  | 25.90  | 162.60  | 71.50   | 61.80   | 195.20  | 57.10   | 9.50   | 13.20  | 24.00  | 38.00   |          |     |
| 8     | 14.50  | 2.60  | 21.00  | 211.00  | 76.50   | 99.90   | 148.40  | 47.00   | 8.60   | 4.70   | 22.20  | 38.00   |          |     |
| 9     | 11.10  | 2.60  | 14.10  | 245.40  | 94.20   | 176.50  | 110.20  | 32.80   | 8.60   | 3.40   | 17.50  | 38.00   |          |     |
| 10    | 10.30  | 2.80  | 8.90   | 218.10  | 128.20  | 200.80  | 86.80   | 36.30   | 8.60   | 2.60   | 14.10  | 37.10   |          |     |
| 11    | 9.50   | 2.80  | 11.90  | 126.70  | 168.20  | 195.20  | 77.60   | 38.90   | 7.30   | 2.30   | 14.50  | 37.10   |          |     |
| 12    | 8.90   | 2.90  | 31.10  | 114.60  | 242.80  | 196.30  | 57.10   | 32.00   | 6.40   | 2.30   | 15.80  | 37.10   |          |     |
| 13    | 8.60   | 2.90  | 24.60  | 108.40  | 283.10  | 252.00  | 34.50   | 30.30   | 7.00   | 4.40   | 18.00  | 36.30   |          |     |
| 14    | 8.00   | 3.10  | 19.20  | 92.20   | 286.10  | 295.20  | 26.50   | 28.40   | 6.20   | 29.70  | 21.00  | 36.30   |          |     |
| 15    | 7.60   | 3.10  | 17.10  | 61.80   | 284.60  | 306.70  | 19.80   | 27.70   | 3.60   | 36.30  | 24.00  | 35.40   |          |     |
| 16    | 7.30   | 3.30  | 15.40  | 23.40   | 280.10  | 305.00  | 20.40   | 24.60   | 5.30   | 38.90  | 27.70  | 35.40   |          |     |
| 17    | 6.70   | 3.30  | 15.40  | 13.20   | 242.80  | 301.70  | 33.70   | 14.10   | 17.50  | 36.30  | 30.30  | 34.50   |          |     |
| 18    | 6.20   | 3.40  | 15.40  | 9.50    | 157.00  | 292.20  | 147.60  | 12.80   | 27.10  | 32.80  | 32.00  | 33.70   |          |     |
| 19    | 5.30   | 3.40  | 12.80  | 9.20    | 99.30   | 278.60  | 254.70  | 11.10   | 53.60  | 25.90  | 32.80  | 33.70   |          |     |
| 20    | 4.70   | 3.40  | 9.90   | 22.80   | 75.20   | 268.10  | 284.60  | 9.50    | 63.00  | 4.10   | 34.50  | 32.80   |          |     |
| 21    | 4.40   | 3.60  | 14.90  | 64.20   | 46.10   | 268.10  | 262.70  | 9.50    | 63.00  | 8.00   | 38.00  | 32.80   |          |     |
| 22    | 4.10   | 3.60  | 15.40  | 49.00   | 29.70   | 281.60  | 221.90  | 8.60    | 58.20  | 27.10  | 34.50  | 32.00   |          |     |
| 23    | 3.90   | 3.60  | 15.40  | 39.80   | 29.00   | 301.70  | 168.20  | 8.60    | 57.10  | 31.10  | 27.70  | 32.00   |          |     |
| 24    | 3.40   | 3.90  | 15.40  | 47.90   | 31.10   | 296.80  | 121.40  | 8.90    | 50.10  | 34.50  | 38.00  | 32.00   |          |     |
| 25    | 2.90   | 3.90  | 12.80  | 81.40   | 32.80   | 283.10  | 94.20   | 14.90   | 36.30  | 28.40  | 39.80  | 31.10   |          |     |
| 26    | 2.60   | 4.10  | 6.70   | 81.80   | 28.40   | 271.10  | 132.10  | 19.80   | 21.00  | 25.20  | 40.60  | 31.10   |          |     |
| 27    | 2.40   | 4.10  | 4.10   | 73.50   | 22.80   | 274.00  | 159.80  | 18.60   | 14.10  | 28.40  | 43.30  | 31.10   |          |     |
| 28    | 2.30   | 4.40  | 3.30   | 60.60   | 16.70   | 301.70  | 126.70  | 18.60   | 9.90   | 31.10  | 47.00  | 30.30   |          |     |
| 29    | 2.30   | 4.10  | 3.10   | 70.20   | 16.70   | 330.60  | 96.40   | 16.70   | 8.20   | 29.00  |        | 30.30   |          |     |
| 30    | 2.10   | 3.90  | 2.90   | 61.80   | 30.30   | 311.80  | 92.20   | 14.50   | 8.00   | 29.70  |        | 30.30   |          |     |
| 31    |        | 3.60  |        | 51.30   | 82.20   |         | 91.00   |         | 7.60   | 34.50  |        | 30.30   |          |     |
| Total | 436.90 | 98.10 | 392.70 | 2428.60 | 3194.20 | 6680.90 | 4651.20 | 1000.50 | 636.10 | 711.00 | 815.40 | 1090.60 | 22136.20 | Ton |
| Mean  | 14.60  | 3.20  | 13.10  | 78.30   | 103.00  | 222.70  | 150.00  | 33.30   | 20.50  | 22.90  | 29.10  | 35.20   |          |     |
| Max   | 72.10  | 4.40  | 31.10  | 245.40  | 286.10  | 330.60  | 298.30  | 85.10   | 63.00  | 38.90  | 47.00  | 44.20   | 330.60   |     |
| Min   | 2.10   | 2.10  | 2.90   | 0.40    | 16.70   | 41.50   | 19.80   | 8.60    | 3.60   | 2.30   | 14.10  | 30.30   | 0.40     |     |

**WATER YEAR : 2013****CHI RIVER BASIN****Lam Pao at Ban Wang Hin , Kalasin (E.87)**

Lat 16 - 20 - 26 N Long 103 - 34 - 36 E

**Location : on left bank at Ban Wang Hin.**

|                                      |                            |                         |                         |
|--------------------------------------|----------------------------|-------------------------|-------------------------|
|                                      | <b>Ban</b> Wang Hin        | <b>Amphoe</b> Kamalasai | <b>Changwat</b> Kalasin |
| <b>Drainage Area</b>                 | 7,068 sq.km.               |                         |                         |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                         |
| <b>Instrument Used</b>               | US.D-49                    |                         |                         |
| <b>Period of Available Records</b>   | 2004-Cont'd                |                         |                         |
| <b>Actual Measurement</b>            | 2004-Cont'd                |                         |                         |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                         |
| <b>Number of observation</b>         | 16                         |                         |                         |
| <b>R-Square</b>                      | 0.8454                     |                         |                         |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                         |

$$QS = 3.7139 QW^{1.1902}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug     | Sep      | Oct     | Nov     | Dec    | Jan     | Feb     | Mar     | Annual   |            |
|-------|--------|--------|--------|--------|---------|----------|---------|---------|--------|---------|---------|---------|----------|------------|
| 1     | 15.40  | 24.00  | 19.30  | 5.10   | 21.10   | 29.50    | 499.00  | 217.80  | 10.00  | 93.20   | 105.20  | 108.20  |          |            |
| 2     | 14.80  | 23.40  | 21.10  | 6.00   | 20.50   | 30.10    | 549.70  | 201.00  | 7.00   | 93.20   | 100.70  | 108.20  |          |            |
| 3     | 14.80  | 22.80  | 25.80  | 5.50   | 20.50   | 30.10    | 400.10  | 172.90  | 6.00   | 93.20   | 94.70   | 108.20  |          |            |
| 4     | 14.80  | 22.20  | 27.60  | 5.10   | 21.10   | 30.70    | 346.60  | 129.80  | 5.10   | 93.20   | 90.30   | 105.20  |          |            |
| 5     | 14.80  | 22.20  | 28.90  | 5.10   | 23.40   | 33.20    | 299.60  | 104.90  | 5.10   | 93.20   | 87.40   | 105.20  |          |            |
| 6     | 14.80  | 22.20  | 30.10  | 5.10   | 27.60   | 40.20    | 255.60  | 95.30   | 4.60   | 93.20   | 84.40   | 105.20  |          |            |
| 7     | 14.80  | 22.20  | 30.10  | 4.60   | 42.80   | 53.50    | 201.00  | 88.20   | 3.70   | 93.20   | 84.40   | 103.70  |          |            |
| 8     | 14.30  | 21.70  | 27.60  | 5.50   | 71.50   | 60.30    | 139.20  | 81.20   | 3.70   | 93.20   | 83.00   | 103.70  |          |            |
| 9     | 14.30  | 21.70  | 24.60  | 5.50   | 57.50   | 56.20    | 96.50   | 63.10   | 3.70   | 96.20   | 84.40   | 103.70  |          |            |
| 10    | 14.30  | 21.70  | 22.80  | 8.50   | 63.10   | 64.50    | 80.10   | 53.30   | 3.70   | 97.70   | 88.80   | 105.20  |          |            |
| 11    | 14.30  | 21.10  | 20.50  | 8.50   | 161.80  | 77.20    | 78.90   | 49.00   | 3.70   | 96.20   | 96.20   | 108.20  |          |            |
| 12    | 14.30  | 21.10  | 17.60  | 8.50   | 198.70  | 157.30   | 77.80   | 35.50   | 3.70   | 87.40   | 99.20   | 108.20  |          |            |
| 13    | 14.30  | 21.10  | 18.80  | 9.00   | 187.00  | 283.00   | 73.20   | 16.30   | 4.20   | 87.40   | 103.70  | 108.20  |          |            |
| 14    | 14.30  | 20.50  | 28.90  | 9.00   | 131.30  | 497.40   | 67.50   | 8.10    | 3.30   | 90.30   | 108.20  | 109.70  |          |            |
| 15    | 14.30  | 19.90  | 21.70  | 10.00  | 68.70   | 638.10   | 66.40   | 4.00    | 3.30   | 91.80   | 108.20  | 109.70  |          |            |
| 16    | 14.30  | 19.30  | 25.20  | 10.50  | 38.90   | 650.60   | 72.10   | 2.50    | 3.30   | 93.20   | 105.20  | 111.30  |          |            |
| 17    | 14.30  | 18.80  | 24.60  | 8.50   | 33.20   | 573.20   | 91.80   | 1.10    | 3.30   | 96.20   | 103.70  | 115.80  |          |            |
| 18    | 13.70  | 18.20  | 24.00  | 10.50  | 28.20   | 582.40   | 118.10  | 0.90    | 3.30   | 96.20   | 105.20  | 118.90  |          |            |
| 19    | 14.30  | 18.80  | 21.70  | 10.00  | 23.40   | 610.10   | 165.60  | 0.70    | 3.30   | 94.70   | 106.70  | 122.00  |          |            |
| 20    | 14.80  | 19.30  | 12.60  | 10.00  | 19.90   | 622.50   | 194.30  | 11.10   | 6.50   | 96.20   | 106.70  | 115.80  |          |            |
| 21    | 15.40  | 19.30  | 8.50   | 11.60  | 18.20   | 613.20   | 214.50  | 12.60   | 17.10  | 97.70   | 106.70  | 103.70  |          |            |
| 22    | 14.80  | 18.80  | 7.50   | 14.30  | 17.60   | 600.90   | 217.80  | 12.60   | 25.80  | 99.20   | 106.70  | 102.20  |          |            |
| 23    | 14.30  | 18.80  | 7.50   | 19.30  | 18.20   | 585.40   | 225.50  | 13.20   | 33.20  | 100.70  | 108.20  | 105.20  |          |            |
| 24    | 13.70  | 19.30  | 7.50   | 20.50  | 19.90   | 557.90   | 234.00  | 13.20   | 38.90  | 102.20  | 108.20  | 106.70  |          |            |
| 25    | 13.70  | 19.30  | 7.50   | 19.30  | 22.20   | 527.50   | 234.00  | 12.10   | 48.10  | 96.20   | 105.20  | 108.20  |          |            |
| 26    | 15.40  | 19.30  | 8.00   | 20.50  | 24.00   | 524.50   | 234.00  | 11.10   | 53.50  | 102.20  | 108.20  | 108.20  |          |            |
| 27    | 19.30  | 18.20  | 8.50   | 21.10  | 24.60   | 682.00   | 234.00  | 11.10   | 58.90  | 102.20  | 108.20  | 108.20  |          |            |
| 28    | 21.70  | 17.60  | 7.00   | 21.70  | 25.80   | 873.50   | 234.00  | 11.10   | 68.70  | 102.20  | 108.20  | 109.70  |          |            |
| 29    | 22.80  | 15.40  | 5.50   | 22.20  | 29.50   | 948.40   | 234.00  | 11.10   | 80.10  | 102.20  |         | 103.70  |          |            |
| 30    | 23.40  | 14.80  | 5.10   | 21.70  | 31.30   | 621.10   | 234.00  | 11.10   | 85.90  | 105.20  |         | 93.20   |          |            |
| 31    |        | 18.80  |        | 21.10  | 30.10   |          | 229.80  |         | 91.80  | 105.20  |         | 90.30   |          |            |
| Total | 464.50 | 621.80 | 546.10 | 363.80 | 1521.60 | 11654.50 | 6398.70 | 1455.90 | 692.50 | 2984.30 | 2805.90 | 3323.60 | 32833.20 | <b>Ton</b> |
| Mean  | 15.50  | 20.10  | 18.20  | 11.70  | 49.10   | 388.50   | 206.40  | 48.50   | 22.30  | 96.30   | 100.20  | 107.20  |          |            |
| Max   | 23.40  | 24.00  | 30.10  | 22.20  | 198.70  | 948.40   | 549.70  | 217.80  | 91.80  | 105.20  | 108.20  | 122.00  | 948.40   |            |
| Min   | 13.70  | 14.80  | 5.10   | 4.60   | 17.60   | 29.50    | 66.40   | 0.70    | 3.30   | 87.40   | 83.00   | 90.30   | 0.70     |            |

**WATER YEAR : 2013****CHI RIVER BASIN****Chi River at Ban Kui Chuak , Maha Sarakham (E.91)**

Lat 16 - 21 - 58 N Long 102 - 56 - 59 E

**Location : on left bank at Ban Kui Chuak.**

|                                      | <b>Ban</b> Kui Chuak       | <b>Amphoe</b> Kosum Phisai | <b>Changwat</b> Maha Sarakham |
|--------------------------------------|----------------------------|----------------------------|-------------------------------|
| <b>Drainage Area</b>                 | 29,265 sq.km.              |                            |                               |
| <b>Method of sampling</b>            | Depth Integrating          |                            |                               |
| <b>Instrument Used</b>               | US.D-49                    |                            |                               |
| <b>Period of Available Records</b>   | 2004-Cont'd                |                            |                               |
| <b>Actual Measurement</b>            | 2004-Cont'd                |                            |                               |
| <b>Using Rating Curve Water Year</b> | 2013                       |                            |                               |
| <b>Number of observation</b>         | 24                         |                            |                               |
| <b>R-Square</b>                      | 0.8860                     |                            |                               |
| <b>Remarks</b>                       | Continued Sediment Station |                            |                               |

$$QS = 5.2736 QW^{1.02720}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul     | Aug      | Sep      | Oct       | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |            |
|-------|---------|---------|---------|---------|----------|----------|-----------|----------|----------|---------|---------|---------|-----------|------------|
| 1     | 76.10   | 73.30   | 73.30   | 70.50   | 303.70   | 359.50   | 2840.50   | 3670.80  | 258.20   | 584.60  | 296.10  | 182.80  |           |            |
| 2     | 76.10   | 73.30   | 71.90   | 67.70   | 498.60   | 326.50   | 2936.50   | 3642.40  | 248.10   | 578.00  | 306.20  | 190.30  |           |            |
| 3     | 76.10   | 73.30   | 73.30   | 71.90   | 385.00   | 273.30   | 3000.60   | 3550.40  | 248.10   | 561.40  | 233.00  | 250.60  |           |            |
| 4     | 74.70   | 73.30   | 73.30   | 77.50   | 406.50   | 265.70   | 3058.30   | 3401.80  | 260.70   | 574.70  | 238.00  | 225.40  |           |            |
| 5     | 73.30   | 73.30   | 71.90   | 88.70   | 594.50   | 222.90   | 3083.90   | 3218.70  | 255.60   | 574.70  | 268.20  | 230.50  |           |            |
| 6     | 74.70   | 73.30   | 71.90   | 85.90   | 627.70   | 265.70   | 3083.90   | 3013.40  | 250.60   | 568.00  | 288.50  | 195.30  |           |            |
| 7     | 76.10   | 73.30   | 73.30   | 78.90   | 624.40   | 445.90   | 3071.10   | 2859.70  | 253.10   | 482.10  | 258.20  | 155.40  |           |            |
| 8     | 76.10   | 73.30   | 74.70   | 88.70   | 700.90   | 498.60   | 3064.70   | 2693.40  | 260.70   | 323.90  | 227.90  | 123.80  |           |            |
| 9     | 73.30   | 71.90   | 71.90   | 102.70  | 828.20   | 468.90   | 3058.30   | 2562.40  | 238.00   | 270.80  | 230.50  | 115.40  |           |            |
| 10    | 74.70   | 70.50   | 73.30   | 135.20  | 839.70   | 478.80   | 3007.00   | 2450.20  | 197.80   | 185.30  | 210.40  | 105.50  |           |            |
| 11    | 76.10   | 67.70   | 76.10   | 185.30  | 858.90   | 455.80   | 2962.10   | 2349.30  | 217.90   | 105.50  | 200.30  | 123.80  |           |            |
| 12    | 73.30   | 67.70   | 80.30   | 175.30  | 912.80   | 515.10   | 3173.70   | 2276.50  | 207.90   | 147.90  | 197.80  | 129.50  |           |            |
| 13    | 73.30   | 67.70   | 116.80  | 143.00  | 897.40   | 617.80   | 3437.10   | 2153.40  | 152.90   | 143.00  | 140.50  | 128.10  |           |            |
| 14    | 77.50   | 67.70   | 195.30  | 143.00  | 912.80   | 816.60   | 3536.20   | 1832.30  | 126.70   | 132.30  | 105.50  | 136.60  |           |            |
| 15    | 76.10   | 66.30   | 160.40  | 140.50  | 924.30   | 1059.30  | 3543.30   | 1519.20  | 130.90   | 129.50  | 155.40  | 119.60  |           |            |
| 16    | 63.50   | 66.30   | 129.50  | 116.80  | 882.00   | 1207.70  | 3784.20   | 1212.00  | 180.30   | 172.80  | 212.90  | 121.00  |           |            |
| 17    | 56.60   | 66.30   | 91.50   | 105.50  | 862.70   | 1271.60  | 4023.10   | 1086.40  | 285.90   | 165.30  | 278.40  | 119.60  |           |            |
| 18    | 59.40   | 64.90   | 92.90   | 138.00  | 885.80   | 1271.60  | 4255.50   | 835.80   | 291.00   | 155.40  | 280.90  | 122.40  |           |            |
| 19    | 60.80   | 71.90   | 92.90   | 118.20  | 847.40   | 1212.00  | 4405.60   | 824.30   | 354.40   | 147.90  | 227.90  | 136.60  |           |            |
| 20    | 64.90   | 84.50   | 92.90   | 118.20  | 774.50   | 1194.90  | 4503.20   | 805.10   | 429.50   | 155.40  | 180.30  | 135.20  |           |            |
| 21    | 70.50   | 92.90   | 87.30   | 101.30  | 763.00   | 1199.20  | 4533.30   | 720.80   | 478.80   | 187.80  | 155.40  | 130.90  |           |            |
| 22    | 76.10   | 88.70   | 74.70   | 74.70   | 747.60   | 1297.10  | 4548.30   | 604.50   | 538.30   | 172.80  | 175.30  | 129.50  |           |            |
| 23    | 71.90   | 85.90   | 69.10   | 84.50   | 670.90   | 1356.80  | 4525.80   | 515.10   | 561.40   | 165.30  | 200.30  | 121.00  |           |            |
| 24    | 70.50   | 87.30   | 69.10   | 138.00  | 680.90   | 1480.70  | 4450.70   | 488.70   | 574.70   | 210.40  | 195.30  | 115.40  |           |            |
| 25    | 73.30   | 85.90   | 62.20   | 301.10  | 651.00   | 1566.40  | 4390.60   | 462.40   | 574.70   | 195.30  | 202.80  | 126.70  |           |            |
| 26    | 73.30   | 80.30   | 63.50   | 187.80  | 641.00   | 1694.30  | 4285.50   | 436.00   | 561.40   | 167.80  | 202.80  | 145.40  |           |            |
| 27    | 73.30   | 71.90   | 63.50   | 143.00  | 581.30   | 1837.20  | 4165.50   | 403.20   | 554.80   | 180.30  | 227.90  | 123.80  |           |            |
| 28    | 73.30   | 70.50   | 63.50   | 152.90  | 561.40   | 2237.30  | 4068.00   | 339.20   | 561.40   | 200.30  | 235.50  | 114.00  |           |            |
| 29    | 73.30   | 73.30   | 62.20   | 170.30  | 488.70   | 2579.30  | 3955.70   | 293.50   | 564.70   | 187.80  |         | 108.30  |           |            |
| 30    | 73.30   | 73.30   | 63.50   | 222.90  | 445.90   | 2738.20  | 3833.90   | 278.40   | 568.00   | 187.80  |         | 122.40  |           |            |
| 31    |         | 73.30   |         | 160.40  | 436.00   |          | 3741.70   |          | 578.00   | 217.90  |         | 123.80  |           |            |
| Total | 2161.50 | 2303.10 | 2536.00 | 3988.40 | 21235.50 | 31214.70 | 114327.80 | 50499.30 | 10964.50 | 8232.00 | 6132.20 | 4408.60 | 258003.60 | <b>Ton</b> |
| Mean  | 72.10   | 74.30   | 84.50   | 128.70  | 685.00   | 1040.50  | 3688.00   | 1683.30  | 353.70   | 265.50  | 219.00  | 142.20  |           |            |
| Max   | 77.50   | 92.90   | 195.30  | 301.10  | 924.30   | 2738.20  | 4548.30   | 3670.80  | 578.00   | 584.60  | 306.20  | 250.60  | 4548.30   |            |
| Min   | 56.60   | 64.90   | 62.20   | 67.70   | 303.70   | 222.90   | 2840.50   | 278.40   | 126.70   | 105.50  | 105.50  | 105.50  | 56.60     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Dan Taka, Nakhon Ratchasima (M.2A)**

Lat 14 - 57 - 57 N Long 102 - 14 - 38 E

**Location : on left bank at Ban Dan Taka.**

|                                      |                            |                                 |                                   |
|--------------------------------------|----------------------------|---------------------------------|-----------------------------------|
|                                      | <b>Ban</b> Dan Taka        | <b>Amphoe</b> Chaloem Phra Kiat | <b>Changwat</b> Nakhon Ratchasima |
| <b>Drainage Area</b>                 | 4,724 sq.km.               |                                 |                                   |
| <b>Method of sampling</b>            | Depth Integrating          |                                 |                                   |
| <b>Instrument Used</b>               | US.D-49                    |                                 |                                   |
| <b>Period of Available Records</b>   | 2002-Cont'd                |                                 |                                   |
| <b>Actual Measurement</b>            | 2002-Cont'd                |                                 |                                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                                 |                                   |
| <b>Number of observation</b>         | 25                         |                                 |                                   |
| <b>R-Square</b>                      | 0.7068                     |                                 |                                   |
| <b>Remarks</b>                       | Continued Sediment Station |                                 |                                   |

$$QS = 17.9850 QW^{0.76440}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun     | Jul     | Aug     | Sep     | Oct      | Nov      | Dec    | Jan   | Feb    | Mar     | Annual   |            |
|-------|--------|---------|---------|---------|---------|---------|----------|----------|--------|-------|--------|---------|----------|------------|
| 1     | 0.00   | 83.10   | 55.80   | 30.60   | 248.30  | 88.20   | 724.30   | 890.30   | 93.20  | 0.00  | 18.00  | 18.00   |          |            |
| 2     | 0.00   | 88.20   | 58.70   | 0.00    | 253.10  | 93.20   | 708.40   | 839.50   | 75.20  | 0.00  | 37.30  | 15.20   |          |            |
| 3     | 0.00   | 90.70   | 69.80   | 0.00    | 262.80  | 102.90  | 705.70   | 773.90   | 80.50  | 0.00  | 40.60  | 12.20   |          |            |
| 4     | 0.00   | 88.20   | 93.20   | 5.30    | 293.60  | 105.30  | 716.30   | 687.00   | 75.20  | 0.00  | 34.00  | 0.00    |          |            |
| 5     | 0.00   | 95.60   | 90.70   | 67.10   | 291.20  | 115.60  | 724.30   | 595.10   | 72.50  | 0.00  | 20.70  | 0.00    |          |            |
| 6     | 0.00   | 100.50  | 80.50   | 112.40  | 260.40  | 136.70  | 724.30   | 522.20   | 67.10  | 0.00  | 34.00  | 0.00    |          |            |
| 7     | 0.00   | 98.10   | 95.60   | 107.70  | 187.00  | 133.70  | 716.30   | 468.80   | 46.90  | 0.00  | 30.60  | 0.00    |          |            |
| 8     | 0.00   | 83.10   | 95.60   | 72.50   | 102.90  | 136.70  | 721.60   | 409.40   | 58.70  | 0.00  | 23.30  | 0.00    |          |            |
| 9     | 0.00   | 83.10   | 98.10   | 67.10   | 159.70  | 148.30  | 743.60   | 397.60   | 49.90  | 0.00  | 18.00  | 0.00    |          |            |
| 10    | 0.00   | 77.90   | 100.50  | 67.10   | 162.50  | 165.20  | 747.10   | 409.40   | 34.00  | 0.00  | 25.80  | 0.00    |          |            |
| 11    | 0.00   | 64.30   | 95.60   | 77.90   | 165.20  | 162.50  | 747.10   | 423.50   | 8.90   | 0.00  | 40.60  | 0.00    |          |            |
| 12    | 0.00   | 67.10   | 105.30  | 49.90   | 156.80  | 145.40  | 747.10   | 414.20   | 25.80  | 0.00  | 46.90  | 0.00    |          |            |
| 13    | 0.00   | 61.50   | 127.80  | 25.80   | 148.30  | 142.50  | 747.10   | 404.70   | 23.30  | 0.00  | 43.80  | 0.00    |          |            |
| 14    | 0.00   | 58.70   | 170.80  | 15.20   | 124.70  | 145.40  | 764.40   | 380.80   | 15.20  | 0.00  | 49.90  | 0.00    |          |            |
| 15    | 0.00   | 67.10   | 202.80  | 18.00   | 121.70  | 148.30  | 825.60   | 356.40   | 0.00   | 0.00  | 46.90  | 0.00    |          |            |
| 16    | 0.00   | 58.70   | 233.40  | 0.00    | 107.70  | 181.60  | 917.10   | 326.40   | 12.20  | 0.00  | 46.90  | 0.00    |          |            |
| 17    | 0.00   | 55.80   | 245.80  | 0.00    | 77.90   | 184.30  | 1002.70  | 305.10   | 15.20  | 0.00  | 37.30  | 0.00    |          |            |
| 18    | 0.00   | 49.90   | 255.60  | 0.00    | 40.60   | 178.90  | 1023.70  | 291.20   | 20.70  | 0.00  | 28.20  | 37.30   |          |            |
| 19    | 0.00   | 49.90   | 265.20  | 0.00    | 30.60   | 181.60  | 1065.40  | 270.00   | 15.20  | 0.00  | 40.60  | 61.50   |          |            |
| 20    | 0.00   | 61.50   | 243.30  | 0.00    | 46.90   | 288.90  | 1091.20  | 253.10   | 12.20  | 0.00  | 40.60  | 83.10   |          |            |
| 21    | 0.00   | 58.70   | 218.30  | 0.00    | 37.30   | 480.00  | 1111.70  | 220.80   | 0.00   | 0.00  | 40.60  | 85.60   |          |            |
| 22    | 0.00   | 52.90   | 184.30  | 0.00    | 0.00    | 538.70  | 1152.90  | 187.00   | 8.90   | 0.00  | 34.00  | 100.50  |          |            |
| 23    | 0.00   | 52.90   | 173.50  | 46.90   | 0.00    | 574.00  | 1193.90  | 173.50   | 5.30   | 0.00  | 37.30  | 156.80  |          |            |
| 24    | 0.00   | 61.50   | 136.70  | 98.10   | 23.30   | 599.30  | 1224.30  | 159.70   | 12.20  | 0.00  | 40.60  | 223.40  |          |            |
| 25    | 0.00   | 55.80   | 118.60  | 272.40  | 37.30   | 621.60  | 1224.30  | 139.60   | 5.30   | 0.00  | 40.60  | 235.90  |          |            |
| 26    | 0.00   | 58.70   | 95.60   | 368.70  | 37.30   | 649.10  | 1173.50  | 121.70   | 0.00   | 0.00  | 12.20  | 210.60  |          |            |
| 27    | 0.00   | 34.00   | 77.90   | 363.80  | 25.80   | 684.30  | 1121.90  | 110.10   | 0.00   | 0.00  | 0.00   | 173.50  |          |            |
| 28    | 30.60  | 25.80   | 67.10   | 373.50  | 49.90   | 711.00  | 1080.90  | 105.30   | 0.00   | 5.30  | 0.00   | 136.70  |          |            |
| 29    | 88.20  | 23.30   | 46.90   | 366.20  | 58.70   | 729.60  | 1034.20  | 102.90   | 8.90   | 18.00 |        | 121.70  |          |            |
| 30    | 61.50  | 34.00   | 49.90   | 318.80  | 64.30   | 736.60  | 992.10   | 98.10    | 8.90   | 23.30 |        | 67.10   |          |            |
| 31    |        | 46.90   |         | 267.60  | 64.30   |         | 944.10   |          | 8.90   | 15.20 |        | 25.80   |          |            |
| Total | 180.30 | 1987.50 | 3952.90 | 3192.60 | 3640.10 | 9309.40 | 28417.10 | 10837.30 | 860.30 | 61.80 | 909.30 | 1764.90 | 65113.50 | <b>Ton</b> |
| Mean  | 6.00   | 64.10   | 131.80  | 103.00  | 117.40  | 310.30  | 916.70   | 361.20   | 27.80  | 2.00  | 32.50  | 56.90   |          |            |
| Max   | 88.20  | 100.50  | 265.20  | 373.50  | 293.60  | 736.60  | 1224.30  | 890.30   | 93.20  | 23.30 | 49.90  | 235.90  | 1224.30  |            |
| Min   | 0.00   | 23.30   | 46.90   | 0.00    | 0.00    | 88.20   | 705.70   | 98.10    | 0.00   | 0.00  | 0.00   | 0.00    | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Phong Sawai, Surin (M.4)**

Lat 15 - 19 - 30 N Long 103 - 40 - 59 E

**Location : on left bank at the bridge on highway.**

|                                      |                            |                       |                       |
|--------------------------------------|----------------------------|-----------------------|-----------------------|
|                                      | <b>Ban</b> Phong Sawai     | <b>Amphoe</b> Tha Tum | <b>Changwat</b> Surin |
| <b>Drainage Area</b>                 | 34,654 sq.km.              |                       |                       |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                       |
| <b>Instrument Used</b>               | US.D-49                    |                       |                       |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                       |                       |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                       |                       |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |                       |
| <b>Number of observation</b>         | 25                         |                       |                       |
| <b>R-Square</b>                      | 0.9430                     |                       |                       |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                       |

$$QS = 3.2503 QW^{1.04770}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May  | Jun  | Jul  | Aug     | Sep      | Oct       | Nov       | Dec      | Jan     | Feb    | Mar    | Annual    |            |
|-------|-------|------|------|------|---------|----------|-----------|-----------|----------|---------|--------|--------|-----------|------------|
| 1     | 6.00  | 0.00 | 0.00 | 0.00 | 0.00    | 109.10   | 3999.40   | 6270.00   | 1736.60  | 79.70   | 25.70  | 5.00   |           |            |
| 2     | 6.00  | 0.00 | 0.00 | 0.00 | 0.00    | 135.60   | 4117.20   | 6116.30   | 1644.70  | 78.10   | 24.20  | 5.00   |           |            |
| 3     | 6.00  | 0.00 | 0.00 | 0.00 | 0.00    | 147.70   | 4188.00   | 5962.80   | 1513.80  | 76.60   | 24.20  | 4.60   |           |            |
| 4     | 5.70  | 0.00 | 0.00 | 0.00 | 0.00    | 142.90   | 4258.80   | 5831.00   | 1402.30  | 75.00   | 24.20  | 4.60   |           |            |
| 5     | 5.30  | 0.00 | 0.00 | 0.00 | 2.60    | 133.20   | 4329.60   | 5737.70   | 1294.70  | 71.90   | 22.70  | 4.30   |           |            |
| 6     | 5.30  | 0.00 | 0.00 | 0.00 | 6.70    | 116.30   | 4353.20   | 5675.50   | 1198.30  | 70.30   | 19.80  | 4.60   |           |            |
| 7     | 5.30  | 0.00 | 0.00 | 0.00 | 3.30    | 90.00    | 4376.90   | 5582.20   | 1090.70  | 68.70   | 19.80  | 3.90   |           |            |
| 8     | 5.00  | 0.00 | 0.00 | 0.00 | 1.60    | 75.00    | 4424.20   | 5458.00   | 1002.10  | 67.20   | 18.30  | 3.90   |           |            |
| 9     | 5.00  | 0.00 | 0.00 | 0.00 | 0.30    | 78.10    | 4509.30   | 5333.90   | 910.80   | 64.00   | 16.80  | 3.90   |           |            |
| 10    | 4.60  | 0.00 | 0.00 | 0.00 | 0.60    | 125.90   | 4651.50   | 5179.00   | 831.70   | 64.00   | 16.80  | 3.60   |           |            |
| 11    | 4.60  | 0.00 | 0.00 | 0.00 | 59.40   | 194.20   | 4850.80   | 4993.30   | 750.80   | 60.90   | 16.80  | 3.60   |           |            |
| 12    | 3.90  | 0.00 | 0.00 | 0.00 | 150.20  | 276.10   | 5117.10   | 4822.30   | 681.20   | 54.70   | 15.30  | 3.60   |           |            |
| 13    | 3.60  | 0.00 | 0.00 | 0.00 | 186.80  | 328.00   | 5271.90   | 4651.50   | 611.80   | 54.70   | 13.90  | 3.60   |           |            |
| 14    | 2.90  | 0.00 | 0.00 | 0.00 | 226.30  | 366.80   | 5395.90   | 4424.20   | 560.90   | 54.70   | 12.40  | 3.60   |           |            |
| 15    | 2.60  | 0.00 | 0.00 | 0.00 | 243.70  | 405.30   | 5520.10   | 4258.80   | 536.80   | 53.20   | 11.00  | 3.60   |           |            |
| 16    | 2.20  | 0.00 | 0.00 | 0.00 | 266.10  | 491.80   | 5644.40   | 4046.50   | 494.80   | 53.20   | 11.00  | 3.30   |           |            |
| 17    | 2.20  | 0.00 | 0.00 | 0.00 | 246.20  | 618.70   | 5737.70   | 3834.80   | 349.90   | 47.00   | 8.10   | 2.90   |           |            |
| 18    | 2.20  | 0.00 | 0.00 | 0.00 | 216.40  | 625.70   | 5799.90   | 3642.40   | 211.50   | 47.00   | 6.40   | 2.90   |           |            |
| 19    | 1.60  | 0.00 | 0.00 | 0.00 | 186.80  | 601.50   | 5893.30   | 3464.40   | 140.40   | 47.00   | 6.40   | 2.60   |           |            |
| 20    | 0.60  | 0.00 | 0.00 | 0.00 | 172.10  | 788.40   | 5924.50   | 3307.40   | 145.30   | 47.00   | 6.40   | 2.90   |           |            |
| 21    | 0.90  | 0.00 | 0.00 | 0.00 | 167.20  | 1487.70  | 6001.20   | 3145.70   | 256.20   | 45.40   | 6.40   | 3.30   |           |            |
| 22    | 1.60  | 0.00 | 0.00 | 0.00 | 64.00   | 2150.20  | 6154.70   | 2997.30   | 268.60   | 42.40   | 6.40   | 3.30   |           |            |
| 23    | 0.90  | 0.00 | 0.00 | 0.00 | 30.20   | 2462.00  | 6231.60   | 2838.10   | 238.70   | 39.30   | 5.70   | 2.90   |           |            |
| 24    | 0.90  | 0.00 | 0.00 | 0.00 | 40.80   | 2631.70  | 6385.40   | 2707.50   | 218.90   | 36.30   | 5.30   | 2.90   |           |            |
| 25    | 0.60  | 0.00 | 0.00 | 0.00 | 62.50   | 2761.60  | 6462.40   | 2541.20   | 189.30   | 36.30   | 5.30   | 2.90   |           |            |
| 26    | 0.00  | 0.00 | 0.00 | 0.00 | 73.40   | 2936.00  | 6539.40   | 2382.80   | 130.80   | 36.30   | 5.00   | 2.90   |           |            |
| 27    | 0.00  | 0.00 | 0.00 | 0.00 | 90.00   | 3234.20  | 6616.40   | 2257.40   | 94.70    | 34.80   | 5.00   | 2.60   |           |            |
| 28    | 0.00  | 0.00 | 0.00 | 0.00 | 90.00   | 3431.70  | 6616.40   | 2120.00   | 92.40    | 30.20   | 5.00   | 2.60   |           |            |
| 29    | 0.00  | 0.00 | 0.00 | 0.00 | 71.90   | 3679.90  | 6577.90   | 1999.40   | 87.60    | 30.20   |        | 2.60   |           |            |
| 30    | 0.00  | 0.00 | 0.00 | 0.00 | 71.90   | 3881.80  | 6539.40   | 1886.40   | 85.20    | 28.70   |        | 2.60   |           |            |
| 31    |       | 0.00 |      | 0.00 | 79.70   |          | 6462.40   |           | 82.90    | 28.70   |        | 2.20   |           |            |
| Total | 85.50 | 0.00 | 0.00 | 0.00 | 2810.70 | 34507.10 | 168950.90 | 123467.80 | 18854.40 | 1623.50 | 364.30 | 106.80 | 350771.10 | <b>Ton</b> |
| Mean  | 2.80  | 0.00 | 0.00 | 0.00 | 90.70   | 1150.20  | 5450.00   | 4115.60   | 608.20   | 52.40   | 13.00  | 3.40   |           |            |
| Max   | 6.00  | 0.00 | 0.00 | 0.00 | 266.10  | 3881.80  | 6616.40   | 6270.00   | 1736.60  | 79.70   | 25.70  | 5.00   | 6616.40   |            |
| Min   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00    | 75.00    | 3999.40   | 1886.40   | 82.90    | 28.70   | 5.00   | 2.20   | 0.00      |            |



**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Mueang Kong, Si Sa Ket (M.5)**

Lat 15 - 20 - 16 N Long 104 - 09 - 21 E

**Location : on left bank infront of Amphoe Rasi Salai Office.**

|                                      | <b>Ban Mueang Kong</b>     | <b>Amphoe Rasi Salai</b> | <b>Changwat Si Sa Ket</b> |
|--------------------------------------|----------------------------|--------------------------|---------------------------|
| <b>Drainage Area</b>                 | 45,295 sq.km.              |                          |                           |
| <b>Method of sampling</b>            | Depth Integrating          |                          |                           |
| <b>Instrument Used</b>               | US.D-49                    |                          |                           |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                          |                           |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                          |                           |
| <b>Using Rating Curve Water Year</b> | 2013                       |                          |                           |
| <b>Number of observation</b>         | 36                         |                          |                           |
| <b>R-Square</b>                      | 0.8702                     |                          |                           |
| <b>Remarks</b>                       | Continued Sediment Station |                          |                           |

$$QS = 12.3260 QW^{0.68460}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul     | Aug     | Sep      | Oct      | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |     |
|-------|---------|---------|---------|---------|---------|----------|----------|----------|----------|---------|---------|---------|-----------|-----|
| 1     | 86.80   | 133.10  | 93.90   | 80.50   | 81.50   | 173.30   | 1719.40  | 1881.70  | 983.70   | 329.60  | 253.50  | 154.00  |           |     |
| 2     | 87.80   | 105.50  | 94.80   | 79.40   | 81.50   | 160.60   | 1738.10  | 1870.30  | 928.40   | 330.80  | 245.90  | 152.70  |           |     |
| 3     | 88.80   | 57.60   | 94.80   | 79.40   | 80.50   | 156.70   | 1753.70  | 1853.30  | 835.10   | 330.80  | 242.00  | 151.40  |           |     |
| 4     | 87.80   | 52.50   | 94.80   | 79.40   | 80.50   | 152.70   | 1763.20  | 1830.40  | 778.60   | 330.80  | 239.40  | 150.00  |           |     |
| 5     | 86.80   | 51.20   | 91.90   | 79.40   | 80.50   | 146.00   | 1769.60  | 1807.70  | 691.90   | 329.60  | 238.20  | 147.40  |           |     |
| 6     | 86.80   | 49.90   | 93.90   | 78.30   | 79.40   | 167.00   | 1772.80  | 1786.50  | 570.60   | 325.60  | 234.30  | 144.70  |           |     |
| 7     | 85.70   | 49.90   | 95.80   | 78.30   | 79.40   | 179.40   | 1772.80  | 1760.10  | 564.20   | 317.80  | 231.60  | 143.30  |           |     |
| 8     | 85.70   | 52.50   | 95.80   | 78.30   | 82.60   | 223.70   | 1769.60  | 1741.20  | 325.60   | 315.10  | 230.30  | 141.90  |           |     |
| 9     | 85.70   | 58.80   | 94.80   | 78.30   | 81.50   | 312.40   | 1766.40  | 1722.60  | 304.40   | 312.40  | 223.70  | 140.60  |           |     |
| 10    | 83.70   | 111.00  | 93.90   | 78.30   | 80.50   | 371.30   | 1756.90  | 1703.30  | 292.20   | 313.80  | 208.80  | 138.90  |           |     |
| 11    | 109.20  | 143.30  | 93.90   | 77.30   | 80.50   | 367.60   | 1747.40  | 1676.20  | 281.10   | 312.40  | 207.50  | 132.20  |           |     |
| 12    | 193.90  | 76.20   | 94.80   | 77.30   | 80.50   | 343.70   | 1741.20  | 1654.30  | 281.10   | 307.10  | 199.80  | 127.10  |           |     |
| 13    | 90.90   | 72.90   | 93.90   | 77.30   | 80.50   | 325.60   | 1722.60  | 1635.10  | 293.50   | 299.00  | 193.90  | 127.10  |           |     |
| 14    | 77.30   | 97.80   | 92.90   | 79.40   | 80.50   | 311.10   | 1716.70  | 1613.00  | 307.10   | 299.00  | 188.00  | 126.20  |           |     |
| 15    | 67.20   | 66.00   | 81.50   | 79.40   | 80.50   | 299.00   | 1714.10  | 1590.90  | 336.00   | 299.00  | 185.50  | 124.50  |           |     |
| 16    | 61.20   | 72.90   | 80.50   | 79.40   | 79.40   | 305.80   | 1719.40  | 1567.30  | 338.60   | 297.60  | 183.10  | 121.80  |           |     |
| 17    | 77.30   | 53.80   | 79.40   | 78.30   | 79.40   | 328.30   | 1714.10  | 1542.30  | 326.90   | 294.90  | 179.40  | 118.30  |           |     |
| 18    | 112.90  | 55.10   | 79.40   | 78.30   | 79.40   | 329.60   | 1719.40  | 1519.10  | 325.60   | 288.00  | 172.00  | 99.70   |           |     |
| 19    | 106.40  | 48.50   | 78.30   | 78.30   | 81.50   | 541.70   | 1722.60  | 1489.40  | 326.90   | 288.00  | 165.70  | 98.80   |           |     |
| 20    | 92.90   | 47.20   | 78.30   | 79.40   | 92.90   | 838.70   | 1728.80  | 1455.10  | 319.10   | 285.30  | 163.10  | 97.80   |           |     |
| 21    | 89.80   | 45.80   | 77.30   | 79.40   | 143.30  | 993.20   | 1731.90  | 1424.80  | 303.10   | 283.90  | 163.10  | 96.80   |           |     |
| 22    | 76.20   | 49.90   | 87.80   | 79.40   | 212.90  | 1089.70  | 1738.10  | 1392.10  | 303.10   | 282.50  | 161.80  | 95.80   |           |     |
| 23    | 64.80   | 104.50  | 83.70   | 80.50   | 256.00  | 1151.00  | 1750.50  | 1356.10  | 313.80   | 279.70  | 160.60  | 88.80   |           |     |
| 24    | 74.00   | 110.10  | 81.50   | 82.60   | 195.10  | 1231.10  | 1760.10  | 1312.80  | 312.40   | 278.30  | 159.30  | 86.80   |           |     |
| 25    | 112.90  | 86.80   | 81.50   | 82.60   | 208.80  | 1364.60  | 1772.80  | 1271.30  | 300.30   | 278.30  | 158.00  | 81.50   |           |     |
| 26    | 156.70  | 75.10   | 82.60   | 81.50   | 230.30  | 1476.60  | 1790.80  | 1225.00  | 304.40   | 276.90  | 156.70  | 85.70   |           |     |
| 27    | 198.60  | 61.20   | 82.60   | 81.50   | 238.20  | 1556.90  | 1816.20  | 1175.90  | 315.10   | 275.40  | 156.70  | 85.70   |           |     |
| 28    | 197.50  | 57.60   | 82.60   | 80.50   | 222.40  | 1615.80  | 1836.10  | 1119.50  | 315.10   | 274.00  | 155.30  | 85.70   |           |     |
| 29    | 203.30  | 56.30   | 80.50   | 80.50   | 211.60  | 1662.50  | 1853.30  | 1079.00  | 319.10   | 268.30  |         | 84.70   |           |     |
| 30    | 206.10  | 61.20   | 80.50   | 82.60   | 197.50  | 1695.20  | 1870.30  | 1042.00  | 325.60   | 262.20  |         | 83.70   |           |     |
| 31    |         | 79.40   |         | 81.50   | 189.20  |          | 1881.70  |          | 328.30   | 259.70  |         | 81.50   |           |     |
| Total | 3234.70 | 2243.60 | 2617.90 | 2466.60 | 3928.30 | 19870.80 | 54630.60 | 46098.30 | 12850.90 | 9225.80 | 5457.20 | 3595.10 | 166219.80 | Ton |
| Mean  | 107.80  | 72.40   | 87.30   | 79.60   | 126.70  | 662.40   | 1762.30  | 1536.60  | 414.50   | 297.60  | 194.90  | 116.00  |           |     |
| Max   | 206.10  | 143.30  | 95.80   | 82.60   | 256.00  | 1695.20  | 1881.70  | 1881.70  | 983.70   | 330.80  | 253.50  | 154.00  | 1881.70   |     |
| Min   | 61.20   | 45.80   | 77.30   | 77.30   | 79.40   | 146.00   | 1714.10  | 1042.00  | 281.10   | 259.70  | 155.30  | 81.50   | 45.80     |     |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Satuk, Buri Ram (M.6A)**

Lat 15 - 17 - 53 N Long 103 - 17 - 46 E

**Location : on right bank at Satuk.**

|                                      | <b>Ban Satuk</b>           | <b>Amphoe Satuk</b> | <b>Changwat Buri Ram</b> |
|--------------------------------------|----------------------------|---------------------|--------------------------|
| <b>Drainage Area</b>                 | 28,458 sq.km.              |                     |                          |
| <b>Method of sampling</b>            | Depth Integrating          |                     |                          |
| <b>Instrument Used</b>               | US.D-49                    |                     |                          |
| <b>Period of Available Records</b>   | 2000-Cont'd                |                     |                          |
| <b>Actual Measurement</b>            | 2000-Cont'd                |                     |                          |
| <b>Using Rating Curve Water Year</b> | 2013                       |                     |                          |
| <b>Number of observation</b>         | 34                         |                     |                          |
| <b>R-Square</b>                      | 0.8429                     |                     |                          |
| <b>Remarks</b>                       | Continued Sediment Station |                     |                          |

$$QS = 21.2640 QW^{0.67130}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun  | Jul  | Aug     | Sep      | Oct      | Nov      | Dec      | Jan     | Feb     | Mar    | Annual    |            |
|-------|------|------|------|------|---------|----------|----------|----------|----------|---------|---------|--------|-----------|------------|
| 1     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 269.70   | 1083.00  | 2359.20  | 1104.80  | 152.40  | 59.20   | 31.60  |           |            |
| 2     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 263.50   | 1150.60  | 2377.60  | 1067.40  | 150.20  | 59.20   | 31.60  |           |            |
| 3     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 233.50   | 1243.20  | 2386.80  | 1026.10  | 150.20  | 56.60   | 30.40  |           |            |
| 4     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 171.40   | 1333.90  | 2368.40  | 983.90   | 150.20  | 50.20   | 27.90  |           |            |
| 5     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 117.70   | 1447.30  | 2359.20  | 932.80   | 156.70  | 48.40   | 26.70  |           |            |
| 6     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 97.70    | 1577.30  | 2314.80  | 882.60   | 154.60  | 44.50   | 25.40  |           |            |
| 7     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 95.70    | 1734.70  | 2271.60  | 824.80   | 145.80  | 44.50   | 24.00  |           |            |
| 8     | 0.00 | 0.00 | 0.00 | 0.00 | 25.40   | 139.00   | 1877.40  | 2222.00  | 770.10   | 139.00  | 44.50   | 24.00  |           |            |
| 9     | 0.00 | 0.00 | 0.00 | 0.00 | 125.00  | 220.10   | 2015.80  | 2157.10  | 726.40   | 132.10  | 44.50   | 22.70  |           |            |
| 10    | 0.00 | 0.00 | 0.00 | 0.00 | 167.30  | 343.20   | 2107.70  | 2091.20  | 682.40   | 129.80  | 44.50   | 21.30  |           |            |
| 11    | 0.00 | 0.00 | 0.00 | 0.00 | 165.20  | 368.30   | 2132.50  | 2043.30  | 641.30   | 122.60  | 42.40   | 21.30  |           |            |
| 12    | 0.00 | 0.00 | 0.00 | 0.00 | 187.50  | 350.50   | 2124.20  | 1995.00  | 601.10   | 117.70  | 40.40   | 19.80  |           |            |
| 13    | 0.00 | 0.00 | 0.00 | 0.00 | 231.30  | 374.70   | 2099.50  | 1940.50  | 559.60   | 120.20  | 40.40   | 18.30  |           |            |
| 14    | 0.00 | 0.00 | 0.00 | 0.00 | 242.30  | 391.30   | 2091.20  | 1890.10  | 512.20   | 110.20  | 40.40   | 16.70  |           |            |
| 15    | 0.00 | 0.00 | 0.00 | 0.00 | 224.60  | 378.90   | 2077.60  | 1839.00  | 449.00   | 99.80   | 40.40   | 16.70  |           |            |
| 16    | 0.00 | 0.00 | 0.00 | 0.00 | 185.50  | 374.70   | 2091.20  | 1792.10  | 368.30   | 89.40   | 40.40   | 15.10  |           |            |
| 17    | 0.00 | 0.00 | 0.00 | 0.00 | 191.40  | 343.20   | 2116.00  | 1749.50  | 363.00   | 89.40   | 38.30   | 13.40  |           |            |
| 18    | 0.00 | 0.00 | 0.00 | 0.00 | 197.20  | 320.90   | 2157.10  | 1699.80  | 374.70   | 91.60   | 38.30   | 13.40  |           |            |
| 19    | 0.00 | 0.00 | 0.00 | 0.00 | 169.40  | 346.80   | 2213.90  | 1654.40  | 341.40   | 91.60   | 36.10   | 9.50   |           |            |
| 20    | 0.00 | 0.00 | 0.00 | 0.00 | 187.50  | 435.40   | 2288.90  | 1608.30  | 334.00   | 85.20   | 33.90   | 7.20   |           |            |
| 21    | 0.00 | 0.00 | 0.00 | 0.00 | 237.90  | 561.60   | 2340.60  | 1545.10  | 313.30   | 78.50   | 32.70   | 9.50   |           |            |
| 22    | 0.00 | 0.00 | 0.00 | 0.00 | 220.10  | 641.30   | 2368.40  | 1487.70  | 330.30   | 73.90   | 32.70   | 9.50   |           |            |
| 23    | 0.00 | 0.00 | 0.00 | 0.00 | 235.70  | 696.50   | 2386.80  | 1438.20  | 311.40   | 66.80   | 31.60   | 16.70  |           |            |
| 24    | 0.00 | 0.00 | 0.00 | 0.00 | 279.90  | 747.80   | 2368.40  | 1392.50  | 289.90   | 61.80   | 31.60   | 18.30  |           |            |
| 25    | 0.00 | 0.00 | 0.00 | 0.00 | 269.70  | 787.20   | 2359.20  | 1341.40  | 248.70   | 59.20   | 31.60   | 19.80  |           |            |
| 26    | 0.00 | 0.00 | 0.00 | 0.00 | 195.30  | 812.40   | 2349.90  | 1303.60  | 204.80   | 76.20   | 31.60   | 19.80  |           |            |
| 27    | 0.00 | 0.00 | 0.00 | 0.00 | 152.40  | 858.50   | 2332.00  | 1261.60  | 185.50   | 73.90   | 31.60   | 18.30  |           |            |
| 28    | 0.00 | 0.00 | 0.00 | 0.00 | 154.60  | 915.30   | 2332.00  | 1221.70  | 183.50   | 69.20   | 31.60   | 18.30  |           |            |
| 29    | 0.00 | 0.00 | 0.00 | 0.00 | 173.50  | 964.60   | 2332.00  | 1184.70  | 175.50   | 66.80   |         | 18.30  |           |            |
| 30    | 0.00 | 0.00 | 0.00 | 0.00 | 222.30  | 1022.80  | 2332.00  | 1147.10  | 163.10   | 66.80   |         | 18.30  |           |            |
| 31    |      | 0.00 |      | 0.00 | 259.30  |          | 2340.60  |          | 154.60   | 61.80   |         | 18.30  |           |            |
| Total | 0.00 | 0.00 | 0.00 | 0.00 | 4700.30 | 13644.20 | 62804.90 | 54443.50 | 16106.50 | 3233.60 | 1142.10 | 602.10 | 156677.20 | <b>Ton</b> |
| Mean  | 0.00 | 0.00 | 0.00 | 0.00 | 151.60  | 454.80   | 2026.00  | 1814.80  | 519.60   | 104.30  | 40.80   | 19.40  |           |            |
| Max   | 0.00 | 0.00 | 0.00 | 0.00 | 279.90  | 1022.80  | 2386.80  | 2386.80  | 1104.80  | 156.70  | 59.20   | 31.60  | 2386.80   |            |
| Min   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 95.70    | 1083.00  | 1147.10  | 154.60   | 59.20   | 31.60   | 7.20   | 0.00      |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Chumchondeengam, Ubon Ratchathani (M.7)**

Lat 15 - 13 - 15 N Long 104 - 51 - 41 E

**Location : on left bank at Seri Prachathipatai Bridge.**

|                                      |                            |                      |                                  |
|--------------------------------------|----------------------------|----------------------|----------------------------------|
|                                      | <b>Ban</b> Chumchondeengam | <b>Amphoe</b> Mueang | <b>Changwat</b> Ubon Ratchathani |
| <b>Drainage Area</b>                 | 107,345 sq.km.             |                      |                                  |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                                  |
| <b>Instrument Used</b>               | US.D-49                    |                      |                                  |
| <b>Period of Available Records</b>   | 2010-Cont'd                |                      |                                  |
| <b>Actual Measurement</b>            | 2010-Cont'd                |                      |                                  |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                                  |
| <b>Number of observation</b>         | 36                         |                      |                                  |
| <b>R-Square</b>                      | 0.8713                     |                      |                                  |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                                  |

$$QS = 5.4282 QW^{0.98200}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun   | Jul    | Aug    | Sep     | Oct     | Nov     | Dec    | Jan   | Feb   | Mar   | Annual   |     |
|-------|-------|-------|-------|--------|--------|---------|---------|---------|--------|-------|-------|-------|----------|-----|
| 1     | 0.80  | 2.50  | 1.00  | 2.90   | 28.60  | 19.60   | 169.10  | 115.30  | 39.50  | 5.90  | 1.00  | 0.90  |          |     |
| 2     | 0.80  | 2.70  | 1.20  | 2.90   | 34.10  | 20.00   | 171.30  | 113.30  | 37.50  | 5.90  | 1.00  | 0.80  |          |     |
| 3     | 0.80  | 2.80  | 1.50  | 3.00   | 38.00  | 20.30   | 172.30  | 111.40  | 34.20  | 6.10  | 0.90  | 0.80  |          |     |
| 4     | 0.80  | 2.80  | 2.20  | 3.00   | 37.70  | 20.40   | 172.30  | 110.30  | 32.10  | 6.00  | 0.90  | 0.80  |          |     |
| 5     | 0.80  | 2.30  | 2.70  | 2.80   | 37.10  | 20.20   | 172.00  | 107.80  | 27.80  | 6.00  | 0.90  | 0.80  |          |     |
| 6     | 0.80  | 1.80  | 3.30  | 2.60   | 36.90  | 19.70   | 171.30  | 105.80  | 24.50  | 6.00  | 1.00  | 0.80  |          |     |
| 7     | 0.80  | 1.50  | 3.50  | 2.40   | 36.50  | 19.00   | 169.70  | 105.00  | 22.70  | 5.90  | 1.00  | 0.80  |          |     |
| 8     | 0.80  | 1.50  | 3.30  | 2.30   | 35.80  | 19.40   | 167.80  | 104.70  | 18.40  | 5.60  | 1.00  | 0.80  |          |     |
| 9     | 0.80  | 1.30  | 3.30  | 2.30   | 34.80  | 20.70   | 164.90  | 104.40  | 13.80  | 5.20  | 0.90  | 0.80  |          |     |
| 10    | 0.80  | 1.20  | 3.50  | 2.30   | 33.70  | 24.30   | 161.40  | 103.90  | 10.80  | 4.80  | 0.90  | 0.80  |          |     |
| 11    | 0.80  | 1.50  | 3.90  | 2.40   | 33.10  | 27.00   | 157.80  | 102.80  | 9.30   | 4.50  | 0.90  | 0.80  |          |     |
| 12    | 0.80  | 2.00  | 3.50  | 2.50   | 32.80  | 28.00   | 154.70  | 100.00  | 7.30   | 4.10  | 0.90  | 0.80  |          |     |
| 13    | 0.80  | 2.60  | 3.40  | 2.30   | 32.50  | 28.10   | 150.50  | 97.50   | 6.10   | 3.80  | 0.90  | 0.70  |          |     |
| 14    | 0.80  | 2.90  | 3.30  | 2.10   | 32.00  | 28.00   | 145.80  | 95.50   | 5.60   | 3.30  | 0.90  | 0.70  |          |     |
| 15    | 0.80  | 3.00  | 3.10  | 2.10   | 31.50  | 28.30   | 141.40  | 92.20   | 6.90   | 3.00  | 0.90  | 0.70  |          |     |
| 16    | 0.80  | 2.60  | 2.90  | 2.10   | 30.50  | 30.10   | 139.10  | 90.20   | 9.80   | 2.60  | 0.90  | 0.70  |          |     |
| 17    | 0.80  | 2.30  | 2.20  | 2.20   | 29.50  | 33.30   | 137.20  | 85.70   | 12.80  | 2.10  | 1.00  | 0.70  |          |     |
| 18    | 0.90  | 2.00  | 2.30  | 2.80   | 28.50  | 42.80   | 135.50  | 81.60   | 14.80  | 2.00  | 1.00  | 0.70  |          |     |
| 19    | 0.90  | 2.00  | 2.50  | 2.80   | 26.10  | 62.00   | 133.60  | 77.20   | 16.40  | 1.80  | 0.90  | 0.70  |          |     |
| 20    | 1.00  | 1.50  | 2.90  | 2.60   | 21.90  | 86.30   | 132.50  | 73.50   | 17.70  | 1.50  | 0.90  | 0.70  |          |     |
| 21    | 1.00  | 1.30  | 3.30  | 2.70   | 17.70  | 101.70  | 131.10  | 67.20   | 17.40  | 1.40  | 0.90  | 0.70  |          |     |
| 22    | 1.00  | 1.60  | 3.60  | 2.60   | 15.80  | 112.20  | 129.70  | 60.40   | 16.60  | 1.30  | 0.90  | 0.70  |          |     |
| 23    | 1.00  | 2.50  | 3.50  | 3.10   | 16.70  | 120.00  | 129.20  | 55.20   | 14.30  | 1.20  | 0.90  | 0.70  |          |     |
| 24    | 1.00  | 2.90  | 3.40  | 5.30   | 17.10  | 129.40  | 128.60  | 50.10   | 10.40  | 1.20  | 0.90  | 0.70  |          |     |
| 25    | 1.00  | 2.60  | 3.40  | 7.50   | 16.10  | 138.00  | 127.50  | 45.80   | 8.90   | 1.20  | 0.90  | 0.70  |          |     |
| 26    | 0.90  | 2.40  | 4.90  | 7.70   | 14.40  | 145.80  | 125.60  | 43.90   | 7.70   | 1.20  | 0.90  | 0.70  |          |     |
| 27    | 1.00  | 2.00  | 3.20  | 7.70   | 13.40  | 151.40  | 123.90  | 42.40   | 6.40   | 1.10  | 0.90  | 0.70  |          |     |
| 28    | 1.30  | 1.50  | 3.10  | 9.70   | 13.70  | 157.50  | 122.00  | 39.70   | 5.70   | 1.10  | 0.80  | 0.70  |          |     |
| 29    | 1.70  | 1.50  | 3.30  | 11.60  | 14.70  | 163.30  | 120.00  | 35.90   | 6.10   | 1.00  |       | 0.70  |          |     |
| 30    | 2.20  | 0.60  | 2.90  | 19.10  | 16.60  | 166.80  | 118.60  | 38.80   | 6.30   | 1.00  |       | 0.70  |          |     |
| 31    |       | 0.80  |       | 25.00  | 18.90  |         | 117.20  |         | 6.00   | 1.00  |       | 0.60  |          |     |
| Total | 28.50 | 62.50 | 90.10 | 152.40 | 826.70 | 1983.60 | 4493.60 | 2457.50 | 473.80 | 98.80 | 25.80 | 22.90 | 10716.20 | Ton |
| Mean  | 1.00  | 2.00  | 3.00  | 4.90   | 26.70  | 66.10   | 145.00  | 81.90   | 15.30  | 3.20  | 0.90  | 0.70  |          |     |
| Max   | 2.20  | 3.00  | 4.90  | 25.00  | 38.00  | 166.80  | 172.30  | 115.30  | 39.50  | 6.10  | 1.00  | 0.90  | 172.30   |     |
| Min   | 0.80  | 0.60  | 1.00  | 2.10   | 13.40  | 19.00   | 117.20  | 35.90   | 5.60   | 1.00  | 0.80  | 0.60  | 0.60     |     |

**WATER YEAR : 2013****MUN RIVER BASIN****Huai Samran at Ban Nongyaplong, Si Sa ket (M.9)**

Lat 15 - 06 - 58 N Long 104 - 19 - 21 E

**Location : on right bank at the bridge on Highway.**

|                                      |                            |                    |               |               |                 |                  |
|--------------------------------------|----------------------------|--------------------|---------------|---------------|-----------------|------------------|
|                                      | <b>Ban</b>                 | <b>Nongyaplong</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b> | <b>Si Sa Ket</b> |
| <b>Drainage Area</b>                 | 2,988                      | sq.km.             |               |               |                 |                  |
| <b>Method of sampling</b>            | Depth                      | Integrating        |               |               |                 |                  |
| <b>Instrument Used</b>               | US.D-49                    |                    |               |               |                 |                  |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                    |               |               |                 |                  |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                    |               |               |                 |                  |
| <b>Using Rating Curve Water Year</b> | 2013                       |                    |               |               |                 |                  |
| <b>Number of observation</b>         | 48                         |                    |               |               |                 |                  |
| <b>R-Square</b>                      | 0.9416                     |                    |               |               |                 |                  |
| <b>Remarks</b>                       | Continued Sediment Station |                    |               |               |                 |                  |

$$QS = 6.5791 QW^{0.84270}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug     | Sep      | Oct      | Nov     | Dec    | Jan    | Feb    | Mar    | Annual   |            |
|-------|--------|--------|--------|--------|---------|----------|----------|---------|--------|--------|--------|--------|----------|------------|
| 1     | 6.60   | 25.30  | 3.50   | 3.50   | 3.70    | 62.20    | 1078.80  | 375.60  | 38.10  | 17.40  | 11.80  | 7.40   |          |            |
| 2     | 6.60   | 21.80  | 3.40   | 3.50   | 4.20    | 68.30    | 1002.10  | 335.40  | 32.70  | 17.30  | 11.40  | 7.20   |          |            |
| 3     | 6.60   | 11.80  | 3.50   | 3.50   | 4.30    | 79.80    | 936.10   | 303.50  | 29.10  | 16.90  | 11.10  | 7.10   |          |            |
| 4     | 6.30   | 4.20   | 3.50   | 3.50   | 4.00    | 88.60    | 872.90   | 268.90  | 26.10  | 16.70  | 10.90  | 7.00   |          |            |
| 5     | 6.30   | 4.00   | 3.50   | 3.50   | 3.70    | 98.30    | 821.10   | 242.30  | 22.40  | 16.70  | 10.80  | 6.90   |          |            |
| 6     | 6.30   | 3.90   | 3.60   | 3.50   | 3.70    | 111.60   | 777.90   | 224.60  | 17.80  | 16.50  | 10.70  | 6.90   |          |            |
| 7     | 6.00   | 3.80   | 3.50   | 3.50   | 3.90    | 134.20   | 740.80   | 205.90  | 18.30  | 16.10  | 10.40  | 6.80   |          |            |
| 8     | 5.70   | 3.80   | 3.50   | 3.50   | 3.80    | 148.40   | 715.70   | 189.70  | 17.20  | 15.90  | 10.10  | 6.70   |          |            |
| 9     | 4.60   | 3.80   | 3.50   | 3.50   | 3.80    | 161.20   | 669.10   | 179.60  | 15.80  | 15.80  | 9.80   | 6.60   |          |            |
| 10    | 4.20   | 3.70   | 3.50   | 3.50   | 3.80    | 164.60   | 615.50   | 167.40  | 14.70  | 15.60  | 9.60   | 6.60   |          |            |
| 11    | 4.20   | 3.70   | 3.50   | 3.50   | 4.00    | 159.40   | 549.60   | 151.30  | 14.00  | 15.50  | 9.40   | 6.50   |          |            |
| 12    | 4.20   | 4.10   | 3.50   | 3.50   | 4.00    | 145.80   | 497.60   | 138.70  | 13.90  | 15.50  | 9.20   | 6.40   |          |            |
| 13    | 4.20   | 4.00   | 3.50   | 3.50   | 3.90    | 135.70   | 467.50   | 130.20  | 13.80  | 15.40  | 9.10   | 6.30   |          |            |
| 14    | 4.20   | 3.80   | 3.50   | 3.50   | 3.90    | 139.20   | 431.50   | 122.50  | 15.10  | 15.20  | 8.80   | 6.10   |          |            |
| 15    | 4.20   | 3.70   | 3.40   | 3.50   | 4.00    | 138.20   | 406.20   | 117.50  | 16.60  | 15.10  | 8.50   | 6.00   |          |            |
| 16    | 4.20   | 3.70   | 3.40   | 3.50   | 4.90    | 137.20   | 409.00   | 109.20  | 16.60  | 15.00  | 8.40   | 5.90   |          |            |
| 17    | 4.20   | 3.70   | 3.40   | 3.50   | 92.40   | 141.70   | 417.50   | 100.30  | 15.50  | 14.90  | 8.30   | 5.90   |          |            |
| 18    | 4.20   | 3.70   | 3.40   | 3.50   | 102.60  | 144.20   | 434.30   | 93.60   | 16.10  | 14.70  | 8.20   | 5.80   |          |            |
| 19    | 4.20   | 3.80   | 3.40   | 3.50   | 74.70   | 217.70   | 431.50   | 87.10   | 15.90  | 14.30  | 8.20   | 5.70   |          |            |
| 20    | 4.20   | 3.70   | 3.40   | 3.70   | 55.10   | 382.70   | 423.10   | 80.90   | 14.60  | 14.10  | 8.10   | 5.60   |          |            |
| 21    | 5.20   | 3.60   | 3.60   | 3.50   | 44.40   | 517.50   | 406.20   | 75.10   | 14.00  | 14.00  | 8.00   | 5.60   |          |            |
| 22    | 11.50  | 3.50   | 3.80   | 3.50   | 48.70   | 659.60   | 395.30   | 69.10   | 13.90  | 13.90  | 7.90   | 5.60   |          |            |
| 23    | 15.90  | 3.90   | 3.90   | 3.70   | 51.10   | 1082.20  | 400.60   | 62.50   | 14.90  | 13.80  | 7.90   | 5.60   |          |            |
| 24    | 10.80  | 3.80   | 3.50   | 3.50   | 47.20   | 1500.10  | 423.10   | 58.10   | 14.80  | 13.70  | 7.80   | 5.50   |          |            |
| 25    | 8.70   | 3.60   | 3.50   | 3.50   | 56.50   | 1510.60  | 451.00   | 52.80   | 14.60  | 13.70  | 7.70   | 5.40   |          |            |
| 26    | 11.50  | 3.50   | 3.90   | 3.50   | 65.50   | 1442.30  | 478.50   | 48.30   | 15.50  | 13.70  | 7.60   | 5.30   |          |            |
| 27    | 21.20  | 3.50   | 3.50   | 3.60   | 72.50   | 1368.20  | 494.90   | 43.50   | 15.90  | 13.60  | 7.50   | 5.20   |          |            |
| 28    | 24.00  | 3.40   | 3.50   | 3.90   | 72.50   | 1283.90  | 500.30   | 38.50   | 16.30  | 13.10  | 7.50   | 5.20   |          |            |
| 29    | 27.00  | 3.40   | 3.50   | 4.00   | 62.20   | 1235.00  | 489.50   | 45.80   | 16.70  | 12.70  |        | 5.00   |          |            |
| 30    | 26.60  | 3.50   | 3.50   | 17.80  | 59.40   | 1162.10  | 478.50   | 45.50   | 17.00  | 12.50  |        | 4.90   |          |            |
| 31    |        | 3.50   |        | 4.20   | 55.50   |          | 442.60   |         | 17.20  | 12.20  |        | 4.90   |          |            |
| Total | 263.60 | 163.20 | 105.60 | 124.90 | 1023.90 | 14620.50 | 17658.30 | 4163.40 | 555.10 | 461.50 | 254.70 | 187.60 | 39582.30 | <b>Ton</b> |
| Mean  | 8.80   | 5.30   | 3.50   | 4.00   | 33.00   | 487.40   | 569.60   | 138.80  | 17.90  | 14.90  | 9.10   | 6.10   |          |            |
| Max   | 27.00  | 25.30  | 3.90   | 17.80  | 102.60  | 1510.60  | 1078.80  | 375.60  | 38.10  | 17.40  | 11.80  | 7.40   | 1510.60  |            |
| Min   | 4.20   | 3.40   | 3.40   | 3.50   | 3.70    | 62.20    | 395.30   | 38.50   | 13.80  | 12.20  | 7.50   | 4.90   | 3.40     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Chi at Ban La Loon, Surin (M.26A)**

Lat 14 - 54 - 08 N Long 103 - 24 - 12 E

**Location : on left bank at railway bridge.**

|                                      |                            |                |               |               |                 |              |
|--------------------------------------|----------------------------|----------------|---------------|---------------|-----------------|--------------|
|                                      | <b>Ban</b>                 | <b>La Loon</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b> | <b>Surin</b> |
| <b>Drainage Area</b>                 | 3,028                      | sq.km.         |               |               |                 |              |
| <b>Method of sampling</b>            | Depth                      | Integrating    |               |               |                 |              |
| <b>Instrument Used</b>               | US.D-49                    |                |               |               |                 |              |
| <b>Period of Available Records</b>   | 2010-Cont'd                |                |               |               |                 |              |
| <b>Actual Measurement</b>            | 2010-Cont'd                |                |               |               |                 |              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |               |               |                 |              |
| <b>Number of observation</b>         | 43                         |                |               |               |                 |              |
| <b>R-Square</b>                      | 0.9078                     |                |               |               |                 |              |
| <b>Remarks</b>                       | Continued Sediment Station |                |               |               |                 |              |

$$QS = 1.5465 QW^{1.11610}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun   | Jul    | Aug     | Sep      | Oct      | Nov     | Dec   | Jan   | Feb   | Mar   | Annual   |            |
|-------|-------|-------|-------|--------|---------|----------|----------|---------|-------|-------|-------|-------|----------|------------|
| 1     | 0.70  | 0.70  | 0.60  | 0.60   | 29.80   | 2.10     | 1181.60  | 245.80  | 4.30  | 1.00  | 0.70  | 0.60  |          |            |
| 2     | 0.70  | 0.80  | 0.60  | 0.60   | 29.40   | 2.40     | 1064.40  | 207.60  | 3.40  | 0.90  | 0.70  | 0.60  |          |            |
| 3     | 0.70  | 0.80  | 0.70  | 0.60   | 29.20   | 3.40     | 933.20   | 168.90  | 2.20  | 0.80  | 0.70  | 0.60  |          |            |
| 4     | 0.70  | 0.80  | 0.60  | 0.60   | 29.70   | 25.70    | 797.20   | 140.50  | 1.90  | 0.80  | 0.70  | 0.60  |          |            |
| 5     | 0.70  | 0.80  | 0.60  | 0.60   | 31.60   | 4.00     | 679.20   | 118.80  | 1.70  | 0.80  | 0.70  | 0.60  |          |            |
| 6     | 0.70  | 0.80  | 0.60  | 0.60   | 43.40   | 4.00     | 586.20   | 101.40  | 1.50  | 0.80  | 0.70  | 0.60  |          |            |
| 7     | 0.70  | 0.70  | 0.60  | 0.60   | 52.70   | 25.90    | 559.40   | 86.80   | 1.50  | 0.80  | 0.70  | 0.60  |          |            |
| 8     | 0.60  | 0.70  | 0.60  | 0.70   | 57.30   | 27.50    | 565.80   | 80.50   | 1.30  | 0.80  | 0.70  | 0.60  |          |            |
| 9     | 0.60  | 0.60  | 0.50  | 0.70   | 58.20   | 29.70    | 632.50   | 81.70   | 1.20  | 0.80  | 0.70  | 0.60  |          |            |
| 10    | 0.60  | 0.60  | 0.50  | 0.70   | 58.20   | 32.00    | 757.60   | 84.00   | 1.20  | 0.70  | 0.70  | 0.60  |          |            |
| 11    | 0.60  | 0.60  | 0.50  | 0.70   | 61.20   | 36.40    | 909.00   | 92.30   | 1.20  | 0.70  | 0.70  | 0.60  |          |            |
| 12    | 0.60  | 0.70  | 0.70  | 0.60   | 68.90   | 38.70    | 1038.60  | 91.90   | 1.20  | 0.70  | 0.70  | 0.60  |          |            |
| 13    | 0.60  | 0.90  | 0.70  | 0.60   | 69.60   | 41.40    | 1014.20  | 76.20   | 1.10  | 0.70  | 0.60  | 0.50  |          |            |
| 14    | 0.50  | 0.80  | 0.70  | 0.60   | 69.20   | 48.20    | 909.00   | 72.70   | 1.10  | 0.70  | 0.60  | 0.50  |          |            |
| 15    | 0.50  | 0.70  | 0.70  | 0.60   | 64.60   | 68.50    | 1014.20  | 61.90   | 1.00  | 0.70  | 0.60  | 0.50  |          |            |
| 16    | 0.50  | 0.70  | 0.60  | 0.60   | 58.20   | 82.80    | 884.90   | 53.00   | 1.00  | 0.70  | 0.60  | 0.50  |          |            |
| 17    | 0.50  | 0.70  | 0.60  | 0.60   | 51.70   | 87.90    | 534.00   | 47.20   | 1.10  | 0.70  | 0.60  | 0.50  |          |            |
| 18    | 0.50  | 0.70  | 0.60  | 0.60   | 45.80   | 93.10    | 489.80   | 41.40   | 1.10  | 0.70  | 0.60  | 0.50  |          |            |
| 19    | 0.50  | 0.70  | 0.60  | 0.60   | 37.30   | 107.90   | 508.70   | 33.30   | 1.10  | 0.70  | 0.60  | 0.50  |          |            |
| 20    | 0.50  | 0.70  | 0.60  | 0.60   | 31.40   | 246.40   | 648.00   | 31.80   | 1.00  | 0.70  | 0.60  | 0.50  |          |            |
| 21    | 0.50  | 0.70  | 0.60  | 0.60   | 29.30   | 443.50   | 836.90   | 31.10   | 1.00  | 0.70  | 0.60  | 0.50  |          |            |
| 22    | 0.50  | 0.70  | 0.60  | 0.70   | 27.50   | 617.10   | 949.30   | 30.30   | 1.10  | 0.70  | 0.60  | 0.50  |          |            |
| 23    | 0.50  | 0.70  | 0.60  | 0.70   | 26.40   | 1181.60  | 941.20   | 29.40   | 1.10  | 0.70  | 0.60  | 0.50  |          |            |
| 24    | 0.50  | 0.70  | 0.60  | 0.70   | 3.50    | 1576.80  | 860.90   | 28.60   | 1.20  | 0.70  | 0.60  | 0.40  |          |            |
| 25    | 0.50  | 0.70  | 0.60  | 0.70   | 2.80    | 1411.00  | 741.90   | 27.90   | 1.20  | 0.70  | 0.60  | 0.40  |          |            |
| 26    | 0.60  | 0.80  | 0.70  | 0.80   | 1.80    | 1233.30  | 624.80   | 27.30   | 1.10  | 0.70  | 0.60  | 0.40  |          |            |
| 27    | 0.70  | 0.70  | 0.70  | 28.20  | 1.70    | 1054.90  | 508.70   | 27.00   | 1.10  | 0.70  | 0.60  | 0.40  |          |            |
| 28    | 0.70  | 0.70  | 0.70  | 31.30  | 2.10    | 1093.10  | 413.20   | 26.80   | 1.10  | 0.70  | 0.60  | 0.40  |          |            |
| 29    | 0.70  | 0.70  | 0.70  | 32.20  | 1.70    | 1274.90  | 359.90   | 26.20   | 1.10  | 0.70  |       | 0.40  |          |            |
| 30    | 0.80  | 0.70  | 0.70  | 31.80  | 1.70    | 1254.10  | 319.00   | 25.80   | 1.10  | 0.70  |       | 0.40  |          |            |
| 31    |       | 0.70  |       | 30.70  | 2.10    |          | 283.20   |         | 1.10  | 0.70  |       | 0.40  |          |            |
| Total | 18.00 | 22.30 | 18.70 | 170.80 | 1078.00 | 12148.30 | 22546.50 | 2198.10 | 43.30 | 22.90 | 18.00 | 15.90 | 38300.80 | <b>Ton</b> |
| Mean  | 0.60  | 0.70  | 0.60  | 5.50   | 34.80   | 404.90   | 727.30   | 73.30   | 1.40  | 0.70  | 0.60  | 0.50  |          |            |
| Max   | 0.80  | 0.90  | 0.70  | 32.20  | 69.60   | 1576.80  | 1181.60  | 245.80  | 4.30  | 1.00  | 0.70  | 0.60  | 1576.80  |            |
| Min   | 0.50  | 0.60  | 0.50  | 0.60   | 1.70    | 2.10     | 283.20   | 25.80   | 1.00  | 0.70  | 0.60  | 0.40  | 0.40     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Huai Thap Than at Ban Huai Thap Than, Si Sa Ket (M.42)**

Lat 15 - 02 - 48 N Long 104 - 01 - 31 E

**Location : on right bank at the bridge on highway.**

|                                      |                            |                              |                           |
|--------------------------------------|----------------------------|------------------------------|---------------------------|
|                                      | <b>Ban</b> Huai Thap Than  | <b>Amphoe</b> Huai Thap Thun | <b>Changwat</b> Si Sa Ket |
| <b>Drainage Area</b>                 | 2,832 sq.km.               |                              |                           |
| <b>Method of sampling</b>            | Depth Integrating          |                              |                           |
| <b>Instrument Used</b>               | US.D-49                    |                              |                           |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                              |                           |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                              |                           |
| <b>Using Rating Curve Water Year</b> | 2013                       |                              |                           |
| <b>Number of observation</b>         | 40                         |                              |                           |
| <b>R-Square</b>                      | 0.9866                     |                              |                           |
| <b>Remarks</b>                       | Continued Sediment Station |                              |                           |

$$QS = 3.4794 QW^{1.01910}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun  | Jul   | Aug    | Sep      | Oct      | Nov     | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|------|------|------|-------|--------|----------|----------|---------|--------|--------|-------|-------|----------|------------|
| 1     | 0.00 | 0.00 | 0.00 | 0.00  | 3.50   | 79.40    | 1381.80  | 409.00  | 8.90   | 3.10   | 3.10  | 2.80  |          |            |
| 2     | 0.00 | 0.00 | 0.00 | 0.00  | 3.50   | 93.50    | 1381.80  | 337.40  | 7.10   | 3.10   | 3.10  | 2.80  |          |            |
| 3     | 0.00 | 0.00 | 0.00 | 0.00  | 2.80   | 116.00   | 1342.10  | 242.70  | 6.70   | 3.10   | 3.10  | 2.80  |          |            |
| 4     | 0.00 | 0.00 | 0.00 | 0.00  | 2.80   | 145.20   | 1262.90  | 161.00  | 6.30   | 3.10   | 3.10  | 2.80  |          |            |
| 5     | 0.00 | 0.00 | 0.00 | 0.00  | 3.50   | 168.30   | 1145.40  | 103.10  | 5.60   | 3.10   | 3.10  | 2.40  |          |            |
| 6     | 0.00 | 0.00 | 0.00 | 0.00  | 3.50   | 179.90   | 991.80   | 79.80   | 5.60   | 3.10   | 3.10  | 2.40  |          |            |
| 7     | 0.00 | 0.00 | 0.00 | 0.00  | 3.80   | 187.10   | 850.10   | 76.90   | 5.30   | 3.10   | 2.80  | 2.10  |          |            |
| 8     | 0.00 | 0.00 | 0.00 | 0.00  | 3.50   | 184.20   | 732.70   | 75.90   | 5.30   | 3.10   | 2.80  | 2.10  |          |            |
| 9     | 0.00 | 0.00 | 0.00 | 0.00  | 2.80   | 173.30   | 635.30   | 74.60   | 5.30   | 3.10   | 2.80  | 2.10  |          |            |
| 10    | 0.00 | 0.00 | 0.00 | 0.00  | 2.80   | 165.40   | 570.40   | 75.00   | 4.90   | 3.10   | 2.80  | 2.10  |          |            |
| 11    | 0.00 | 0.00 | 0.00 | 0.00  | 2.80   | 152.70   | 520.70   | 75.90   | 4.90   | 3.10   | 2.80  | 2.10  |          |            |
| 12    | 0.00 | 0.00 | 0.00 | 0.00  | 3.50   | 138.30   | 479.90   | 77.20   | 4.50   | 3.10   | 2.80  | 2.10  |          |            |
| 13    | 0.00 | 0.00 | 0.00 | 0.00  | 28.20  | 127.00   | 444.90   | 78.20   | 4.20   | 3.10   | 2.80  | 2.10  |          |            |
| 14    | 0.00 | 0.00 | 0.00 | 0.00  | 34.30  | 128.90   | 417.10   | 77.50   | 4.20   | 3.10   | 2.80  | 2.10  |          |            |
| 15    | 0.00 | 0.00 | 0.00 | 0.00  | 32.30  | 140.40   | 395.40   | 76.20   | 4.20   | 3.10   | 2.80  | 2.10  |          |            |
| 16    | 0.00 | 0.00 | 0.00 | 0.00  | 36.40  | 158.20   | 388.60   | 75.00   | 5.30   | 3.10   | 2.80  | 2.10  |          |            |
| 17    | 0.00 | 0.00 | 0.00 | 0.00  | 74.30  | 169.70   | 384.60   | 74.30   | 5.30   | 3.10   | 2.80  | 1.70  |          |            |
| 18    | 0.00 | 0.00 | 0.00 | 0.00  | 74.60  | 184.20   | 384.60   | 34.30   | 4.90   | 3.10   | 2.80  | 1.70  |          |            |
| 19    | 0.00 | 0.00 | 0.00 | 0.00  | 74.30  | 248.00   | 398.10   | 28.20   | 4.90   | 3.50   | 2.80  | 1.70  |          |            |
| 20    | 0.00 | 0.00 | 0.00 | 0.30  | 34.30  | 467.60   | 432.10   | 24.20   | 4.90   | 3.80   | 2.80  | 3.10  |          |            |
| 21    | 0.00 | 0.00 | 0.00 | 0.30  | 28.20  | 1286.70  | 512.00   | 20.10   | 4.50   | 4.20   | 2.80  | 2.80  |          |            |
| 22    | 0.00 | 0.00 | 0.00 | 0.30  | 26.20  | 2606.00  | 677.90   | 16.10   | 4.20   | 4.50   | 2.80  | 2.40  |          |            |
| 23    | 0.00 | 0.00 | 0.00 | 0.30  | 20.10  | 2794.00  | 856.40   | 14.30   | 4.20   | 4.50   | 2.80  | 2.40  |          |            |
| 24    | 0.00 | 0.00 | 0.00 | 0.30  | 14.30  | 2460.00  | 926.80   | 12.50   | 4.20   | 4.50   | 2.80  | 2.40  |          |            |
| 25    | 0.00 | 0.00 | 0.00 | 0.30  | 11.60  | 2158.00  | 926.80   | 11.60   | 3.80   | 4.50   | 2.80  | 2.40  |          |            |
| 26    | 0.00 | 0.00 | 0.00 | 0.00  | 9.80   | 1869.60  | 887.90   | 10.70   | 3.80   | 4.50   | 2.80  | 2.40  |          |            |
| 27    | 0.00 | 0.00 | 0.00 | 0.00  | 11.60  | 1697.80  | 818.70   | 10.70   | 3.80   | 4.50   | 2.80  | 2.40  |          |            |
| 28    | 0.00 | 0.00 | 0.00 | 1.70  | 10.70  | 1597.50  | 726.90   | 9.80    | 3.50   | 4.50   | 2.80  | 2.40  |          |            |
| 29    | 0.00 | 0.00 | 0.00 | 2.10  | 6.70   | 1489.00  | 622.40   | 8.90    | 3.50   | 4.20   |       | 2.40  |          |            |
| 30    | 0.00 | 0.00 | 0.00 | 4.90  | 16.10  | 1397.70  | 523.60   | 11.60   | 3.50   | 3.10   |       | 2.40  |          |            |
| 31    |      | 0.00 |      | 3.80  | 75.60  |          | 464.10   |         | 3.10   | 3.10   |       | 2.40  |          |            |
| Total | 0.00 | 0.00 | 0.00 | 14.30 | 658.40 | 22763.60 | 22483.80 | 2382.70 | 150.40 | 109.20 | 80.20 | 72.00 | 48714.60 | <b>Ton</b> |
| Mean  | 0.00 | 0.00 | 0.00 | 0.50  | 21.20  | 758.80   | 725.30   | 79.40   | 4.90   | 3.50   | 2.90  | 2.30  |          |            |
| Max   | 0.00 | 0.00 | 0.00 | 4.90  | 75.60  | 2794.00  | 1381.80  | 409.00  | 8.90   | 4.50   | 3.10  | 3.10  | 2794.00  |            |
| Min   | 0.00 | 0.00 | 0.00 | 0.00  | 2.80   | 79.40    | 384.60   | 8.90    | 3.10   | 3.10   | 2.80  | 1.70  | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima (M.89)**

Lat 14 - 41 - 39 N Long 101 - 25 - 00 E

**Location : on left bank at the bridge infront of Vaccine Serum Office.**

|                                      |                                |                         |                                   |
|--------------------------------------|--------------------------------|-------------------------|-----------------------------------|
|                                      | <b>Ban -</b>                   | <b>Amphoe</b> Pak Chong | <b>Changwat</b> Nakhon Ratchasima |
| <b>Drainage Area</b>                 | 713 sq.km.                     |                         |                                   |
| <b>Method of sampling</b>            | Depth Integrating              |                         |                                   |
| <b>Instrument Used</b>               | US.D-49                        |                         |                                   |
| <b>Period of Available Records</b>   | 1981 - 1988,1991,1997 - Cont'd |                         |                                   |
| <b>Actual Measurement</b>            | 1981 - 1988,1991,1997 - Cont'd |                         |                                   |
| <b>Using Rating Curve Water Year</b> | 2013                           |                         |                                   |
| <b>Number of observation</b>         | 39                             |                         |                                   |
| <b>R-Square</b>                      | 0.9333                         |                         |                                   |
| <b>Remarks</b>                       | Continued Sediment Station     |                         |                                   |

$$QS = 0.9115 QW^{1.88610}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun    | Jul    | Aug     | Sep      | Oct      | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|-------|-------|--------|--------|---------|----------|----------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 0.10  | 1.20  | 2.90   | 4.00   | 64.90   | 4.40     | 383.00   | 55.10  | 14.90  | 5.10   | 2.50  | 2.20  |          |            |
| 2     | 0.10  | 0.90  | 2.10   | 3.20   | 85.40   | 4.40     | 227.40   | 50.50  | 14.90  | 5.10   | 2.30  | 2.20  |          |            |
| 3     | 0.10  | 0.90  | 2.90   | 3.10   | 174.20  | 3.70     | 412.60   | 46.00  | 13.70  | 4.80   | 2.30  | 2.10  |          |            |
| 4     | 0.20  | 1.10  | 2.90   | 3.10   | 336.00  | 3.10     | 2338.60  | 41.80  | 13.70  | 4.80   | 2.30  | 2.10  |          |            |
| 5     | 0.30  | 1.30  | 4.80   | 5.50   | 266.80  | 2.80     | 1608.70  | 37.70  | 13.70  | 4.40   | 2.30  | 2.20  |          |            |
| 6     | 0.30  | 1.30  | 11.30  | 4.00   | 123.50  | 2.60     | 432.90   | 35.80  | 13.70  | 4.40   | 2.30  | 2.10  |          |            |
| 7     | 0.40  | 1.10  | 16.20  | 7.20   | 61.20   | 3.10     | 2453.20  | 35.80  | 12.50  | 4.40   | 2.30  | 2.30  |          |            |
| 8     | 0.30  | 1.10  | 37.70  | 30.20  | 76.90   | 4.40     | 3489.80  | 39.70  | 12.50  | 4.40   | 2.30  | 2.90  |          |            |
| 9     | 0.30  | 2.60  | 6.40   | 6.80   | 85.40   | 5.90     | 764.60   | 52.80  | 12.50  | 4.00   | 2.50  | 2.30  |          |            |
| 10    | 0.40  | 2.20  | 3.70   | 6.80   | 186.60  | 13.70    | 354.40   | 39.70  | 11.30  | 4.00   | 2.20  | 1.60  |          |            |
| 11    | 0.40  | 1.30  | 4.00   | 50.50  | 85.40   | 10.20    | 227.40   | 33.90  | 9.20   | 4.00   | 2.20  | 2.10  |          |            |
| 12    | 0.40  | 1.40  | 103.60 | 17.60  | 89.80   | 14.90    | 168.20   | 32.00  | 8.20   | 3.40   | 2.20  | 1.70  |          |            |
| 13    | 0.40  | 1.30  | 25.10  | 11.30  | 57.50   | 30.20    | 128.70   | 33.90  | 8.20   | 3.20   | 2.50  | 1.60  |          |            |
| 14    | 0.40  | 1.00  | 57.50  | 6.40   | 94.30   | 55.10    | 108.40   | 35.80  | 7.20   | 3.20   | 2.30  | 1.60  |          |            |
| 15    | 0.40  | 1.10  | 61.20  | 5.50   | 55.10   | 32.00    | 89.80    | 30.20  | 7.20   | 3.10   | 2.30  | 1.60  |          |            |
| 16    | 0.40  | 0.90  | 19.00  | 23.50  | 52.80   | 25.10    | 139.50   | 28.50  | 7.20   | 3.10   | 2.30  | 1.60  |          |            |
| 17    | 0.50  | 1.00  | 5.90   | 37.70  | 33.90   | 57.50    | 993.20   | 28.50  | 7.20   | 3.10   | 2.30  | 1.80  |          |            |
| 18    | 0.50  | 1.20  | 5.10   | 12.50  | 23.50   | 61.20    | 660.80   | 26.80  | 6.80   | 2.90   | 2.30  | 2.80  |          |            |
| 19    | 0.50  | 0.80  | 10.20  | 3.70   | 16.20   | 52.80    | 3517.20  | 25.10  | 6.80   | 3.10   | 2.30  | 2.10  |          |            |
| 20    | 0.60  | 2.00  | 81.10  | 4.80   | 11.30   | 2204.40  | 4664.50  | 23.50  | 6.40   | 2.90   | 2.90  | 2.00  |          |            |
| 21    | 0.60  | 1.50  | 52.80  | 3.70   | 8.20    | 9529.10  | 791.60   | 21.90  | 5.90   | 3.10   | 2.60  | 1.70  |          |            |
| 22    | 0.60  | 1.60  | 25.10  | 3.70   | 8.20    | 4570.90  | 392.70   | 20.40  | 5.90   | 2.80   | 2.30  | 1.80  |          |            |
| 23    | 0.60  | 1.40  | 12.50  | 3.20   | 7.20    | 1150.20  | 258.70   | 19.00  | 5.90   | 2.80   | 2.30  | 2.10  |          |            |
| 24    | 0.60  | 1.30  | 12.50  | 4.80   | 11.30   | 422.70   | 192.90   | 19.00  | 5.90   | 2.80   | 2.30  | 2.10  |          |            |
| 25    | 0.80  | 1.10  | 16.20  | 48.20  | 13.70   | 242.80   | 150.70   | 50.50  | 5.50   | 2.80   | 2.20  | 2.10  |          |            |
| 26    | 1.70  | 1.20  | 14.90  | 32.00  | 9.20    | 412.60   | 123.50   | 46.00  | 5.50   | 2.80   | 2.10  | 2.50  |          |            |
| 27    | 1.70  | 1.10  | 12.50  | 20.40  | 14.90   | 611.60   | 103.60   | 28.50  | 5.50   | 2.60   | 2.20  | 2.50  |          |            |
| 28    | 1.70  | 1.30  | 7.20   | 23.50  | 7.20    | 453.60   | 89.80    | 23.50  | 5.10   | 2.80   | 2.20  | 2.30  |          |            |
| 29    | 1.30  | 2.10  | 6.40   | 16.20  | 5.90    | 541.20   | 81.10    | 19.00  | 5.10   | 2.60   |       | 2.10  |          |            |
| 30    | 1.00  | 1.20  | 7.20   | 35.80  | 5.10    | 1232.80  | 72.80    | 17.60  | 5.10   | 2.50   |       | 2.00  |          |            |
| 31    |       | 2.20  |        | 61.20  | 4.80    |          | 64.90    |        | 5.10   | 2.50   |       | 1.70  |          |            |
| Total | 17.60 | 41.70 | 630.90 | 500.10 | 2076.40 | 21759.00 | 25485.20 | 998.50 | 268.30 | 107.50 | 65.10 | 63.80 | 52014.10 | <b>Ton</b> |
| Mean  | 0.60  | 1.30  | 21.00  | 16.10  | 67.00   | 725.30   | 822.10   | 33.30  | 8.70   | 3.50   | 2.30  | 2.10  |          |            |
| Max   | 1.70  | 2.60  | 103.60 | 61.20  | 336.00  | 9529.10  | 4664.50  | 55.10  | 14.90  | 5.10   | 2.90  | 2.90  | 9529.10  |            |
| Min   | 0.10  | 0.80  | 2.10   | 3.10   | 4.80    | 2.60     | 64.90    | 17.60  | 5.10   | 2.50   | 2.10  | 1.60  | 0.10     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Wang Prat, Buri Ram (M.104)**

Lat 15 - 26 - 02 N Long 103 - 00 - 59 E

**Location : on left bank at the bridge.**

|                                      |                            |                  |               |                   |                 |                 |
|--------------------------------------|----------------------------|------------------|---------------|-------------------|-----------------|-----------------|
|                                      | <b>Ban</b>                 | <b>Wang Prat</b> | <b>Amphoe</b> | <b>Khu Mueang</b> | <b>Changwat</b> | <b>Buri Ram</b> |
| <b>Drainage Area</b>                 | 24,841                     | sq.km.           |               |                   |                 |                 |
| <b>Method of sampling</b>            | Depth Integrating          |                  |               |                   |                 |                 |
| <b>Instrument Used</b>               | US.D-49                    |                  |               |                   |                 |                 |
| <b>Period of Available Records</b>   | 2005 - Cont'd              |                  |               |                   |                 |                 |
| <b>Actual Measurement</b>            | 2005 - Cont'd              |                  |               |                   |                 |                 |
| <b>Using Rating Curve Water Year</b> | 2013                       |                  |               |                   |                 |                 |
| <b>Number of observation</b>         | 24                         |                  |               |                   |                 |                 |
| <b>R-Square</b>                      | 0.9342                     |                  |               |                   |                 |                 |
| <b>Remarks</b>                       | Continued Sediment Station |                  |               |                   |                 |                 |

$$QS = 16.3890 QW^{0.81780}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun  | Jul  | Aug     | Sep      | Oct       | Nov      | Dec      | Jan     | Feb    | Mar  | Annual    |     |
|-------|------|------|------|------|---------|----------|-----------|----------|----------|---------|--------|------|-----------|-----|
| 1     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 166.30   | 2365.60   | 5346.70  | 1454.50  | 314.10  | 40.20  | 0.00 |           |     |
| 2     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 103.30   | 2636.70   | 5311.60  | 1377.10  | 317.50  | 34.70  | 0.00 |           |     |
| 3     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 141.90   | 2981.80   | 5241.30  | 1263.60  | 307.10  | 22.80  | 0.00 |           |     |
| 4     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 227.90   | 3550.50   | 5064.50  | 1155.70  | 289.60  | 9.30   | 0.00 |           |     |
| 5     | 0.00 | 0.00 | 0.00 | 0.00 | 9.30    | 271.80   | 4091.70   | 4893.90  | 1077.20  | 296.60  | 0.00   | 0.00 |           |     |
| 6     | 0.00 | 0.00 | 0.00 | 0.00 | 141.90  | 293.10   | 4473.70   | 4765.50  | 1008.10  | 296.60  | 0.00   | 0.00 |           |     |
| 7     | 0.00 | 0.00 | 0.00 | 0.00 | 182.10  | 275.30   | 4668.70   | 4603.90  | 910.70   | 282.50  | 0.00   | 0.00 |           |     |
| 8     | 0.00 | 0.00 | 0.00 | 0.00 | 212.90  | 293.10   | 4733.30   | 4408.30  | 795.60   | 275.30  | 0.00   | 0.00 |           |     |
| 9     | 0.00 | 0.00 | 0.00 | 0.00 | 220.40  | 289.60   | 4701.00   | 4228.30  | 711.70   | 268.20  | 0.00   | 0.00 |           |     |
| 10    | 0.00 | 0.00 | 0.00 | 0.00 | 242.70  | 338.20   | 4668.70   | 4119.10  | 646.20   | 264.60  | 0.00   | 0.00 |           |     |
| 11    | 0.00 | 0.00 | 0.00 | 0.00 | 250.10  | 381.90   | 4603.90   | 3926.30  | 553.60   | 257.30  | 0.00   | 0.00 |           |     |
| 12    | 0.00 | 0.00 | 0.00 | 0.00 | 235.40  | 388.60   | 4538.90   | 3759.50  | 523.50   | 253.70  | 0.00   | 0.00 |           |     |
| 13    | 0.00 | 0.00 | 0.00 | 0.00 | 216.70  | 351.80   | 4473.70   | 3603.00  | 405.00   | 250.10  | 0.00   | 0.00 |           |     |
| 14    | 0.00 | 0.00 | 0.00 | 0.00 | 216.70  | 398.50   | 4408.30   | 3449.10  | 401.80   | 235.40  | 0.00   | 0.00 |           |     |
| 15    | 0.00 | 0.00 | 0.00 | 0.00 | 257.30  | 378.60   | 4441.00   | 3277.20  | 398.50   | 231.60  | 0.00   | 0.00 |           |     |
| 16    | 0.00 | 0.00 | 0.00 | 0.00 | 296.60  | 351.80   | 4733.30   | 3078.20  | 395.20   | 220.40  | 0.00   | 0.00 |           |     |
| 17    | 0.00 | 0.00 | 0.00 | 0.00 | 300.10  | 398.50   | 4957.80   | 2876.30  | 395.20   | 212.90  | 0.00   | 0.00 |           |     |
| 18    | 0.00 | 0.00 | 0.00 | 0.00 | 371.90  | 434.30   | 5064.50   | 2772.00  | 427.90   | 205.30  | 0.00   | 0.00 |           |     |
| 19    | 0.00 | 0.00 | 0.00 | 0.00 | 414.90  | 460.00   | 5135.40   | 2636.70  | 414.90   | 197.60  | 0.00   | 0.00 |           |     |
| 20    | 0.00 | 0.00 | 0.00 | 0.00 | 385.30  | 492.90   | 5206.10   | 2480.10  | 408.30   | 186.00  | 0.00   | 0.00 |           |     |
| 21    | 0.00 | 0.00 | 0.00 | 0.00 | 391.90  | 574.90   | 5206.10   | 2330.10  | 388.60   | 174.20  | 0.00   | 0.00 |           |     |
| 22    | 0.00 | 0.00 | 0.00 | 0.00 | 411.60  | 683.20   | 5206.10   | 2209.50  | 365.20   | 166.30  | 0.00   | 0.00 |           |     |
| 23    | 0.00 | 0.00 | 0.00 | 0.00 | 338.20  | 844.40   | 5206.10   | 2101.00  | 314.10   | 141.90  | 0.00   | 0.00 |           |     |
| 24    | 0.00 | 0.00 | 0.00 | 0.00 | 242.70  | 1061.30  | 5170.70   | 2005.00  | 300.10   | 133.50  | 0.00   | 0.00 |           |     |
| 25    | 0.00 | 0.00 | 0.00 | 0.00 | 193.80  | 1197.10  | 5135.40   | 1926.60  | 293.10   | 125.10  | 0.00   | 0.00 |           |     |
| 26    | 0.00 | 0.00 | 0.00 | 0.00 | 300.10  | 1370.60  | 5135.40   | 1833.40  | 282.50   | 116.50  | 0.00   | 0.00 |           |     |
| 27    | 0.00 | 0.00 | 0.00 | 0.00 | 296.60  | 1554.40  | 5135.40   | 1739.20  | 271.80   | 107.70  | 0.00   | 0.00 |           |     |
| 28    | 0.00 | 0.00 | 0.00 | 0.00 | 324.40  | 1727.30  | 5170.70   | 1658.10  | 261.00   | 89.80   | 0.00   | 0.00 |           |     |
| 29    | 0.00 | 0.00 | 0.00 | 0.00 | 307.10  | 1938.20  | 5206.10   | 1590.80  | 246.40   | 80.50   |        | 0.00 |           |     |
| 30    | 0.00 | 0.00 | 0.00 | 0.00 | 264.60  | 2087.30  | 5276.50   | 1525.20  | 239.00   | 66.10   |        | 0.00 |           |     |
| 31    |      | 0.00 |      | 0.00 | 231.60  |          | 5346.70   |          | 231.60   | 50.90   |        | 0.00 |           |     |
| Total | 0.00 | 0.00 | 0.00 | 0.00 | 7256.90 | 19476.10 | 143629.80 | 98760.40 | 17917.70 | 6414.90 | 107.00 | 0.00 | 293562.80 | Ton |
| Mean  | 0.00 | 0.00 | 0.00 | 0.00 | 234.10  | 649.20   | 4633.20   | 3292.00  | 578.00   | 206.90  | 3.80   | 0.00 |           |     |
| Max   | 0.00 | 0.00 | 0.00 | 0.00 | 414.90  | 2087.30  | 5346.70   | 5346.70  | 1454.50  | 317.50  | 40.20  | 0.00 | 5346.70   |     |
| Min   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    | 103.30   | 2365.60   | 1525.20  | 231.60   | 50.90   | 0.00   | 0.00 | 0.00      |     |



**WATER YEAR : 2013****MUN RIVER BASIN****Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani (M.127)**

Lat 15 - 38 - 37 N Long 104 - 55 - 57 E

**Location : on left bank at the bridge on road.**

|                                      |                            |               |               |                        |                 |                         |
|--------------------------------------|----------------------------|---------------|---------------|------------------------|-----------------|-------------------------|
|                                      | <b>Ban</b>                 | <b>Na Hai</b> | <b>Amphoe</b> | <b>Trakan Phutphon</b> | <b>Changwat</b> | <b>Ubon Ratchathani</b> |
| <b>Drainage Area</b>                 | 424                        | sq.km.        |               |                        |                 |                         |
| <b>Method of sampling</b>            | Depth                      | Integrating   |               |                        |                 |                         |
| <b>Instrument Used</b>               | US.D-49                    |               |               |                        |                 |                         |
| <b>Period of Available Records</b>   | 1997-Cont'd                |               |               |                        |                 |                         |
| <b>Actual Measurement</b>            | 1997-Cont'd                |               |               |                        |                 |                         |
| <b>Using Rating Curve Water Year</b> | 2013                       |               |               |                        |                 |                         |
| <b>Number of observation</b>         | 32                         |               |               |                        |                 |                         |
| <b>R-Square</b>                      | 0.9029                     |               |               |                        |                 |                         |
| <b>Remarks</b>                       | Continued Sediment Station |               |               |                        |                 |                         |

$$QS = 1.3172 QW^{1.41540}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun   | Jul      | Aug     | Sep      | Oct    | Nov   | Dec   | Jan   | Feb  | Mar  | Annual   |            |
|-------|------|------|-------|----------|---------|----------|--------|-------|-------|-------|------|------|----------|------------|
| 1     | 0.00 | 0.00 | 0.10  | 1.90     | 285.40  | 28.60    | 45.70  | 1.70  | 0.40  | 0.40  | 0.10 | 0.00 |          |            |
| 2     | 0.00 | 0.00 | 0.60  | 1.10     | 122.60  | 23.20    | 31.40  | 1.70  | 0.40  | 0.40  | 0.10 | 0.00 |          |            |
| 3     | 0.00 | 0.00 | 0.90  | 1.10     | 74.20   | 15.90    | 25.00  | 1.50  | 0.50  | 0.40  | 0.10 | 0.00 |          |            |
| 4     | 0.00 | 0.00 | 0.80  | 1.00     | 49.70   | 10.70    | 19.90  | 1.30  | 0.50  | 0.40  | 0.10 | 0.00 |          |            |
| 5     | 0.00 | 0.00 | 1.20  | 0.90     | 35.30   | 5.90     | 12.10  | 1.30  | 0.50  | 0.40  | 0.10 | 0.00 |          |            |
| 6     | 0.00 | 0.00 | 1.70  | 1.70     | 22.40   | 6.20     | 6.80   | 1.30  | 0.50  | 0.40  | 0.10 | 0.00 |          |            |
| 7     | 0.00 | 0.00 | 1.50  | 2.30     | 24.10   | 65.20    | 5.70   | 1.30  | 0.40  | 0.40  | 0.10 | 0.00 |          |            |
| 8     | 0.00 | 0.00 | 1.00  | 1.70     | 25.00   | 36.20    | 5.40   | 1.30  | 0.40  | 0.40  | 0.10 | 0.00 |          |            |
| 9     | 0.00 | 0.00 | 0.80  | 1.90     | 75.70   | 33.30    | 4.80   | 1.20  | 0.40  | 0.50  | 0.10 | 0.00 |          |            |
| 10    | 0.00 | 0.00 | 0.60  | 2.60     | 89.80   | 26.80    | 4.30   | 1.20  | 0.50  | 0.50  | 0.00 | 0.00 |          |            |
| 11    | 0.00 | 0.00 | 0.30  | 2.80     | 69.60   | 18.20    | 4.00   | 1.20  | 0.50  | 0.50  | 0.00 | 0.00 |          |            |
| 12    | 0.00 | 0.00 | 0.60  | 2.30     | 94.70   | 5.70     | 3.50   | 1.20  | 0.50  | 0.50  | 0.00 | 0.00 |          |            |
| 13    | 0.00 | 0.00 | 0.60  | 1.90     | 86.60   | 1.50     | 4.30   | 1.20  | 0.40  | 0.50  | 0.00 | 0.00 |          |            |
| 14    | 0.00 | 0.00 | 0.60  | 2.30     | 45.70   | 10.70    | 3.80   | 1.10  | 0.40  | 0.40  | 0.00 | 0.00 |          |            |
| 15    | 0.00 | 0.00 | 0.50  | 4.00     | 26.80   | 19.00    | 3.50   | 1.10  | 0.40  | 0.40  | 0.00 | 0.00 |          |            |
| 16    | 0.00 | 0.00 | 0.40  | 155.50   | 18.20   | 240.50   | 12.10  | 1.00  | 0.40  | 0.40  | 0.00 | 0.00 |          |            |
| 17    | 0.00 | 0.00 | 0.20  | 202.70   | 12.10   | 502.40   | 89.80  | 1.00  | 0.40  | 0.40  | 0.00 | 0.00 |          |            |
| 18    | 0.00 | 0.00 | 0.20  | 78.80    | 6.80    | 582.60   | 25.90  | 0.90  | 0.50  | 0.40  | 0.00 | 0.00 |          |            |
| 19    | 0.00 | 0.00 | 0.10  | 37.20    | 5.70    | 3042.30  | 15.10  | 0.80  | 0.70  | 0.40  | 0.00 | 0.00 |          |            |
| 20    | 0.00 | 0.00 | 0.20  | 62.30    | 4.80    | 3074.40  | 10.70  | 0.80  | 0.60  | 0.30  | 0.00 | 0.00 |          |            |
| 21    | 0.00 | 0.00 | 0.20  | 26.80    | 4.30    | 1050.10  | 6.20   | 0.70  | 0.60  | 0.30  | 0.00 | 0.00 |          |            |
| 22    | 0.00 | 0.00 | 0.30  | 200.30   | 4.00    | 819.80   | 4.80   | 0.60  | 0.60  | 0.30  | 0.00 | 0.00 |          |            |
| 23    | 0.00 | 0.00 | 0.50  | 321.30   | 4.80    | 3050.40  | 4.30   | 0.60  | 0.50  | 0.30  | 0.00 | 0.00 |          |            |
| 24    | 0.00 | 0.00 | 1.30  | 3003.80  | 5.70    | 3053.90  | 3.80   | 0.60  | 0.50  | 0.30  | 0.00 | 0.00 |          |            |
| 25    | 0.00 | 0.00 | 3.00  | 3040.30  | 6.20    | 950.80   | 3.30   | 0.50  | 0.40  | 0.20  | 0.00 | 0.00 |          |            |
| 26    | 0.00 | 0.00 | 4.80  | 540.20   | 5.70    | 718.30   | 2.60   | 0.40  | 0.40  | 0.20  | 0.00 | 0.00 |          |            |
| 27    | 0.00 | 0.00 | 4.30  | 151.00   | 5.70    | 3001.60  | 2.60   | 0.40  | 0.40  | 0.20  | 0.00 | 0.00 |          |            |
| 28    | 0.00 | 0.00 | 4.80  | 114.20   | 5.70    | 469.10   | 2.30   | 0.40  | 0.40  | 0.20  | 0.00 | 0.00 |          |            |
| 29    | 0.00 | 0.00 | 4.30  | 169.30   | 5.70    | 188.20   | 2.10   | 0.40  | 0.30  | 0.20  |      | 0.00 |          |            |
| 30    | 0.00 | 0.00 | 3.50  | 1039.50  | 35.30   | 78.80    | 1.90   | 0.30  | 0.30  | 0.10  |      | 0.00 |          |            |
| 31    |      | 0.00 |       | 864.50   | 31.40   |          | 1.90   |       | 0.30  | 0.10  |      | 0.00 |          |            |
| Total | 0.00 | 0.00 | 39.90 | 10037.20 | 1289.70 | 21130.30 | 369.60 | 29.00 | 14.00 | 10.80 | 0.90 | 0.00 | 32921.40 | <b>Ton</b> |
| Mean  | 0.00 | 0.00 | 1.30  | 323.80   | 41.60   | 704.30   | 11.90  | 1.00  | 0.50  | 0.30  | 0.00 | 0.00 |          |            |
| Max   | 0.00 | 0.00 | 4.80  | 3040.30  | 285.40  | 3074.40  | 89.80  | 1.70  | 0.70  | 0.50  | 0.10 | 0.00 | 3074.40  |            |
| Min   | 0.00 | 0.00 | 0.10  | 0.90     | 4.00    | 1.50     | 1.90   | 0.30  | 0.30  | 0.10  | 0.00 | 0.00 | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Phra Phloeng at Ban Wang Takian Thong, Nakhon Ratchasima (M.145)**

Lat 14 - 29 - 24 N Long 101 - 41 - 14 E

**Location : on right bank at Ban Wang Takian Thong.**

|                                      |                            |                          |               |                  |                 |                          |
|--------------------------------------|----------------------------|--------------------------|---------------|------------------|-----------------|--------------------------|
|                                      | <b>Ban</b>                 | <b>Wang Takian Thong</b> | <b>Amphoe</b> | <b>Pak Chong</b> | <b>Changwat</b> | <b>Nakhon Ratchasima</b> |
| <b>Drainage Area</b>                 | 335                        | sq.km.                   |               |                  |                 |                          |
| <b>Method of sampling</b>            | Depth                      | Integrating              |               |                  |                 |                          |
| <b>Instrument Used</b>               | US.D-49                    |                          |               |                  |                 |                          |
| <b>Period of Available Records</b>   | 1996-Cont'd                |                          |               |                  |                 |                          |
| <b>Actual Measurement</b>            | 1996-Cont'd                |                          |               |                  |                 |                          |
| <b>Using Rating Curve Water Year</b> | 2013                       |                          |               |                  |                 |                          |
| <b>Number of observation</b>         | 48                         |                          |               |                  |                 |                          |
| <b>R-Square</b>                      | 0.7410                     |                          |               |                  |                 |                          |
| <b>Remarks</b>                       | Continued Sediment Station |                          |               |                  |                 |                          |

**QS = 19.2180 QW<sup>1.32510</sup>****Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul    | Aug     | Sep      | Oct      | Nov    | Dec    | Jan   | Feb   | Mar   | Annual   |            |
|-------|--------|--------|---------|--------|---------|----------|----------|--------|--------|-------|-------|-------|----------|------------|
| 1     | 0.00   | 2.90   | 23.10   | 8.70   | 9.80    | 29.20    | 695.30   | 41.60  | 15.50  | 3.90  | 2.00  | 2.00  |          |            |
| 2     | 2.30   | 0.90   | 18.00   | 7.70   | 25.80   | 24.50    | 449.90   | 39.40  | 15.50  | 3.90  | 2.00  | 2.00  |          |            |
| 3     | 0.90   | 0.70   | 54.60   | 7.70   | 16.70   | 20.50    | 934.50   | 35.20  | 13.10  | 3.90  | 2.00  | 1.70  |          |            |
| 4     | 0.70   | 2.00   | 21.80   | 24.50  | 21.80   | 33.20    | 1368.10  | 33.20  | 12.00  | 3.90  | 2.00  | 1.40  |          |            |
| 5     | 0.40   | 2.30   | 12.00   | 31.20  | 29.20   | 23.10    | 540.30   | 29.20  | 12.00  | 3.90  | 2.00  | 1.40  |          |            |
| 6     | 0.10   | 2.30   | 41.60   | 29.20  | 29.20   | 24.50    | 322.50   | 25.80  | 10.90  | 3.60  | 2.00  | 1.40  |          |            |
| 7     | 0.00   | 2.30   | 37.30   | 25.80  | 19.20   | 64.70    | 25598.10 | 25.80  | 10.90  | 3.60  | 2.00  | 1.20  |          |            |
| 8     | 0.00   | 112.70 | 101.10  | 23.10  | 71.70   | 243.70   | 3767.90  | 37.30  | 9.80   | 3.20  | 2.00  | 1.20  |          |            |
| 9     | 0.00   | 4.80   | 19.20   | 14.30  | 71.70   | 343.00   | 1085.90  | 68.20  | 9.80   | 3.20  | 2.00  | 1.20  |          |            |
| 10    | 0.00   | 15.50  | 10.90   | 14.30  | 97.30   | 136.90   | 427.90   | 43.70  | 8.70   | 3.90  | 2.00  | 0.80  |          |            |
| 11    | 0.00   | 104.90 | 7.70    | 19.20  | 75.20   | 78.80    | 243.70   | 35.20  | 6.70   | 3.20  | 2.00  | 0.80  |          |            |
| 12    | 0.00   | 21.80  | 229.60  | 13.10  | 145.20  | 57.90    | 175.20   | 29.20  | 6.70   | 3.20  | 2.00  | 1.40  |          |            |
| 13    | 0.00   | 21.80  | 505.90  | 10.90  | 374.30  | 48.20    | 132.80   | 25.80  | 5.70   | 2.60  | 2.00  | 0.80  |          |            |
| 14    | 0.00   | 8.70   | 322.50  | 8.70   | 395.50  | 236.60   | 112.70   | 27.20  | 5.70   | 2.30  | 2.00  | 0.70  |          |            |
| 15    | 0.00   | 4.80   | 75.20   | 5.70   | 108.80  | 222.60   | 97.30    | 27.20  | 5.70   | 2.30  | 2.00  | 0.70  |          |            |
| 16    | 0.00   | 25.80  | 25.80   | 7.70   | 43.70   | 145.20   | 757.30   | 25.80  | 6.70   | 2.00  | 2.00  | 0.60  |          |            |
| 17    | 0.00   | 175.20 | 15.50   | 4.80   | 27.20   | 104.90   | 1976.50  | 29.20  | 8.70   | 2.00  | 2.00  | 0.50  |          |            |
| 18    | 0.00   | 29.20  | 12.00   | 3.90   | 20.50   | 71.70    | 634.50   | 27.20  | 4.80   | 2.00  | 2.00  | 1.40  |          |            |
| 19    | 0.00   | 9.80   | 153.60  | 3.20   | 15.50   | 363.80   | 1332.00  | 25.80  | 8.70   | 2.00  | 2.00  | 1.70  |          |            |
| 20    | 0.00   | 5.70   | 97.30   | 2.60   | 13.10   | 8748.00  | 741.70   | 21.80  | 7.70   | 1.70  | 2.00  | 0.80  |          |            |
| 21    | 0.00   | 9.80   | 54.60   | 2.30   | 9.80    | 3126.80  | 384.90   | 21.80  | 6.70   | 2.00  | 2.00  | 0.80  |          |            |
| 22    | 0.00   | 18.00  | 71.70   | 2.00   | 8.70    | 869.00   | 236.60   | 19.20  | 6.70   | 2.00  | 2.00  | 0.80  |          |            |
| 23    | 14.30  | 9.80   | 27.20   | 2.90   | 8.70    | 332.70   | 175.20   | 19.20  | 6.70   | 2.00  | 2.00  | 0.80  |          |            |
| 24    | 33.20  | 1.40   | 33.20   | 3.90   | 16.70   | 201.90   | 136.90   | 18.00  | 6.70   | 2.00  | 2.00  | 0.80  |          |            |
| 25    | 31.20  | 3.90   | 31.20   | 8.70   | 13.10   | 136.90   | 108.80   | 21.80  | 6.70   | 2.00  | 2.00  | 0.80  |          |            |
| 26    | 31.20  | 13.10  | 153.60  | 7.70   | 19.20   | 695.30   | 93.50    | 24.50  | 5.70   | 2.00  | 2.00  | 0.80  |          |            |
| 27    | 23.10  | 3.90   | 54.60   | 5.70   | 19.20   | 757.30   | 75.20    | 20.50  | 3.90   | 2.00  | 2.00  | 2.30  |          |            |
| 28    | 19.20  | 2.30   | 25.80   | 3.90   | 20.50   | 2669.30  | 64.70    | 19.20  | 3.90   | 2.00  | 2.00  | 0.80  |          |            |
| 29    | 18.00  | 1.40   | 19.20   | 3.60   | 15.50   | 1001.10  | 57.90    | 18.00  | 3.90   | 2.00  |       | 0.80  |          |            |
| 30    | 16.70  | 1.70   | 18.00   | 3.90   | 15.50   | 1137.60  | 51.40    | 16.70  | 3.90   | 2.00  |       | 0.70  |          |            |
| 31    |        | 3.20   |         | 9.80   | 24.50   |          | 43.70    |        | 3.90   | 2.00  |       | 0.60  |          |            |
| Total | 191.30 | 622.60 | 2273.80 | 320.70 | 1782.80 | 21948.90 | 42822.90 | 852.70 | 244.00 | 82.30 | 56.00 | 33.70 | 71231.70 | <b>Ton</b> |
| Mean  | 6.40   | 20.10  | 75.80   | 10.30  | 57.50   | 731.60   | 1381.40  | 28.40  | 7.90   | 2.70  | 2.00  | 1.10  |          |            |
| Max   | 33.20  | 175.20 | 505.90  | 31.20  | 395.50  | 8748.00  | 25598.10 | 68.20  | 15.50  | 3.90  | 2.00  | 2.30  | 25598.10 |            |
| Min   | 0.00   | 0.70   | 7.70    | 2.00   | 8.70    | 20.50    | 43.70    | 16.70  | 3.90   | 1.70  | 2.00  | 0.50  | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Ta Khong at Ban Send Mari, Nakhon Ratchasima (M.164)**

Lat 14 - 58 - 57 N Long 102 - 05 - 52 E

**Location : on right bank at the bridge on highway.**

|                                      |                            |                      |                                   |
|--------------------------------------|----------------------------|----------------------|-----------------------------------|
|                                      | <b>Ban</b> Send Mari       | <b>Amphoe</b> Mueang | <b>Changwat</b> Nakhon Ratchasima |
| <b>Drainage Area</b>                 | 3,012 sq.km.               |                      |                                   |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                                   |
| <b>Instrument Used</b>               | US.D-49                    |                      |                                   |
| <b>Period of Available Records</b>   | 2008-Cont'd                |                      |                                   |
| <b>Actual Measurement</b>            | 2008-Cont'd                |                      |                                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                                   |
| <b>Number of observation</b>         | 20                         |                      |                                   |
| <b>R-Square</b>                      | 0.8833                     |                      |                                   |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                                   |

$$QS = 2.2799 QW^{1.24700}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep     | Oct     | Nov    | Dec    | Jan    | Feb    | Mar    | Annual   |            |
|-------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|----------|------------|
| 1     | 3.00   | 8.00   | 22.20  | 10.90  | 19.50  | 17.00   | 79.80   | 0.00   | 18.20  | 10.90  | 23.50  | 9.90   |          |            |
| 2     | 1.00   | 7.10   | 34.80  | 9.90   | 17.00  | 14.90   | 111.90  | 17.00  | 18.20  | 10.90  | 23.50  | 9.90   |          |            |
| 3     | 0.00   | 11.90  | 22.20  | 7.10   | 14.90  | 14.90   | 144.70  | 20.90  | 17.00  | 11.90  | 22.20  | 9.90   |          |            |
| 4     | 1.00   | 10.90  | 20.90  | 0.40   | 17.00  | 19.50   | 149.30  | 33.40  | 17.00  | 11.90  | 22.20  | 11.90  |          |            |
| 5     | 9.90   | 9.00   | 17.00  | 9.90   | 15.90  | 31.90   | 160.80  | 10.90  | 15.90  | 7.10   | 20.90  | 18.20  |          |            |
| 6     | 4.60   | 9.00   | 15.90  | 9.90   | 19.50  | 15.90   | 174.70  | 0.00   | 15.90  | 8.00   | 19.50  | 9.90   |          |            |
| 7     | 1.00   | 10.90  | 19.50  | 12.80  | 20.90  | 15.90   | 213.70  | 0.00   | 14.90  | 10.90  | 18.20  | 9.00   |          |            |
| 8     | 0.00   | 15.90  | 26.30  | 11.90  | 24.90  | 22.20   | 287.70  | 0.00   | 14.90  | 11.90  | 18.20  | 9.00   |          |            |
| 9     | 0.00   | 29.10  | 15.90  | 11.90  | 20.90  | 29.10   | 304.70  | 0.00   | 14.90  | 12.80  | 17.00  | 8.00   |          |            |
| 10    | 0.00   | 20.90  | 17.00  | 14.90  | 19.50  | 29.10   | 262.60  | 0.00   | 13.90  | 11.90  | 17.00  | 8.00   |          |            |
| 11    | 7.10   | 22.20  | 18.20  | 14.90  | 18.20  | 24.90   | 172.40  | 0.00   | 13.90  | 11.90  | 15.90  | 7.10   |          |            |
| 12    | 8.00   | 27.70  | 31.90  | 14.90  | 18.20  | 24.90   | 120.30  | 1.60   | 13.90  | 10.90  | 14.90  | 8.00   |          |            |
| 13    | 8.00   | 12.80  | 48.50  | 15.90  | 20.90  | 22.20   | 99.20   | 20.90  | 12.80  | 9.90   | 10.90  | 9.00   |          |            |
| 14    | 8.00   | 13.90  | 37.80  | 14.90  | 29.10  | 30.50   | 83.20   | 23.50  | 9.00   | 7.10   | 9.90   | 9.00   |          |            |
| 15    | 9.00   | 13.90  | 34.80  | 14.90  | 27.70  | 42.30   | 46.90   | 34.80  | 9.00   | 5.40   | 9.00   | 8.00   |          |            |
| 16    | 9.00   | 13.90  | 23.50  | 12.80  | 27.70  | 29.10   | 59.60   | 31.90  | 9.90   | 5.40   | 9.90   | 8.00   |          |            |
| 17    | 9.90   | 15.90  | 15.90  | 9.90   | 26.30  | 42.30   | 122.50  | 20.90  | 9.90   | 5.40   | 10.90  | 9.90   |          |            |
| 18    | 13.90  | 15.90  | 11.90  | 9.90   | 30.50  | 39.30   | 224.40  | 17.00  | 12.80  | 5.40   | 12.80  | 9.90   |          |            |
| 19    | 13.90  | 17.00  | 10.90  | 12.80  | 23.50  | 50.00   | 325.10  | 18.20  | 10.90  | 6.30   | 14.90  | 9.90   |          |            |
| 20    | 12.80  | 15.90  | 10.90  | 12.80  | 19.50  | 172.40  | 304.70  | 24.90  | 5.40   | 7.10   | 15.90  | 12.80  |          |            |
| 21    | 12.80  | 15.90  | 11.90  | 11.90  | 17.00  | 158.40  | 307.50  | 36.30  | 5.40   | 7.10   | 17.00  | 14.90  |          |            |
| 22    | 13.90  | 15.90  | 11.90  | 24.90  | 14.90  | 126.90  | 319.10  | 30.50  | 5.40   | 9.90   | 19.50  | 17.00  |          |            |
| 23    | 19.50  | 14.90  | 11.90  | 48.50  | 14.90  | 115.90  | 355.40  | 20.90  | 7.10   | 9.00   | 18.20  | 17.00  |          |            |
| 24    | 22.20  | 14.90  | 11.90  | 36.30  | 12.80  | 101.00  | 352.30  | 37.80  | 11.90  | 9.00   | 15.90  | 17.00  |          |            |
| 25    | 15.90  | 14.90  | 12.80  | 23.50  | 12.80  | 104.60  | 246.10  | 58.00  | 11.90  | 8.00   | 10.90  | 17.00  |          |            |
| 26    | 14.90  | 14.90  | 12.80  | 9.90   | 12.80  | 126.90  | 149.30  | 14.90  | 9.90   | 9.00   | 10.90  | 18.20  |          |            |
| 27    | 13.90  | 15.90  | 11.90  | 0.00   | 13.90  | 165.40  | 97.40   | 15.90  | 9.90   | 9.90   | 10.90  | 18.20  |          |            |
| 28    | 11.90  | 13.90  | 10.90  | 15.90  | 13.90  | 153.90  | 48.50   | 19.50  | 9.90   | 17.00  | 9.90   | 17.00  |          |            |
| 29    | 10.90  | 11.90  | 10.90  | 17.00  | 13.90  | 131.30  | 1.00    | 18.20  | 9.90   | 18.20  |        | 14.90  |          |            |
| 30    | 9.00   | 17.00  | 10.90  | 22.20  | 15.90  | 83.20   | 0.00    | 18.20  | 10.90  | 23.50  |        | 14.90  |          |            |
| 31    |        | 17.00  |        | 20.90  | 19.50  |         | 0.00    |        | 10.90  | 26.30  |        | 13.90  |          |            |
| Total | 265.00 | 468.90 | 573.80 | 464.30 | 593.90 | 1955.80 | 5324.80 | 546.10 | 371.40 | 329.90 | 440.40 | 375.30 | 11709.60 | <b>Ton</b> |
| Mean  | 8.80   | 15.10  | 19.10  | 15.00  | 19.20  | 65.20   | 171.80  | 18.20  | 12.00  | 10.60  | 15.70  | 12.10  |          |            |
| Max   | 22.20  | 29.10  | 48.50  | 48.50  | 30.50  | 172.40  | 355.40  | 58.00  | 18.20  | 26.30  | 23.50  | 18.20  | 355.40   |            |
| Min   | 0.00   | 7.10   | 10.90  | 0.00   | 12.80  | 14.90   | 0.00    | 0.00   | 5.40   | 5.40   | 9.00   | 7.10   | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Dom Yai at Ban Kham Samran, Ubon Ratchathani (M.170)**

Lat 14 - 47 - 19 N Long 105 - 06 - 10 E

**Location : on right bank at the bridge.**

|                                      |                            |                        |                                  |
|--------------------------------------|----------------------------|------------------------|----------------------------------|
|                                      | <b>Ban</b> Kham Samran     | <b>Amphoe</b> Det Udom | <b>Changwat</b> Ubon Ratchathani |
| <b>Drainage Area</b>                 | 1,745 sq.km.               |                        |                                  |
| <b>Method of sampling</b>            | Depth Integrating          |                        |                                  |
| <b>Instrument Used</b>               | US.D-49                    |                        |                                  |
| <b>Period of Available Records</b>   | 2002-Cont'd                |                        |                                  |
| <b>Actual Measurement</b>            | 2002-Cont'd                |                        |                                  |
| <b>Using Rating Curve Water Year</b> | 2002-2013                  |                        |                                  |
| <b>Number of observation</b>         | 378                        |                        |                                  |
| <b>R-Square</b>                      | 0.8882                     |                        |                                  |
| <b>Remarks</b>                       | Continued Sediment Station |                        |                                  |

$$QS = 2.6522 QW^{1.15110}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul     | Aug      | Sep      | Oct      | Nov     | Dec     | Jan    | Feb    | Mar   | Annual    |            |
|-------|-------|--------|--------|---------|----------|----------|----------|---------|---------|--------|--------|-------|-----------|------------|
| 1     | 0.70  | 0.20   | 80.50  | 14.20   | 646.00   | 770.60   | 1925.70  | 153.10  | 32.40   | 22.10  | 7.30   | 3.60  |           |            |
| 2     | 0.70  | 0.20   | 63.60  | 12.30   | 541.70   | 716.80   | 1576.50  | 148.40  | 28.20   | 20.90  | 6.90   | 3.30  |           |            |
| 3     | 0.70  | 0.40   | 38.40  | 11.20   | 480.80   | 601.00   | 1345.10  | 145.30  | 24.90   | 20.50  | 6.90   | 3.30  |           |            |
| 4     | 0.90  | 0.70   | 30.70  | 10.50   | 529.40   | 529.40   | 1167.60  | 139.20  | 23.30   | 20.10  | 6.60   | 3.00  |           |            |
| 5     | 0.90  | 0.90   | 24.90  | 9.40    | 596.00   | 420.90   | 1032.90  | 120.80  | 22.90   | 19.70  | 6.60   | 3.00  |           |            |
| 6     | 1.20  | 1.80   | 28.20  | 14.20   | 621.00   | 352.20   | 990.30   | 107.80  | 22.10   | 19.30  | 6.20   | 2.70  |           |            |
| 7     | 1.20  | 2.70   | 26.60  | 20.50   | 546.60   | 355.70   | 874.30   | 99.00   | 20.90   | 18.90  | 5.90   | 2.70  |           |            |
| 8     | 0.90  | 1.80   | 20.50  | 36.70   | 399.60   | 461.50   | 739.80   | 93.10   | 20.50   | 18.50  | 5.60   | 2.70  |           |            |
| 9     | 1.20  | 1.50   | 16.10  | 51.70   | 364.40   | 593.50   | 517.20   | 92.10   | 19.70   | 17.70  | 5.60   | 2.70  |           |            |
| 10    | 0.90  | 0.90   | 13.50  | 83.40   | 514.80   | 636.00   | 396.00   | 91.10   | 18.50   | 16.50  | 5.60   | 2.70  |           |            |
| 11    | 1.50  | 0.70   | 12.30  | 85.30   | 628.50   | 628.50   | 322.80   | 84.40   | 18.50   | 16.10  | 5.60   | 2.70  |           |            |
| 12    | 2.10  | 1.20   | 12.00  | 64.50   | 744.90   | 561.40   | 276.80   | 75.80   | 17.70   | 15.70  | 5.20   | 2.70  |           |            |
| 13    | 2.10  | 4.20   | 15.00  | 43.70   | 861.20   | 459.10   | 243.40   | 68.20   | 17.70   | 14.20  | 4.90   | 2.70  |           |            |
| 14    | 1.80  | 14.20  | 21.70  | 38.40   | 866.50   | 437.50   | 213.80   | 67.30   | 16.90   | 13.10  | 4.90   | 2.70  |           |            |
| 15    | 1.80  | 11.60  | 21.30  | 28.20   | 840.40   | 556.40   | 217.00   | 67.30   | 16.90   | 12.30  | 4.90   | 2.30  |           |            |
| 16    | 1.80  | 6.60   | 16.90  | 29.90   | 811.90   | 701.60   | 439.90   | 66.40   | 28.20   | 12.30  | 4.60   | 2.30  |           |            |
| 17    | 3.00  | 4.60   | 13.80  | 80.50   | 770.60   | 791.20   | 832.60   | 65.40   | 165.70  | 12.00  | 4.60   | 2.10  |           |            |
| 18    | 3.60  | 3.60   | 12.30  | 146.90  | 527.00   | 942.60   | 1003.60  | 80.50   | 473.50  | 11.60  | 4.60   | 2.10  |           |            |
| 19    | 2.10  | 18.50  | 10.80  | 95.00   | 309.10   | 2093.40  | 1228.90  | 75.80   | 341.80  | 11.60  | 4.20   | 2.10  |           |            |
| 20    | 1.20  | 167.20 | 9.80   | 136.10  | 228.50   | 7593.50  | 1388.80  | 72.90   | 197.60  | 11.20  | 4.20   | 2.10  |           |            |
| 21    | 0.40  | 238.40 | 9.00   | 397.80  | 178.30   | 9424.60  | 1300.20  | 63.60   | 123.90  | 11.20  | 4.20   | 1.80  |           |            |
| 22    | 0.40  | 202.40 | 9.00   | 536.80  | 159.40   | 7648.20  | 1235.70  | 58.10   | 87.30   | 10.80  | 4.20   | 3.90  |           |            |
| 23    | 0.20  | 72.90  | 9.40   | 497.70  | 148.40   | 5871.10  | 1127.00  | 53.50   | 71.10   | 10.50  | 4.20   | 4.60  |           |            |
| 24    | 0.20  | 49.90  | 15.70  | 747.50  | 151.60   | 4587.20  | 908.40   | 49.00   | 63.60   | 10.10  | 4.20   | 4.20  |           |            |
| 25    | 0.20  | 32.40  | 24.50  | 955.80  | 154.70   | 3508.90  | 603.50   | 41.90   | 48.10   | 10.10  | 3.90   | 3.90  |           |            |
| 26    | 0.20  | 21.70  | 37.60  | 937.30  | 183.10   | 3352.50  | 409.00   | 39.30   | 41.00   | 9.80   | 3.90   | 3.30  |           |            |
| 27    | 0.20  | 16.50  | 22.50  | 801.50  | 276.80   | 3108.10  | 341.80   | 41.00   | 39.30   | 9.40   | 3.90   | 3.00  |           |            |
| 28    | 0.20  | 10.10  | 17.30  | 456.70  | 371.40   | 2439.90  | 297.10   | 40.20   | 36.70   | 9.00   | 3.90   | 2.70  |           |            |
| 29    | 0.00  | 9.00   | 17.30  | 468.70  | 385.50   | 2377.20  | 260.00   | 36.70   | 33.30   | 8.70   |        | 1.20  |           |            |
| 30    | 0.00  | 8.70   | 18.90  | 646.00  | 626.00   | 2205.20  | 217.00   | 35.80   | 27.40   | 8.30   |        | 0.40  |           |            |
| 31    |       | 28.20  |        | 696.50  | 729.60   |          | 183.10   |         | 24.10   | 8.00   |        | 0.40  |           |            |
| Total | 32.30 | 933.70 | 670.10 | 8154.90 | 15193.70 | 64725.70 | 23615.80 | 2373.00 | 2123.70 | 430.20 | 143.30 | 82.90 | 118479.30 | <b>Ton</b> |
| Mean  | 1.10  | 30.10  | 22.30  | 263.10  | 490.10   | 2157.50  | 761.80   | 79.10   | 68.50   | 13.90  | 5.10   | 2.70  |           |            |
| Max   | 3.60  | 238.40 | 80.50  | 955.80  | 866.50   | 9424.60  | 1925.70  | 153.10  | 473.50  | 22.10  | 7.30   | 4.60  | 9424.60   |            |
| Min   | 0.00  | 0.20   | 9.00   | 9.40    | 148.40   | 352.20   | 183.10   | 35.80   | 16.90   | 8.00   | 3.90   | 0.40  | 0.00      |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Phra Phloeng at Ban Non Sao - E, Nakhon Ratchasima (M.171)**

Lat 14 - 29 - 58 N Long 101 - 46 - 22 E

**Location : on right bank at Ban Non Sao - E.**

|                                      |                            |             |               |                |                 |                   |
|--------------------------------------|----------------------------|-------------|---------------|----------------|-----------------|-------------------|
|                                      | <b>Ban</b>                 | Non Sao - E | <b>Amphoe</b> | Wang Nam Khieo | <b>Changwat</b> | Nakhon Ratchasima |
| <b>Drainage Area</b>                 | 553                        | sq.km.      |               |                |                 |                   |
| <b>Method of sampling</b>            | Depth                      | Integrating |               |                |                 |                   |
| <b>Instrument Used</b>               | US.D-49                    |             |               |                |                 |                   |
| <b>Period of Available Records</b>   | 2001-Cont'd                |             |               |                |                 |                   |
| <b>Actual Measurement</b>            | 2001-Cont'd                |             |               |                |                 |                   |
| <b>Using Rating Curve Water Year</b> | 2001-2013                  |             |               |                |                 |                   |
| <b>Number of observation</b>         | 373                        |             |               |                |                 |                   |
| <b>R-Square</b>                      | 0.7629                     |             |               |                |                 |                   |
| <b>Remarks</b>                       | Continued Sediment Station |             |               |                |                 |                   |

**QS = 19.7880 QW<sup>1.31420</sup>****Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul     | Aug     | Sep      | Oct       | Nov     | Dec     | Jan     | Feb    | Mar    | Annual    |            |
|-------|--------|--------|---------|---------|---------|----------|-----------|---------|---------|---------|--------|--------|-----------|------------|
| 1     | 0.50   | 6.90   | 42.50   | 42.50   | 42.80   | 49.20    | 1804.50   | 70.20   | 42.80   | 42.50   | 12.40  | 9.20   |           |            |
| 2     | 0.60   | 2.10   | 45.40   | 42.50   | 42.80   | 42.80    | 1178.70   | 61.80   | 42.80   | 42.50   | 12.40  | 9.20   |           |            |
| 3     | 3.00   | 0.60   | 51.80   | 42.50   | 46.60   | 42.80    | 2522.50   | 61.80   | 42.80   | 42.50   | 12.40  | 8.40   |           |            |
| 4     | 2.10   | 0.00   | 42.80   | 42.50   | 42.80   | 46.60    | 3382.10   | 61.80   | 42.80   | 42.50   | 11.90  | 8.40   |           |            |
| 5     | 1.60   | 0.60   | 42.50   | 199.40  | 46.60   | 74.40    | 1653.00   | 59.80   | 42.80   | 42.50   | 11.50  | 8.40   |           |            |
| 6     | 1.20   | 1.40   | 50.50   | 63.90   | 57.80   | 236.30   | 2358.10   | 57.80   | 42.80   | 42.50   | 11.50  | 8.40   |           |            |
| 7     | 1.10   | 1.20   | 42.80   | 50.50   | 42.80   | 110.40   | 63992.10  | 55.80   | 42.80   | 42.50   | 10.60  | 8.40   |           |            |
| 8     | 0.70   | 42.50  | 95.00   | 42.80   | 114.40  | 1308.90  | 16112.00  | 61.80   | 42.80   | 42.50   | 10.60  | 8.00   |           |            |
| 9     | 0.50   | 42.50  | 42.80   | 42.80   | 83.80   | 896.20   | 2859.10   | 80.20   | 42.80   | 42.50   | 10.60  | 7.50   |           |            |
| 10    | 0.50   | 6.50   | 10.10   | 42.50   | 106.50  | 314.30   | 974.60    | 76.60   | 42.80   | 42.50   | 10.10  | 7.30   |           |            |
| 11    | 0.50   | 42.50  | 42.50   | 42.80   | 91.30   | 98.80    | 695.10    | 66.00   | 42.50   | 42.50   | 10.10  | 6.50   |           |            |
| 12    | 0.50   | 42.80  | 484.60  | 42.50   | 110.40  | 87.50    | 376.10    | 61.80   | 42.50   | 42.50   | 10.10  | 6.50   |           |            |
| 13    | 0.50   | 42.80  | 974.60  | 42.50   | 1265.10 | 199.40   | 355.20    | 57.80   | 42.50   | 42.50   | 9.70   | 6.50   |           |            |
| 14    | 0.40   | 42.50  | 719.50  | 42.50   | 819.30  | 719.50   | 236.30    | 53.10   | 42.50   | 42.50   | 9.70   | 6.50   |           |            |
| 15    | 0.30   | 3.20   | 110.40  | 42.50   | 217.70  | 719.50   | 236.30    | 57.80   | 42.50   | 42.50   | 9.20   | 6.50   |           |            |
| 16    | 0.30   | 3.20   | 47.90   | 42.50   | 70.20   | 646.80   | 5904.20   | 57.80   | 42.50   | 42.50   | 9.20   | 6.50   |           |            |
| 17    | 0.30   | 70.20  | 42.80   | 42.50   | 47.90   | 294.30   | 6396.50   | 57.80   | 42.50   | 42.50   | 9.20   | 6.50   |           |            |
| 18    | 0.30   | 63.90  | 42.80   | 42.50   | 42.80   | 130.50   | 2774.00   | 57.80   | 42.50   | 42.50   | 9.20   | 6.50   |           |            |
| 19    | 0.30   | 7.10   | 314.30  | 11.50   | 42.80   | 255.30   | 4871.30   | 53.10   | 42.50   | 42.50   | 9.20   | 7.30   |           |            |
| 20    | 0.30   | 3.20   | 147.00  | 10.60   | 42.50   | 25474.70 | 2605.70   | 53.10   | 42.50   | 42.50   | 9.20   | 10.10  |           |            |
| 21    | 0.30   | 3.90   | 130.50  | 9.20    | 42.50   | 8720.90  | 1353.00   | 53.10   | 42.50   | 42.50   | 9.20   | 9.20   |           |            |
| 22    | 0.30   | 3.70   | 95.00   | 9.20    | 42.50   | 2774.00  | 744.20    | 51.80   | 42.50   | 42.50   | 9.20   | 12.40  |           |            |
| 23    | 1.10   | 3.70   | 47.90   | 11.00   | 42.50   | 1014.40  | 507.10    | 47.90   | 42.50   | 42.50   | 9.20   | 10.60  |           |            |
| 24    | 50.50  | 2.90   | 63.90   | 11.90   | 55.80   | 507.10   | 334.60    | 45.40   | 42.50   | 42.50   | 9.20   | 8.40   |           |            |
| 25    | 47.90  | 2.10   | 217.70  | 42.50   | 61.80   | 440.40   | 274.60    | 44.10   | 42.50   | 12.40   | 9.20   | 8.40   |           |            |
| 26    | 42.80  | 1.90   | 199.40  | 42.50   | 42.80   | 2774.00  | 164.10    | 45.40   | 42.50   | 12.40   | 9.20   | 7.50   |           |            |
| 27    | 42.80  | 3.00   | 76.60   | 42.50   | 42.80   | 3293.50  | 114.40    | 46.60   | 42.50   | 12.40   | 9.20   | 7.50   |           |            |
| 28    | 42.80  | 1.80   | 46.60   | 42.50   | 42.80   | 7024.70  | 98.80     | 45.40   | 42.50   | 12.40   | 9.20   | 8.80   |           |            |
| 29    | 42.80  | 1.10   | 42.80   | 42.50   | 98.80   | 2859.10  | 87.50     | 44.10   | 42.50   | 12.40   |        | 9.20   |           |            |
| 30    | 42.80  | 0.70   | 42.80   | 11.90   | 66.00   | 2358.10  | 83.80     | 42.80   | 42.50   | 12.40   |        | 8.40   |           |            |
| 31    |        | 0.80   |         | 42.50   | 47.90   |          | 76.60     |         | 42.50   | 12.40   |        | 7.70   |           |            |
| Total | 329.60 | 451.30 | 4355.80 | 1282.50 | 3963.10 | 63514.40 | 125126.10 | 1690.30 | 1320.50 | 1106.80 | 282.40 | 250.70 | 203673.50 | <b>Ton</b> |
| Mean  | 11.00  | 14.60  | 145.20  | 41.40   | 127.80  | 2117.10  | 4036.30   | 56.30   | 42.60   | 35.70   | 10.10  | 8.10   |           |            |
| Max   | 50.50  | 70.20  | 974.60  | 199.40  | 1265.10 | 25474.70 | 63992.10  | 80.20   | 42.80   | 42.50   | 12.40  | 12.40  | 63992.10  |            |
| Min   | 0.30   | 0.00   | 10.10   | 9.20    | 42.50   | 42.80    | 76.60     | 42.80   | 42.50   | 12.40   | 9.20   | 6.50   | 0.00      |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Huai Khayung at Ban Non Si Khlai, Si Sa Ket (M.176)**

Lat 15 - 00 - 18 N Long 104 - 38 - 14 E

**Location : on left bank at Ban Non Si Khlai.**

|                                      |                            |                           |                           |
|--------------------------------------|----------------------------|---------------------------|---------------------------|
|                                      | <b>Ban</b> Non Si Khlai    | <b>Amphoe</b> Kanthararom | <b>Changwat</b> Si Sa Ket |
| <b>Drainage Area</b>                 | 3,131 sq.km.               |                           |                           |
| <b>Method of sampling</b>            | Depth Integrating          |                           |                           |
| <b>Instrument Used</b>               | US.D-49                    |                           |                           |
| <b>Period of Available Records</b>   | 2002-Cont'd                |                           |                           |
| <b>Actual Measurement</b>            | 2002-Cont'd                |                           |                           |
| <b>Using Rating Curve Water Year</b> | 2013                       |                           |                           |
| <b>Number of observation</b>         | 56                         |                           |                           |
| <b>R-Square</b>                      | 0.9253                     |                           |                           |
| <b>Remarks</b>                       | Continued Sediment Station |                           |                           |

$$QS = 8.2195 QW^{0.87000}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul     | Aug      | Sep      | Oct      | Nov     | Dec     | Jan     | Feb     | Mar   | Annual   |            |
|-------|-------|--------|--------|---------|----------|----------|----------|---------|---------|---------|---------|-------|----------|------------|
| 1     | 0.00  | 4.90   | 14.40  | 18.20   | 254.60   | 482.90   | 1681.30  | 504.80  | 162.10  | 142.10  | 78.30   | 7.90  |          |            |
| 2     | 0.60  | 1.80   | 13.00  | 13.00   | 279.70   | 525.80   | 1530.50  | 463.60  | 143.00  | 143.90  | 76.80   | 5.30  |          |            |
| 3     | 0.90  | 1.10   | 8.90   | 7.50    | 300.40   | 499.10   | 1415.20  | 426.70  | 130.60  | 137.70  | 73.70   | 5.70  |          |            |
| 4     | 0.80  | 0.80   | 8.20   | 6.40    | 308.60   | 462.60   | 1269.60  | 386.30  | 122.60  | 126.10  | 72.20   | 4.50  |          |            |
| 5     | 0.80  | 0.60   | 7.90   | 8.20    | 361.40   | 431.50   | 1107.70  | 362.40  | 109.90  | 120.80  | 65.90   | 2.90  |          |            |
| 6     | 1.00  | 0.60   | 6.40   | 12.40   | 397.20   | 344.30   | 1013.60  | 353.40  | 86.00   | 127.90  | 65.90   | 2.50  |          |            |
| 7     | 0.90  | 0.40   | 4.20   | 18.90   | 413.90   | 377.40   | 962.20   | 339.20  | 101.60  | 125.20  | 62.00   | 2.20  |          |            |
| 8     | 0.90  | 0.40   | 1.50   | 42.40   | 418.90   | 418.90   | 921.00   | 330.10  | 119.00  | 119.80  | 59.60   | 1.50  |          |            |
| 9     | 0.60  | 0.50   | 0.30   | 71.40   | 461.70   | 498.20   | 872.00   | 330.10  | 36.20   | 119.00  | 56.40   | 1.50  |          |            |
| 10    | 0.00  | 0.80   | 0.40   | 99.40   | 503.90   | 515.30   | 805.80   | 318.90  | 33.90   | 119.80  | 54.80   | 2.20  |          |            |
| 11    | 0.00  | 1.10   | 3.90   | 101.60  | 519.10   | 488.60   | 765.80   | 297.30  | 44.10   | 117.20  | 53.20   | 2.90  |          |            |
| 12    | 0.00  | 6.40   | 4.20   | 95.70   | 515.30   | 447.10   | 680.20   | 279.70  | 88.20   | 110.80  | 49.90   | 2.50  |          |            |
| 13    | 0.00  | 4.90   | 2.90   | 92.70   | 496.30   | 403.10   | 610.40   | 270.30  | 89.70   | 109.00  | 47.40   | 2.20  |          |            |
| 14    | 0.00  | 2.90   | 1.50   | 72.20   | 471.30   | 375.30   | 573.40   | 258.80  | 101.60  | 108.10  | 45.80   | 2.50  |          |            |
| 15    | 0.00  | 2.50   | 22.60  | 64.40   | 477.10   | 370.40   | 546.80   | 248.20  | 130.60  | 107.10  | 45.00   | 2.50  |          |            |
| 16    | 0.00  | 3.20   | 146.50 | 50.70   | 493.40   | 389.30   | 579.80   | 234.10  | 145.60  | 106.20  | 44.10   | 2.50  |          |            |
| 17    | 0.00  | 3.50   | 106.20 | 47.40   | 459.70   | 440.30   | 724.90   | 223.50  | 228.40  | 103.50  | 39.90   | 2.90  |          |            |
| 18    | 0.00  | 5.70   | 69.10  | 48.30   | 402.10   | 448.10   | 722.40   | 210.30  | 394.20  | 100.10  | 37.90   | 3.50  |          |            |
| 19    | 0.00  | 6.40   | 46.60  | 47.40   | 355.30   | 585.10   | 888.40   | 193.60  | 420.80  | 97.90   | 34.50   | 3.50  |          |            |
| 20    | 0.00  | 8.90   | 34.50  | 64.40   | 309.70   | 1080.10  | 1091.20  | 186.00  | 388.30  | 97.20   | 31.00   | 3.20  |          |            |
| 21    | 0.00  | 54.80  | 33.30  | 116.20  | 272.40   | 1525.90  | 1198.50  | 177.60  | 268.20  | 98.70   | 28.10   | 2.20  |          |            |
| 22    | 0.00  | 46.60  | 36.20  | 189.40  | 247.10   | 1933.70  | 1195.20  | 169.00  | 243.10  | 97.90   | 26.90   | 1.50  |          |            |
| 23    | 0.00  | 37.40  | 36.20  | 197.80  | 236.60   | 2211.60  | 1178.10  | 143.00  | 217.70  | 96.40   | 25.10   | 1.00  |          |            |
| 24    | 0.00  | 34.50  | 36.80  | 210.30  | 225.10   | 2362.10  | 1150.90  | 133.30  | 202.80  | 95.70   | 22.60   | 0.90  |          |            |
| 25    | 0.60  | 31.60  | 39.90  | 229.20  | 227.60   | 2290.20  | 1120.00  | 127.90  | 194.40  | 96.40   | 19.50   | 0.80  |          |            |
| 26    | 0.80  | 37.90  | 53.20  | 236.60  | 226.80   | 2226.50  | 1027.50  | 126.10  | 171.60  | 94.90   | 16.30   | 0.60  |          |            |
| 27    | 4.50  | 43.30  | 54.80  | 231.70  | 229.20   | 2211.60  | 868.50   | 126.10  | 167.30  | 93.50   | 14.40   | 0.50  |          |            |
| 28    | 8.90  | 37.40  | 37.90  | 178.40  | 230.90   | 2111.50  | 750.50   | 139.50  | 157.00  | 89.00   | 13.00   | 0.40  |          |            |
| 29    | 7.10  | 26.30  | 32.80  | 163.00  | 272.40   | 1952.70  | 688.00   | 278.70  | 145.60  | 85.20   |         | 0.40  |          |            |
| 30    | 7.10  | 19.50  | 21.40  | 207.80  | 359.40   | 1779.70  | 613.60   | 218.50  | 138.60  | 84.40   |         | 0.10  |          |            |
| 31    |       | 13.00  |        | 243.10  | 430.60   |          | 553.20   |         | 136.80  | 84.40   |         | 0.60  |          |            |
| Total | 35.50 | 439.70 | 885.70 | 3186.10 | 11157.70 | 30188.90 | 29106.20 | 7857.00 | 5119.50 | 3355.90 | 1260.20 | 73.40 | 92665.80 | <b>Ton</b> |
| Mean  | 1.20  | 14.20  | 29.50  | 102.80  | 359.90   | 1006.30  | 938.90   | 261.90  | 165.10  | 108.30  | 45.00   | 2.40  |          |            |
| Max   | 8.90  | 54.80  | 146.50 | 243.10  | 519.10   | 2362.10  | 1681.30  | 504.80  | 420.80  | 143.90  | 78.30   | 7.90  | 2362.10  |            |
| Min   | 0.00  | 0.40   | 0.30   | 6.40    | 225.10   | 344.30   | 546.80   | 126.10  | 33.90   | 84.40   | 13.00   | 0.10  | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Sa Bai at Ban Pa Kor, Ubon Ratchathani (M.179A)**

Lat 15 - 30 - 12 N Long 104 - 35 - 41 E

Location : on right bank at the bridge.

|                                      |                            |                           |                                  |
|--------------------------------------|----------------------------|---------------------------|----------------------------------|
|                                      | <b>Ban</b> Pa Kor          | <b>Amphoe</b> Khueang Nai | <b>Changwat</b> Ubon Ratchathani |
| <b>Drainage Area</b>                 | 3,546 sq.km.               |                           |                                  |
| <b>Method of sampling</b>            | Depth Integrating          |                           |                                  |
| <b>Instrument Used</b>               | US.D-49                    |                           |                                  |
| <b>Period of Available Records</b>   | 2013-Cont'd                |                           |                                  |
| <b>Actual Measurement</b>            | 2013-Cont'd                |                           |                                  |
| <b>Using Rating Curve Water Year</b> | 2013                       |                           |                                  |
| <b>Number of observation</b>         | 36                         |                           |                                  |
| <b>R-Square</b>                      | 0.9038                     |                           |                                  |
| <b>Remarks</b>                       | Continued Sediment Station |                           |                                  |

$$QS = 3.2176 QW^{1.04590}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun     | Jul     | Aug      | Sep      | Oct      | Nov    | Dec  | Jan  | Feb  | Mar  | Annual   |            |
|-------|--------|---------|---------|---------|----------|----------|----------|--------|------|------|------|------|----------|------------|
| 1     | 5.80   | 11.40   | 53.10   | 47.10   | 784.20   | 60.40    | 2538.40  | 64.20  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 2     | 5.80   | 12.50   | 71.90   | 42.50   | 805.70   | 78.50    | 2514.10  | 60.40  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 3     | 5.80   | 13.20   | 80.80   | 48.60   | 812.10   | 99.50    | 2465.40  | 54.70  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 4     | 5.80   | 13.70   | 87.80   | 106.60  | 818.50   | 116.00   | 2380.30  | 53.10  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 5     | 6.00   | 14.10   | 94.80   | 120.70  | 838.70   | 137.30   | 2267.10  | 51.60  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 6     | 6.00   | 14.40   | 97.20   | 118.40  | 864.50   | 149.30   | 2153.10  | 53.10  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 7     | 6.10   | 15.00   | 94.80   | 125.50  | 872.30   | 161.20   | 2012.50  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 8     | 6.10   | 15.20   | 92.50   | 146.90  | 861.90   | 139.70   | 1838.30  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 9     | 6.30   | 15.70   | 90.10   | 139.70  | 890.30   | 76.20    | 1667.90  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 10    | 6.30   | 16.40   | 87.80   | 132.60  | 854.20   | 130.20   | 1501.80  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 11    | 6.30   | 18.60   | 85.50   | 130.20  | 828.40   | 151.70   | 1326.00  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 12    | 6.50   | 32.80   | 83.10   | 127.80  | 792.80   | 175.60   | 1214.00  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 13    | 6.50   | 68.10   | 78.50   | 125.50  | 743.60   | 175.60   | 1038.60  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 14    | 6.50   | 71.90   | 73.80   | 92.50   | 656.20   | 192.50   | 765.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 15    | 6.50   | 73.80   | 66.10   | 32.00   | 605.30   | 197.40   | 658.40   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 16    | 6.60   | 78.50   | 64.20   | 32.80   | 546.20   | 204.60   | 554.60   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 17    | 6.60   | 80.80   | 64.20   | 64.20   | 467.20   | 321.30   | 403.30   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 18    | 6.60   | 85.50   | 62.30   | 71.90   | 361.00   | 601.10   | 252.50   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 19    | 7.00   | 90.10   | 60.40   | 62.30   | 268.80   | 780.00   | 246.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 20    | 7.20   | 87.80   | 58.50   | 60.40   | 154.00   | 920.50   | 239.50   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 21    | 7.50   | 83.10   | 56.60   | 45.50   | 64.20    | 1005.20  | 236.20   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 22    | 7.70   | 76.20   | 54.70   | 83.10   | 85.50    | 1067.70  | 233.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 23    | 8.00   | 68.10   | 54.70   | 151.70  | 33.50    | 1193.00  | 220.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 24    | 8.40   | 60.40   | 51.60   | 194.90  | 19.30    | 1357.50  | 209.50   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 25    | 8.70   | 51.60   | 48.60   | 311.50  | 17.90    | 1526.50  | 194.90   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 26    | 9.10   | 34.30   | 44.00   | 272.10  | 13.70    | 1813.40  | 156.40   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 27    | 9.30   | 32.80   | 41.00   | 354.40  | 16.80    | 2126.40  | 135.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 28    | 9.60   | 33.50   | 41.00   | 395.80  | 19.90    | 2400.60  | 130.20   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| 29    | 9.80   | 34.30   | 39.50   | 474.70  | 23.50    | 2497.90  | 113.60   | 0.00   | 0.00 | 0.00 |      | 0.00 |          |            |
| 30    | 10.20  | 34.30   | 38.80   | 584.20  | 36.50    | 2542.50  | 90.10    | 0.00   | 0.00 | 0.00 |      | 0.00 |          |            |
| 31    |        | 33.50   |         | 677.50  | 47.10    |          | 73.80    |        | 0.00 | 0.00 |      | 0.00 |          |            |
| Total | 214.60 | 1371.60 | 2017.90 | 5373.60 | 14203.80 | 22399.30 | 29829.50 | 337.10 | 0.00 | 0.00 | 0.00 | 0.00 | 75747.40 | <b>Ton</b> |
| Mean  | 7.20   | 44.20   | 67.30   | 173.30  | 458.20   | 746.60   | 962.20   | 11.20  | 0.00 | 0.00 | 0.00 | 0.00 |          |            |
| Max   | 10.20  | 90.10   | 97.20   | 677.50  | 890.30   | 2542.50  | 2538.40  | 64.20  | 0.00 | 0.00 | 0.00 | 0.00 | 2542.50  |            |
| Min   | 5.80   | 11.40   | 38.80   | 32.00   | 13.70    | 60.40    | 73.80    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Huai Hin Lap at Ban Khlong Hin Lap, Nakhon Ratchasima (M.183)**

Lat 14 - 43 - 26 N Long 101 - 34 - 19 E

**Location : on left bank at the bridge on highway.**

|                                      |                            |                         |                                   |
|--------------------------------------|----------------------------|-------------------------|-----------------------------------|
|                                      | <b>Ban</b> Khlong Hin Lap  | <b>Amphoe</b> Pak Chong | <b>Changwat</b> Nakhon Ratchasima |
| <b>Drainage Area</b>                 | 250 sq.km.                 |                         |                                   |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                                   |
| <b>Instrument Used</b>               | US.D-49                    |                         |                                   |
| <b>Period of Available Records</b>   | 2008-Cont'd                |                         |                                   |
| <b>Actual Measurement</b>            | 2008-Cont'd                |                         |                                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                                   |
| <b>Number of observation</b>         | 31                         |                         |                                   |
| <b>R-Square</b>                      | 0.9334                     |                         |                                   |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                                   |

$$QS = 12.1130 QW^{1.46190}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun    | Jul    | Aug   | Sep      | Oct      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual   |            |
|-------|-------|-------|--------|--------|-------|----------|----------|--------|-------|------|------|------|----------|------------|
| 1     | 0.20  | 0.20  | 127.40 | 0.20   | 0.30  | 0.00     | 250.90   | 28.60  | 1.90  | 0.40 | 0.20 | 0.10 |          |            |
| 2     | 0.20  | 0.20  | 83.60  | 0.20   | 0.30  | 0.00     | 427.70   | 28.60  | 0.40  | 0.40 | 0.20 | 0.10 |          |            |
| 3     | 0.20  | 0.20  | 6.30   | 0.20   | 0.30  | 0.20     | 1300.40  | 24.10  | 0.40  | 0.40 | 0.20 | 0.10 |          |            |
| 4     | 0.20  | 0.10  | 5.10   | 9.10   | 0.20  | 0.20     | 335.60   | 12.10  | 0.40  | 0.40 | 0.20 | 0.10 |          |            |
| 5     | 0.20  | 0.10  | 2.80   | 38.40  | 0.40  | 0.20     | 127.40   | 9.10   | 0.40  | 0.40 | 0.20 | 0.10 |          |            |
| 6     | 0.20  | 0.10  | 2.80   | 12.10  | 7.60  | 0.20     | 100.40   | 9.10   | 0.40  | 0.40 | 0.20 | 0.10 |          |            |
| 7     | 0.20  | 0.10  | 28.60  | 10.60  | 1.10  | 38.40    | 60.40    | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 8     | 0.20  | 0.10  | 3.90   | 5.10   | 0.40  | 9.10     | 2036.60  | 12.10  | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 9     | 0.20  | 0.10  | 0.40   | 38.40  | 0.40  | 250.90   | 136.80   | 12.10  | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 10    | 0.20  | 0.10  | 0.30   | 9.10   | 0.40  | 38.40    | 100.40   | 10.60  | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 11    | 0.20  | 0.10  | 0.20   | 0.40   | 10.60 | 9.10     | 49.00    | 10.60  | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 12    | 0.20  | 0.10  | 7.60   | 0.40   | 12.10 | 60.40    | 43.60    | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 13    | 0.20  | 0.20  | 6.30   | 0.20   | 0.40  | 189.00   | 28.60    | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 14    | 0.20  | 0.20  | 1.90   | 0.20   | 0.40  | 146.40   | 12.10    | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 15    | 0.20  | 0.20  | 1.10   | 0.20   | 0.40  | 174.40   | 9.10     | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 16    | 0.20  | 0.20  | 0.20   | 19.80  | 0.30  | 54.60    | 49.00    | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 17    | 0.20  | 0.20  | 0.20   | 9.10   | 0.20  | 38.40    | 2829.60  | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 18    | 0.20  | 0.10  | 12.10  | 0.40   | 0.20  | 10.60    | 486.20   | 9.10   | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| 19    | 0.20  | 0.10  | 5.10   | 0.30   | 0.20  | 54.60    | 5017.30  | 9.10   | 0.40  | 0.30 | 0.20 | 0.00 |          |            |
| 20    | 0.20  | 0.10  | 0.40   | 0.20   | 0.20  | 20528.70 | 509.10   | 9.10   | 0.40  | 0.20 | 0.20 | 0.00 |          |            |
| 21    | 0.20  | 0.20  | 0.40   | 0.20   | 0.20  | 3235.10  | 250.90   | 9.10   | 0.40  | 0.20 | 0.20 | 0.00 |          |            |
| 22    | 0.20  | 0.10  | 0.40   | 0.20   | 0.10  | 118.20   | 136.80   | 9.10   | 0.40  | 0.20 | 0.20 | 0.00 |          |            |
| 23    | 0.20  | 0.20  | 0.40   | 0.20   | 0.10  | 109.20   | 91.90    | 9.10   | 0.40  | 0.20 | 0.20 | 0.10 |          |            |
| 24    | 5.10  | 12.10 | 0.40   | 10.60  | 0.00  | 83.60    | 60.40    | 7.60   | 0.40  | 0.20 | 0.20 | 0.10 |          |            |
| 25    | 43.60 | 6.30  | 0.40   | 15.80  | 0.00  | 43.60    | 60.40    | 6.30   | 0.40  | 0.20 | 0.20 | 0.10 |          |            |
| 26    | 5.10  | 0.40  | 0.40   | 9.10   | 0.00  | 38.40    | 43.60    | 5.10   | 0.40  | 0.20 | 0.20 | 0.10 |          |            |
| 27    | 0.30  | 0.20  | 0.30   | 3.90   | 0.00  | 160.20   | 43.60    | 2.80   | 0.40  | 0.20 | 0.20 | 0.10 |          |            |
| 28    | 0.20  | 0.20  | 0.20   | 1.10   | 0.00  | 390.00   | 33.40    | 2.80   | 0.40  | 0.20 | 0.20 | 0.10 |          |            |
| 29    | 0.20  | 0.20  | 0.20   | 0.40   | 0.00  | 146.40   | 28.60    | 2.80   | 0.40  | 0.20 |      | 0.10 |          |            |
| 30    | 0.20  | 0.20  | 0.20   | 0.40   | 0.00  | 146.40   | 28.60    | 1.90   | 0.40  | 0.20 |      | 0.10 |          |            |
| 31    |       | 19.80 |        | 0.40   | 0.00  |          | 28.60    |        | 0.40  | 0.20 |      | 0.10 |          |            |
| Total | 59.30 | 42.70 | 299.60 | 196.90 | 36.80 | 26074.90 | 14717.00 | 304.60 | 13.90 | 8.70 | 5.60 | 2.70 | 41762.70 | <b>Ton</b> |
| Mean  | 2.00  | 1.40  | 10.00  | 6.40   | 1.20  | 869.20   | 474.70   | 10.20  | 0.40  | 0.30 | 0.20 | 0.10 |          |            |
| Max   | 43.60 | 19.80 | 127.40 | 38.40  | 12.10 | 20528.70 | 5017.30  | 28.60  | 1.90  | 0.40 | 0.20 | 0.10 | 20528.70 |            |
| Min   | 0.20  | 0.10  | 0.20   | 0.20   | 0.00  | 0.00     | 9.10     | 1.90   | 0.40  | 0.20 | 0.20 | 0.00 | 0.00     |            |



**WATER YEAR : 2013****MUN RIVER BASIN****Mun River at Ban Cum, Nakhon Ratchasima (M.184)**

Lat 15 - 13 - 12 N Long 102 - 25 - 41 E

Location : on right at the bridge on highway.

|                                      |                            |                      |                                   |
|--------------------------------------|----------------------------|----------------------|-----------------------------------|
|                                      | <b>Ban Cum</b>             | <b>Amphoe Phimai</b> | <b>Changwat Nakhon Ratchasima</b> |
| <b>Drainage Area</b>                 | 11,489 sq.km.              |                      |                                   |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                                   |
| <b>Instrument Used</b>               | US.D-49                    |                      |                                   |
| <b>Period of Available Records</b>   | 2008-Cont'd                |                      |                                   |
| <b>Actual Measurement</b>            | 2008-Cont'd                |                      |                                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                                   |
| <b>Number of observation</b>         | 23                         |                      |                                   |
| <b>R-Square</b>                      | 0.8797                     |                      |                                   |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                                   |

$$QS = 5.7099 QW^{0.99230}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun     | Jul     | Aug     | Sep     | Oct      | Nov      | Dec     | Jan   | Feb    | Mar    | Annual   |     |
|-------|------|------|---------|---------|---------|---------|----------|----------|---------|-------|--------|--------|----------|-----|
| 1     | 0.00 | 0.00 | 0.00    | 5.10    | 299.00  | 62.80   | 685.50   | 841.50   | 116.00  | 5.70  | 0.00   | 4.60   |          |     |
| 2     | 0.00 | 0.00 | 0.00    | 0.60    | 288.00  | 72.80   | 698.60   | 816.40   | 102.70  | 5.70  | 0.00   | 3.40   |          |     |
| 3     | 0.00 | 0.00 | 0.00    | 0.00    | 277.00  | 69.40   | 718.30   | 785.90   | 92.80   | 5.10  | 0.00   | 4.60   |          |     |
| 4     | 0.00 | 0.00 | 0.00    | 0.00    | 233.00  | 76.10   | 724.80   | 759.20   | 82.80   | 4.60  | 0.00   | 5.70   |          |     |
| 5     | 0.00 | 0.00 | 0.00    | 0.00    | 222.00  | 82.80   | 728.10   | 734.60   | 66.10   | 4.00  | 0.00   | 6.80   |          |     |
| 6     | 0.00 | 0.00 | 0.00    | 0.00    | 219.20  | 82.80   | 734.60   | 715.00   | 56.10   | 2.90  | 0.00   | 6.80   |          |     |
| 7     | 0.00 | 0.00 | 0.00    | 0.00    | 222.00  | 92.80   | 744.40   | 692.10   | 49.40   | 1.70  | 0.00   | 3.40   |          |     |
| 8     | 0.00 | 0.00 | 0.00    | 28.80   | 216.50  | 102.70  | 755.40   | 672.40   | 45.00   | 0.00  | 0.00   | 0.60   |          |     |
| 9     | 0.00 | 0.00 | 0.00    | 33.80   | 180.10  | 116.00  | 770.60   | 649.50   | 47.20   | 0.00  | 0.00   | 0.00   |          |     |
| 10    | 0.00 | 0.00 | 0.00    | 23.70   | 149.20  | 126.00  | 778.30   | 629.80   | 42.70   | 0.00  | 0.00   | 0.00   |          |     |
| 11    | 0.00 | 0.00 | 0.00    | 23.70   | 139.30  | 139.30  | 782.10   | 610.10   | 32.10   | 0.00  | 0.00   | 0.00   |          |     |
| 12    | 0.00 | 0.00 | 6.80    | 17.00   | 122.70  | 149.20  | 785.90   | 590.50   | 27.10   | 0.00  | 0.00   | 0.00   |          |     |
| 13    | 0.00 | 0.00 | 12.50   | 9.10    | 112.70  | 149.20  | 785.90   | 574.10   | 23.70   | 0.00  | 0.00   | 0.00   |          |     |
| 14    | 0.00 | 0.00 | 14.70   | 1.20    | 119.30  | 139.30  | 782.10   | 557.70   | 25.40   | 0.00  | 0.00   | 0.00   |          |     |
| 15    | 0.00 | 0.00 | 45.00   | 0.00    | 116.00  | 135.90  | 778.30   | 544.50   | 22.00   | 0.00  | 0.00   | 0.00   |          |     |
| 16    | 0.00 | 0.00 | 89.40   | 0.00    | 112.70  | 139.30  | 785.90   | 528.10   | 17.00   | 0.00  | 0.00   | 0.00   |          |     |
| 17    | 0.00 | 0.00 | 106.10  | 0.00    | 92.80   | 149.20  | 785.90   | 510.10   | 14.70   | 0.00  | 0.00   | 0.00   |          |     |
| 18    | 0.00 | 0.00 | 112.70  | 0.00    | 76.10   | 152.50  | 782.10   | 490.90   | 14.70   | 0.00  | 0.00   | 0.00   |          |     |
| 19    | 0.00 | 0.00 | 99.40   | 0.00    | 53.90   | 174.00  | 801.20   | 466.30   | 14.70   | 0.00  | 0.00   | 0.00   |          |     |
| 20    | 0.00 | 0.00 | 99.40   | 0.00    | 40.50   | 271.50  | 808.80   | 441.60   | 17.00   | 0.00  | 0.00   | 0.00   |          |     |
| 21    | 0.00 | 0.00 | 109.40  | 0.00    | 28.80   | 397.80  | 808.80   | 417.00   | 15.90   | 0.00  | 8.00   | 30.40  |          |     |
| 22    | 0.00 | 0.00 | 102.70  | 0.00    | 23.70   | 452.60  | 808.80   | 397.80   | 13.60   | 0.00  | 10.20  | 38.30  |          |     |
| 23    | 0.00 | 0.00 | 86.10   | 0.00    | 18.70   | 480.00  | 820.30   | 364.90   | 10.20   | 0.00  | 12.50  | 40.50  |          |     |
| 24    | 0.00 | 0.00 | 56.10   | 0.00    | 12.50   | 501.90  | 828.40   | 290.80   | 9.10    | 0.00  | 15.90  | 53.90  |          |     |
| 25    | 0.00 | 0.00 | 40.50   | 86.10   | 5.10    | 534.70  | 832.80   | 257.80   | 8.00    | 0.00  | 17.00  | 92.80  |          |     |
| 26    | 0.00 | 0.00 | 40.50   | 152.50  | 5.10    | 567.50  | 845.90   | 204.40   | 9.10    | 0.00  | 15.90  | 112.70 |          |     |
| 27    | 0.00 | 0.00 | 33.80   | 198.30  | 5.10    | 600.30  | 863.30   | 139.30   | 11.40   | 0.00  | 15.90  | 116.00 |          |     |
| 28    | 0.00 | 0.00 | 22.00   | 235.80  | 5.70    | 629.80  | 889.50   | 139.30   | 10.20   | 0.00  | 15.90  | 112.70 |          |     |
| 29    | 0.00 | 0.00 | 12.50   | 279.80  | 8.00    | 656.00  | 893.80   | 129.30   | 5.70    | 0.00  |        | 82.80  |          |     |
| 30    | 0.00 | 0.00 | 9.10    | 296.30  | 17.00   | 669.10  | 885.10   | 122.70   | 4.60    | 0.00  |        | 66.10  |          |     |
| 31    |      | 0.00 |         | 301.80  | 49.40   |         | 867.70   |          | 4.60    | 0.00  |        | 51.60  |          |     |
| Total | 0.00 | 0.00 | 1098.70 | 1693.60 | 3471.10 | 7973.30 | 24561.20 | 15073.60 | 1011.60 | 29.70 | 111.30 | 833.70 | 55857.80 | Ton |
| Mean  | 0.00 | 0.00 | 36.60   | 54.60   | 112.00  | 265.80  | 792.30   | 502.50   | 32.60   | 1.00  | 4.00   | 26.90  |          |     |
| Max   | 0.00 | 0.00 | 112.70  | 301.80  | 299.00  | 669.10  | 893.80   | 841.50   | 116.00  | 5.70  | 17.00  | 116.00 | 893.80   |     |
| Min   | 0.00 | 0.00 | 0.00    | 0.00    | 5.10    | 62.80   | 685.50   | 122.70   | 4.60    | 0.00  | 0.00   | 0.00   | 0.00     |     |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Plai Mat at Ban Phai Noi, Nakhon Ratchasima (M.185)**

Lat 14 - 59 - 57 N Long 102 - 49 - 02 E

Location : on right at the bridge on highway.

|                                      |                            |                            |                                   |
|--------------------------------------|----------------------------|----------------------------|-----------------------------------|
|                                      | <b>Ban</b> Phai Noi        | <b>Amphoe</b> Lam Plai Mat | <b>Changwat</b> Nakhon Ratchasima |
| <b>Drainage Area</b>                 | 4,880 sq.km.               |                            |                                   |
| <b>Method of sampling</b>            | Depth Integrating          |                            |                                   |
| <b>Instrument Used</b>               | US.D-49                    |                            |                                   |
| <b>Period of Available Records</b>   | 2010-Cont'd                |                            |                                   |
| <b>Actual Measurement</b>            | 2010-Cont'd                |                            |                                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                            |                                   |
| <b>Number of observation</b>         | 23                         |                            |                                   |
| <b>R-Square</b>                      | 0.7217                     |                            |                                   |
| <b>Remarks</b>                       | Continued Sediment Station |                            |                                   |

$$QS = 3.3242 QW^{0.94630}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun  | Jul   | Aug    | Sep     | Oct      | Nov     | Dec    | Jan   | Feb  | Mar  | Annual   |            |
|-------|------|------|------|-------|--------|---------|----------|---------|--------|-------|------|------|----------|------------|
| 1     | 0.00 | 0.00 | 0.00 | 0.00  | 1.70   | 27.10   | 860.90   | 625.50  | 77.80  | 4.60  | 1.40 | 0.00 |          |            |
| 2     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 27.10   | 833.40   | 569.80  | 73.60  | 3.30  | 1.40 | 0.00 |          |            |
| 3     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 26.00   | 792.40   | 506.10  | 67.30  | 4.00  | 1.40 | 0.00 |          |            |
| 4     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 24.90   | 750.80   | 463.40  | 56.60  | 3.60  | 1.40 | 0.00 |          |            |
| 5     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 23.80   | 713.30   | 413.40  | 52.30  | 3.30  | 1.40 | 0.00 |          |            |
| 6     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 19.50   | 709.10   | 377.40  | 45.80  | 3.00  | 1.10 | 0.00 |          |            |
| 7     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 17.80   | 709.10   | 326.90  | 34.90  | 2.70  | 0.70 | 0.00 |          |            |
| 8     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 15.20   | 734.20   | 296.30  | 23.80  | 2.70  | 0.70 | 0.00 |          |            |
| 9     | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 10.90   | 734.20   | 231.70  | 19.50  | 2.40  | 0.40 | 0.00 |          |            |
| 10    | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 10.90   | 775.80   | 207.20  | 15.20  | 2.40  | 0.00 | 0.00 |          |            |
| 11    | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 6.40    | 851.70   | 179.70  | 13.50  | 2.40  | 0.00 | 0.00 |          |            |
| 12    | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 6.40    | 947.90   | 154.80  | 10.90  | 2.40  | 0.00 | 0.00 |          |            |
| 13    | 0.00 | 0.00 | 0.00 | 0.00  | 2.00   | 12.60   | 1002.60  | 143.60  | 32.70  | 2.40  | 0.00 | 0.00 |          |            |
| 14    | 0.00 | 0.00 | 0.00 | 0.00  | 5.80   | 12.60   | 988.90   | 149.20  | 31.60  | 2.00  | 0.00 | 0.00 |          |            |
| 15    | 0.00 | 0.00 | 0.00 | 0.00  | 17.00  | 10.00   | 961.60   | 129.60  | 30.50  | 2.00  | 0.00 | 0.00 |          |            |
| 16    | 0.00 | 0.00 | 0.00 | 0.00  | 32.70  | 15.20   | 925.10   | 121.20  | 29.40  | 1.70  | 0.00 | 0.00 |          |            |
| 17    | 0.00 | 0.00 | 0.00 | 0.00  | 33.80  | 17.00   | 879.30   | 112.70  | 28.30  | 1.70  | 0.00 | 0.00 |          |            |
| 18    | 0.00 | 0.00 | 0.00 | 0.00  | 34.90  | 17.80   | 842.60   | 107.00  | 17.00  | 2.00  | 0.00 | 0.00 |          |            |
| 19    | 0.00 | 0.00 | 0.00 | 0.00  | 37.10  | 18.70   | 815.00   | 124.00  | 15.20  | 1.70  | 0.00 | 0.00 |          |            |
| 20    | 0.00 | 0.00 | 0.00 | 0.00  | 41.50  | 19.50   | 788.20   | 124.00  | 13.50  | 1.70  | 0.00 | 0.00 |          |            |
| 21    | 0.00 | 0.00 | 0.00 | 0.00  | 41.50  | 67.30   | 746.70   | 121.20  | 13.50  | 1.40  | 0.00 | 0.00 |          |            |
| 22    | 0.00 | 0.00 | 0.00 | 0.00  | 41.50  | 149.20  | 755.00   | 112.70  | 13.50  | 1.40  | 0.00 | 0.00 |          |            |
| 23    | 0.00 | 0.00 | 0.00 | 0.00  | 34.90  | 204.50  | 755.00   | 101.30  | 13.50  | 1.40  | 0.00 | 0.00 |          |            |
| 24    | 0.00 | 0.00 | 0.00 | 1.10  | 32.70  | 237.20  | 788.20   | 101.30  | 13.50  | 1.40  | 0.00 | 0.00 |          |            |
| 25    | 0.00 | 0.00 | 0.00 | 2.40  | 29.40  | 296.30  | 819.60   | 99.00   | 13.50  | 1.40  | 0.00 | 0.00 |          |            |
| 26    | 0.00 | 0.00 | 0.00 | 3.30  | 28.30  | 402.60  | 888.40   | 96.60   | 12.60  | 1.40  | 0.00 | 0.00 |          |            |
| 27    | 0.00 | 0.00 | 0.00 | 4.30  | 27.10  | 557.80  | 870.10   | 94.30   | 12.60  | 1.40  | 0.00 | 0.00 |          |            |
| 28    | 0.00 | 0.00 | 0.00 | 5.50  | 26.00  | 779.90  | 838.00   | 89.60   | 11.80  | 1.40  | 0.00 | 0.00 |          |            |
| 29    | 0.00 | 0.00 | 0.00 | 6.40  | 26.00  | 920.50  | 810.40   | 87.30   | 11.80  | 1.40  |      | 0.00 |          |            |
| 30    | 0.00 | 0.00 | 0.00 | 9.10  | 32.70  | 902.20  | 759.10   | 84.90   | 10.90  | 4.90  |      | 0.00 |          |            |
| 31    |      | 0.00 |      | 10.90 | 29.40  |         | 700.80   |         | 10.90  | 4.60  |      | 0.00 |          |            |
| Total | 0.00 | 0.00 | 0.00 | 43.00 | 556.00 | 4856.90 | 25347.40 | 6351.70 | 827.50 | 74.10 | 9.90 | 0.00 | 38066.50 | <b>Ton</b> |
| Mean  | 0.00 | 0.00 | 0.00 | 1.40  | 17.90  | 161.90  | 817.70   | 211.70  | 26.70  | 2.40  | 0.40 | 0.00 |          |            |
| Max   | 0.00 | 0.00 | 0.00 | 10.90 | 41.50  | 920.50  | 1002.60  | 625.50  | 77.80  | 4.90  | 1.40 | 0.00 | 1002.60  |            |
| Min   | 0.00 | 0.00 | 0.00 | 0.00  | 0.00   | 6.40    | 700.80   | 84.90   | 10.90  | 1.40  | 0.00 | 0.00 | 0.00     |            |

**WATER YEAR : 2013****MUN RIVER BASIN****Lam Ta Khong at Ban Khok Kruad, Nakhon Ratchasima (M.191)**

Lat 44 - 55 - 57 N Long 101 - 57 - 07 E

**Location : on left bank at the bridge on road.**

|                                      |                            |                      |                                   |
|--------------------------------------|----------------------------|----------------------|-----------------------------------|
|                                      | <b>Ban</b> Khok Kruad      | <b>Amphoe</b> Mueang | <b>Changwat</b> Nakhon Ratchasima |
| <b>Drainage Area</b>                 | 2,854 sq.km.               |                      |                                   |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                                   |
| <b>Instrument Used</b>               | US.D-49                    |                      |                                   |
| <b>Period of Available Records</b>   | 2011-Cont'd                |                      |                                   |
| <b>Actual Measurement</b>            | 2011-Cont'd                |                      |                                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                                   |
| <b>Number of observation</b>         | 26                         |                      |                                   |
| <b>R-Square</b>                      | 0.8923                     |                      |                                   |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                                   |

$$QS = 5.6125 QW^{1.06280}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep     | Oct     | Nov    | Dec    | Jan    | Feb    | Mar    | Annual  |            |
|-------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|---------|------------|
| 1     | 5.90   | 2.70   | 9.20   | 13.90  | 5.40   | 10.50   | 100.90  | 15.50  | 3.70   | 12.00  | 13.60  | 13.30  |         |            |
| 2     | 3.60   | 2.10   | 6.20   | 7.70   | 4.30   | 12.70   | 108.60  | 14.90  | 3.80   | 11.70  | 9.20   | 15.80  |         |            |
| 3     | 4.10   | 1.10   | 6.20   | 4.40   | 0.60   | 9.60    | 143.60  | 18.00  | 3.30   | 10.20  | 10.80  | 14.50  |         |            |
| 4     | 4.40   | 1.40   | 7.70   | 4.90   | 2.70   | 6.50    | 204.00  | 8.30   | 2.70   | 8.60   | 8.90   | 6.50   |         |            |
| 5     | 6.10   | 2.60   | 13.90  | 5.70   | 7.30   | 10.20   | 238.10  | 1.70   | 5.90   | 8.30   | 8.50   | 6.50   |         |            |
| 6     | 4.10   | 8.20   | 13.90  | 5.20   | 8.50   | 11.10   | 284.50  | 2.90   | 8.50   | 8.50   | 12.70  | 1.80   |         |            |
| 7     | 6.30   | 9.90   | 14.90  | 6.80   | 7.30   | 13.00   | 289.00  | 4.00   | 3.40   | 10.80  | 16.40  | 7.00   |         |            |
| 8     | 5.90   | 13.00  | 16.80  | 7.80   | 7.10   | 15.50   | 229.60  | 6.60   | 1.30   | 6.80   | 11.10  | 8.90   |         |            |
| 9     | 5.30   | 11.10  | 16.80  | 7.80   | 6.10   | 22.50   | 163.60  | 5.90   | 5.60   | 7.00   | 8.00   | 16.10  |         |            |
| 10    | 4.40   | 8.00   | 12.70  | 10.50  | 4.00   | 22.50   | 187.10  | 7.30   | 9.60   | 5.30   | 7.30   | 13.90  |         |            |
| 11    | 1.70   | 6.80   | 12.00  | 8.20   | 8.00   | 14.90   | 172.00  | 3.60   | 8.60   | 0.90   | 6.80   | 18.70  |         |            |
| 12    | 4.50   | 7.10   | 33.50  | 7.70   | 11.40  | 14.50   | 173.60  | 3.80   | 5.40   | 0.00   | 3.80   | 7.50   |         |            |
| 13    | 5.00   | 7.10   | 34.40  | 5.20   | 12.30  | 17.40   | 135.60  | 7.50   | 5.40   | 0.00   | 3.60   | 13.90  |         |            |
| 14    | 6.50   | 6.30   | 27.80  | 6.30   | 15.50  | 23.80   | 76.30   | 9.90   | 4.90   | 2.70   | 8.20   | 16.10  |         |            |
| 15    | 6.30   | 7.00   | 17.40  | 9.60   | 17.10  | 31.00   | 36.80   | 9.60   | 5.40   | 5.20   | 13.60  | 8.90   |         |            |
| 16    | 6.50   | 8.50   | 18.00  | 10.50  | 20.60  | 35.20   | 39.40   | 11.40  | 7.70   | 6.50   | 14.50  | 7.70   |         |            |
| 17    | 8.00   | 6.20   | 17.10  | 7.00   | 24.50  | 37.70   | 58.00   | 7.00   | 1.10   | 5.90   | 20.60  | 8.90   |         |            |
| 18    | 8.50   | 4.50   | 16.40  | 1.10   | 16.40  | 30.40   | 100.90  | 7.10   | 3.30   | 6.10   | 27.80  | 12.30  |         |            |
| 19    | 8.20   | 6.10   | 17.10  | 2.10   | 7.30   | 27.10   | 153.60  | 7.70   | 7.10   | 8.30   | 17.40  | 12.00  |         |            |
| 20    | 7.70   | 6.10   | 9.20   | 5.90   | 6.10   | 72.10   | 210.80  | 8.00   | 7.00   | 8.50   | 14.90  | 15.80  |         |            |
| 21    | 5.30   | 5.30   | 6.50   | 2.90   | 3.10   | 36.00   | 271.60  | 7.50   | 6.80   | 7.80   | 13.00  | 24.50  |         |            |
| 22    | 4.10   | 5.00   | 10.50  | 3.00   | 8.50   | 106.00  | 280.00  | 7.80   | 6.60   | 8.90   | 17.10  | 27.10  |         |            |
| 23    | 3.70   | 7.50   | 5.40   | 11.40  | 7.80   | 124.00  | 238.10  | 6.80   | 6.20   | 11.10  | 10.50  | 27.80  |         |            |
| 24    | 4.00   | 7.30   | 6.20   | 12.70  | 3.00   | 185.40  | 166.90  | 3.40   | 7.80   | 11.70  | 8.60   | 27.80  |         |            |
| 25    | 4.70   | 5.60   | 6.60   | 11.40  | 1.60   | 224.50  | 115.00  | 4.00   | 9.90   | 8.30   | 8.00   | 16.10  |         |            |
| 26    | 4.10   | 4.30   | 5.00   | 8.50   | 4.30   | 192.20  | 87.00   | 5.70   | 8.90   | 12.70  | 9.60   | 16.10  |         |            |
| 27    | 6.20   | 6.20   | 10.80  | 8.00   | 2.00   | 145.20  | 70.00   | 5.90   | 9.20   | 16.10  | 15.20  | 16.40  |         |            |
| 28    | 5.90   | 6.80   | 12.00  | 8.30   | 1.00   | 106.00  | 40.20   | 5.60   | 9.90   | 14.90  | 18.70  | 16.80  |         |            |
| 29    | 4.10   | 8.00   | 13.30  | 6.30   | 0.70   | 87.00   | 27.10   | 4.40   | 11.70  | 17.70  |        | 17.70  |         |            |
| 30    | 3.70   | 7.40   | 18.70  | 8.30   | 14.90  | 102.20  | 27.80   | 3.70   | 10.50  | 17.10  |        | 27.10  |         |            |
| 31    |        | 8.50   |        | 8.20   | 7.70   |         | 18.00   |        | 10.20  | 17.10  |        | 25.10  |         |            |
| Total | 158.80 | 197.70 | 416.20 | 227.30 | 247.10 | 1746.70 | 4447.70 | 215.50 | 201.40 | 276.70 | 338.40 | 468.60 | 8942.10 | <b>Ton</b> |
| Mean  | 5.30   | 6.40   | 13.90  | 7.30   | 8.00   | 58.20   | 143.50  | 7.20   | 6.50   | 8.90   | 12.10  | 15.10  |         |            |
| Max   | 8.50   | 13.00  | 34.40  | 13.90  | 24.50  | 224.50  | 289.00  | 18.00  | 11.70  | 17.70  | 27.80  | 27.80  | 289.00  |            |
| Min   | 1.70   | 1.10   | 5.00   | 1.10   | 0.60   | 6.50    | 18.00   | 1.70   | 1.10   | 0.00   | 3.60   | 1.80   | 0.00    |            |

**WATER YEAR : 2013****PING RIVER BASIN****Ping River at Nawarat Bridge , Chiang Mai (P.1)**

Lat 18 - 47 - 10 N Long 99 - 00 - 27 E

**Location : on left bank about 100 meters downstream from Nawarat Bridge.**

|                                      |                            |                      |                            |
|--------------------------------------|----------------------------|----------------------|----------------------------|
|                                      | <b>Ban</b> Nawarat Bridge  | <b>Amphoe</b> Mueang | <b>Changwat</b> Chiang Mai |
| <b>Drainage Area</b>                 | 6,350 sq.km.               |                      |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                            |
| <b>Instrument Used</b>               | US.D-49                    |                      |                            |
| <b>Period of Available Records</b>   | 1993-Cont'd                |                      |                            |
| <b>Actual Measurement</b>            | 1993-Cont'd                |                      |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                            |
| <b>Number of observation</b>         | 37                         |                      |                            |
| <b>R-Square</b>                      | 0.7511                     |                      |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                            |

$$QS = 1.5405 QW^{1.32930}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul     | Aug      | Sep      | Oct      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual   |            |
|-------|--------|--------|--------|---------|----------|----------|----------|---------|---------|---------|---------|---------|----------|------------|
| 1     | 2.30   | 13.00  | 7.10   | 5.50    | 82.20    | 193.90   | 449.40   | 436.90  | 125.30  | 39.40   | 88.40   | 27.30   |          |            |
| 2     | 2.90   | 15.60  | 6.50   | 3.10    | 77.60    | 701.90   | 412.20   | 363.80  | 125.30  | 57.40   | 88.40   | 57.40   |          |            |
| 3     | 44.70  | 19.80  | 6.00   | 1.30    | 68.70    | 352.00   | 570.80   | 317.00  | 112.60  | 57.40   | 74.00   | 49.50   |          |            |
| 4     | 36.40  | 31.10  | 2.30   | 1.80    | 51.60    | 211.10   | 461.90   | 271.90  | 94.40   | 49.50   | 34.40   | 25.10   |          |            |
| 5     | 17.00  | 21.20  | 2.60   | 2.10    | 73.10    | 177.20   | 387.80   | 271.90  | 78.30   | 49.50   | 29.60   | 10.10   |          |            |
| 6     | 13.00  | 10.50  | 2.30   | 10.50   | 77.60    | 228.60   | 399.90   | 387.80  | 82.60   | 41.90   | 27.30   | 4.50    |          |            |
| 7     | 15.60  | 15.60  | 2.60   | 17.00   | 73.10    | 477.10   | 387.80   | 228.60  | 69.70   | 49.50   | 25.10   | 4.50    |          |            |
| 8     | 6.00   | 15.60  | 2.90   | 15.60   | 60.00    | 989.70   | 305.60   | 239.20  | 69.70   | 57.40   | 27.30   | 9.10    |          |            |
| 9     | 3.10   | 7.10   | 3.10   | 28.60   | 68.70    | 1705.30  | 239.20   | 185.50  | 82.60   | 45.70   | 69.70   | 49.50   |          |            |
| 10    | 28.60  | 7.10   | 2.90   | 36.40   | 586.80   | 1499.30  | 193.90   | 185.50  | 65.50   | 53.40   | 61.40   | 69.70   |          |            |
| 11    | 68.70  | 18.40  | 2.80   | 60.00   | 2410.00  | 846.60   | 177.20   | 185.50  | 65.50   | 57.40   | 29.60   | 61.40   |          |            |
| 12    | 23.60  | 21.20  | 9.30   | 105.80  | 2410.00  | 603.00   | 160.80   | 211.10  | 100.40  | 82.60   | 16.30   | 39.40   |          |            |
| 13    | 28.60  | 19.80  | 73.10  | 68.70   | 1251.40  | 735.70   | 152.70   | 294.30  | 168.90  | 69.70   | 16.30   | 20.70   |          |            |
| 14    | 31.10  | 15.60  | 41.90  | 44.70   | 651.90   | 668.50   | 138.20   | 160.80  | 412.20  | 36.90   | 27.30   | 6.60    |          |            |
| 15    | 31.10  | 11.70  | 23.60  | 44.70   | 461.90   | 1116.60  | 118.90   | 177.20  | 948.30  | 32.00   | 57.40   | 12.10   |          |            |
| 16    | 33.80  | 21.20  | 7.10   | 113.10  | 523.50   | 1203.20  | 112.60   | 294.30  | 239.20  | 34.40   | 88.40   | 36.90   |          |            |
| 17    | 33.80  | 33.80  | 5.00   | 91.50   | 375.80   | 1181.40  | 118.90   | 185.50  | 160.80  | 39.40   | 74.00   | 65.50   |          |            |
| 18    | 26.10  | 31.10  | 2.80   | 128.00  | 271.90   | 1010.60  | 668.50   | 131.70  | 94.40   | 82.60   | 32.00   | 49.50   |          |            |
| 19    | 17.00  | 23.60  | 1.50   | 39.10   | 219.80   | 718.70   | 3275.80  | 271.90  | 78.30   | 94.40   | 18.50   | 22.80   |          |            |
| 20    | 15.60  | 14.30  | 1.40   | 41.90   | 193.90   | 507.90   | 2062.60  | 570.80  | 100.40  | 78.30   | 17.40   | 7.40    |          |            |
| 21    | 17.00  | 7.60   | 1.10   | 33.80   | 193.90   | 387.80   | 1324.60  | 352.00  | 82.60   | 49.50   | 20.70   | 3.90    |          |            |
| 22    | 15.60  | 17.00  | 1.20   | 39.10   | 412.20   | 317.00   | 1116.60  | 228.60  | 78.30   | 39.40   | 53.40   | 5.90    |          |            |
| 23    | 18.40  | 9.30   | 1.20   | 64.30   | 477.10   | 250.00   | 1138.10  | 193.90  | 74.00   | 29.60   | 53.40   | 53.40   |          |            |
| 24    | 21.20  | 3.10   | 4.00   | 82.20   | 477.10   | 185.50   | 989.70   | 168.90  | 69.70   | 32.00   | 45.70   | 69.70   |          |            |
| 25    | 21.20  | 7.60   | 41.90  | 179.80  | 387.80   | 219.80   | 948.30   | 152.70  | 65.50   | 65.50   | 36.90   | 57.40   |          |            |
| 26    | 15.60  | 7.60   | 17.00  | 68.70   | 283.00   | 271.90   | 701.90   | 100.40  | 61.40   | 78.30   | 13.10   | 39.40   |          |            |
| 27    | 15.60  | 5.50   | 23.60  | 44.70   | 271.90   | 461.90   | 539.10   | 152.70  | 53.40   | 78.30   | 11.00   | 12.10   |          |            |
| 28    | 13.00  | 4.50   | 18.40  | 39.10   | 228.60   | 1300.10  | 523.50   | 193.90  | 49.50   | 36.90   | 12.10   | 9.10    |          |            |
| 29    | 14.30  | 5.00   | 7.10   | 44.70   | 160.80   | 1203.20  | 948.30   | 125.30  | 53.40   | 25.10   |         | 17.40   |          |            |
| 30    | 15.60  | 6.00   | 5.50   | 82.20   | 131.70   | 787.10   | 651.90   | 125.30  | 57.40   | 25.10   |         | 69.70   |          |            |
| 31    |        | 9.30   |        | 82.20   | 118.90   |          | 523.50   |         | 57.40   | 34.40   |         | 82.60   |          |            |
| Total | 646.50 | 449.80 | 327.80 | 1620.20 | 13132.50 | 20512.60 | 20200.20 | 7164.90 | 3977.00 | 1602.90 | 1149.10 | 1049.60 | 71833.10 | <b>Ton</b> |
| Mean  | 21.50  | 14.50  | 10.90  | 52.30   | 423.60   | 683.80   | 651.60   | 238.80  | 128.30  | 51.70   | 41.00   | 33.90   |          |            |
| Max   | 68.70  | 33.80  | 73.10  | 179.80  | 2410.00  | 1705.30  | 3275.80  | 570.80  | 948.30  | 94.40   | 88.40   | 82.60   | 3275.80  |            |
| Min   | 2.30   | 3.10   | 1.10   | 1.30    | 51.60    | 177.20   | 112.60   | 100.40  | 49.50   | 25.10   | 11.00   | 3.90    | 1.10     |            |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Taeng at Ban Mae Taeng , Chiang Mai (P.4A)**

Lat 19 - 07 - 15 N Long 98 - 56 - 53 E

**Location : on right bank at the bridge of Chiang Mai from Fang Highway.**

|                                      | <b>Ban</b> Mae Taeng       | <b>Amphoe</b> Mae Taeng | <b>Changwat</b> Chiang Mai |
|--------------------------------------|----------------------------|-------------------------|----------------------------|
| <b>Drainage Area</b>                 | 1,930 sq.km.               |                         |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                            |
| <b>Instrument Used</b>               | US.D-49                    |                         |                            |
| <b>Period of Available Records</b>   | 1992-Cont'd                |                         |                            |
| <b>Actual Measurement</b>            | 1992-Cont'd                |                         |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                            |
| <b>Number of observation</b>         | 36                         |                         |                            |
| <b>R-Square</b>                      | 0.8997                     |                         |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                            |

$$QS = 1.6402 QW^{1.71350}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun   | Jul  | Aug      | Sep      | Oct      | Nov     | Dec    | Jan   | Feb  | Mar  | Annual   |            |
|-------|-------|-------|-------|------|----------|----------|----------|---------|--------|-------|------|------|----------|------------|
| 1     | 0.80  | 0.70  | 5.20  | 0.10 | 0.70     | 377.40   | 368.80   | 377.40  | 28.50  | 2.20  | 0.30 | 0.30 |          |            |
| 2     | 1.10  | 0.70  | 4.80  | 0.10 | 0.80     | 517.00   | 377.40   | 352.00  | 25.40  | 2.00  | 0.30 | 0.30 |          |            |
| 3     | 1.10  | 0.70  | 2.10  | 0.10 | 1.00     | 338.50   | 432.80   | 338.50  | 22.80  | 1.30  | 0.30 | 0.30 |          |            |
| 4     | 1.10  | 0.70  | 0.20  | 0.10 | 0.80     | 24.10    | 371.70   | 132.90  | 24.10  | 0.80  | 0.30 | 0.30 |          |            |
| 5     | 1.10  | 0.70  | 0.20  | 0.10 | 0.40     | 21.60    | 414.90   | 115.90  | 20.40  | 0.60  | 0.30 | 0.30 |          |            |
| 6     | 0.90  | 0.70  | 0.20  | 0.10 | 0.50     | 25.40    | 592.60   | 96.00   | 20.40  | 0.60  | 0.30 | 0.30 |          |            |
| 7     | 0.60  | 0.80  | 0.10  | 0.10 | 0.40     | 57.90    | 385.80   | 81.20   | 20.40  | 0.60  | 0.30 | 0.30 |          |            |
| 8     | 0.60  | 0.70  | 0.10  | 0.10 | 0.40     | 1768.00  | 84.80    | 81.20   | 20.40  | 0.60  | 0.30 | 0.30 |          |            |
| 9     | 0.60  | 0.60  | 0.10  | 0.20 | 24.10    | 1419.40  | 41.80    | 81.20   | 20.40  | 0.60  | 0.20 | 0.30 |          |            |
| 10    | 0.60  | 0.60  | 0.10  | 0.10 | 729.40   | 980.70   | 26.70    | 81.20   | 20.40  | 0.60  | 0.20 | 0.30 |          |            |
| 11    | 0.60  | 0.60  | 0.10  | 0.10 | 2658.50  | 901.50   | 12.70    | 77.70   | 20.40  | 0.60  | 0.30 | 0.30 |          |            |
| 12    | 0.60  | 0.60  | 0.10  | 0.40 | 2299.60  | 743.40   | 5.80     | 77.70   | 21.60  | 0.60  | 0.20 | 0.30 |          |            |
| 13    | 0.60  | 0.60  | 0.10  | 0.40 | 1317.70  | 637.70   | 3.90     | 84.80   | 26.70  | 0.60  | 0.20 | 0.30 |          |            |
| 14    | 0.60  | 0.60  | 0.10  | 0.20 | 997.30   | 538.20   | 3.90     | 81.20   | 30.30  | 0.60  | 0.30 | 0.30 |          |            |
| 15    | 0.60  | 0.70  | 0.10  | 0.20 | 785.10   | 743.40   | 3.90     | 68.10   | 24.10  | 0.60  | 0.30 | 0.30 |          |            |
| 16    | 0.60  | 0.70  | 0.10  | 0.20 | 385.80   | 1503.10  | 4.20     | 32.10   | 19.20  | 0.60  | 0.30 | 0.30 |          |            |
| 17    | 0.50  | 0.70  | 0.10  | 0.20 | 46.00    | 1169.20  | 2.80     | 30.30   | 11.70  | 0.60  | 0.30 | 0.30 |          |            |
| 18    | 0.50  | 0.70  | 0.10  | 0.10 | 46.00    | 675.50   | 335.60   | 37.80   | 4.20   | 0.60  | 0.30 | 0.30 |          |            |
| 19    | 0.70  | 0.70  | 0.10  | 0.10 | 43.90    | 445.80   | 3653.10  | 406.20  | 2.20   | 0.60  | 0.30 | 0.30 |          |            |
| 20    | 0.70  | 0.60  | 0.10  | 0.10 | 39.80    | 380.10   | 1768.00  | 380.10  | 2.20   | 0.60  | 0.30 | 0.30 |          |            |
| 21    | 0.70  | 0.90  | 0.10  | 0.20 | 35.80    | 341.10   | 1398.80  | 99.80   | 2.20   | 0.60  | 0.30 | 0.30 |          |            |
| 22    | 0.80  | 3.50  | 0.00  | 0.20 | 74.20    | 335.60   | 1461.00  | 46.00   | 2.20   | 0.60  | 0.30 | 0.30 |          |            |
| 23    | 0.80  | 2.40  | 0.00  | 0.20 | 455.70   | 57.90    | 1259.50  | 46.00   | 2.20   | 0.60  | 0.30 | 0.20 |          |            |
| 24    | 0.80  | 2.40  | 0.00  | 0.20 | 485.90   | 13.70    | 916.40   | 41.80   | 2.20   | 0.60  | 0.30 | 0.20 |          |            |
| 25    | 0.80  | 2.40  | 0.00  | 0.50 | 485.90   | 150.90   | 729.40   | 35.80   | 2.20   | 0.60  | 0.30 | 0.20 |          |            |
| 26    | 0.80  | 2.90  | 0.10  | 0.40 | 475.80   | 128.60   | 430.00   | 33.90   | 2.20   | 0.60  | 0.30 | 0.20 |          |            |
| 27    | 0.80  | 5.60  | 0.00  | 0.40 | 397.30   | 81.20    | 394.60   | 39.80   | 2.20   | 0.60  | 0.30 | 0.20 |          |            |
| 28    | 0.80  | 5.60  | 0.00  | 0.40 | 88.50    | 997.30   | 414.90   | 39.80   | 2.20   | 0.60  | 0.30 | 0.20 |          |            |
| 29    | 0.70  | 5.60  | 0.10  | 0.50 | 41.80    | 886.80   | 886.80   | 28.50   | 2.20   | 0.60  |      | 0.20 |          |            |
| 30    | 0.70  | 5.60  | 0.10  | 0.60 | 26.70    | 455.70   | 445.80   | 33.90   | 2.20   | 0.50  |      | 0.20 |          |            |
| 31    |       | 5.20  |       | 0.60 | 33.90    |          | 414.90   |         | 2.20   | 0.30  |      | 0.20 |          |            |
| Total | 22.20 | 55.50 | 14.50 | 7.30 | 11979.70 | 16716.70 | 17643.30 | 3458.80 | 410.00 | 22.10 | 8.00 | 8.40 | 50346.50 | <b>Ton</b> |
| Mean  | 0.70  | 1.80  | 0.50  | 0.20 | 386.40   | 557.20   | 569.10   | 115.30  | 13.20  | 0.70  | 0.30 | 0.30 |          |            |
| Max   | 1.10  | 5.60  | 5.20  | 0.60 | 2658.50  | 1768.00  | 3653.10  | 406.20  | 30.30  | 2.20  | 0.30 | 0.30 | 3653.10  |            |
| Min   | 0.50  | 0.60  | 0.00  | 0.10 | 0.40     | 13.70    | 2.80     | 28.50   | 2.20   | 0.30  | 0.20 | 0.20 | 0.00     |            |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Kuang at Tha Nang Bridge , Lamphun (P.5)**

Lat 18 - 34 - 32 N Long 99 - 00 - 44 E

**Location : on right bank at the bridge of Chiang Mai from Fang Highway.**

|                                      |                            |                      |                         |
|--------------------------------------|----------------------------|----------------------|-------------------------|
|                                      | <b>Ban</b> Tha Nang        | <b>Amphoe</b> Mueang | <b>Changwat</b> Lamphun |
| <b>Drainage Area</b>                 | 1,569                      | sq.km.               |                         |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                         |
| <b>Instrument Used</b>               | US.D-49                    |                      |                         |
| <b>Period of Available Records</b>   | 1992-Cont'd                |                      |                         |
| <b>Actual Measurement</b>            | 1992-Cont'd                |                      |                         |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                         |
| <b>Number of observation</b>         | 24                         |                      |                         |
| <b>R-Square</b>                      | 0.8627                     |                      |                         |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                         |

$$QS = 1.2880 QW^{1.23980}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun   | Jul    | Aug     | Sep     | Oct     | Nov     | Dec    | Jan    | Feb    | Mar   | Annual   |            |
|-------|-------|-------|-------|--------|---------|---------|---------|---------|--------|--------|--------|-------|----------|------------|
| 1     | 0.10  | 0.20  | 0.30  | 0.50   | 98.90   | 27.20   | 101.90  | 18.80   | 19.80  | 2.10   | 16.00  | 0.70  |          |            |
| 2     | 0.20  | 0.20  | 0.50  | 0.50   | 66.40   | 32.60   | 90.10   | 32.60   | 16.90  | 10.40  | 12.60  | 0.60  |          |            |
| 3     | 0.20  | 0.20  | 0.10  | 0.20   | 51.50   | 27.20   | 168.30  | 29.00   | 14.10  | 9.70   | 13.40  | 0.70  |          |            |
| 4     | 0.20  | 1.10  | 0.20  | 0.20   | 40.00   | 21.80   | 184.50  | 25.50   | 14.10  | 9.00   | 11.10  | 0.30  |          |            |
| 5     | 0.20  | 5.70  | 0.80  | 0.10   | 30.80   | 22.80   | 130.20  | 25.50   | 13.40  | 1.40   | 11.90  | 0.20  |          |            |
| 6     | 0.20  | 9.70  | 1.20  | 0.80   | 16.90   | 56.40   | 92.80   | 22.80   | 12.60  | 6.10   | 14.10  | 0.50  |          |            |
| 7     | 0.10  | 12.60 | 2.50  | 22.80  | 16.90   | 87.40   | 66.40   | 21.80   | 13.40  | 12.60  | 14.10  | 0.60  |          |            |
| 8     | 0.10  | 11.90 | 0.80  | 19.80  | 25.50   | 156.40  | 51.50   | 10.40   | 11.90  | 10.40  | 15.00  | 0.30  |          |            |
| 9     | 0.10  | 5.70  | 0.60  | 15.00  | 41.90   | 230.20  | 38.20   | 18.80   | 4.50   | 9.70   | 13.40  | 0.30  |          |            |
| 10    | 0.10  | 4.50  | 1.10  | 23.80  | 46.70   | 315.50  | 30.80   | 16.90   | 1.00   | 5.70   | 14.10  | 0.20  |          |            |
| 11    | 0.10  | 4.50  | 19.80 | 19.80  | 44.30   | 217.60  | 27.20   | 16.90   | 0.90   | 2.00   | 12.60  | 0.20  |          |            |
| 12    | 0.10  | 1.40  | 13.40 | 17.90  | 184.50  | 149.80  | 23.80   | 19.80   | 1.10   | 1.30   | 13.40  | 0.20  |          |            |
| 13    | 0.20  | 1.10  | 2.30  | 17.90  | 378.70  | 403.60  | 23.80   | 17.90   | 2.70   | 1.00   | 13.40  | 0.20  |          |            |
| 14    | 0.20  | 1.10  | 1.00  | 13.40  | 284.30  | 538.00  | 32.60   | 15.00   | 1.60   | 0.50   | 14.10  | 0.50  |          |            |
| 15    | 0.70  | 2.10  | 0.50  | 13.40  | 146.50  | 360.20  | 16.90   | 17.90   | 6.10   | 0.40   | 14.10  | 0.30  |          |            |
| 16    | 1.10  | 1.80  | 1.10  | 13.40  | 79.40   | 248.70  | 15.00   | 7.60    | 12.60  | 0.30   | 12.60  | 0.20  |          |            |
| 17    | 0.80  | 1.60  | 0.40  | 16.00  | 51.50   | 184.50  | 18.80   | 14.10   | 9.70   | 0.40   | 12.60  | 0.20  |          |            |
| 18    | 1.10  | 0.60  | 0.20  | 17.90  | 46.70   | 226.00  | 51.50   | 18.80   | 5.70   | 0.40   | 10.40  | 0.30  |          |            |
| 19    | 1.10  | 0.50  | 0.10  | 18.80  | 32.60   | 111.20  | 488.20  | 123.80  | 3.40   | 0.60   | 3.00   | 0.40  |          |            |
| 20    | 0.70  | 0.10  | 0.10  | 9.70   | 25.50   | 71.50   | 545.20  | 474.10  | 1.10   | 2.90   | 1.30   | 0.50  |          |            |
| 21    | 0.50  | 0.10  | 0.10  | 16.90  | 27.20   | 46.70   | 428.80  | 289.40  | 0.60   | 2.50   | 0.90   | 0.60  |          |            |
| 22    | 0.60  | 0.10  | 0.10  | 16.90  | 133.50  | 38.20   | 516.50  | 130.20  | 0.80   | 2.00   | 0.60   | 0.50  |          |            |
| 23    | 1.10  | 0.10  | 0.00  | 17.90  | 238.70  | 49.00   | 416.20  | 61.30   | 0.80   | 2.50   | 0.50   | 0.90  |          |            |
| 24    | 0.70  | 0.20  | 0.10  | 51.50  | 156.40  | 22.80   | 200.90  | 36.30   | 0.80   | 3.80   | 0.50   | 0.70  |          |            |
| 25    | 1.20  | 0.20  | 0.20  | 87.40  | 79.40   | 19.80   | 136.70  | 27.20   | 0.80   | 6.10   | 0.40   | 1.10  |          |            |
| 26    | 1.00  | 0.10  | 0.20  | 66.40  | 44.30   | 30.80   | 98.90   | 18.80   | 1.00   | 10.40  | 0.30   | 1.20  |          |            |
| 27    | 0.50  | 0.00  | 0.20  | 53.90  | 29.00   | 130.20  | 61.30   | 18.80   | 0.90   | 10.40  | 0.50   | 1.10  |          |            |
| 28    | 0.40  | 0.10  | 0.20  | 38.20  | 25.50   | 372.50  | 49.00   | 15.00   | 1.00   | 12.60  | 1.10   | 1.60  |          |            |
| 29    | 0.30  | 0.30  | 0.30  | 34.40  | 18.80   | 289.40  | 46.70   | 17.90   | 10.40  | 12.60  |        | 0.90  |          |            |
| 30    | 0.20  | 0.40  | 0.40  | 20.80  | 18.80   | 164.30  | 46.70   | 20.80   | 9.00   | 14.10  |        | 1.10  |          |            |
| 31    |       | 0.20  |       | 111.20 | 21.80   |         | 41.90   |         | 4.20   | 16.00  |        | 0.80  |          |            |
| Total | 14.10 | 68.40 | 48.80 | 757.40 | 2502.90 | 4652.30 | 4241.30 | 1583.70 | 196.90 | 179.90 | 248.00 | 17.90 | 14511.60 | <b>Ton</b> |
| Mean  | 0.50  | 2.20  | 1.60  | 24.40  | 80.70   | 155.10  | 136.80  | 52.80   | 6.40   | 5.80   | 8.90   | 0.60  |          |            |
| Max   | 1.20  | 12.60 | 19.80 | 111.20 | 378.70  | 538.00  | 545.20  | 474.10  | 19.80  | 16.00  | 16.00  | 1.60  | 545.20   |            |
| Min   | 0.10  | 0.00  | 0.00  | 0.10   | 16.90   | 19.80   | 15.00   | 7.60    | 0.60   | 0.30   | 0.30   | 0.20  | 0.00     |            |

**WATER YEAR : 2013****PING RIVER BASIN****Ping River at Ban Tha Ngiu, Nakhon Sawan (P.17)**

Lat 15 - 56 - 02 N Long 99 - 58 - 50 E

**Location : on right bank at Som Sieo Market.**

|                                      |                            |                 |               |                       |                 |                     |
|--------------------------------------|----------------------------|-----------------|---------------|-----------------------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | <b>Tha Ngiu</b> | <b>Amphoe</b> | <b>Banphot Phisai</b> | <b>Changwat</b> | <b>Nakhon Sawan</b> |
| <b>Drainage Area</b>                 | 45,297                     | sq.km.          |               |                       |                 |                     |
| <b>Method of sampling</b>            | Depth                      | Integrating     |               |                       |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |                       |                 |                     |
| <b>Period of Available Records</b>   | 1954-Cont'd                |                 |               |                       |                 |                     |
| <b>Actual Measurement</b>            | 1954-Cont'd                |                 |               |                       |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |               |                       |                 |                     |
| <b>Number of observation</b>         | 42                         |                 |               |                       |                 |                     |
| <b>R-Square</b>                      | 0.8590                     |                 |               |                       |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |                       |                 |                     |

$$QS = 0.4400 QW^{1.48100}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May      | Jun      | Jul      | Aug      | Sep       | Oct      | Nov      | Dec      | Jan      | Feb      | Mar      | Annual    |            |
|-------|---------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|-----------|------------|
| 1     | 19.60   | 335.30   | 2117.70  | 316.30   | 528.10   | 297.80    | 6025.90  | 1519.90  | 123.60   | 288.60   | 448.70   | 495.80   |           |            |
| 2     | 17.40   | 480.00   | 1707.20  | 230.20   | 544.50   | 297.80    | 5684.20  | 1018.70  | 103.80   | 288.60   | 418.20   | 511.90   |           |            |
| 3     | 23.10   | 528.10   | 1593.90  | 215.40   | 646.10   | 418.20    | 4525.10  | 882.30   | 92.50    | 288.60   | 464.30   | 495.80   |           |            |
| 4     | 39.10   | 594.60   | 1419.00  | 237.70   | 686.80   | 480.00    | 4107.40  | 710.40   | 79.50    | 297.80   | 433.30   | 464.30   |           |            |
| 5     | 35.80   | 882.30   | 1419.00  | 261.70   | 594.60   | 511.90    | 3908.50  | 611.60   | 92.50    | 344.90   | 480.00   | 433.30   |           |            |
| 6     | 47.20   | 935.20   | 1486.00  | 344.90   | 464.30   | 495.80    | 2731.80  | 544.50   | 168.10   | 297.80   | 418.20   | 388.30   |           |            |
| 7     | 65.80   | 1320.40  | 1901.40  | 335.30   | 316.30   | 577.70    | 2437.10  | 448.70   | 186.90   | 307.00   | 418.20   | 344.90   |           |            |
| 8     | 76.70   | 1784.10  | 1556.80  | 418.20   | 325.80   | 577.70    | 2206.20  | 388.30   | 464.30   | 325.80   | 433.30   | 279.60   |           |            |
| 9     | 68.40   | 1901.40  | 1707.20  | 448.70   | 388.30   | 831.90    | 1631.40  | 335.30   | 907.80   | 307.00   | 464.30   | 252.90   |           |            |
| 10    | 55.80   | 1901.40  | 1320.40  | 464.30   | 686.80   | 1519.90   | 1256.00  | 279.60   | 831.90   | 288.60   | 495.80   | 230.20   |           |            |
| 11    | 92.50   | 1944.10  | 1192.60  | 734.20   | 1224.20  | 1519.90   | 1075.70  | 279.60   | 1075.70  | 261.70   | 464.30   | 222.80   |           |            |
| 12    | 103.80  | 1987.00  | 1419.00  | 758.30   | 1669.20  | 1519.90   | 807.10   | 279.60   | 710.40   | 297.80   | 464.30   | 288.60   |           |            |
| 13    | 119.50  | 1901.40  | 1707.20  | 907.80   | 2296.00  | 1901.40   | 611.60   | 222.80   | 480.00   | 270.60   | 544.50   | 270.60   |           |            |
| 14    | 156.60  | 1901.40  | 2534.10  | 882.30   | 3169.20  | 3462.70   | 480.00   | 208.20   | 448.70   | 270.60   | 528.10   | 245.30   |           |            |
| 15    | 134.30  | 1784.10  | 3284.20  | 646.10   | 2781.90  | 5122.60   | 373.60   | 193.90   | 433.30   | 245.30   | 561.00   | 279.60   |           |            |
| 16    | 186.90  | 1104.60  | 2206.20  | 528.10   | 3169.20  | 9161.00   | 335.30   | 193.90   | 448.70   | 201.00   | 464.30   | 316.30   |           |            |
| 17    | 252.90  | 1018.70  | 1288.10  | 433.30   | 2731.80  | 8931.40   | 316.30   | 222.80   | 252.90   | 193.90   | 495.80   | 373.60   |           |            |
| 18    | 270.60  | 962.70   | 907.80   | 344.90   | 1822.90  | 6817.90   | 288.60   | 279.60   | 230.20   | 186.90   | 464.30   | 388.30   |           |            |
| 19    | 261.70  | 1133.70  | 611.60   | 270.60   | 1288.10  | 6817.90   | 388.30   | 297.80   | 344.90   | 237.70   | 480.00   | 418.20   |           |            |
| 20    | 270.60  | 1452.40  | 646.10   | 222.80   | 935.20   | 6025.90   | 433.30   | 288.60   | 373.60   | 261.70   | 448.70   | 418.20   |           |            |
| 21    | 261.70  | 1669.20  | 935.20   | 215.40   | 646.10   | 6907.90   | 577.70   | 261.70   | 335.30   | 448.70   | 480.00   | 433.30   |           |            |
| 22    | 270.60  | 1631.40  | 1018.70  | 186.90   | 448.70   | 9860.90   | 1256.00  | 222.80   | 344.90   | 577.70   | 495.80   | 359.20   |           |            |
| 23    | 279.60  | 1745.50  | 782.60   | 208.20   | 325.80   | 11354.10  | 2534.10  | 179.90   | 335.30   | 528.10   | 561.00   | 316.30   |           |            |
| 24    | 297.80  | 2030.30  | 663.50   | 201.00   | 297.80   | 11887.70  | 3169.20  | 162.30   | 316.30   | 561.00   | 448.70   | 297.80   |           |            |
| 25    | 335.30  | 1987.00  | 561.00   | 237.70   | 261.70   | 8478.00   | 3169.20  | 186.90   | 344.90   | 561.00   | 388.30   | 279.60   |           |            |
| 26    | 307.00  | 2251.00  | 495.80   | 480.00   | 230.20   | 5854.20   | 5684.20  | 168.10   | 325.80   | 495.80   | 448.70   | 279.60   |           |            |
| 27    | 279.60  | 2534.10  | 448.70   | 495.80   | 222.80   | 4967.90   | 11753.50 | 145.30   | 307.00   | 528.10   | 544.50   | 297.80   |           |            |
| 28    | 252.90  | 2341.30  | 373.60   | 373.60   | 325.80   | 4667.30   | 8143.00  | 162.30   | 307.00   | 480.00   | 577.70   | 222.80   |           |            |
| 29    | 252.90  | 2161.80  | 325.80   | 297.80   | 373.60   | 4314.60   | 5045.00  | 139.70   | 288.60   | 464.30   |          | 215.40   |           |            |
| 30    | 261.70  | 1901.40  | 316.30   | 279.60   | 373.60   | 5278.70   | 3169.20  | 139.70   | 288.60   | 480.00   |          | 179.90   |           |            |
| 31    |         | 1944.10  |          | 316.30   | 325.80   |           | 2117.70  |          | 261.70   | 464.30   |          | 179.90   |           |            |
| Total | 5097.40 | 48050.00 | 37946.70 | 12293.40 | 30101.20 | 130860.60 | 86242.20 | 10974.80 | 11304.70 | 11050.90 | 13334.30 | 10180.10 | 407436.30 | <b>Ton</b> |
| Mean  | 169.90  | 1550.00  | 1264.90  | 396.60   | 971.00   | 4362.00   | 2782.00  | 365.80   | 364.70   | 356.50   | 476.20   | 328.40   |           |            |
| Max   | 335.30  | 2534.10  | 3284.20  | 907.80   | 3169.20  | 11887.70  | 11753.50 | 1519.90  | 1075.70  | 577.70   | 577.70   | 511.90   | 11887.70  |            |
| Min   | 17.40   | 335.30   | 316.30   | 186.90   | 222.80   | 297.80    | 288.60   | 139.70   | 79.50    | 186.90   | 388.30   | 179.90   | 17.40     |            |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Rim at Ban Mae Rim Tai , Chiang Mai (P.21)**

Lat 18 - 55 - 45 N Long 98 - 56 - 40 E

**Location : on left bank about 100 meters downstream from the bridge of Chiang Mai - Fang Highway.**

|                                      | <b>Ban</b> Mae Rim Tai     | <b>Amphoe</b> Mae Rim | <b>Changwat</b> Chiang Mai |
|--------------------------------------|----------------------------|-----------------------|----------------------------|
| <b>Drainage Area</b>                 | 452 sq.km.                 |                       |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                            |
| <b>Instrument Used</b>               | US.D-49                    |                       |                            |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                       |                            |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                       |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |                            |
| <b>Number of observation</b>         | 35                         |                       |                            |
| <b>R-Square</b>                      | 0.9540                     |                       |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                            |

$$QS = 15.8930 QW^{0.94400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul    | Aug     | Sep     | Oct     | Nov     | Dec     | Jan    | Feb    | Mar    | Annual   |            |
|-------|-------|--------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|----------|------------|
| 1     | 3.00  | 3.10   | 11.30  | 6.80   | 55.80   | 35.20   | 64.10   | 92.80   | 42.70   | 38.90  | 8.30   | 10.60  |          |            |
| 2     | 3.00  | 3.10   | 9.80   | 4.90   | 32.90   | 70.70   | 87.50   | 82.20   | 40.20   | 32.90  | 5.90   | 7.30   |          |            |
| 3     | 2.70  | 3.10   | 6.80   | 4.50   | 24.80   | 46.50   | 124.10  | 65.70   | 41.40   | 25.90  | 6.40   | 4.00   |          |            |
| 4     | 3.10  | 4.90   | 9.80   | 4.90   | 25.90   | 41.40   | 191.90  | 64.10   | 31.70   | 30.60  | 5.90   | 4.00   |          |            |
| 5     | 3.10  | 22.10  | 12.10  | 4.50   | 57.40   | 40.20   | 118.90  | 50.70   | 32.90   | 6.80   | 5.40   | 3.50   |          |            |
| 6     | 3.30  | 19.50  | 12.90  | 4.90   | 42.70   | 92.80   | 94.50   | 46.50   | 31.70   | 24.80  | 4.90   | 3.30   |          |            |
| 7     | 9.00  | 12.90  | 14.40  | 4.50   | 40.20   | 136.10  | 106.70  | 50.70   | 28.30   | 25.90  | 5.90   | 5.90   |          |            |
| 8     | 5.90  | 14.40  | 14.40  | 15.10  | 31.70   | 161.80  | 94.50   | 52.40   | 29.40   | 31.70  | 6.40   | 21.20  |          |            |
| 9     | 3.30  | 13.60  | 15.90  | 27.10  | 41.40   | 225.40  | 70.70   | 52.40   | 28.30   | 25.90  | 13.60  | 14.40  |          |            |
| 10    | 2.70  | 12.90  | 9.80   | 20.40  | 92.80   | 136.10  | 47.80   | 49.10   | 29.40   | 21.20  | 17.70  | 4.00   |          |            |
| 11    | 2.50  | 14.40  | 19.50  | 34.00  | 309.90  | 85.70   | 42.70   | 46.50   | 31.70   | 19.50  | 9.00   | 2.80   |          |            |
| 12    | 2.10  | 11.30  | 64.10  | 31.70  | 560.40  | 139.60  | 32.90   | 45.30   | 34.00   | 18.60  | 15.10  | 2.80   |          |            |
| 13    | 2.10  | 12.10  | 18.60  | 20.40  | 223.20  | 168.60  | 23.90   | 44.00   | 32.90   | 20.40  | 14.40  | 2.80   |          |            |
| 14    | 2.10  | 7.30   | 5.90   | 9.80   | 113.70  | 125.80  | 23.90   | 44.00   | 49.10   | 20.40  | 15.90  | 2.80   |          |            |
| 15    | 2.10  | 4.90   | 4.00   | 15.10  | 151.50  | 110.20  | 29.40   | 49.10   | 112.00  | 18.60  | 11.30  | 2.80   |          |            |
| 16    | 2.10  | 3.10   | 3.50   | 41.40  | 139.60  | 134.40  | 27.10   | 158.40  | 92.80   | 15.90  | 8.30   | 2.80   |          |            |
| 17    | 2.10  | 3.00   | 3.30   | 75.60  | 91.00   | 186.10  | 42.70   | 117.20  | 77.30   | 15.90  | 6.80   | 2.80   |          |            |
| 18    | 2.10  | 2.50   | 3.50   | 55.80  | 67.40   | 118.90  | 351.30  | 99.80   | 55.80   | 15.90  | 9.00   | 2.80   |          |            |
| 19    | 2.10  | 2.30   | 3.10   | 24.80  | 57.40   | 70.70   | 525.40  | 80.50   | 45.30   | 23.90  | 9.80   | 3.00   |          |            |
| 20    | 2.00  | 7.30   | 3.10   | 13.60  | 55.80   | 82.20   | 199.70  | 176.40  | 42.70   | 13.60  | 8.30   | 3.10   |          |            |
| 21    | 1.80  | 36.30  | 3.30   | 9.80   | 92.80   | 57.40   | 209.60  | 108.50  | 40.20   | 12.10  | 8.30   | 3.00   |          |            |
| 22    | 1.80  | 28.30  | 3.30   | 11.30  | 178.30  | 44.00   | 184.20  | 74.00   | 38.90   | 10.60  | 8.30   | 2.70   |          |            |
| 23    | 1.80  | 19.50  | 3.00   | 16.80  | 131.00  | 36.30   | 172.50  | 60.80   | 36.30   | 11.30  | 10.60  | 2.80   |          |            |
| 24    | 9.80  | 12.90  | 3.30   | 57.40  | 118.90  | 37.60   | 137.90  | 55.80   | 34.00   | 10.60  | 9.00   | 2.80   |          |            |
| 25    | 4.90  | 15.90  | 6.80   | 110.20 | 85.70   | 45.30   | 225.40  | 72.30   | 35.20   | 8.30   | 8.30   | 3.30   |          |            |
| 26    | 4.50  | 24.80  | 11.30  | 50.70  | 65.70   | 42.70   | 132.70  | 47.80   | 34.00   | 10.60  | 8.30   | 2.70   |          |            |
| 27    | 4.00  | 15.10  | 12.90  | 42.70  | 60.80   | 124.10  | 99.80   | 49.10   | 34.00   | 10.60  | 9.80   | 3.00   |          |            |
| 28    | 3.30  | 12.10  | 8.30   | 24.80  | 49.10   | 337.50  | 112.00  | 74.00   | 36.30   | 11.30  | 10.60  | 6.80   |          |            |
| 29    | 2.30  | 10.60  | 6.80   | 30.60  | 34.00   | 197.80  | 211.90  | 65.70   | 37.60   | 9.80   |        | 15.10  |          |            |
| 30    | 3.10  | 7.80   | 7.30   | 60.80  | 23.90   | 105.00  | 137.90  | 45.30   | 37.60   | 6.80   |        | 22.10  |          |            |
| 31    |       | 3.10   |        | 45.30  | 22.10   |         | 112.00  |         | 35.20   | 7.80   |        | 17.70  |          |            |
| Total | 97.70 | 364.20 | 312.10 | 880.20 | 3077.80 | 3236.10 | 4035.60 | 2121.10 | 1308.90 | 557.10 | 261.50 | 188.70 | 16441.00 | <b>Ton</b> |
| Mean  | 3.30  | 11.70  | 10.40  | 28.40  | 99.30   | 107.90  | 130.20  | 70.70   | 42.20   | 18.00  | 9.30   | 6.10   |          |            |
| Max   | 9.80  | 36.30  | 64.10  | 110.20 | 560.40  | 337.50  | 525.40  | 176.40  | 112.00  | 38.90  | 17.70  | 22.10  | 560.40   |            |
| Min   | 1.80  | 2.30   | 3.00   | 4.50   | 22.10   | 35.20   | 23.90   | 44.00   | 28.30   | 6.80   | 4.90   | 2.70   | 1.80     |            |



**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Ngat at Ban Sahakorn Romklao , Chiang Mai (P.56A)**

Lat 19 - 17 - 04 N Long 99 - 11 - 23 E

**Location : on left bank at the bridge near land Cooperative Office.**

|                                      |                             |                     |                            |
|--------------------------------------|-----------------------------|---------------------|----------------------------|
|                                      | <b>Ban</b> Sahakorn Romklao | <b>Amphoe</b> Phrao | <b>Changwat</b> Chiang Mai |
| <b>Drainage Area</b>                 | 546                         | sq.km.              |                            |
| <b>Method of sampling</b>            | Depth Integrating           |                     |                            |
| <b>Instrument Used</b>               | US.D-49                     |                     |                            |
| <b>Period of Available Records</b>   | 1997-Cont'd                 |                     |                            |
| <b>Actual Measurement</b>            | 1997-Cont'd                 |                     |                            |
| <b>Using Rating Curve Water Year</b> | 2013                        |                     |                            |
| <b>Number of observation</b>         | 35                          |                     |                            |
| <b>R-Square</b>                      | 0.8395                      |                     |                            |
| <b>Remarks</b>                       | Continued Sediment Station  |                     |                            |

$$QS = 2.9761 QW^{1.57740}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun    | Jul     | Aug     | Sep     | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|-------|-------|--------|---------|---------|---------|---------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 1.70  | 0.10  | 1.80   | 1.70    | 159.90  | 297.10  | 39.10   | 49.70  | 15.30  | 4.90   | 1.90  | 1.10  |          |            |
| 2     | 1.70  | 0.30  | 1.70   | 1.70    | 61.20   | 186.50  | 39.10   | 30.80  | 13.80  | 6.90   | 2.50  | 0.90  |          |            |
| 3     | 1.70  | 1.20  | 1.70   | 1.70    | 31.90   | 88.70   | 39.10   | 26.50  | 7.90   | 6.40   | 2.70  | 1.10  |          |            |
| 4     | 1.70  | 1.20  | 1.90   | 1.70    | 29.70   | 45.10   | 45.10   | 18.60  | 4.50   | 4.50   | 2.50  | 1.10  |          |            |
| 5     | 1.70  | 1.20  | 2.70   | 1.90    | 49.70   | 30.80   | 49.70   | 14.50  | 4.50   | 4.20   | 2.50  | 1.30  |          |            |
| 6     | 1.70  | 1.60  | 17.70  | 1.90    | 43.60   | 203.90  | 196.90  | 16.80  | 4.50   | 3.50   | 2.50  | 1.50  |          |            |
| 7     | 1.70  | 2.10  | 8.30   | 2.70    | 82.90   | 1289.30 | 84.80   | 16.80  | 4.50   | 4.90   | 2.10  | 1.50  |          |            |
| 8     | 1.70  | 5.60  | 7.40   | 73.60   | 229.10  | 193.40  | 45.10   | 16.80  | 4.50   | 4.90   | 2.10  | 1.50  |          |            |
| 9     | 1.70  | 2.70  | 4.10   | 49.70   | 1157.10 | 695.50  | 25.50   | 16.00  | 4.50   | 5.90   | 2.10  | 1.30  |          |            |
| 10    | 1.60  | 2.00  | 4.10   | 45.10   | 1866.60 | 370.20  | 21.50   | 15.30  | 4.50   | 4.50   | 2.10  | 1.10  |          |            |
| 11    | 1.60  | 2.00  | 60.90  | 84.80   | 650.40  | 203.90  | 17.70   | 15.30  | 4.50   | 2.70   | 2.10  | 1.10  |          |            |
| 12    | 1.60  | 2.10  | 40.60  | 77.20   | 313.90  | 183.10  | 16.80   | 15.30  | 4.50   | 4.50   | 1.90  | 1.10  |          |            |
| 13    | 1.60  | 3.70  | 17.70  | 40.60   | 159.90  | 341.80  | 14.50   | 15.30  | 4.90   | 3.20   | 2.10  | 0.90  |          |            |
| 14    | 1.70  | 2.10  | 8.80   | 33.00   | 88.70   | 193.40  | 10.90   | 15.30  | 7.40   | 3.20   | 2.10  | 0.90  |          |            |
| 15    | 1.70  | 2.00  | 8.30   | 42.10   | 154.50  | 207.40  | 35.30   | 15.30  | 15.30  | 3.20   | 2.10  | 0.80  |          |            |
| 16    | 1.40  | 2.00  | 10.30  | 82.90   | 111.40  | 214.60  | 20.50   | 15.30  | 157.10 | 3.50   | 2.10  | 0.80  |          |            |
| 17    | 0.90  | 1.90  | 2.10   | 73.60   | 84.80   | 310.30  | 141.20  | 16.00  | 30.80  | 3.20   | 1.80  | 0.80  |          |            |
| 18    | 0.90  | 1.90  | 1.90   | 49.70   | 61.20   | 221.80  | 49.70   | 19.60  | 11.60  | 3.20   | 1.50  | 0.90  |          |            |
| 19    | 0.90  | 1.90  | 2.00   | 35.30   | 36.50   | 106.80  | 341.80  | 34.20  | 6.90   | 3.00   | 1.50  | 0.90  |          |            |
| 20    | 0.90  | 1.90  | 1.90   | 25.50   | 59.50   | 66.40   | 341.80  | 123.50 | 6.40   | 3.00   | 1.50  | 0.70  |          |            |
| 21    | 1.20  | 2.00  | 1.90   | 27.60   | 84.80   | 51.30   | 260.20  | 30.80  | 4.50   | 2.70   | 1.50  | 0.70  |          |            |
| 22    | 2.70  | 2.70  | 1.90   | 21.50   | 90.60   | 35.30   | 221.80  | 21.50  | 4.20   | 3.00   | 1.30  | 0.70  |          |            |
| 23    | 0.80  | 2.10  | 1.80   | 16.80   | 272.40  | 29.70   | 163.20  | 18.60  | 3.50   | 3.00   | 1.30  | 0.70  |          |            |
| 24    | 0.90  | 2.10  | 1.80   | 17.70   | 126.10  | 34.20   | 113.70  | 13.00  | 4.20   | 3.00   | 1.20  | 0.70  |          |            |
| 25    | 0.90  | 2.10  | 1.80   | 20.50   | 81.00   | 37.70   | 310.30  | 10.90  | 3.70   | 3.00   | 1.30  | 0.90  |          |            |
| 26    | 0.90  | 2.10  | 1.80   | 18.60   | 92.60   | 31.90   | 90.60   | 13.80  | 4.90   | 3.00   | 1.30  | 0.70  |          |            |
| 27    | 0.90  | 1.90  | 1.80   | 26.50   | 102.70  | 30.80   | 94.60   | 14.50  | 7.40   | 2.70   | 1.50  | 0.80  |          |            |
| 28    | 0.90  | 1.90  | 1.80   | 27.60   | 59.50   | 141.20  | 71.70   | 16.80  | 6.90   | 2.70   | 1.50  | 1.10  |          |            |
| 29    | 0.50  | 2.00  | 1.70   | 179.70  | 61.20   | 108.90  | 100.60  | 57.80  | 7.40   | 2.50   |       | 0.70  |          |            |
| 30    | 0.10  | 2.00  | 1.70   | 318.60  | 92.60   | 64.70   | 94.60   | 28.60  | 6.40   | 2.50   |       | 0.70  |          |            |
| 31    |       | 1.90  |        | 399.40  | 221.80  |         | 82.90   |        | 4.50   | 2.50   |       | 0.60  |          |            |
| Total | 39.90 | 62.30 | 223.90 | 1800.90 | 6717.80 | 6015.70 | 3180.30 | 733.20 | 375.50 | 113.90 | 52.60 | 29.60 | 19345.60 | <b>Ton</b> |
| Mean  | 1.30  | 2.00  | 7.50   | 58.10   | 216.70  | 200.50  | 102.60  | 24.40  | 12.10  | 3.70   | 1.90  | 1.00  |          |            |
| Max   | 2.70  | 5.60  | 60.90  | 399.40  | 1866.60 | 1289.30 | 341.80  | 123.50 | 157.10 | 6.90   | 2.70  | 1.50  | 1866.60  |            |
| Min   | 0.10  | 0.10  | 1.70   | 1.70    | 29.70   | 29.70   | 10.90   | 10.90  | 3.50   | 2.50   | 1.20  | 0.60  | 0.10     |            |

**WATER YEAR : 2013****PING RIVER BASIN****Ping River at Ban Mae Tae , Chiang Mai (P.67)**

Lat 19 - 01 - 11 N Long 98 - 57 - 43 E

**Location : on left bank at the bridge on highway.**

|                                      | Ban Mae Tae                | Amphoe San Sai | Changwat Chiang Mai |
|--------------------------------------|----------------------------|----------------|---------------------|
| <b>Drainage Area</b>                 | 5,323 sq.km.               |                |                     |
| <b>Method of sampling</b>            | Depth Integrating          |                |                     |
| <b>Instrument Used</b>               | US.D-49                    |                |                     |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                |                     |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |                     |
| <b>Number of observation</b>         | 36                         |                |                     |
| <b>R-Square</b>                      | 0.8676                     |                |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                |                     |

$$QS = 0.9783 QW^{1.67320}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug      | Sep      | Oct      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual    |     |
|-------|--------|--------|--------|--------|----------|----------|----------|---------|---------|--------|--------|--------|-----------|-----|
| 1     | 3.10   | 6.40   | 3.10   | 2.00   | 41.50    | 662.90   | 662.90   | 662.90  | 110.00  | 17.30  | 56.90  | 36.50  |           |     |
| 2     | 3.60   | 7.70   | 5.80   | 1.50   | 50.50    | 1831.20  | 606.40   | 482.70  | 104.70  | 16.10  | 53.70  | 44.40  |           |     |
| 3     | 19.60  | 10.00  | 2.50   | 1.30   | 34.40    | 534.30   | 976.10   | 404.10  | 104.70  | 15.00  | 34.40  | 24.80  |           |     |
| 4     | 6.40   | 7.70   | 1.70   | 1.00   | 26.60    | 158.50   | 606.40   | 333.00  | 89.40   | 14.00  | 7.10   | 3.60   |           |     |
| 5     | 2.50   | 5.80   | 1.50   | 2.80   | 44.40    | 89.40    | 534.30   | 306.10  | 63.60   | 14.00  | 6.40   | 2.80   |           |     |
| 6     | 7.70   | 5.80   | 1.30   | 6.40   | 36.50    | 139.20   | 802.50   | 319.40  | 79.80   | 16.10  | 5.20   | 1.30   |           |     |
| 7     | 10.00  | 7.10   | 1.00   | 5.20   | 30.40    | 499.60   | 482.70   | 293.00  | 99.50   | 16.10  | 7.70   | 4.70   |           |     |
| 8     | 9.10   | 5.20   | 1.00   | 10.00  | 23.00    | 4016.60  | 319.40   | 231.00  | 139.20  | 16.10  | 53.70  | 47.40  |           |     |
| 9     | 9.10   | 4.10   | 1.00   | 5.80   | 32.40    | 6469.80  | 207.90   | 185.70  | 63.60   | 16.10  | 53.70  | 47.40  |           |     |
| 10    | 38.60  | 7.70   | 1.30   | 6.40   | 2310.10  | 6135.10  | 178.80   | 185.70  | 32.40   | 19.60  | 26.60  | 47.40  |           |     |
| 11    | 16.10  | 8.40   | 3.10   | 24.80  | 9944.90  | 2099.90  | 110.00   | 178.80  | 28.50   | 34.40  | 3.60   | 28.50  |           |     |
| 12    | 11.90  | 7.70   | 30.40  | 23.00  | 6985.20  | 1139.30  | 84.60    | 196.70  | 24.80   | 30.40  | 2.50   | 4.10   |           |     |
| 13    | 11.90  | 8.40   | 26.60  | 21.30  | 3317.30  | 1195.90  | 75.10    | 185.70  | 26.60   | 24.80  | 2.80   | 2.50   |           |     |
| 14    | 11.90  | 7.10   | 12.90  | 14.00  | 1507.80  | 1439.40  | 67.10    | 178.80  | 53.70   | 10.00  | 11.00  | 10.00  |           |     |
| 15    | 11.90  | 7.70   | 7.70   | 16.10  | 924.00   | 2754.30  | 56.90    | 171.90  | 499.60  | 6.40   | 56.90  | 47.40  |           |     |
| 16    | 11.90  | 21.30  | 5.80   | 30.40  | 873.10   | 4138.40  | 47.40    | 185.70  | 231.00  | 6.40   | 126.90 | 47.40  |           |     |
| 17    | 11.90  | 17.30  | 4.10   | 16.10  | 499.60   | 4138.40  | 50.50    | 171.90  | 126.90  | 10.00  | 67.10  | 41.50  |           |     |
| 18    | 9.10   | 15.00  | 1.30   | 16.10  | 267.50   | 3660.20  | 606.40   | 196.70  | 84.60   | 53.70  | 7.70   | 21.30  |           |     |
| 19    | 8.40   | 12.90  | 0.60   | 11.90  | 152.00   | 1684.30  | 13796.80 | 873.10  | 79.80   | 56.90  | 7.10   | 9.10   |           |     |
| 20    | 11.90  | 5.20   | 1.50   | 11.00  | 110.00   | 873.10   | 7072.70  | 1083.80 | 41.50   | 44.40  | 4.70   | 4.70   |           |     |
| 21    | 10.00  | 6.40   | 2.00   | 10.00  | 94.40    | 588.10   | 3896.30  | 449.40  | 47.40   | 11.90  | 9.10   | 7.70   |           |     |
| 22    | 9.10   | 9.10   | 2.00   | 10.00  | 360.70   | 389.40   | 3206.00  | 280.10  | 41.50   | 7.70   | 53.70  | 44.40  |           |     |
| 23    | 9.10   | 4.10   | 5.20   | 8.40   | 569.90   | 293.00   | 3718.70  | 207.90  | 38.60   | 7.10   | 67.10  | 50.50  |           |     |
| 24    | 7.70   | 2.20   | 32.40  | 21.30  | 741.40   | 152.00   | 2754.30  | 178.80  | 36.50   | 11.00  | 50.50  | 50.50  |           |     |
| 25    | 7.70   | 6.40   | 6.40   | 53.70  | 434.10   | 196.70   | 2353.10  | 165.10  | 30.40   | 70.60  | 17.30  | 28.50  |           |     |
| 26    | 7.10   | 5.80   | 10.00  | 15.00  | 319.40   | 280.10   | 1542.50  | 126.90  | 38.60   | 53.70  | 5.20   | 8.40   |           |     |
| 27    | 7.10   | 2.20   | 3.60   | 10.00  | 306.10   | 781.90   | 949.90   | 121.00  | 23.00   | 53.70  | 2.00   | 3.10   |           |     |
| 28    | 6.40   | 3.60   | 2.00   | 9.10   | 171.90   | 3317.30  | 873.10   | 126.90  | 18.40   | 26.60  | 7.10   | 8.40   |           |     |
| 29    | 7.10   | 4.10   | 2.00   | 8.40   | 60.20    | 4138.40  | 2183.00  | 115.40  | 17.30   | 16.10  |        | 44.40  |           |     |
| 30    | 6.40   | 4.10   | 2.50   | 28.50  | 53.70    | 1577.50  | 1195.90  | 115.40  | 17.30   | 15.00  |        | 47.40  |           |     |
| 31    |        | 4.70   |        | 34.40  | 60.20    |          | 898.40   |         | 17.30   | 24.80  |        | 47.40  |           |     |
| Total | 304.30 | 231.20 | 182.30 | 435.90 | 30383.20 | 55374.20 | 50916.10 | 8713.60 | 2410.20 | 736.00 | 807.70 | 817.50 | 151312.20 | Ton |
| Mean  | 10.10  | 7.50   | 6.10   | 14.10  | 980.10   | 1845.80  | 1642.50  | 290.50  | 77.70   | 23.70  | 28.80  | 26.40  |           |     |
| Max   | 38.60  | 21.30  | 32.40  | 53.70  | 9944.90  | 6469.80  | 13796.80 | 1083.80 | 499.60  | 70.60  | 126.90 | 50.50  | 13796.80  |     |
| Min   | 2.50   | 2.20   | 0.60   | 1.00   | 23.00    | 89.40    | 47.40    | 115.40  | 17.30   | 6.40   | 2.00   | 1.30   | 0.60      |     |

**WATER YEAR : 2013****PING RIVER BASIN****Ping River at Ban Sop Soi , Chiang Mai (P.73)**

Lat 18 - 17 - 25 N Long 98 - 39 - 01 E

**Location : on left bank at Sop Soi Phatana Bridge.**

|                                      |                            |                |               |                   |                 |                   |
|--------------------------------------|----------------------------|----------------|---------------|-------------------|-----------------|-------------------|
|                                      | <b>Ban</b>                 | <b>Sop Soi</b> | <b>Amphoe</b> | <b>Chom Thong</b> | <b>Changwat</b> | <b>Chiang Mai</b> |
| <b>Drainage Area</b>                 | 14,814                     | sq.km.         |               |                   |                 |                   |
| <b>Method of sampling</b>            | Depth                      | Integrating    |               |                   |                 |                   |
| <b>Instrument Used</b>               | US.D-49                    |                |               |                   |                 |                   |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                |               |                   |                 |                   |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                |               |                   |                 |                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |               |                   |                 |                   |
| <b>Number of observation</b>         | 37                         |                |               |                   |                 |                   |
| <b>R-Square</b>                      | 0.9886                     |                |               |                   |                 |                   |
| <b>Remarks</b>                       | Continued Sediment Station |                |               |                   |                 |                   |

$$QS = 2.7360 QW^{1.30540}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun     | Jul     | Aug      | Sep       | Oct       | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |            |
|-------|-------|--------|---------|---------|----------|-----------|-----------|----------|----------|---------|---------|---------|-----------|------------|
| 1     | 4.80  | 1.00   | 1.10    | 7.30    | 1541.20  | 523.80    | 6726.50   | 2691.60  | 1355.40  | 267.00  | 179.50  | 33.10   |           |            |
| 2     | 4.00  | 1.40   | 1.10    | 6.40    | 851.50   | 701.00    | 4353.90   | 2214.30  | 1087.60  | 257.00  | 168.60  | 30.90   |           |            |
| 3     | 3.70  | 1.70   | 3.50    | 6.40    | 548.40   | 903.20    | 4202.20   | 2004.50  | 868.70   | 287.50  | 204.60  | 28.70   |           |            |
| 4     | 3.00  | 2.20   | 100.00  | 4.80    | 475.50   | 1065.90   | 6231.70   | 1781.10  | 750.40   | 267.00  | 287.50  | 33.10   |           |            |
| 5     | 1.90  | 46.10  | 76.10   | 3.70    | 451.80   | 800.60    | 4315.90   | 1287.10  | 687.90   | 211.00  | 277.30  | 64.10   |           |            |
| 6     | 1.50  | 30.10  | 76.10   | 3.50    | 687.90   | 851.50    | 3402.70   | 1175.30  | 636.30   | 198.20  | 191.90  | 230.40  |           |            |
| 7     | 1.40  | 10.20  | 73.70   | 2.80    | 687.90   | 1541.20   | 3000.00   | 1242.10  | 623.60   | 191.90  | 145.30  | 267.00  |           |            |
| 8     | 1.40  | 8.50   | 44.20   | 2.80    | 783.80   | 3000.00   | 2510.40   | 1175.30  | 560.80   | 191.90  | 64.10   | 163.90  |           |            |
| 9     | 1.40  | 10.20  | 18.90   | 3.70    | 868.70   | 4869.80   | 1879.30   | 990.80   | 623.60   | 191.90  | 64.10   | 60.10   |           |            |
| 10    | 1.20  | 21.20  | 15.70   | 9.30    | 903.20   | 7543.00   | 1424.40   | 817.50   | 598.30   | 179.50  | 68.10   | 42.30   |           |            |
| 11    | 1.10  | 16.70  | 22.40   | 10.20   | 2004.50  | 6776.50   | 1242.10   | 783.80   | 548.40   | 191.90  | 93.10   | 33.10   |           |            |
| 12    | 0.90  | 14.80  | 58.00   | 22.40   | 10632.20 | 5201.50   | 1044.30   | 733.80   | 523.80   | 204.60  | 114.20  | 33.10   |           |            |
| 13    | 1.00  | 17.80  | 68.80   | 42.40   | 13259.90 | 4545.30   | 868.70    | 750.40   | 487.50   | 198.20  | 114.20  | 35.30   |           |            |
| 14    | 0.80  | 18.90  | 58.00   | 52.00   | 8192.00  | 4506.80   | 750.40    | 733.80   | 475.50   | 198.20  | 101.40  | 48.50   |           |            |
| 15    | 0.70  | 16.70  | 66.30   | 56.00   | 4705.80  | 9715.70   | 783.80    | 717.40   | 548.40   | 185.70  | 64.10   | 48.50   |           |            |
| 16    | 0.50  | 12.00  | 50.00   | 37.00   | 3298.10  | 7920.00   | 662.00    | 750.40   | 1008.60  | 173.30  | 68.10   | 33.10   |           |            |
| 17    | 0.80  | 5.20   | 54.00   | 7.70    | 2722.10  | 7920.00   | 662.00    | 920.60   | 955.60   | 159.10  | 109.90  | 26.50   |           |            |
| 18    | 1.00  | 3.50   | 50.00   | 56.00   | 2267.50  | 6926.90   | 834.50    | 868.70   | 938.00   | 145.30  | 154.50  | 22.40   |           |            |
| 19    | 1.60  | 2.80   | 46.10   | 58.00   | 1830.00  | 5602.00   | 7280.80   | 1026.40  | 750.40   | 140.70  | 140.70  | 24.40   |           |            |
| 20    | 1.20  | 2.80   | 46.10   | 38.80   | 1131.20  | 3828.60   | 14283.00  | 2844.80  | 536.10   | 140.70  | 123.00  | 28.70   |           |            |
| 21    | 0.50  | 3.20   | 40.60   | 64.20   | 903.20   | 3721.10   | 10944.40  | 4545.30  | 475.50   | 136.30  | 118.50  | 20.60   |           |            |
| 22    | 0.90  | 2.20   | 22.40   | 62.20   | 1109.40  | 2937.70   | 11268.70  | 2875.70  | 417.70   | 150.00  | 97.30   | 14.00   |           |            |
| 23    | 2.00  | 1.90   | 20.10   | 56.00   | 2374.70  | 1660.20   | 9354.50   | 2004.50  | 373.00   | 277.30  | 64.10   | 14.00   |           |            |
| 24    | 2.00  | 1.60   | 16.70   | 56.00   | 3159.80  | 1541.20   | 7280.80   | 1541.20  | 373.00   | 329.60  | 52.30   | 14.00   |           |            |
| 25    | 2.00  | 1.60   | 15.70   | 733.80  | 2661.20  | 885.90    | 6036.20   | 1153.20  | 308.50   | 287.50  | 42.30   | 11.00   |           |            |
| 26    | 2.20  | 1.50   | 42.40   | 2691.60 | 1805.50  | 1131.20   | 5369.30   | 1008.60  | 298.00   | 247.00  | 35.30   | 1.40    |           |            |
| 27    | 2.70  | 1.50   | 15.70   | 2135.10 | 1287.10  | 3228.80   | 4277.90   | 834.50   | 287.50   | 204.60  | 42.30   | 35.20   |           |            |
| 28    | 2.00  | 1.40   | 30.10   | 868.70  | 1044.30  | 10570.50  | 5506.50   | 783.80   | 287.50   | 185.70  | 33.10   | 27.10   |           |            |
| 29    | 2.00  | 1.20   | 13.80   | 623.60  | 783.80   | 12521.00  | 2968.80   | 767.00   | 277.30   | 191.90  |         | 12.90   |           |            |
| 30    | 1.90  | 0.90   | 7.70    | 536.10  | 767.00   | 5987.60   | 2722.10   | 885.90   | 257.00   | 191.90  |         | 2.70    |           |            |
| 31    |       | 1.10   |         | 610.90  | 733.80   |           | 2844.80   |          | 247.00   | 191.90  |         | 2.00    |           |            |
| Total | 52.10 | 261.90 | 1155.30 | 8869.40 | 74473.00 | 128928.50 | 135032.60 | 41909.40 | 18166.90 | 6374.30 | 3219.40 | 1442.10 | 419884.90 | <b>Ton</b> |
| Mean  | 1.70  | 8.40   | 38.50   | 286.10  | 2402.40  | 4297.60   | 4355.90   | 1397.00  | 586.00   | 205.60  | 115.00  | 46.50   |           |            |
| Max   | 4.80  | 46.10  | 100.00  | 2691.60 | 13259.90 | 12521.00  | 14283.00  | 4545.30  | 1355.40  | 329.60  | 287.50  | 267.00  | 14283.00  |            |
| Min   | 0.50  | 0.90   | 1.10    | 2.80    | 451.80   | 523.80    | 662.00    | 717.40   | 247.00   | 136.30  | 33.10   | 1.40    | 0.50      |            |

**WATER YEAR : 2013****PING RIVER BASIN****Ping River at Ban Cho Lae , Chiang Mai (P.75)**

Lat 19 - 08 - 58 N Long 99 - 00 - 43 E

**Location : on left bank at the bridge on road.**

|                                      | <b>Ban</b> Cho Lae         | <b>Amphoe</b> Mae Teang | <b>Changwat</b> Chiang Mai |
|--------------------------------------|----------------------------|-------------------------|----------------------------|
| <b>Drainage Area</b>                 | 3,088 sq.km.               |                         |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                            |
| <b>Instrument Used</b>               | US.D-49                    |                         |                            |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                         |                            |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                         |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                            |
| <b>Number of observation</b>         | 36                         |                         |                            |
| <b>R-Square</b>                      | 0.7894                     |                         |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                            |

$$QS = 0.4432 QW^{1.98560}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May    | Jun    | Jul    | Aug      | Sep      | Oct      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual    |     |
|-------|---------|--------|--------|--------|----------|----------|----------|---------|---------|---------|---------|---------|-----------|-----|
| 1     | 28.40   | 61.90  | 3.00   | 3.00   | 65.20    | 933.30   | 445.20   | 458.90  | 58.60   | 26.20   | 137.00  | 93.40   |           |     |
| 2     | 143.90  | 61.90  | 3.00   | 3.00   | 55.30    | 672.40   | 392.50   | 367.30  | 52.30   | 24.00   | 93.40   | 99.10   |           |     |
| 3     | 77.20   | 65.20  | 2.50   | 3.00   | 43.50    | 214.50   | 418.50   | 296.90  | 52.30   | 20.10   | 15.50   | 46.30   |           |     |
| 4     | 55.30   | 58.60  | 2.10   | 3.90   | 33.10    | 111.10   | 367.30   | 254.10  | 43.50   | 24.00   | 28.40   | 3.90    |           |     |
| 5     | 65.20   | 58.60  | 1.80   | 5.00   | 40.80    | 77.20    | 296.90   | 205.20  | 46.30   | 24.00   | 9.80    | 4.50    |           |     |
| 6     | 72.20   | 46.30  | 2.50   | 4.50   | 105.00   | 123.70   | 445.20   | 151.00  | 43.50   | 20.10   | 8.80    | 3.90    |           |     |
| 7     | 123.70  | 35.60  | 3.40   | 4.50   | 65.20    | 706.20   | 296.90   | 158.20  | 40.80   | 22.00   | 20.10   | 9.80    |           |     |
| 8     | 87.80   | 38.10  | 3.40   | 5.60   | 61.90    | 2229.40  | 224.10   | 143.90  | 40.80   | 22.00   | 105.00  | 93.40   |           |     |
| 9     | 72.20   | 43.50  | 2.50   | 5.60   | 243.90   | 5800.30  | 165.60   | 130.20  | 38.10   | 20.10   | 111.10  | 99.10   |           |     |
| 10    | 77.20   | 65.20  | 1.10   | 20.10  | 3992.60  | 4222.10  | 123.70   | 117.30  | 35.60   | 20.10   | 61.90   | 99.10   |           |     |
| 11    | 82.40   | 58.60  | 7.00   | 33.10  | 6357.70  | 1226.10  | 99.10    | 87.80   | 35.60   | 18.20   | 7.00    | 61.90   |           |     |
| 12    | 65.20   | 55.30  | 111.10 | 30.70  | 3450.60  | 740.80   | 93.40    | 87.80   | 38.10   | 18.20   | 6.30    | 3.90    |           |     |
| 13    | 58.60   | 55.30  | 20.10  | 20.10  | 1370.40  | 1226.10  | 93.40    | 93.40   | 46.30   | 16.90   | 7.00    | 3.40    |           |     |
| 14    | 72.20   | 40.80  | 5.60   | 16.90  | 501.30   | 1400.50  | 82.40    | 105.00  | 158.20  | 18.20   | 14.30   | 9.80    |           |     |
| 15    | 72.20   | 40.80  | 2.50   | 61.90  | 576.00   | 2868.40  | 72.20    | 233.90  | 355.10  | 18.20   | 151.00  | 123.70  |           |     |
| 16    | 72.20   | 38.10  | 1.80   | 43.50  | 343.00   | 2112.90  | 65.20    | 99.10   | 319.50  | 18.20   | 243.90  | 130.20  |           |     |
| 17    | 72.20   | 35.60  | 1.80   | 35.60  | 214.50   | 3104.90  | 68.60    | 105.00  | 111.10  | 33.10   | 123.70  | 137.00  |           |     |
| 18    | 72.20   | 35.60  | 2.10   | 35.60  | 111.10   | 2868.40  | 1097.80  | 111.10  | 72.20   | 137.00  | 5.60    | 65.20   |           |     |
| 19    | 68.60   | 16.90  | 2.10   | 26.20  | 82.40    | 1147.30  | 7090.10  | 158.20  | 61.90   | 130.20  | 5.00    | 3.00    |           |     |
| 20    | 61.90   | 0.70   | 3.90   | 14.30  | 77.20    | 802.30   | 3501.10  | 264.50  | 49.20   | 93.40   | 5.60    | 2.10    |           |     |
| 21    | 61.90   | 2.50   | 4.50   | 10.80  | 77.20    | 545.50   | 2268.90  | 165.60  | 40.80   | 14.30   | 13.10   | 9.80    |           |     |
| 22    | 65.20   | 1.80   | 3.40   | 10.80  | 137.00   | 379.80   | 3714.70  | 117.30  | 35.60   | 13.10   | 105.00  | 117.30  |           |     |
| 23    | 61.90   | 1.50   | 13.10  | 13.10  | 405.40   | 264.50   | 2430.40  | 87.80   | 33.10   | 13.10   | 40.80   | 93.40   |           |     |
| 24    | 61.90   | 2.10   | 58.60  | 65.20  | 367.30   | 224.10   | 1853.30  | 82.40   | 28.40   | 15.50   | 55.30   | 68.60   |           |     |
| 25    | 61.90   | 1.30   | 3.40   | 30.70  | 165.60   | 224.10   | 1340.60  | 72.20   | 52.30   | 137.00  | 5.00    | 28.40   |           |     |
| 26    | 58.60   | 0.50   | 4.50   | 20.10  | 137.00   | 560.60   | 910.60   | 65.20   | 28.40   | 143.90  | 3.90    | 1.80    |           |     |
| 27    | 58.60   | 1.30   | 3.90   | 13.10  | 111.10   | 3056.50  | 706.20   | 65.20   | 24.00   | 72.20   | 3.90    | 1.80    |           |     |
| 28    | 58.60   | 1.10   | 3.00   | 15.50  | 87.80    | 1491.80  | 672.40   | 65.20   | 24.00   | 10.80   | 13.10   | 11.90   |           |     |
| 29    | 58.60   | 1.50   | 3.40   | 26.20  | 65.20    | 2471.60  | 1226.10  | 61.90   | 26.20   | 8.80    |         | 123.70  |           |     |
| 30    | 58.60   | 2.10   | 3.90   | 58.60  | 55.30    | 723.40   | 655.80   | 65.20   | 26.20   | 9.80    |         | 93.40   |           |     |
| 31    |         | 3.00   |        | 72.20  | 77.20    |          | 545.50   |         | 26.20   | 20.10   |         | 77.20   |           |     |
| Total | 2106.60 | 931.30 | 285.00 | 712.40 | 19476.80 | 42529.80 | 31763.70 | 4476.80 | 2044.20 | 1182.80 | 1400.50 | 1720.00 | 108629.90 | Ton |
| Mean  | 70.20   | 30.00  | 9.50   | 23.00  | 628.30   | 1417.70  | 1024.60  | 149.20  | 65.90   | 38.20   | 50.00   | 55.50   |           |     |
| Max   | 143.90  | 65.20  | 111.10 | 72.20  | 6357.70  | 5800.30  | 7090.10  | 458.90  | 355.10  | 143.90  | 243.90  | 137.00  | 7090.10   |     |
| Min   | 28.40   | 0.50   | 1.10   | 3.00   | 33.10    | 77.20    | 65.20    | 61.90   | 24.00   | 8.80    | 3.90    | 1.80    | 0.50      |     |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Li at Ban Mae E - Hai , Lamphun (P.76)**

Lat 18 - 08 - 23 N Long 98 - 53 - 58 E

**Location : on left bank near the bridge of Li - Ban Mae E - Hai road.**

|                                      |                            |                  |                         |
|--------------------------------------|----------------------------|------------------|-------------------------|
|                                      | <b>Ban Mae E - Hai</b>     | <b>Amphoe Li</b> | <b>Changwat Lamphun</b> |
| <b>Drainage Area</b>                 | 1,544 sq.km.               |                  |                         |
| <b>Method of sampling</b>            | Depth Integrating          |                  |                         |
| <b>Instrument Used</b>               | US.D-49                    |                  |                         |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                  |                         |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                  |                         |
| <b>Using Rating Curve Water Year</b> | 2013                       |                  |                         |
| <b>Number of observation</b>         | 36                         |                  |                         |
| <b>R-Square</b>                      | 0.9530                     |                  |                         |
| <b>Remarks</b>                       | Continued Sediment Station |                  |                         |

$$QS = 6.6050 QW^{1.09680}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun    | Jul    | Aug     | Sep     | Oct     | Nov    | Dec    | Jan   | Feb   | Mar   | Annual   |            |
|-------|-------|-------|--------|--------|---------|---------|---------|--------|--------|-------|-------|-------|----------|------------|
| 1     | 1.40  | 1.10  | 1.10   | 4.20   | 5.50    | 5.90    | 328.50  | 48.90  | 13.40  | 4.20  | 2.00  | 0.50  |          |            |
| 2     | 1.40  | 0.80  | 1.10   | 3.80   | 15.50   | 58.90   | 235.90  | 47.10  | 16.60  | 3.80  | 1.70  | 0.50  |          |            |
| 3     | 1.10  | 0.60  | 0.80   | 2.80   | 255.30  | 42.00   | 186.00  | 65.00  | 20.10  | 4.20  | 1.70  | 0.50  |          |            |
| 4     | 0.80  | 0.80  | 1.70   | 2.80   | 319.70  | 35.20   | 142.80  | 35.20  | 21.40  | 4.20  | 1.70  | 0.50  |          |            |
| 5     | 0.70  | 0.80  | 26.60  | 2.60   | 302.50  | 20.10   | 259.60  | 40.30  | 22.70  | 4.20  | 1.40  | 0.40  |          |            |
| 6     | 0.60  | 1.10  | 10.20  | 2.80   | 134.00  | 26.60   | 105.40  | 30.50  | 16.60  | 5.50  | 1.40  | 0.50  |          |            |
| 7     | 0.60  | 1.10  | 8.10   | 3.20   | 67.00   | 30.50   | 99.90   | 31.90  | 20.10  | 5.00  | 1.40  | 0.20  |          |            |
| 8     | 0.60  | 1.10  | 9.10   | 12.30  | 38.60   | 78.00   | 91.60   | 26.60  | 17.70  | 4.60  | 1.70  | 0.20  |          |            |
| 9     | 0.60  | 1.70  | 7.60   | 15.50  | 26.60   | 97.10   | 69.10   | 24.00  | 13.40  | 3.50  | 1.10  | 0.40  |          |            |
| 10    | 0.60  | 0.80  | 7.20   | 15.50  | 22.70   | 160.50  | 30.50   | 30.50  | 14.40  | 4.20  | 1.10  | 0.50  |          |            |
| 11    | 0.80  | 0.70  | 17.70  | 7.60   | 69.10   | 471.70  | 26.60   | 29.20  | 13.40  | 2.80  | 1.10  | 0.50  |          |            |
| 12    | 0.80  | 0.70  | 13.40  | 5.90   | 868.70  | 122.30  | 22.70   | 27.90  | 10.20  | 2.80  | 1.40  | 0.50  |          |            |
| 13    | 0.70  | 0.80  | 11.20  | 5.00   | 671.40  | 508.80  | 18.80   | 25.30  | 9.10   | 2.80  | 1.10  | 0.50  |          |            |
| 14    | 0.80  | 0.80  | 7.20   | 5.00   | 272.40  | 839.70  | 33.50   | 25.30  | 9.10   | 2.60  | 1.10  | 0.60  |          |            |
| 15    | 0.70  | 0.80  | 8.10   | 3.80   | 154.60  | 839.70  | 29.20   | 22.70  | 12.30  | 2.30  | 0.80  | 0.60  |          |            |
| 16    | 0.80  | 0.70  | 7.60   | 2.60   | 111.00  | 220.50  | 26.60   | 20.10  | 12.30  | 2.30  | 0.80  | 0.60  |          |            |
| 17    | 0.80  | 0.80  | 7.20   | 2.80   | 78.00   | 151.60  | 25.30   | 20.10  | 10.20  | 1.70  | 0.80  | 0.60  |          |            |
| 18    | 0.70  | 0.80  | 6.80   | 3.20   | 62.90   | 111.00  | 33.50   | 20.10  | 11.20  | 1.40  | 0.80  | 0.50  |          |            |
| 19    | 0.80  | 0.80  | 6.80   | 2.60   | 36.90   | 73.50   | 99.90   | 20.10  | 10.20  | 1.70  | 0.80  | 0.50  |          |            |
| 20    | 0.80  | 0.80  | 7.20   | 2.30   | 30.50   | 18.80   | 189.80  | 22.70  | 9.10   | 1.70  | 0.80  | 0.50  |          |            |
| 21    | 0.70  | 1.10  | 6.30   | 2.30   | 25.30   | 26.60   | 102.70  | 21.40  | 9.10   | 1.70  | 0.70  | 0.50  |          |            |
| 22    | 1.10  | 0.80  | 7.20   | 2.30   | 21.40   | 24.00   | 35.20   | 20.10  | 8.10   | 1.40  | 0.70  | 0.50  |          |            |
| 23    | 1.40  | 0.80  | 6.30   | 2.00   | 22.70   | 33.50   | 125.20  | 17.70  | 6.80   | 1.70  | 0.80  | 0.50  |          |            |
| 24    | 1.40  | 0.80  | 5.00   | 1.70   | 21.40   | 16.60   | 99.90   | 18.80  | 7.20   | 1.70  | 0.70  | 0.40  |          |            |
| 25    | 1.40  | 0.80  | 5.00   | 1.70   | 16.60   | 56.90   | 97.10   | 20.10  | 6.80   | 2.00  | 0.60  | 0.40  |          |            |
| 26    | 1.40  | 0.70  | 5.50   | 2.00   | 13.40   | 395.40  | 91.60   | 20.10  | 7.20   | 1.70  | 0.60  | 0.40  |          |            |
| 27    | 1.40  | 0.70  | 5.00   | 2.80   | 12.30   | 524.80  | 87.10   | 20.10  | 6.80   | 2.80  | 0.60  | 0.40  |          |            |
| 28    | 1.70  | 0.60  | 4.60   | 4.60   | 10.20   | 1028.10 | 80.30   | 17.70  | 5.90   | 2.30  | 0.60  | 0.40  |          |            |
| 29    | 1.70  | 0.70  | 3.80   | 5.00   | 8.10    | 783.20  | 73.50   | 17.70  | 6.80   | 2.30  |       | 0.40  |          |            |
| 30    | 1.40  | 0.60  | 4.20   | 5.90   | 7.60    | 440.10  | 62.90   | 17.70  | 5.90   | 2.00  |       | 0.40  |          |            |
| 31    |       | 1.10  |        | 5.90   | 7.60    |         | 54.90   |        | 5.50   | 2.00  |       | 0.40  |          |            |
| Total | 29.70 | 26.30 | 219.60 | 142.50 | 3709.50 | 7241.60 | 2965.60 | 804.90 | 359.60 | 87.10 | 30.00 | 14.30 | 15630.70 | <b>Ton</b> |
| Mean  | 1.00  | 0.80  | 7.30   | 4.60   | 119.70  | 241.40  | 95.70   | 26.80  | 11.60  | 2.80  | 1.10  | 0.50  |          |            |
| Max   | 1.70  | 1.70  | 26.60  | 15.50  | 868.70  | 1028.10 | 328.50  | 65.00  | 22.70  | 5.50  | 2.00  | 0.60  | 1028.10  |            |
| Min   | 0.60  | 0.60  | 0.80   | 1.70   | 5.50    | 5.90    | 18.80   | 17.70  | 5.50   | 1.40  | 0.60  | 0.20  | 0.20     |            |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Tha at Ban Sop Mae Sapuad , Lamphun (P.77)**

Lat 18 - 25 - 57 N Long 99 - 05 - 02 E

Location : on left bank at the bridge on road.

|                                      |                            |                       |               |                |                 |                |
|--------------------------------------|----------------------------|-----------------------|---------------|----------------|-----------------|----------------|
|                                      | <b>Ban</b>                 | <b>Sop Mae Sapuad</b> | <b>Amphoe</b> | <b>Mae Tha</b> | <b>Changwat</b> | <b>Lamphun</b> |
| <b>Drainage Area</b>                 | 550                        | sq.km.                |               |                |                 |                |
| <b>Method of sampling</b>            | Depth                      | Integrating           |               |                |                 |                |
| <b>Instrument Used</b>               | US.D-49                    |                       |               |                |                 |                |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                       |               |                |                 |                |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                       |               |                |                 |                |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |               |                |                 |                |
| <b>Number of observation</b>         | 36                         |                       |               |                |                 |                |
| <b>R-Square</b>                      | 0.8600                     |                       |               |                |                 |                |
| <b>Remarks</b>                       | Continued Sediment Station |                       |               |                |                 |                |

$$QS = 1.4855 QW^{1.41270}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun  | Jul    | Aug    | Sep     | Oct     | Nov    | Dec   | Jan   | Feb  | Mar  | Annual  |            |
|-------|------|------|------|--------|--------|---------|---------|--------|-------|-------|------|------|---------|------------|
| 1     | 0.20 | 0.20 | 0.20 | 0.10   | 4.60   | 2.40    | 28.90   | 9.60   | 2.20  | 0.70  | 0.10 | 0.10 |         |            |
| 2     | 0.20 | 0.20 | 0.20 | 0.10   | 3.10   | 4.00    | 91.60   | 8.30   | 2.20  | 0.60  | 0.10 | 0.10 |         |            |
| 3     | 0.20 | 0.20 | 0.20 | 0.10   | 2.60   | 2.40    | 182.70  | 6.70   | 1.00  | 0.60  | 0.10 | 0.10 |         |            |
| 4     | 0.20 | 0.20 | 0.20 | 0.10   | 2.60   | 1.50    | 48.30   | 5.30   | 1.00  | 0.60  | 0.10 | 0.10 |         |            |
| 5     | 0.20 | 0.20 | 0.50 | 0.10   | 3.10   | 1.50    | 23.00   | 3.40   | 0.80  | 0.60  | 0.10 | 0.10 |         |            |
| 6     | 0.20 | 0.20 | 0.50 | 5.60   | 2.60   | 14.00   | 63.70   | 4.90   | 0.40  | 0.50  | 0.10 | 0.10 |         |            |
| 7     | 0.20 | 0.20 | 0.60 | 147.80 | 1.90   | 30.00   | 49.70   | 4.90   | 0.40  | 0.60  | 0.10 | 0.10 |         |            |
| 8     | 0.20 | 0.20 | 0.50 | 41.20  | 4.00   | 30.00   | 31.00   | 4.60   | 0.40  | 0.50  | 0.10 | 0.10 |         |            |
| 9     | 0.20 | 0.20 | 0.30 | 14.90  | 4.60   | 67.50   | 16.60   | 4.60   | 0.40  | 0.60  | 0.10 | 0.10 |         |            |
| 10    | 0.20 | 0.20 | 0.20 | 44.00  | 5.60   | 32.00   | 10.30   | 4.30   | 0.80  | 0.50  | 0.10 | 0.10 |         |            |
| 11    | 0.20 | 0.20 | 0.20 | 21.10  | 6.30   | 21.10   | 6.70    | 4.30   | 0.90  | 0.50  | 0.10 | 0.10 |         |            |
| 12    | 0.20 | 0.20 | 0.60 | 7.00   | 6.30   | 19.20   | 2.90    | 4.30   | 1.10  | 0.40  | 0.10 | 0.10 |         |            |
| 13    | 0.20 | 0.20 | 0.30 | 18.30  | 32.00  | 165.00  | 3.70    | 3.70   | 1.50  | 0.40  | 0.10 | 0.10 |         |            |
| 14    | 0.20 | 0.20 | 0.20 | 7.60   | 18.30  | 58.70   | 3.10    | 2.90   | 1.70  | 0.40  | 0.10 | 0.00 |         |            |
| 15    | 0.20 | 0.20 | 0.20 | 4.60   | 33.10  | 33.10   | 3.10    | 2.60   | 1.70  | 0.40  | 0.10 | 0.10 |         |            |
| 16    | 0.20 | 0.20 | 0.10 | 3.40   | 30.00  | 21.10   | 1.30    | 2.40   | 1.30  | 0.40  | 0.10 | 0.00 |         |            |
| 17    | 0.20 | 0.20 | 0.10 | 3.40   | 16.60  | 12.50   | 2.60    | 1.90   | 1.10  | 0.40  | 0.10 | 0.10 |         |            |
| 18    | 0.20 | 0.20 | 0.10 | 3.70   | 7.60   | 14.00   | 67.50   | 5.30   | 1.10  | 0.50  | 0.10 | 0.10 |         |            |
| 19    | 0.20 | 0.30 | 0.10 | 3.40   | 5.30   | 6.70    | 386.50  | 115.20 | 1.10  | 0.40  | 0.10 | 0.00 |         |            |
| 20    | 0.20 | 0.20 | 0.10 | 5.60   | 4.00   | 4.00    | 136.60  | 71.40  | 1.00  | 0.30  | 0.10 | 0.00 |         |            |
| 21    | 0.20 | 0.30 | 0.10 | 4.00   | 3.40   | 3.10    | 67.50   | 14.90  | 0.80  | 0.30  | 0.10 | 0.00 |         |            |
| 22    | 0.20 | 0.20 | 0.10 | 3.70   | 71.40  | 2.90    | 142.20  | 6.30   | 0.80  | 0.40  | 0.10 | 0.00 |         |            |
| 23    | 0.20 | 0.20 | 0.10 | 6.70   | 71.40  | 2.40    | 54.20   | 4.90   | 0.90  | 0.40  | 0.10 | 0.00 |         |            |
| 24    | 0.40 | 0.30 | 0.10 | 4.60   | 63.70  | 6.70    | 44.00   | 4.30   | 0.80  | 0.30  | 0.10 | 0.00 |         |            |
| 25    | 0.20 | 0.20 | 0.00 | 7.60   | 19.20  | 7.00    | 49.70   | 3.70   | 0.80  | 0.30  | 0.10 | 0.00 |         |            |
| 26    | 0.20 | 0.20 | 0.10 | 22.00  | 16.60  | 16.60   | 31.00   | 3.40   | 0.60  | 0.20  | 0.10 | 0.00 |         |            |
| 27    | 0.20 | 0.20 | 0.10 | 9.00   | 5.90   | 165.00  | 21.10   | 3.10   | 0.60  | 0.10  | 0.10 | 0.00 |         |            |
| 28    | 0.20 | 0.30 | 0.10 | 9.00   | 4.30   | 150.60  | 15.70   | 3.10   | 0.70  | 0.10  | 0.10 | 0.00 |         |            |
| 29    | 0.20 | 0.30 | 0.10 | 5.30   | 3.10   | 77.30   | 12.50   | 2.60   | 0.60  | 0.10  |      | 0.00 |         |            |
| 30    | 0.20 | 0.20 | 0.10 | 4.90   | 1.90   | 93.70   | 12.50   | 2.40   | 0.60  | 0.10  |      | 0.00 |         |            |
| 31    |      | 0.20 |      | 5.30   | 2.20   |         | 11.80   |        | 0.60  | 0.10  |      | 0.00 |         |            |
| Total | 6.20 | 6.70 | 6.30 | 414.20 | 457.30 | 1066.00 | 1622.00 | 319.30 | 29.90 | 12.30 | 2.80 | 1.60 | 3944.60 | <b>Ton</b> |
| Mean  | 0.20 | 0.20 | 0.20 | 13.40  | 14.80  | 35.50   | 52.30   | 10.60  | 1.00  | 0.40  | 0.10 | 0.10 |         |            |
| Max   | 0.40 | 0.30 | 0.60 | 147.80 | 71.40  | 165.00  | 386.50  | 115.20 | 2.20  | 0.70  | 0.10 | 0.10 | 386.50  |            |
| Min   | 0.20 | 0.20 | 0.00 | 0.10   | 1.90   | 1.50    | 1.30    | 1.90   | 0.40  | 0.10  | 0.10 | 0.00 | 0.00    |            |

**WATER YEAR : 2013****PING RIVER BASIN****Khlong Khlung at Ban Sam Ruean , Kamphaeng Phet (P.78)**

Lat 16 - 11 - 03 N Long 99 - 36 - 09 E

Location : on left bank at Ban Sam Ruean.

|                                      |                            |                             |                                |
|--------------------------------------|----------------------------|-----------------------------|--------------------------------|
|                                      | <b>Ban</b> Sam Ruean       | <b>Amphoe</b> Khlong Khlung | <b>Changwat</b> Kamphaeng Phet |
| <b>Drainage Area</b>                 | 1,119 sq.km.               |                             |                                |
| <b>Method of sampling</b>            | Depth Integrating          |                             |                                |
| <b>Instrument Used</b>               | US.D-49                    |                             |                                |
| <b>Period of Available Records</b>   | 2002-Cont'd                |                             |                                |
| <b>Actual Measurement</b>            | 2002-Cont'd                |                             |                                |
| <b>Using Rating Curve Water Year</b> | 2013                       |                             |                                |
| <b>Number of observation</b>         | 20                         |                             |                                |
| <b>R-Square</b>                      | 0.9663                     |                             |                                |
| <b>Remarks</b>                       | Continued Sediment Station |                             |                                |

$$QS = 9.8686 QW^{1.13490}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul     | Aug      | Sep      | Oct      | Nov    | Dec    | Jan    | Feb   | Mar    | Annual   |            |
|-------|--------|--------|---------|---------|----------|----------|----------|--------|--------|--------|-------|--------|----------|------------|
| 1     | 3.50   | 3.50   | 5.00    | 11.00   | 92.00    | 8.80     | 977.30   | 89.80  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 2     | 3.50   | 3.50   | 5.00    | 9.30    | 79.70    | 7.70     | 1106.90  | 132.30 | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 3     | 3.50   | 3.50   | 4.80    | 8.20    | 477.30   | 6.80     | 659.80   | 96.40  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 4     | 3.50   | 3.50   | 4.80    | 7.70    | 331.10   | 16.20    | 580.60   | 69.70  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 5     | 3.50   | 3.50   | 28.80   | 16.80   | 192.50   | 78.30    | 407.80   | 81.10  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 6     | 3.50   | 3.50   | 33.70   | 15.00   | 112.00   | 407.80   | 260.70   | 66.90  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 7     | 3.50   | 3.50   | 5.50    | 13.30   | 79.70    | 334.50   | 198.00   | 55.80  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 8     | 3.50   | 3.50   | 72.60   | 33.70   | 428.80   | 195.30   | 200.80   | 44.60  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 9     | 3.50   | 3.50   | 109.70  | 94.20   | 553.50   | 171.90   | 132.30   | 31.70  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 10    | 3.50   | 3.50   | 103.00  | 361.00  | 392.10   | 254.10   | 96.40    | 17.40  | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 11    | 3.50   | 3.50   | 47.60   | 690.30  | 675.10   | 136.90   | 79.70    | 8.20   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 12    | 3.50   | 3.50   | 23.30   | 490.60  | 1240.30  | 112.00   | 59.90    | 4.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 13    | 3.50   | 3.50   | 477.30  | 357.30  | 2833.10  | 189.70   | 50.30    | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 14    | 3.50   | 3.50   | 950.20  | 234.70  | 1569.30  | 825.00   | 33.70    | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 15    | 3.50   | 3.50   | 571.60  | 169.50  | 788.20   | 539.90   | 20.40    | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 16    | 3.50   | 3.50   | 206.50  | 130.10  | 437.50   | 558.00   | 17.40    | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 17    | 3.50   | 3.50   | 57.20   | 94.20   | 247.50   | 548.90   | 15.60    | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 18    | 3.50   | 3.50   | 27.90   | 69.70   | 181.30   | 571.60   | 18.00    | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 19    | 3.50   | 3.50   | 30.90   | 33.70   | 116.50   | 634.60   | 287.30   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 20    | 3.50   | 3.50   | 167.20  | 22.30   | 98.60    | 1168.90  | 403.90   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 21    | 3.50   | 3.50   | 75.40   | 17.40   | 54.40    | 2869.40  | 517.50   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 22    | 3.50   | 3.50   | 53.00   | 82.60   | 46.50    | 2810.10  | 364.80   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 23    | 3.50   | 4.00   | 35.60   | 64.10   | 31.70    | 1994.30  | 209.30   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 24    | 3.50   | 4.00   | 27.00   | 53.00   | 27.00    | 1474.10  | 105.30   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 25    | 3.50   | 5.30   | 20.40   | 50.30   | 25.00    | 1262.80  | 139.20   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 26    | 3.50   | 5.30   | 17.40   | 35.60   | 22.30    | 1100.00  | 1162.00  | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 27    | 3.50   | 5.00   | 16.80   | 26.00   | 19.60    | 1120.60  | 874.50   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 28    | 3.50   | 4.80   | 15.60   | 19.60   | 18.00    | 924.30   | 589.70   | 3.50   | 3.50   | 3.50   | 3.50  | 3.50   |          |            |
| 29    | 3.50   | 4.80   | 15.00   | 22.30   | 16.20    | 868.40   | 357.30   | 3.50   | 3.50   | 3.50   |       | 3.50   |          |            |
| 30    | 3.50   | 4.80   | 14.50   | 22.30   | 12.70    | 970.50   | 287.30   | 3.50   | 3.50   | 3.50   |       | 3.50   |          |            |
| 31    |        | 5.30   |         | 13.90   | 10.40    |          | 232.00   |        | 0.00   | 3.50   |       | 3.50   |          |            |
| Total | 105.00 | 120.30 | 3223.30 | 3269.70 | 11209.90 | 22161.40 | 10445.70 | 761.40 | 105.00 | 108.50 | 98.00 | 108.50 | 51716.70 | <b>Ton</b> |
| Mean  | 3.50   | 3.90   | 107.40  | 105.50  | 361.60   | 738.70   | 337.00   | 25.40  | 3.40   | 3.50   | 3.50  | 3.50   |          |            |
| Max   | 3.50   | 5.30   | 950.20  | 690.30  | 2833.10  | 2869.40  | 1162.00  | 132.30 | 3.50   | 3.50   | 3.50  | 3.50   | 2869.40  |            |
| Min   | 3.50   | 3.50   | 4.80    | 7.70    | 10.40    | 6.80     | 15.60    | 3.50   | 0.00   | 3.50   | 3.50  | 3.50   | 0.00     |            |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Kuang at Ban Mae Wan , Chiang Mai (P.79)**

Lat 18 - 57 - 45 N Long 99 - 14 - 31 E

**Location : on left bank at the bridge on road.**

|                                      |                            |                         |                            |
|--------------------------------------|----------------------------|-------------------------|----------------------------|
|                                      | <b>Ban</b> Mae Wan         | <b>Amphoe</b> Doi Saket | <b>Changwat</b> Chiang Mai |
| <b>Drainage Area</b>                 | 136 sq.km.                 |                         |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                            |
| <b>Instrument Used</b>               | US.D-49                    |                         |                            |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                         |                            |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                         |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                            |
| <b>Number of observation</b>         | 35                         |                         |                            |
| <b>R-Square</b>                      | 0.9530                     |                         |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                            |

$$QS = 6.6050 QW^{1.09680}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct     | Nov    | Dec    | Jan   | Feb   | Mar   | Annual  |            |
|-------|--------|--------|--------|--------|--------|--------|---------|--------|--------|-------|-------|-------|---------|------------|
| 1     | 5.40   | 3.10   | 6.20   | 7.00   | 14.30  | 22.00  | 20.90   | 22.00  | 9.40   | 3.10  | 2.90  | 2.80  |         |            |
| 2     | 5.40   | 3.10   | 5.40   | 6.20   | 12.10  | 15.40  | 57.10   | 22.00  | 9.40   | 3.80  | 2.80  | 2.90  |         |            |
| 3     | 5.40   | 3.80   | 6.20   | 5.40   | 16.50  | 13.20  | 39.20   | 19.80  | 9.40   | 3.80  | 2.90  | 3.00  |         |            |
| 4     | 5.40   | 5.40   | 7.00   | 5.40   | 12.10  | 12.10  | 31.50   | 18.70  | 8.60   | 3.80  | 2.90  | 3.00  |         |            |
| 5     | 5.40   | 7.80   | 14.30  | 19.80  | 12.10  | 12.10  | 27.70   | 15.40  | 7.00   | 3.80  | 2.90  | 3.10  |         |            |
| 6     | 5.40   | 7.00   | 11.10  | 17.60  | 13.20  | 39.20  | 33.40   | 17.60  | 7.00   | 3.10  | 2.90  | 3.00  |         |            |
| 7     | 5.40   | 7.80   | 8.60   | 20.90  | 10.20  | 25.80  | 27.70   | 16.50  | 7.00   | 3.10  | 2.90  | 3.00  |         |            |
| 8     | 5.40   | 6.20   | 6.20   | 10.20  | 31.50  | 12.10  | 23.90   | 16.50  | 7.00   | 3.10  | 2.90  | 3.00  |         |            |
| 9     | 4.60   | 6.20   | 6.20   | 10.20  | 76.90  | 31.50  | 22.00   | 15.40  | 4.60   | 3.00  | 2.90  | 3.00  |         |            |
| 10    | 5.40   | 6.20   | 6.20   | 6.20   | 22.00  | 22.00  | 19.80   | 14.30  | 3.00   | 3.00  | 2.90  | 3.00  |         |            |
| 11    | 5.40   | 6.20   | 9.40   | 7.80   | 25.80  | 17.60  | 18.70   | 12.10  | 6.20   | 3.00  | 2.80  | 3.00  |         |            |
| 12    | 4.60   | 6.20   | 10.20  | 6.20   | 14.30  | 23.90  | 18.70   | 18.70  | 6.20   | 3.00  | 2.90  | 3.00  |         |            |
| 13    | 4.60   | 5.40   | 7.80   | 5.40   | 17.60  | 44.30  | 18.70   | 13.20  | 6.20   | 3.00  | 2.90  | 3.00  |         |            |
| 14    | 4.60   | 5.40   | 7.80   | 6.20   | 17.60  | 39.20  | 17.60   | 17.60  | 5.40   | 3.00  | 2.90  | 3.00  |         |            |
| 15    | 5.40   | 5.40   | 7.00   | 9.40   | 15.40  | 37.20  | 17.60   | 10.20  | 7.80   | 3.00  | 2.90  | 3.00  |         |            |
| 16    | 5.40   | 5.40   | 6.20   | 14.30  | 31.50  | 35.30  | 15.40   | 12.10  | 7.80   | 3.00  | 2.90  | 3.00  |         |            |
| 17    | 5.40   | 5.40   | 6.20   | 14.30  | 18.70  | 33.40  | 16.50   | 13.20  | 6.20   | 3.00  | 2.80  | 3.00  |         |            |
| 18    | 5.40   | 5.40   | 6.20   | 11.10  | 14.30  | 35.30  | 70.20   | 14.30  | 6.20   | 3.00  | 2.80  | 2.80  |         |            |
| 19    | 3.80   | 5.40   | 7.00   | 10.20  | 12.10  | 27.70  | 57.10   | 13.20  | 6.20   | 3.00  | 2.80  | 2.80  |         |            |
| 20    | 3.80   | 5.40   | 10.20  | 7.80   | 11.10  | 22.00  | 57.10   | 16.50  | 4.60   | 3.00  | 2.80  | 2.80  |         |            |
| 21    | 3.80   | 5.40   | 8.60   | 7.00   | 13.20  | 19.80  | 37.20   | 13.20  | 5.40   | 3.00  | 2.80  | 2.80  |         |            |
| 22    | 3.80   | 5.40   | 10.20  | 8.60   | 50.70  | 17.60  | 41.10   | 12.10  | 5.40   | 3.00  | 2.80  | 2.80  |         |            |
| 23    | 3.10   | 5.40   | 8.60   | 9.40   | 29.60  | 16.50  | 44.30   | 11.10  | 4.60   | 3.00  | 2.80  | 2.80  |         |            |
| 24    | 3.10   | 5.40   | 6.20   | 10.20  | 22.00  | 15.40  | 41.10   | 11.10  | 3.80   | 3.00  | 2.80  | 2.80  |         |            |
| 25    | 3.10   | 5.40   | 7.00   | 13.20  | 16.50  | 16.50  | 90.30   | 9.40   | 4.60   | 3.00  | 2.80  | 2.80  |         |            |
| 26    | 3.10   | 5.40   | 8.60   | 11.10  | 13.20  | 66.90  | 60.40   | 10.20  | 3.80   | 3.00  | 2.80  | 2.80  |         |            |
| 27    | 3.10   | 6.20   | 9.40   | 10.20  | 12.10  | 57.10  | 47.50   | 10.20  | 3.80   | 3.00  | 2.80  | 2.80  |         |            |
| 28    | 3.10   | 4.60   | 7.80   | 12.10  | 12.10  | 37.20  | 33.40   | 10.20  | 3.80   | 3.00  | 2.80  | 2.80  |         |            |
| 29    | 3.10   | 4.60   | 7.00   | 15.40  | 14.30  | 27.70  | 47.50   | 10.20  | 3.80   | 3.00  |       | 2.80  |         |            |
| 30    | 3.10   | 5.40   | 7.00   | 20.90  | 12.10  | 23.90  | 27.70   | 9.40   | 3.80   | 2.90  |       | 2.80  |         |            |
| 31    |        | 4.60   |        | 23.90  | 13.20  |        | 23.90   |        | 3.80   | 2.90  |       | 2.80  |         |            |
| Total | 134.00 | 170.00 | 235.80 | 343.60 | 608.30 | 819.90 | 1105.20 | 426.40 | 181.80 | 96.40 | 79.80 | 90.00 | 4291.20 | <b>Ton</b> |
| Mean  | 4.50   | 5.50   | 7.90   | 11.10  | 19.60  | 27.30  | 35.70   | 14.20  | 5.90   | 3.10  | 2.90  | 2.90  |         |            |
| Max   | 5.40   | 7.80   | 14.30  | 23.90  | 76.90  | 66.90  | 90.30   | 22.00  | 9.40   | 3.80  | 2.90  | 3.10  | 90.30   |            |
| Min   | 3.10   | 3.10   | 5.40   | 5.40   | 10.20  | 12.10  | 15.40   | 9.40   | 3.00   | 2.90  | 2.80  | 2.80  | 2.80    |            |



**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Lai at Ban Pong Din , Chiang Mai (P.80)**

Lat 18 - 54 - 49 N Long 99 - 14 - 17 E

Location : on left bank at the bridge on road.

|                                      |                            |                         |                            |
|--------------------------------------|----------------------------|-------------------------|----------------------------|
|                                      | <b>Ban</b> Pong Din        | <b>Amphoe</b> Doi Saket | <b>Changwat</b> Chiang Mai |
| <b>Drainage Area</b>                 | 129 sq.km.                 |                         |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                            |
| <b>Instrument Used</b>               | US.D-49                    |                         |                            |
| <b>Period of Available Records</b>   | 2007-Cont'd                |                         |                            |
| <b>Actual Measurement</b>            | 2007-Cont'd                |                         |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                            |
| <b>Number of observation</b>         | 35                         |                         |                            |
| <b>R-Square</b>                      | 0.8750                     |                         |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                            |

$$QS = 2.3127 QW^{1.34760}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May   | Jun   | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan   | Feb   | Mar   | Annual  |            |
|-------|------|-------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|---------|------------|
| 1     | 0.50 | 0.30  | 0.50  | 0.70   | 8.40   | 11.10  | 11.90  | 11.10  | 4.70   | 3.10  | 1.40  | 1.30  |         |            |
| 2     | 0.50 | 0.30  | 0.50  | 0.70   | 4.40   | 9.70   | 15.50  | 11.10  | 4.70   | 2.50  | 1.40  | 1.20  |         |            |
| 3     | 0.30 | 0.30  | 0.60  | 0.60   | 3.70   | 7.70   | 11.90  | 11.10  | 4.70   | 2.50  | 1.70  | 0.90  |         |            |
| 4     | 0.30 | 0.30  | 0.60  | 0.70   | 3.10   | 6.50   | 11.10  | 11.10  | 4.70   | 2.50  | 1.60  | 0.90  |         |            |
| 5     | 0.30 | 0.30  | 0.80  | 7.70   | 3.40   | 8.40   | 20.20  | 10.40  | 4.70   | 2.50  | 1.70  | 0.80  |         |            |
| 6     | 0.30 | 0.30  | 3.70  | 4.70   | 3.40   | 44.70  | 14.60  | 9.00   | 4.40   | 2.50  | 1.70  | 0.80  |         |            |
| 7     | 0.30 | 0.30  | 1.30  | 3.70   | 2.80   | 11.90  | 7.70   | 9.00   | 3.40   | 2.30  | 1.70  | 0.80  |         |            |
| 8     | 0.30 | 0.30  | 1.30  | 2.80   | 9.70   | 9.70   | 7.70   | 9.00   | 4.10   | 2.30  | 1.70  | 0.80  |         |            |
| 9     | 0.30 | 0.30  | 1.00  | 9.70   | 23.60  | 17.30  | 7.70   | 7.10   | 3.40   | 2.30  | 1.70  | 0.80  |         |            |
| 10    | 0.30 | 0.30  | 1.00  | 8.40   | 18.30  | 18.30  | 7.70   | 6.50   | 3.40   | 2.30  | 1.70  | 0.80  |         |            |
| 11    | 0.30 | 0.30  | 0.80  | 9.00   | 31.80  | 11.10  | 7.70   | 7.70   | 3.10   | 2.30  | 1.70  | 0.70  |         |            |
| 12    | 0.30 | 0.30  | 2.30  | 4.10   | 15.50  | 13.70  | 7.70   | 7.10   | 3.10   | 2.30  | 1.40  | 0.70  |         |            |
| 13    | 0.30 | 1.40  | 2.30  | 3.70   | 21.30  | 15.50  | 7.70   | 7.10   | 3.10   | 2.50  | 1.70  | 0.70  |         |            |
| 14    | 0.30 | 0.50  | 1.70  | 2.80   | 13.70  | 11.10  | 5.90   | 6.50   | 3.10   | 2.30  | 1.70  | 0.70  |         |            |
| 15    | 0.30 | 0.30  | 0.90  | 2.00   | 10.40  | 11.90  | 4.70   | 6.50   | 3.10   | 2.00  | 1.70  | 0.50  |         |            |
| 16    | 0.30 | 0.30  | 0.50  | 3.10   | 23.60  | 21.30  | 4.40   | 6.50   | 3.10   | 2.00  | 1.70  | 0.50  |         |            |
| 17    | 0.30 | 0.30  | 0.40  | 5.90   | 19.30  | 18.30  | 9.00   | 6.50   | 3.10   | 2.00  | 1.70  | 0.50  |         |            |
| 18    | 0.30 | 0.30  | 0.40  | 3.70   | 10.40  | 28.20  | 67.70  | 7.10   | 3.10   | 2.00  | 1.60  | 0.60  |         |            |
| 19    | 0.30 | 0.30  | 0.50  | 2.80   | 9.00   | 14.60  | 60.30  | 9.00   | 3.10   | 2.00  | 1.30  | 0.60  |         |            |
| 20    | 0.30 | 0.30  | 0.70  | 2.30   | 7.10   | 9.70   | 27.00  | 17.30  | 3.10   | 1.70  | 1.30  | 0.60  |         |            |
| 21    | 0.30 | 0.40  | 0.50  | 2.50   | 7.10   | 11.10  | 22.40  | 7.70   | 3.10   | 1.60  | 1.30  | 0.50  |         |            |
| 22    | 0.30 | 0.70  | 0.50  | 22.40  | 41.40  | 11.10  | 22.40  | 4.70   | 3.10   | 1.60  | 1.30  | 0.50  |         |            |
| 23    | 0.30 | 0.50  | 0.50  | 12.80  | 22.40  | 11.10  | 19.30  | 4.40   | 3.10   | 1.70  | 1.30  | 0.50  |         |            |
| 24    | 0.30 | 0.50  | 0.50  | 5.30   | 14.60  | 8.40   | 16.40  | 4.10   | 3.10   | 1.70  | 1.30  | 0.50  |         |            |
| 25    | 0.30 | 0.50  | 0.30  | 20.20  | 10.40  | 7.70   | 38.10  | 3.40   | 2.80   | 1.70  | 1.30  | 0.70  |         |            |
| 26    | 0.30 | 0.50  | 0.60  | 5.30   | 8.40   | 7.70   | 17.30  | 4.10   | 3.10   | 1.70  | 1.00  | 0.50  |         |            |
| 27    | 0.30 | 0.50  | 1.00  | 4.10   | 10.40  | 17.30  | 15.50  | 4.10   | 3.10   | 1.70  | 1.00  | 0.50  |         |            |
| 28    | 0.30 | 0.40  | 1.00  | 3.40   | 9.00   | 20.20  | 13.70  | 5.90   | 3.10   | 1.70  | 1.30  | 0.50  |         |            |
| 29    | 0.30 | 0.50  | 1.00  | 4.40   | 9.00   | 11.10  | 16.40  | 4.70   | 3.10   | 1.70  |       | 0.50  |         |            |
| 30    | 0.30 | 0.50  | 0.90  | 11.10  | 7.70   | 11.10  | 11.10  | 5.30   | 3.10   | 1.70  |       | 0.50  |         |            |
| 31    |      | 0.50  |       | 15.50  | 9.00   |        | 11.10  |        | 3.10   | 1.70  |       | 0.50  |         |            |
| Total | 9.40 | 12.80 | 28.60 | 186.10 | 392.30 | 417.50 | 521.80 | 225.10 | 107.00 | 64.40 | 41.90 | 20.90 | 2027.80 | <b>Ton</b> |
| Mean  | 0.30 | 0.40  | 1.00  | 6.00   | 12.70  | 13.90  | 16.80  | 7.50   | 3.50   | 2.10  | 1.50  | 0.70  |         |            |
| Max   | 0.50 | 1.40  | 3.70  | 22.40  | 41.40  | 44.70  | 67.70  | 17.30  | 4.70   | 3.10  | 1.70  | 1.30  | 67.70   |            |
| Min   | 0.30 | 0.30  | 0.30  | 0.60   | 2.80   | 6.50   | 4.40   | 3.40   | 2.80   | 1.60  | 1.00  | 0.50  | 0.30    |            |

**WATER YEAR : 2013****PING RIVER BASIN****Nam Mae Wang at Ban Phan Ton , Chiang Mai (P.84)**

Lat 18 - 35 - 20 N Long 98 - 47 - 59 E

Location : on left bank at Ban Mae Chaem.

|                                      |                            |                        |                            |
|--------------------------------------|----------------------------|------------------------|----------------------------|
|                                      | <b>Ban</b> Phan Ton        | <b>Amphoe</b> Mae Wang | <b>Changwat</b> Chiang Mai |
| <b>Drainage Area</b>                 | 491 sq.km.                 |                        |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                        |                            |
| <b>Instrument Used</b>               | US.D-49                    |                        |                            |
| <b>Period of Available Records</b>   | 2003-Cont'd                |                        |                            |
| <b>Actual Measurement</b>            | 2003-Cont'd                |                        |                            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                        |                            |
| <b>Number of observation</b>         | 38                         |                        |                            |
| <b>R-Square</b>                      | 0.8865                     |                        |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                        |                            |

$$QS = 2.3043 QW^{1.31120}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun   | Jul    | Aug    | Sep     | Oct     | Nov    | Dec   | Jan   | Feb  | Mar  | Annual  |            |
|-------|-------|-------|-------|--------|--------|---------|---------|--------|-------|-------|------|------|---------|------------|
| 1     | 0.60  | 1.10  | 1.30  | 1.40   | 26.30  | 17.60   | 23.60   | 26.30  | 9.70  | 2.00  | 0.10 | 0.10 |         |            |
| 2     | 0.60  | 1.20  | 1.40  | 1.40   | 17.60  | 11.60   | 84.70   | 22.90  | 7.90  | 1.90  | 0.10 | 0.10 |         |            |
| 3     | 0.70  | 1.20  | 2.20  | 1.30   | 8.80   | 3.70    | 46.60   | 20.20  | 5.10  | 1.90  | 0.20 | 0.20 |         |            |
| 4     | 0.80  | 2.50  | 5.40  | 0.70   | 9.20   | 5.70    | 42.80   | 18.90  | 4.00  | 2.00  | 0.20 | 3.20 |         |            |
| 5     | 0.60  | 7.40  | 2.30  | 1.60   | 14.10  | 0.90    | 38.10   | 14.60  | 4.30  | 1.90  | 0.10 | 0.80 |         |            |
| 6     | 0.70  | 4.00  | 5.10  | 18.90  | 2.90   | 3.40    | 27.70   | 14.60  | 5.10  | 1.30  | 0.20 | 0.10 |         |            |
| 7     | 0.80  | 1.30  | 3.20  | 2.80   | 1.30   | 16.40   | 40.00   | 14.10  | 2.80  | 0.30  | 0.20 | 0.10 |         |            |
| 8     | 0.90  | 1.40  | 2.30  | 3.20   | 3.70   | 16.40   | 24.30   | 12.60  | 2.00  | 0.20  | 0.20 | 0.10 |         |            |
| 9     | 1.10  | 1.20  | 2.50  | 5.70   | 8.80   | 14.60   | 9.70    | 11.60  | 2.00  | 0.20  | 0.20 | 0.10 |         |            |
| 10    | 1.10  | 1.30  | 3.70  | 7.90   | 15.10  | 85.90   | 5.10    | 12.10  | 1.70  | 0.20  | 0.20 | 0.10 |         |            |
| 11    | 0.90  | 1.30  | 2.80  | 2.60   | 127.50 | 19.60   | 11.60   | 12.10  | 1.30  | 0.30  | 0.20 | 0.10 |         |            |
| 12    | 0.80  | 1.30  | 2.20  | 1.60   | 110.20 | 11.60   | 9.20    | 10.60  | 1.30  | 0.40  | 0.20 | 0.10 |         |            |
| 13    | 0.80  | 2.20  | 1.30  | 2.20   | 139.40 | 95.30   | 8.30    | 10.60  | 0.90  | 0.20  | 0.20 | 0.10 |         |            |
| 14    | 1.30  | 1.30  | 1.40  | 2.60   | 67.20  | 61.90   | 8.30    | 9.70   | 1.70  | 0.20  | 0.10 | 0.10 |         |            |
| 15    | 1.90  | 1.20  | 1.60  | 1.40   | 54.60  | 55.60   | 8.80    | 9.70   | 2.30  | 0.20  | 0.10 | 0.10 |         |            |
| 16    | 4.00  | 1.20  | 1.30  | 2.80   | 38.10  | 35.40   | 7.40    | 9.70   | 5.40  | 0.10  | 0.20 | 0.10 |         |            |
| 17    | 4.80  | 1.20  | 1.30  | 24.30  | 21.50  | 93.90   | 7.00    | 9.70   | 2.00  | 0.10  | 0.10 | 0.10 |         |            |
| 18    | 3.70  | 1.40  | 1.20  | 8.30   | 11.60  | 45.60   | 197.00  | 8.30   | 1.70  | 0.10  | 0.10 | 0.10 |         |            |
| 19    | 3.40  | 2.20  | 0.90  | 1.30   | 10.60  | 20.90   | 221.70  | 21.50  | 1.60  | 0.10  | 0.10 | 0.10 |         |            |
| 20    | 2.80  | 2.50  | 0.80  | 2.00   | 2.00   | 12.60   | 129.20  | 36.40  | 1.40  | 0.10  | 0.10 | 0.10 |         |            |
| 21    | 1.20  | 2.60  | 0.90  | 2.60   | 2.20   | 9.70    | 114.80  | 11.60  | 1.30  | 0.10  | 0.10 | 0.10 |         |            |
| 22    | 0.90  | 1.30  | 1.30  | 1.20   | 11.10  | 8.80    | 492.90  | 9.20   | 1.70  | 0.20  | 0.10 | 0.10 |         |            |
| 23    | 1.10  | 2.20  | 0.90  | 0.80   | 12.10  | 6.10    | 79.60   | 7.40   | 2.00  | 0.20  | 0.10 | 0.10 |         |            |
| 24    | 1.20  | 10.20 | 1.10  | 7.40   | 17.60  | 4.30    | 45.60   | 6.10   | 1.60  | 0.20  | 0.10 | 0.00 |         |            |
| 25    | 1.10  | 2.50  | 2.00  | 79.60  | 14.60  | 105.70  | 137.70  | 7.00   | 1.40  | 0.20  | 0.10 | 0.00 |         |            |
| 26    | 0.90  | 1.70  | 2.20  | 56.70  | 9.70   | 98.30   | 55.60   | 7.40   | 1.40  | 0.20  | 0.10 | 0.00 |         |            |
| 27    | 1.10  | 1.30  | 1.90  | 11.10  | 2.60   | 35.40   | 111.70  | 5.10   | 1.70  | 0.20  | 0.10 | 0.10 |         |            |
| 28    | 0.90  | 1.40  | 1.40  | 23.60  | 2.80   | 299.30  | 33.70   | 4.00   | 1.60  | 0.20  | 0.10 | 0.10 |         |            |
| 29    | 1.10  | 1.30  | 1.40  | 7.40   | 2.90   | 98.30   | 78.30   | 4.50   | 1.70  | 0.10  |      | 0.10 |         |            |
| 30    | 1.10  | 1.30  | 1.30  | 7.00   | 1.40   | 39.10   | 38.10   | 11.60  | 1.70  | 0.10  |      | 0.10 |         |            |
| 31    |       | 1.30  |       | 33.70  | 3.70   |         | 34.50   |        | 1.60  | 0.10  |      | 0.10 |         |            |
| Total | 42.90 | 65.50 | 58.60 | 325.10 | 771.20 | 1333.60 | 2173.60 | 380.10 | 81.90 | 15.50 | 3.90 | 6.70 | 5258.60 | <b>Ton</b> |
| Mean  | 1.40  | 2.10  | 2.00  | 10.50  | 24.90  | 44.50   | 70.10   | 12.70  | 2.60  | 0.50  | 0.10 | 0.20 |         |            |
| Max   | 4.80  | 10.20 | 5.40  | 79.60  | 139.40 | 299.30  | 492.90  | 36.40  | 9.70  | 2.00  | 0.20 | 3.20 | 492.90  |            |
| Min   | 0.60  | 1.10  | 0.80  | 0.70   | 1.30   | 0.90    | 5.10    | 4.00   | 0.90  | 0.10  | 0.10 | 0.00 | 0.00    |            |

**WATER YEAR : 2013****WANG RIVER BASIN****Wang River at Setuwaree Bridge , Lampang (W.1C)**

Lat 18 - 17 - 51 N Long 99 - 30 - 56 E

**Location : on left bank at the bridge.**

|                                      |                             |                      |                         |
|--------------------------------------|-----------------------------|----------------------|-------------------------|
|                                      | <b>Ban</b> Setuwaree Bridge | <b>Amphoe</b> Mueang | <b>Changwat</b> Lampang |
| <b>Drainage Area</b>                 | 3,478 sq.km.                |                      |                         |
| <b>Method of sampling</b>            | Depth Integrating           |                      |                         |
| <b>Instrument Used</b>               | US.D-49                     |                      |                         |
| <b>Period of Available Records</b>   | 1996-Cont'd                 |                      |                         |
| <b>Actual Measurement</b>            | 1996-Cont'd                 |                      |                         |
| <b>Using Rating Curve Water Year</b> | 2013                        |                      |                         |
| <b>Number of observation</b>         | 34                          |                      |                         |
| <b>R-Square</b>                      | 0.8522                      |                      |                         |
| <b>Remarks</b>                       | Continued Sediment Station  |                      |                         |

$$QS = 0.8919 QW^{1.64530}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug     | Sep     | Oct      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual   |            |
|-------|--------|--------|--------|--------|---------|---------|----------|---------|---------|--------|--------|--------|----------|------------|
| 1     | 15.90  | 19.80  | 1.00   | 28.40  | 71.00   | 165.40  | 1005.10  | 463.50  | 203.50  | 14.70  | 4.60   | 2.10   |          |            |
| 2     | 13.00  | 6.50   | 1.00   | 18.50  | 54.10   | 97.70   | 315.70   | 264.40  | 76.60   | 17.20  | 3.70   | 1.90   |          |            |
| 3     | 7.00   | 5.50   | 1.00   | 9.80   | 37.50   | 31.90   | 225.00   | 125.90  | 63.60   | 17.20  | 3.30   | 2.30   |          |            |
| 4     | 8.40   | 4.60   | 1.00   | 4.10   | 45.40   | 17.20   | 198.30   | 104.30  | 58.80   | 13.00  | 3.70   | 5.00   |          |            |
| 5     | 3.30   | 2.90   | 0.90   | 3.30   | 76.60   | 9.80    | 145.10   | 49.70   | 49.70   | 13.00  | 4.60   | 10.60  |          |            |
| 6     | 13.90  | 2.10   | 0.90   | 3.70   | 82.40   | 17.20   | 79.50    | 24.00   | 58.80   | 13.00  | 4.60   | 14.70  |          |            |
| 7     | 9.80   | 3.30   | 0.90   | 3.70   | 49.70   | 51.90   | 122.20   | 18.50   | 111.30  | 12.20  | 4.10   | 24.00  |          |            |
| 8     | 43.40  | 4.10   | 0.70   | 10.60  | 66.00   | 122.20  | 51.90    | 21.10   | 153.10  | 11.40  | 15.90  | 28.40  |          |            |
| 9     | 49.70  | 2.90   | 0.70   | 45.40  | 122.20  | 445.10  | 41.40    | 66.00   | 125.90  | 12.20  | 111.30 | 31.90  |          |            |
| 10    | 49.70  | 2.60   | 0.70   | 43.40  | 235.90  | 1307.20 | 43.40    | 85.40   | 13.00   | 9.80   | 56.40  | 30.20  |          |            |
| 11    | 56.40  | 24.00  | 0.70   | 37.50  | 428.10  | 611.00  | 39.40    | 97.70   | 22.50   | 5.50   | 9.80   | 25.40  |          |            |
| 12    | 82.40  | 6.00   | 1.40   | 45.40  | 329.90  | 264.40  | 35.60    | 145.10  | 43.40   | 5.50   | 14.70  | 18.50  |          |            |
| 13    | 76.60  | 12.20  | 3.30   | 45.40  | 125.90  | 178.00  | 33.70    | 165.40  | 63.60   | 6.00   | 12.20  | 13.90  |          |            |
| 14    | 88.40  | 6.50   | 9.80   | 39.40  | 47.50   | 153.10  | 28.40    | 193.10  | 61.10   | 5.50   | 11.40  | 10.60  |          |            |
| 15    | 35.60  | 2.10   | 7.00   | 33.70  | 24.00   | 118.60  | 31.90    | 183.00  | 33.70   | 6.50   | 13.00  | 7.00   |          |            |
| 16    | 43.40  | 2.30   | 2.10   | 30.20  | 13.00   | 129.60  | 31.90    | 198.30  | 47.50   | 8.40   | 13.90  | 5.00   |          |            |
| 17    | 31.90  | 3.30   | 1.00   | 26.90  | 11.40   | 389.10  | 47.50    | 308.70  | 68.50   | 9.10   | 33.70  | 17.20  |          |            |
| 18    | 11.40  | 2.30   | 1.00   | 13.90  | 10.60   | 322.80  | 491.80   | 157.20  | 63.60   | 8.40   | 13.00  | 88.40  |          |            |
| 19    | 13.00  | 2.10   | 0.70   | 9.80   | 9.10    | 696.60  | 1763.00  | 88.40   | 45.40   | 9.10   | 8.40   | 30.20  |          |            |
| 20    | 3.30   | 2.30   | 0.70   | 7.00   | 9.10    | 501.20  | 936.70   | 114.90  | 30.20   | 9.10   | 7.00   | 28.40  |          |            |
| 21    | 2.30   | 5.00   | 2.10   | 5.50   | 15.90   | 114.90  | 883.40   | 501.20  | 13.90   | 9.10   | 5.50   | 13.00  |          |            |
| 22    | 2.30   | 2.10   | 43.40  | 5.00   | 114.90  | 79.50   | 3696.30  | 428.10  | 18.50   | 10.60  | 5.00   | 8.40   |          |            |
| 23    | 2.90   | 4.10   | 37.50  | 6.00   | 308.70  | 66.00   | 2722.40  | 258.50  | 5.00    | 11.40  | 5.50   | 7.70   |          |            |
| 24    | 4.10   | 1.60   | 165.40 | 11.40  | 173.80  | 41.40   | 2722.40  | 153.10  | 5.00    | 13.00  | 6.00   | 9.10   |          |            |
| 25    | 10.60  | 1.40   | 85.40  | 58.80  | 169.50  | 33.70   | 1872.30  | 111.30  | 3.70    | 13.00  | 6.50   | 12.20  |          |            |
| 26    | 22.50  | 1.40   | 43.40  | 35.60  | 125.90  | 45.40   | 936.70   | 22.50   | 2.60    | 11.40  | 5.50   | 14.70  |          |            |
| 27    | 11.40  | 1.20   | 39.40  | 39.40  | 104.30  | 247.10  | 374.00   | 15.90   | 3.30    | 13.00  | 3.70   | 22.50  |          |            |
| 28    | 10.60  | 1.20   | 18.50  | 47.50  | 61.10   | 230.40  | 91.50    | 4.10    | 4.60    | 11.40  | 2.60   | 26.90  |          |            |
| 29    | 15.90  | 1.00   | 31.90  | 54.10  | 41.40   | 428.10  | 100.80   | 14.70   | 7.70    | 9.10   |        | 28.40  |          |            |
| 30    | 17.20  | 1.40   | 30.20  | 125.90 | 31.90   | 1236.30 | 294.90   | 169.50  | 9.10    | 6.00   |        | 30.20  |          |            |
| 31    |        | 0.90   |        | 97.70  | 39.40   |         | 580.20   |         | 11.40   | 4.60   |        | 145.10 |          |            |
| Total | 756.30 | 138.70 | 533.70 | 947.00 | 3036.20 | 8152.80 | 19942.40 | 4553.50 | 1478.60 | 319.40 | 389.60 | 713.90 | 40962.10 | <b>Ton</b> |
| Mean  | 25.20  | 4.50   | 17.80  | 30.50  | 97.90   | 271.80  | 643.30   | 151.80  | 47.70   | 10.30  | 13.90  | 23.00  |          |            |
| Max   | 88.40  | 24.00  | 165.40 | 125.90 | 428.10  | 1307.20 | 3696.30  | 501.20  | 203.50  | 17.20  | 111.30 | 145.10 | 3696.30  |            |
| Min   | 2.30   | 0.90   | 0.70   | 3.30   | 9.10    | 9.80    | 28.40    | 4.10    | 2.60    | 4.60   | 2.60   | 1.90   | 0.70     |            |

**WATER YEAR : 2013****WANG RIVER BASIN****Wang River at Ban Don Chai , Lampang (W.3A)**

Lat 17 - 38 - 28 N Long 99 - 14 - 01 E

**Location : on right bank about 30 meters upstream from Siriyong Bridge.**

|                                      |                            |                 |               |              |                 |                |
|--------------------------------------|----------------------------|-----------------|---------------|--------------|-----------------|----------------|
|                                      | <b>Ban</b>                 | <b>Don Chai</b> | <b>Amphoe</b> | <b>Thoen</b> | <b>Changwat</b> | <b>Lampang</b> |
| <b>Drainage Area</b>                 | 8,924                      | sq.km.          |               |              |                 |                |
| <b>Method of sampling</b>            | Depth Integrating          |                 |               |              |                 |                |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |              |                 |                |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                 |               |              |                 |                |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                 |               |              |                 |                |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |               |              |                 |                |
| <b>Number of observation</b>         | 33                         |                 |               |              |                 |                |
| <b>R-Square</b>                      | 0.8717                     |                 |               |              |                 |                |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |              |                 |                |

$$QS = 2.0650 QW^{1.88850}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul      | Aug      | Sep       | Oct        | Nov      | Dec      | Jan     | Feb     | Mar     | Annual     |            |
|-------|---------|---------|---------|----------|----------|-----------|------------|----------|----------|---------|---------|---------|------------|------------|
| 1     | 172.00  | 126.60  | 109.30  | 266.00   | 999.10   | 1987.70   | 25089.20   | 8652.10  | 834.50   | 101.10  | 158.20  | 49.70   |            |            |
| 2     | 172.00  | 126.60  | 93.30   | 249.00   | 834.50   | 7123.40   | 20252.10   | 8652.10  | 3089.90  | 135.60  | 71.40   | 45.10   |            |            |
| 3     | 126.60  | 117.80  | 93.30   | 216.60   | 732.60   | 5981.60   | 18437.30   | 6165.40  | 1505.40  | 186.30  | 64.80   | 45.10   |            |            |
| 4     | 109.30  | 117.80  | 85.70   | 186.30   | 732.60   | 2969.50   | 30410.30   | 4134.00  | 942.70   | 232.50  | 59.50   | 32.60   |            |            |
| 5     | 85.70   | 145.00  | 117.80  | 145.00   | 942.70   | 1369.70   | 22609.80   | 3337.50  | 732.60   | 201.20  | 54.50   | 15.40   |            |            |
| 6     | 64.80   | 201.20  | 117.80  | 109.30   | 1116.50  | 834.50    | 10643.70   | 2735.30  | 591.40   | 201.20  | 54.50   | 17.50   |            |            |
| 7     | 64.80   | 109.30  | 93.30   | 93.30    | 1116.50  | 1057.10   | 11986.50   | 1987.70  | 526.20   | 249.00  | 49.70   | 19.70   |            |            |
| 8     | 64.80   | 126.60  | 71.40   | 85.70    | 1987.70  | 2189.80   | 11440.30   | 1505.40  | 464.60   | 301.60  | 49.70   | 32.60   |            |            |
| 9     | 64.80   | 126.60  | 85.70   | 78.40    | 2401.20  | 3337.50   | 5272.80    | 1304.10  | 406.60   | 266.00  | 40.70   | 93.30   |            |            |
| 10    | 109.30  | 109.30  | 85.70   | 93.30    | 2969.50  | 7524.70   | 3337.50    | 1057.10  | 301.60   | 232.50  | 64.80   | 117.80  |            |            |
| 11    | 145.00  | 117.80  | 78.40   | 352.20   | 4288.70  | 24249.30  | 2735.30    | 942.70   | 266.00   | 201.20  | 352.20  | 145.00  |            |            |
| 12    | 135.60  | 117.80  | 59.50   | 379.00   | 6926.60  | 19119.20  | 2189.80    | 942.70   | 249.00   | 172.00  | 172.00  | 158.20  |            |            |
| 13    | 126.60  | 266.00  | 40.70   | 732.60   | 3995.70  | 11986.50  | 1720.10    | 1057.10  | 232.50   | 145.00  | 93.30   | 126.60  |            |            |
| 14    | 126.60  | 266.00  | 49.70   | 591.40   | 1647.10  | 10127.60  | 1505.40    | 999.10   | 326.40   | 126.60  | 85.70   | 101.10  |            |            |
| 15    | 135.60  | 495.00  | 59.50   | 464.60   | 1057.10  | 10906.20  | 1116.50    | 1057.10  | 1057.10  | 117.80  | 78.40   | 78.40   |            |            |
| 16    | 145.00  | 435.10  | 64.80   | 352.20   | 834.50   | 7322.80   | 834.50     | 1436.80  | 834.50   | 109.30  | 71.40   | 71.40   |            |            |
| 17    | 352.20  | 249.00  | 85.70   | 301.60   | 526.20   | 7729.30   | 834.50     | 1369.70  | 684.00   | 109.30  | 71.40   | 64.80   |            |            |
| 18    | 406.60  | 186.30  | 71.40   | 283.50   | 435.10   | 7322.80   | 8184.60    | 1240.10  | 464.60   | 101.10  | 117.80  | 59.50   |            |            |
| 19    | 232.50  | 249.00  | 64.80   | 249.00   | 352.20   | 6540.80   | 130932.00  | 1116.50  | 379.00   | 109.30  | 158.20  | 54.50   |            |            |
| 20    | 158.20  | 172.00  | 54.50   | 201.20   | 301.60   | 8184.60   | 231187.40  | 1794.70  | 352.20   | 117.80  | 145.00  | 64.80   |            |            |
| 21    | 201.20  | 172.00  | 49.70   | 145.00   | 326.40   | 8890.40   | 126016.80  | 1575.50  | 301.60   | 117.80  | 172.00  | 109.30  |            |            |
| 22    | 186.30  | 464.60  | 28.80   | 126.60   | 1720.10  | 5981.60   | 128463.30  | 3859.60  | 283.50   | 109.30  | 64.80   | 93.30   |            |            |
| 23    | 232.50  | 942.70  | 22.00   | 126.60   | 4934.10  | 2851.30   | 202196.90  | 6165.40  | 266.00   | 101.10  | 71.40   | 64.80   |            |            |
| 24    | 126.60  | 406.60  | 28.80   | 117.80   | 2189.80  | 1987.70   | 89664.30   | 2189.80  | 216.60   | 101.10  | 54.50   | 49.70   |            |            |
| 25    | 93.30   | 266.00  | 59.50   | 109.30   | 2294.40  | 3464.70   | 68603.40   | 1647.10  | 158.20   | 101.10  | 54.50   | 40.70   |            |            |
| 26    | 93.30   | 186.30  | 59.50   | 126.60   | 1647.10  | 2851.30   | 55010.70   | 1177.60  | 135.60   | 109.30  | 54.50   | 36.60   |            |            |
| 27    | 93.30   | 158.20  | 59.50   | 1575.50  | 1436.80  | 10127.60  | 29034.90   | 1304.10  | 117.80   | 78.40   | 54.50   | 36.60   |            |            |
| 28    | 109.30  | 145.00  | 201.20  | 999.10   | 1116.50  | 43174.00  | 18776.80   | 732.60   | 101.10   | 172.00  | 49.70   | 40.70   |            |            |
| 29    | 126.60  | 135.60  | 266.00  | 591.40   | 942.70   | 52909.80  | 11171.80   | 464.60   | 78.40    | 201.20  |         | 64.80   |            |            |
| 30    | 117.80  | 249.00  | 249.00  | 636.90   | 684.00   | 33250.50  | 6351.80    | 301.60   | 78.40    | 216.60  |         | 78.40   |            |            |
| 31    |         | 283.50  |         | 942.70   | 999.10   |           | 6732.40    |          | 101.10   | 201.20  |         | 85.70   |            |            |
| Total | 4378.20 | 7270.30 | 2606.30 | 10927.70 | 52488.70 | 313353.50 | 1282742.60 | 70905.10 | 16079.10 | 4925.50 | 2589.10 | 2093.70 | 1770360.00 | <b>Ton</b> |
| Mean  | 145.90  | 234.50  | 86.90   | 352.50   | 1693.20  | 10445.10  | 41378.80   | 2363.50  | 518.70   | 158.90  | 92.50   | 67.50   |            |            |
| Max   | 406.60  | 942.70  | 266.00  | 1575.50  | 6926.60  | 52909.80  | 231187.40  | 8652.10  | 3089.90  | 301.60  | 352.20  | 158.20  | 231187.40  |            |
| Min   | 64.80   | 109.30  | 22.00   | 78.40    | 301.60   | 834.50    | 834.50     | 301.60   | 78.40    | 78.40   | 40.70   | 15.40   | 15.40      |            |

**WATER YEAR : 2013****WANG RIVER BASIN****Wang River at Ban Wang Man , Tak (W.4A)**

Lat 17 - 12 - 19 N Long 99 - 06 - 05 E

**Location : on left bank about 200 meters upstream from the bridge on highway.**

|                                      | Ban Wang Man               | Amphoe Sam Ngao | Changwat Tak |
|--------------------------------------|----------------------------|-----------------|--------------|
| <b>Drainage Area</b>                 | 10,439 sq.km.              |                 |              |
| <b>Method of sampling</b>            | Depth Integrating          |                 |              |
| <b>Instrument Used</b>               | US.D-49                    |                 |              |
| <b>Period of Available Records</b>   | 1989-Cont'd                |                 |              |
| <b>Actual Measurement</b>            | 1989-Cont'd                |                 |              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |              |
| <b>Number of observation</b>         | 18                         |                 |              |
| <b>R-Square</b>                      | 0.8101                     |                 |              |
| <b>Remarks</b>                       | Continued Sediment Station |                 |              |

$$QS = 2.2642 QW^{1.21060}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun    | Jul     | Aug     | Sep      | Oct      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual   |     |
|-------|---------|---------|--------|---------|---------|----------|----------|---------|---------|--------|--------|--------|----------|-----|
| 1     | 29.10   | 36.80   | 37.90  | 25.50   | 61.30   | 101.30   | 1127.20  | 423.30  | 35.70   | 23.90  | 21.40  | 11.40  |          |     |
| 2     | 37.90   | 41.30   | 43.60  | 33.50   | 72.40   | 125.70   | 883.10   | 485.30  | 29.10   | 21.40  | 20.60  | 10.70  |          |     |
| 3     | 39.00   | 32.40   | 35.70  | 33.50   | 104.50  | 285.80   | 891.60   | 429.40  | 240.70  | 21.40  | 19.80  | 10.00  |          |     |
| 4     | 39.00   | 26.40   | 32.40  | 32.40   | 85.60   | 337.40   | 790.00   | 420.20  | 171.00  | 19.80  | 19.00  | 9.30   |          |     |
| 5     | 39.00   | 23.90   | 30.20  | 33.50   | 91.80   | 228.40   | 1012.00  | 347.90  | 102.90  | 25.50  | 20.60  | 8.60   |          |     |
| 6     | 36.80   | 24.70   | 26.40  | 34.60   | 96.60   | 154.90   | 936.40   | 268.10  | 54.10   | 28.10  | 20.60  | 8.60   |          |     |
| 7     | 28.10   | 60.10   | 20.60  | 31.30   | 91.80   | 114.70   | 579.20   | 235.70  | 51.70   | 25.50  | 20.60  | 8.60   |          |     |
| 8     | 26.40   | 48.20   | 19.80  | 22.20   | 161.80  | 154.90   | 692.40   | 194.60  | 47.00   | 22.20  | 17.40  | 7.90   |          |     |
| 9     | 24.70   | 37.90   | 22.20  | 19.80   | 102.90  | 199.30   | 648.20   | 171.00  | 42.40   | 19.80  | 15.10  | 7.20   |          |     |
| 10    | 20.60   | 33.50   | 21.40  | 18.20   | 106.10  | 280.70   | 432.50   | 164.10  | 40.10   | 23.90  | 13.60  | 6.50   |          |     |
| 11    | 18.20   | 28.10   | 18.20  | 17.40   | 192.20  | 383.80   | 265.60   | 99.70   | 35.70   | 66.20  | 10.00  | 5.20   |          |     |
| 12    | 15.90   | 34.60   | 15.90  | 15.90   | 283.20  | 722.20   | 211.40   | 62.50   | 29.10   | 58.90  | 11.40  | 11.40  |          |     |
| 13    | 15.10   | 36.80   | 14.40  | 31.30   | 699.80  | 763.50   | 182.70   | 58.90   | 26.40   | 54.10  | 12.90  | 25.50  |          |     |
| 14    | 14.40   | 33.50   | 15.90  | 55.30   | 816.60  | 849.20   | 171.00   | 56.50   | 22.20   | 45.90  | 35.70  | 28.10  |          |     |
| 15    | 13.60   | 50.50   | 13.60  | 55.30   | 666.50  | 816.60   | 157.20   | 52.90   | 19.00   | 37.90  | 23.90  | 24.70  |          |     |
| 16    | 13.60   | 66.20   | 12.10  | 57.70   | 314.00  | 677.60   | 139.00   | 68.70   | 17.40   | 35.70  | 19.80  | 23.10  |          |     |
| 17    | 15.90   | 69.90   | 12.10  | 51.70   | 225.90  | 510.50   | 125.70   | 54.10   | 15.10   | 34.60  | 17.40  | 20.60  |          |     |
| 18    | 51.70   | 71.10   | 11.40  | 44.70   | 164.10  | 426.30   | 141.30   | 51.70   | 13.60   | 32.40  | 16.70  | 17.40  |          |     |
| 19    | 71.10   | 66.20   | 10.70  | 43.60   | 127.90  | 392.80   | 265.60   | 48.20   | 12.10   | 28.10  | 20.60  | 15.10  |          |     |
| 20    | 73.70   | 54.10   | 13.60  | 40.10   | 106.10  | 377.70   | 2030.90  | 47.00   | 11.40   | 30.20  | 23.10  | 14.40  |          |     |
| 21    | 45.90   | 50.50   | 16.70  | 35.70   | 90.30   | 414.10   | 5361.00  | 66.20   | 16.70   | 26.40  | 25.50  | 28.10  |          |     |
| 22    | 39.00   | 50.50   | 15.10  | 32.40   | 79.50   | 523.20   | 3594.80  | 91.80   | 67.40   | 24.70  | 28.10  | 27.20  |          |     |
| 23    | 44.70   | 41.30   | 13.60  | 29.10   | 68.70   | 374.70   | 2663.90  | 141.30  | 69.90   | 29.10  | 25.50  | 21.40  |          |     |
| 24    | 50.50   | 51.70   | 9.30   | 20.60   | 74.90   | 250.60   | 4374.00  | 175.70  | 61.30   | 30.20  | 23.90  | 19.80  |          |     |
| 25    | 44.70   | 74.90   | 7.90   | 15.90   | 298.50  | 250.60   | 2057.30  | 166.40  | 54.10   | 29.10  | 20.60  | 19.80  |          |     |
| 26    | 39.00   | 71.10   | 6.50   | 13.60   | 298.50  | 216.20   | 1578.90  | 85.60   | 50.50   | 28.10  | 17.40  | 19.00  |          |     |
| 27    | 35.70   | 41.30   | 5.20   | 12.10   | 265.60  | 411.00   | 1433.30  | 63.70   | 44.70   | 28.10  | 12.90  | 17.40  |          |     |
| 28    | 30.20   | 36.80   | 5.20   | 13.60   | 197.00  | 516.90   | 1185.60  | 56.50   | 41.30   | 28.10  | 10.70  | 13.60  |          |     |
| 29    | 26.40   | 44.70   | 7.20   | 68.70   | 173.40  | 1200.30  | 778.60   | 50.50   | 36.80   | 25.50  |        | 12.90  |          |     |
| 30    | 25.50   | 36.80   | 18.20  | 65.00   | 150.30  | 1386.30  | 608.10   | 44.70   | 32.40   | 23.10  |        | 12.10  |          |     |
| 31    |         | 31.30   |        | 62.50   | 127.90  |          | 479.00   |         | 26.40   | 22.20  |        | 11.40  |          |     |
| Total | 1005.40 | 1407.10 | 533.00 | 1066.70 | 6395.70 | 13447.20 | 35797.50 | 4682.20 | 1518.20 | 950.10 | 544.80 | 477.00 | 67824.90 | Ton |
| Mean  | 33.50   | 45.40   | 17.80  | 34.40   | 206.30  | 448.20   | 1154.80  | 156.10  | 49.00   | 30.60  | 19.50  | 15.40  |          |     |
| Max   | 73.70   | 74.90   | 43.60  | 68.70   | 816.60  | 1386.30  | 5361.00  | 485.30  | 240.70  | 66.20  | 35.70  | 28.10  | 5361.00  |     |
| Min   | 13.60   | 23.90   | 5.20   | 12.10   | 61.30   | 101.30   | 125.70   | 44.70   | 11.40   | 19.80  | 10.00  | 5.20   | 5.20     |     |

**WATER YEAR : 2013****WANG RIVER BASIN****Nam Mae Soi at Ban Nong Nao , Lampang (W.17)**

Lat 18 - 43 - 13 N Long 99 - 34 - 04 E

**Location : on right at the bridge of Lampang - Wang Nua Road.**

|                                      |                            |                 |               |                 |                 |                |
|--------------------------------------|----------------------------|-----------------|---------------|-----------------|-----------------|----------------|
|                                      | <b>Ban</b>                 | <b>Nong Nao</b> | <b>Amphoe</b> | <b>Chae Hom</b> | <b>Changwat</b> | <b>Lampang</b> |
| <b>Drainage Area</b>                 | 726                        | sq.km.          |               |                 |                 |                |
| <b>Method of sampling</b>            | Depth                      | Integrating     |               |                 |                 |                |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |                 |                 |                |
| <b>Period of Available Records</b>   | 1996-Cont'd                |                 |               |                 |                 |                |
| <b>Actual Measurement</b>            | 1996-Cont'd                |                 |               |                 |                 |                |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |               |                 |                 |                |
| <b>Number of observation</b>         | 34                         |                 |               |                 |                 |                |
| <b>R-Square</b>                      | 0.9072                     |                 |               |                 |                 |                |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |                 |                 |                |

$$QS = 1.2715 QW^{1.60740}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul    | Aug     | Sep     | Oct     | Nov     | Dec    | Jan   | Feb   | Mar   | Annual   |            |
|-------|-------|--------|--------|--------|---------|---------|---------|---------|--------|-------|-------|-------|----------|------------|
| 1     | 2.30  | 2.10   | 4.70   | 2.30   | 16.90   | 554.70  | 90.00   | 96.40   | 52.50  | 5.10  | 1.50  | 0.50  |          |            |
| 2     | 2.50  | 2.10   | 7.40   | 2.30   | 22.70   | 130.30  | 125.40  | 83.70   | 25.10  | 4.70  | 1.50  | 0.40  |          |            |
| 3     | 2.50  | 2.30   | 12.40  | 2.10   | 22.70   | 37.10   | 167.10  | 55.10   | 16.90  | 4.70  | 1.20  | 0.40  |          |            |
| 4     | 2.30  | 2.80   | 19.10  | 2.10   | 16.90   | 33.20   | 161.60  | 29.50   | 12.40  | 4.30  | 1.30  | 0.40  |          |            |
| 5     | 2.30  | 3.60   | 15.80  | 2.10   | 35.10   | 74.70   | 115.70  | 49.90   | 10.80  | 3.90  | 1.30  | 0.40  |          |            |
| 6     | 1.90  | 5.10   | 21.50  | 4.30   | 25.10   | 480.50  | 161.60  | 47.40   | 10.80  | 3.00  | 1.30  | 0.40  |          |            |
| 7     | 1.70  | 12.40  | 20.30  | 99.70  | 47.40   | 227.90  | 207.20  | 43.20   | 11.60  | 3.30  | 1.30  | 0.40  |          |            |
| 8     | 1.70  | 15.80  | 14.10  | 93.10  | 717.60  | 96.40   | 140.50  | 43.20   | 10.80  | 3.30  | 1.30  | 0.40  |          |            |
| 9     | 1.70  | 6.00   | 9.30   | 161.60 | 444.90  | 227.90  | 71.70   | 43.20   | 7.80   | 2.80  | 1.30  | 0.40  |          |            |
| 10    | 1.70  | 4.70   | 7.80   | 31.30  | 299.00  | 341.40  | 49.90   | 39.10   | 5.50   | 2.50  | 0.90  | 0.30  |          |            |
| 11    | 1.70  | 4.30   | 13.20  | 10.80  | 651.60  | 227.90  | 43.20   | 26.40   | 5.10   | 2.50  | 0.80  | 0.30  |          |            |
| 12    | 1.90  | 6.40   | 33.20  | 7.80   | 468.50  | 156.30  | 37.10   | 33.20   | 4.30   | 2.50  | 0.80  | 0.30  |          |            |
| 13    | 1.90  | 6.00   | 16.90  | 8.50   | 161.60  | 161.60  | 31.30   | 31.30   | 5.10   | 2.30  | 0.80  | 0.30  |          |            |
| 14    | 2.50  | 4.30   | 11.60  | 6.00   | 83.70   | 213.10  | 43.20   | 31.30   | 4.70   | 2.50  | 0.80  | 0.30  |          |            |
| 15    | 2.50  | 3.30   | 8.50   | 15.80  | 86.80   | 106.30  | 31.30   | 39.10   | 5.10   | 2.50  | 0.80  | 0.30  |          |            |
| 16    | 2.80  | 3.60   | 5.10   | 145.70 | 183.90  | 135.40  | 25.10   | 31.30   | 14.90  | 2.50  | 0.70  | 0.20  |          |            |
| 17    | 2.10  | 3.30   | 3.90   | 31.30  | 77.60   | 172.60  | 37.10   | 27.70   | 5.10   | 2.30  | 0.70  | 0.20  |          |            |
| 18    | 2.10  | 2.80   | 3.90   | 37.10  | 52.50   | 125.40  | 667.90  | 31.30   | 5.10   | 2.30  | 0.70  | 0.20  |          |            |
| 19    | 1.90  | 2.50   | 3.60   | 13.20  | 52.50   | 83.70   | 2128.80 | 99.70   | 5.50   | 2.10  | 0.70  | 0.30  |          |            |
| 20    | 1.90  | 3.60   | 3.90   | 10.00  | 31.30   | 57.80   | 768.60  | 359.00  | 6.90   | 1.90  | 0.60  | 0.60  |          |            |
| 21    | 1.70  | 7.80   | 4.70   | 7.80   | 52.50   | 52.50   | 619.50  | 90.00   | 6.00   | 1.90  | 0.60  | 0.60  |          |            |
| 22    | 1.70  | 7.40   | 2.80   | 6.90   | 130.30  | 52.50   | 1276.70 | 47.40   | 3.60   | 1.90  | 0.60  | 0.60  |          |            |
| 23    | 2.10  | 6.00   | 3.30   | 13.20  | 161.60  | 27.70   | 376.90  | 31.30   | 6.40   | 1.90  | 0.60  | 0.60  |          |            |
| 24    | 2.10  | 6.90   | 2.30   | 14.10  | 93.10   | 45.30   | 542.00  | 26.40   | 6.00   | 1.90  | 0.50  | 0.60  |          |            |
| 25    | 2.30  | 21.50  | 2.10   | 39.10  | 77.60   | 71.70   | 667.90  | 23.90   | 6.00   | 1.70  | 0.60  | 0.60  |          |            |
| 26    | 2.30  | 10.00  | 2.10   | 14.90  | 47.40   | 103.00  | 324.10  | 20.30   | 5.50   | 1.70  | 0.60  | 0.70  |          |            |
| 27    | 2.30  | 7.40   | 3.00   | 19.10  | 99.70   | 1035.50 | 201.20  | 15.80   | 6.90   | 1.70  | 0.50  | 0.70  |          |            |
| 28    | 2.10  | 5.50   | 4.30   | 22.70  | 71.70   | 1842.70 | 167.10  | 14.10   | 6.90   | 1.70  | 0.50  | 0.70  |          |            |
| 29    | 1.90  | 4.70   | 3.30   | 20.30  | 103.00  | 651.60  | 161.60  | 33.20   | 6.00   | 1.50  |       | 0.70  |          |            |
| 30    | 1.70  | 4.70   | 2.80   | 55.10  | 43.20   | 213.10  | 145.70  | 167.10  | 5.10   | 1.50  |       | 0.80  |          |            |
| 31    |       | 4.30   |        | 37.10  | 195.30  |         | 110.90  |         | 5.10   | 1.50  |       | 0.80  |          |            |
| Total | 62.10 | 183.20 | 266.90 | 937.40 | 4573.70 | 7739.80 | 9697.90 | 1710.50 | 289.50 | 79.90 | 24.80 | 14.40 | 25580.10 | <b>Ton</b> |
| Mean  | 2.10  | 5.90   | 8.90   | 30.20  | 147.50  | 258.00  | 312.80  | 57.00   | 9.30   | 2.60  | 0.90  | 0.50  |          |            |
| Max   | 2.80  | 21.50  | 33.20  | 161.60 | 717.60  | 1842.70 | 2128.80 | 359.00  | 52.50  | 5.10  | 1.50  | 0.80  | 2128.80  |            |
| Min   | 1.70  | 2.10   | 2.10   | 2.10   | 16.90   | 27.70   | 25.10   | 14.10   | 3.60   | 1.50  | 0.50  | 0.20  | 0.20     |            |

**WATER YEAR : 2013****WANG RIVER BASIN****Wang River at Ban Chiang Rai , Tak (W.23)**

Lat 17 - 22 - 01 N Long 99 - 06 - 55 E

**Location : on left bank at Amphoe Sam Ngao.**

|                                      | <b>Ban</b> Chiang Rai      | <b>Amphoe</b> Sam Ngao | <b>Changwat</b> Tak |
|--------------------------------------|----------------------------|------------------------|---------------------|
| <b>Drainage Area</b>                 | 9,930                      | sq.km.                 |                     |
| <b>Method of sampling</b>            | Depth Integrating          |                        |                     |
| <b>Instrument Used</b>               | US.D-49                    |                        |                     |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                        |                     |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                        |                     |
| <b>Using Rating Curve Water Year</b> | 2001-2013                  |                        |                     |
| <b>Number of observation</b>         | 187                        |                        |                     |
| <b>R-Square</b>                      | 0.9294                     |                        |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                        |                     |

$$QS = 0.8845 QW^{1.58490}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug     | Sep      | Oct      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual    |     |
|-------|--------|--------|--------|--------|---------|----------|----------|---------|---------|--------|--------|--------|-----------|-----|
| 1     | 17.60  | 14.30  | 21.10  | 15.90  | 62.00   | 99.60    | 2114.00  | 585.00  | 62.00   | 18.50  | 25.30  | 10.60  |           |     |
| 2     | 18.50  | 12.10  | 11.30  | 15.90  | 90.20   | 196.00   | 1919.50  | 761.60  | 281.00  | 18.50  | 18.50  | 10.60  |           |     |
| 3     | 16.80  | 12.80  | 9.90   | 14.30  | 78.90   | 504.10   | 1750.40  | 643.80  | 201.70  | 18.50  | 17.60  | 10.60  |           |     |
| 4     | 15.90  | 12.80  | 8.00   | 13.60  | 83.30   | 320.70   | 1881.40  | 521.70  | 129.10  | 32.90  | 14.30  | 8.60   |           |     |
| 5     | 13.60  | 14.30  | 5.30   | 14.30  | 92.50   | 162.20   | 2620.50  | 391.20  | 99.60   | 37.90  | 13.60  | 7.50   |           |     |
| 6     | 11.30  | 23.90  | 3.40   | 9.90   | 81.10   | 105.30   | 1362.00  | 355.30  | 92.50   | 37.90  | 12.80  | 5.30   |           |     |
| 7     | 8.00   | 20.20  | 8.00   | 15.90  | 76.70   | 90.20    | 761.60   | 268.20  | 78.90   | 37.90  | 10.60  | 4.90   |           |     |
| 8     | 7.00   | 18.50  | 8.00   | 21.10  | 92.50   | 115.30   | 1447.10  | 219.20  | 68.10   | 37.90  | 10.60  | 4.10   |           |     |
| 9     | 5.70   | 16.80  | 6.20   | 17.60  | 87.90   | 255.60   | 696.50   | 184.90  | 62.00   | 44.80  | 10.60  | 6.60   |           |     |
| 10    | 4.90   | 17.60  | 4.90   | 17.60  | 170.00  | 294.00   | 398.50   | 150.90  | 56.00   | 90.20  | 10.60  | 16.80  |           |     |
| 11    | 4.50   | 14.30  | 4.90   | 15.10  | 334.40  | 954.80   | 261.80   | 122.10  | 56.00   | 18.50  | 22.90  | 18.50  |           |     |
| 12    | 13.60  | 15.10  | 4.10   | 28.30  | 828.90  | 1881.40  | 237.10   | 111.90  | 52.20   | 29.80  | 36.20  | 22.90  |           |     |
| 13    | 15.90  | 15.10  | 2.80   | 52.20  | 2419.80 | 1605.00  | 190.40   | 105.30  | 46.60   | 29.80  | 32.90  | 23.90  |           |     |
| 14    | 16.80  | 34.50  | 1.90   | 54.10  | 1412.80 | 1919.50  | 150.90   | 118.70  | 50.30   | 28.30  | 21.10  | 21.10  |           |     |
| 15    | 16.80  | 37.90  | 1.90   | 56.00  | 613.00  | 1378.80  | 132.60   | 118.70  | 66.00   | 22.90  | 17.60  | 19.30  |           |     |
| 16    | 19.30  | 46.60  | 2.40   | 46.60  | 327.50  | 941.90   | 92.50    | 118.70  | 83.30   | 22.00  | 17.60  | 17.60  |           |     |
| 17    | 28.30  | 41.30  | 2.80   | 37.90  | 184.90  | 654.20   | 102.00   | 143.50  | 68.10   | 21.10  | 17.60  | 15.90  |           |     |
| 18    | 44.80  | 26.80  | 5.30   | 36.20  | 118.70  | 643.80   | 129.10   | 125.60  | 58.00   | 21.10  | 18.50  | 12.80  |           |     |
| 19    | 28.30  | 23.90  | 3.80   | 31.40  | 97.20   | 521.70   | 1843.60  | 139.80  | 64.00   | 22.00  | 23.90  | 10.60  |           |     |
| 20    | 22.90  | 34.50  | 3.40   | 28.30  | 78.90   | 512.80   | 13304.40 | 118.70  | 68.10   | 22.90  | 28.30  | 32.90  |           |     |
| 21    | 17.60  | 29.80  | 2.10   | 22.90  | 64.00   | 643.80   | 12427.40 | 162.20  | 62.00   | 22.90  | 22.90  | 34.50  |           |     |
| 22    | 13.60  | 16.80  | 1.90   | 17.60  | 58.00   | 512.80   | 7689.00  | 166.10  | 54.10   | 21.10  | 19.30  | 22.00  |           |     |
| 23    | 12.80  | 58.00  | 1.30   | 15.10  | 56.00   | 314.00   | 10815.30 | 255.60  | 48.40   | 20.20  | 15.90  | 18.50  |           |     |
| 24    | 20.20  | 52.20  | 0.90   | 11.30  | 307.30  | 249.40   | 10092.30 | 255.60  | 43.00   | 21.10  | 14.30  | 18.50  |           |     |
| 25    | 18.50  | 29.80  | 0.60   | 10.60  | 452.60  | 201.70   | 5477.80  | 166.10  | 37.90   | 22.90  | 10.60  | 15.90  |           |     |
| 26    | 15.90  | 22.90  | 0.60   | 9.90   | 391.20  | 355.30   | 4238.20  | 132.60  | 37.90   | 22.90  | 10.60  | 11.30  |           |     |
| 27    | 12.80  | 18.50  | 2.80   | 15.10  | 243.20  | 383.90   | 3093.10  | 125.60  | 29.80   | 21.10  | 10.60  | 11.30  |           |     |
| 28    | 12.80  | 21.10  | 2.10   | 70.20  | 190.40  | 2958.90  | 1824.80  | 105.30  | 22.90   | 14.30  | 10.60  | 10.60  |           |     |
| 29    | 13.60  | 14.30  | 8.60   | 62.00  | 147.20  | 3985.20  | 1073.60  | 87.90   | 19.30   | 23.90  |        | 12.80  |           |     |
| 30    | 15.90  | 14.30  | 15.90  | 50.30  | 118.70  | 3437.20  | 643.80   | 68.10   | 19.30   | 26.80  |        | 13.60  |           |     |
| 31    |        | 21.10  |        | 52.20  | 92.50   |          | 512.80   |         | 19.30   | 28.30  |        | 13.60  |           |     |
| Total | 484.20 | 752.10 | 156.20 | 879.40 | 9452.30 | 26199.10 | 89284.00 | 6829.90 | 2137.40 | 858.90 | 495.90 | 463.70 | 137993.10 | Ton |
| Mean  | 16.10  | 24.30  | 5.20   | 28.40  | 304.90  | 873.30   | 2880.10  | 227.70  | 68.90   | 27.70  | 17.70  | 15.00  |           |     |
| Max   | 44.80  | 58.00  | 21.10  | 70.20  | 2419.80 | 3985.20  | 13304.40 | 761.60  | 281.00  | 90.20  | 36.20  | 34.50  | 13304.40  |     |
| Min   | 4.50   | 12.10  | 0.60   | 9.90   | 56.00   | 90.20    | 92.50    | 68.10   | 19.30   | 14.30  | 10.60  | 4.10   | 0.60      |     |

**WATER YEAR : 2013****WANG RIVER BASIN****Wang River at Ban Huai Kod , Lampang (W.25)**

Lat 19 - 02 - 09 N Long 99 - 37 - 10 E

**Location : on right bank at Ban Huai Kod.**

|                                      |                            |                        |                         |
|--------------------------------------|----------------------------|------------------------|-------------------------|
|                                      | <b>Ban</b> Huai Kod        | <b>Amphoe</b> Wang Nua | <b>Changwat</b> Lampang |
| <b>Drainge Area</b>                  | 762 sq.km.                 |                        |                         |
| <b>Method of sampling</b>            | Depth Integrating          |                        |                         |
| <b>Instrument Used</b>               | US.D-49                    |                        |                         |
| <b>Period of Available Records</b>   | 2009-Cont'd                |                        |                         |
| <b>Actual Measurement</b>            | 2009-Cont'd                |                        |                         |
| <b>Using Rating Curve Water Year</b> | 2013                       |                        |                         |
| <b>Number of observation</b>         | 26                         |                        |                         |
| <b>R-Square</b>                      | 0.8413                     |                        |                         |
| <b>Remarks</b>                       | Continued Sediment Station |                        |                         |

$$QS = 99.1740 QW^{1.28670}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul     | Aug      | Sep       | Oct       | Nov      | Dec      | Jan     | Feb    | Mar    | Annual    |            |
|-------|--------|--------|---------|---------|----------|-----------|-----------|----------|----------|---------|--------|--------|-----------|------------|
| 1     | 9.40   | 6.50   | 7.90    | 10.90   | 750.40   | 9057.40   | 1850.20   | 1250.80  | 990.30   | 67.30   | 17.50  | 17.50  |           |            |
| 2     | 10.90  | 7.90   | 9.40    | 10.90   | 6047.20  | 2815.50   | 2018.40   | 990.30   | 868.50   | 51.40   | 17.50  | 17.50  |           |            |
| 3     | 10.90  | 7.90   | 7.90    | 10.90   | 960.60   | 1250.80   | 5645.20   | 1085.10  | 722.40   | 51.40   | 17.50  | 17.50  |           |            |
| 4     | 10.90  | 7.90   | 7.90    | 10.90   | 339.10   | 899.70    | 13383.20  | 990.30   | 567.60   | 51.40   | 15.80  | 17.50  |           |            |
| 5     | 10.90  | 7.90   | 7.90    | 10.90   | 242.00   | 990.30    | 7082.90   | 780.50   | 567.60   | 47.00   | 17.50  | 17.50  |           |            |
| 6     | 10.90  | 7.90   | 21.10   | 10.90   | 339.10   | 2705.70   | 13090.80  | 692.80   | 547.00   | 32.50   | 17.50  | 17.50  |           |            |
| 7     | 10.90  | 7.90   | 30.50   | 30.50   | 547.00   | 4188.10   | 5327.00   | 567.60   | 466.30   | 44.90   | 17.50  | 17.50  |           |            |
| 8     | 10.90  | 7.90   | 26.60   | 101.70  | 2815.50  | 8503.00   | 2172.00   | 506.30   | 446.50   | 38.60   | 17.50  | 17.50  |           |            |
| 9     | 10.90  | 7.90   | 30.50   | 24.70   | 2330.70  | 15622.40  | 1444.80   | 547.00   | 427.00   | 38.60   | 15.80  | 17.50  |           |            |
| 10    | 10.90  | 7.90   | 32.50   | 19.30   | 12943.30 | 7565.50   | 1022.40   | 609.30   | 407.70   | 42.80   | 15.80  | 17.50  |           |            |
| 11    | 9.40   | 7.90   | 339.10  | 17.50   | 24683.30 | 3564.40   | 868.50    | 665.40   | 373.00   | 36.50   | 14.10  | 17.50  |           |            |
| 12    | 9.40   | 7.90   | 273.50  | 17.50   | 3361.70  | 5563.70   | 750.40    | 609.30   | 427.00   | 38.60   | 12.50  | 17.50  |           |            |
| 13    | 9.40   | 7.90   | 84.10   | 17.50   | 4117.70  | 8503.00   | 588.40    | 609.30   | 446.50   | 34.50   | 12.50  | 17.50  |           |            |
| 14    | 9.40   | 6.50   | 32.50   | 36.50   | 1644.70  | 4624.90   | 547.00    | 609.30   | 427.00   | 34.50   | 12.50  | 17.50  |           |            |
| 15    | 9.40   | 6.50   | 19.30   | 273.50  | 2929.00  | 3632.60   | 427.00    | 722.40   | 609.30   | 40.70   | 15.80  | 17.50  |           |            |
| 16    | 9.40   | 6.50   | 17.50   | 178.70  | 8393.00  | 5404.60   | 373.00    | 929.00   | 1117.80  | 36.50   | 19.30  | 17.50  |           |            |
| 17    | 9.40   | 6.50   | 17.50   | 209.80  | 2489.10  | 4400.80   | 407.70    | 722.40   | 665.40   | 30.50   | 19.30  | 17.50  |           |            |
| 18    | 9.40   | 7.90   | 15.80   | 339.10  | 929.00   | 2385.00   | 2489.10   | 750.40   | 466.30   | 26.60   | 17.50  | 17.50  |           |            |
| 19    | 7.90   | 7.90   | 14.10   | 168.50  | 373.00   | 1604.30   | 8834.70   | 2018.40  | 322.40   | 32.50   | 17.50  | 15.80  |           |            |
| 20    | 7.90   | 7.90   | 14.10   | 34.50   | 231.10   | 868.50    | 9732.80   | 3429.00  | 257.60   | 34.50   | 17.50  | 15.80  |           |            |
| 21    | 7.90   | 7.90   | 12.50   | 24.70   | 1892.00  | 427.00    | 4857.40   | 1892.00  | 242.00   | 38.60   | 17.50  | 15.80  |           |            |
| 22    | 7.90   | 14.10  | 12.50   | 22.90   | 1767.40  | 390.30    | 5012.90   | 1524.10  | 188.90   | 32.50   | 17.50  | 15.80  |           |            |
| 23    | 7.90   | 22.90  | 12.50   | 32.50   | 1933.90  | 305.90    | 2929.00   | 1366.40  | 110.80   | 28.60   | 17.50  | 15.80  |           |            |
| 24    | 7.90   | 15.80  | 12.50   | 120.00  | 1117.80  | 178.70    | 3037.90   | 1212.80  | 49.20    | 28.60   | 15.80  | 15.80  |           |            |
| 25    | 7.90   | 14.10  | 12.50   | 49.20   | 2225.50  | 14.10     | 4624.90   | 1117.80  | 49.20    | 21.10   | 15.80  | 15.80  |           |            |
| 26    | 7.90   | 12.50  | 12.50   | 38.60   | 3095.50  | 486.20    | 2544.20   | 1022.40  | 59.20    | 22.90   | 17.50  | 17.50  |           |            |
| 27    | 7.90   | 10.90  | 12.50   | 24.70   | 3908.10  | 5404.60   | 1933.90   | 990.30   | 92.80    | 28.60   | 17.50  | 17.50  |           |            |
| 28    | 6.50   | 9.40   | 12.50   | 26.60   | 1085.10  | 4933.50   | 2172.00   | 960.60   | 92.80    | 40.70   | 17.50  | 17.50  |           |            |
| 29    | 6.50   | 9.40   | 10.90   | 158.50  | 722.40   | 4472.20   | 3037.90   | 1085.10  | 92.80    | 30.50   |        | 17.50  |           |            |
| 30    | 6.50   | 9.40   | 10.90   | 1767.40 | 466.30   | 2652.50   | 1976.10   | 1148.50  | 92.80    | 19.30   |        | 15.80  |           |            |
| 31    |        | 9.40   |         | 1085.10 | 3632.60  |           | 1644.70   |          | 84.10    | 19.30   |        | 15.80  |           |            |
| Total | 273.30 | 286.80 | 1131.50 | 4884.90 | 98313.10 | 113415.20 | 111826.40 | 31404.90 | 12277.80 | 1122.00 | 465.00 | 527.20 | 375928.10 | <b>Ton</b> |
| Mean  | 9.10   | 9.30   | 37.70   | 157.60  | 3171.40  | 3780.50   | 3607.30   | 1046.80  | 396.10   | 36.20   | 16.60  | 17.00  |           |            |
| Max   | 10.90  | 22.90  | 339.10  | 1767.40 | 24683.30 | 15622.40  | 13383.20  | 3429.00  | 1117.80  | 67.30   | 19.30  | 17.50  | 24683.30  |            |
| Min   | 6.50   | 6.50   | 7.90    | 10.90   | 231.10   | 14.10     | 373.00    | 506.30   | 49.20    | 19.30   | 12.50  | 15.80  | 6.50      |            |



**WATER YEAR : 2013****Yom RIVER BASIN****Yom River at Ban Nam Khong , Phrae (Y.1C)**

Lat 18 - 07 - 57 N Long 100 - 07 - 42 E

**Location : on right bank about 5 meters downstream from Phathana Phak Nua 8 Bridge.**

|                                      |                            |                  |               |               |                 |              |
|--------------------------------------|----------------------------|------------------|---------------|---------------|-----------------|--------------|
|                                      | <b>Ban</b>                 | <b>Nam Khong</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b> | <b>Phrae</b> |
| <b>Drainage Area</b>                 | 7,749                      | sq.km.           |               |               |                 |              |
| <b>Method of sampling</b>            | Depth                      | Integrating      |               |               |                 |              |
| <b>Instrument Used</b>               | US.D-49                    |                  |               |               |                 |              |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                  |               |               |                 |              |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                  |               |               |                 |              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                  |               |               |                 |              |
| <b>Number of observation</b>         | 32                         |                  |               |               |                 |              |
| <b>R-Square</b>                      | 0.8544                     |                  |               |               |                 |              |
| <b>Remarks</b>                       | Continued Sediment Station |                  |               |               |                 |              |

$$QS = 1.6658 QW^{1.41300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul     | Aug      | Sep      | Oct      | Nov     | Dec     | Jan    | Feb    | Mar   | Annual    |     |
|-------|--------|--------|--------|---------|----------|----------|----------|---------|---------|--------|--------|-------|-----------|-----|
| 1     | 17.10  | 12.60  | 12.60  | 2.60    | 647.80   | 10815.30 | 1276.80  | 334.00  | 159.10  | 28.40  | 10.00  | 2.70  |           |     |
| 2     | 18.70  | 22.00  | 12.60  | 2.80    | 511.80   | 4305.10  | 1076.70  | 343.10  | 132.40  | 28.40  | 9.20   | 2.70  |           |     |
| 3     | 22.00  | 11.20  | 14.00  | 3.00    | 945.70   | 1723.10  | 1151.50  | 334.00  | 113.30  | 33.40  | 8.30   | 2.70  |           |     |
| 4     | 17.10  | 9.80   | 17.10  | 4.10    | 511.80   | 861.20   | 2631.10  | 343.10  | 107.10  | 28.40  | 6.70   | 2.70  |           |     |
| 5     | 14.00  | 9.80   | 23.80  | 5.40    | 419.10   | 572.40   | 2303.10  | 306.80  | 101.00  | 24.50  | 5.20   | 2.40  |           |     |
| 6     | 11.20  | 12.60  | 38.30  | 6.10    | 306.80   | 511.80   | 1426.80  | 254.70  | 90.50   | 24.50  | 5.90   | 2.40  |           |     |
| 7     | 14.00  | 23.80  | 33.00  | 7.50    | 584.80   | 1212.50  | 1393.10  | 213.40  | 81.60   | 22.90  | 5.90   | 2.40  |           |     |
| 8     | 15.60  | 46.70  | 35.60  | 9.00    | 1705.20  | 2743.20  | 1409.90  | 205.30  | 81.60   | 20.00  | 6.70   | 2.40  |           |     |
| 9     | 15.60  | 22.00  | 38.30  | 18.70   | 2072.80  | 2520.40  | 847.40   | 229.70  | 77.20   | 15.70  | 3.40   | 2.40  |           |     |
| 10    | 14.00  | 33.00  | 33.00  | 30.50   | 3844.70  | 2838.10  | 560.20   | 238.00  | 68.70   | 15.70  | 4.50   | 2.40  |           |     |
| 11    | 20.40  | 38.30  | 30.50  | 23.80   | 6388.90  | 2072.80  | 441.70   | 213.40  | 38.60   | 14.40  | 3.80   | 2.40  |           |     |
| 12    | 89.00  | 33.00  | 61.10  | 12.60   | 10461.80 | 1460.80  | 380.50   | 197.40  | 33.40   | 15.70  | 3.80   | 2.40  |           |     |
| 13    | 20.40  | 35.60  | 367.90 | 11.20   | 5177.00  | 1326.20  | 343.10   | 205.30  | 30.90   | 14.40  | 3.80   | 2.00  |           |     |
| 14    | 12.60  | 33.00  | 70.10  | 9.80    | 1813.30  | 1979.00  | 324.80   | 205.30  | 38.60   | 14.40  | 4.50   | 2.00  |           |     |
| 15    | 12.60  | 33.00  | 18.70  | 8.20    | 917.30   | 2982.00  | 306.80   | 205.30  | 44.00   | 11.80  | 3.80   | 2.00  |           |     |
| 16    | 12.60  | 30.50  | 8.20   | 8.20    | 819.90   | 3054.80  | 271.70   | 271.70  | 72.90   | 13.10  | 3.80   | 2.00  |           |     |
| 17    | 74.70  | 25.50  | 5.40   | 9.00    | 622.30   | 3706.20  | 324.80   | 221.50  | 77.20   | 14.40  | 3.80   | 2.00  |           |     |
| 18    | 38.30  | 22.00  | 3.50   | 15.60   | 660.60   | 2653.40  | 699.40   | 197.40  | 56.40   | 14.40  | 3.80   | 2.40  |           |     |
| 19    | 17.10  | 23.80  | 2.80   | 20.40   | 523.80   | 1886.40  | 903.20   | 221.50  | 90.50   | 14.40  | 3.80   | 2.40  |           |     |
| 20    | 14.00  | 22.00  | 2.60   | 22.00   | 488.10   | 1293.20  | 1166.70  | 221.50  | 77.20   | 11.80  | 7.50   | 2.40  |           |     |
| 21    | 11.20  | 18.70  | 2.60   | 22.00   | 476.40   | 931.50   | 725.70   | 221.50  | 56.40   | 13.10  | 7.50   | 1.40  |           |     |
| 22    | 15.60  | 18.70  | 2.60   | 23.80   | 945.70   | 819.90   | 622.30   | 221.50  | 49.60   | 10.90  | 5.90   | 2.00  |           |     |
| 23    | 35.60  | 17.10  | 2.40   | 17.10   | 1512.30  | 792.60   | 609.80   | 189.60  | 46.80   | 10.90  | 5.20   | 2.40  |           |     |
| 24    | 15.60  | 28.00  | 2.20   | 12.60   | 2608.90  | 488.10   | 547.90   | 166.60  | 41.30   | 11.80  | 3.80   | 2.70  |           |     |
| 25    | 14.00  | 30.50  | 2.40   | 95.10   | 2072.80  | 499.90   | 1309.70  | 189.60  | 36.00   | 10.90  | 3.80   | 2.70  |           |     |
| 26    | 12.60  | 28.00  | 3.50   | 113.30  | 1293.20  | 847.40   | 1759.00  | 189.60  | 33.40   | 11.80  | 3.80   | 2.40  |           |     |
| 27    | 22.00  | 49.60  | 4.80   | 101.00  | 945.70   | 1923.30  | 1151.50  | 181.80  | 36.00   | 11.80  | 3.40   | 2.40  |           |     |
| 28    | 25.50  | 41.10  | 3.50   | 125.90  | 861.20   | 5084.60  | 673.50   | 166.60  | 36.00   | 10.90  | 2.70   | 2.40  |           |     |
| 29    | 15.60  | 33.00  | 3.00   | 145.60  | 1091.50  | 3732.00  | 511.80   | 174.20  | 36.00   | 10.90  |        | 2.00  |           |     |
| 30    | 11.20  | 52.50  | 2.80   | 254.70  | 1032.50  | 1813.30  | 430.30   | 166.60  | 30.90   | 10.00  |        | 2.40  |           |     |
| 31    |        | 20.40  |        | 488.10  | 6698.20  |          | 371.00   |         | 28.40   | 10.00  |        | 2.00  |           |     |
| Total | 649.90 | 837.80 | 858.90 | 1629.70 | 58961.90 | 67450.50 | 27951.80 | 6830.00 | 2003.00 | 503.70 | 144.30 | 72.00 | 167893.50 | Ton |
| Mean  | 21.70  | 27.00  | 28.60  | 52.60   | 1902.00  | 2248.40  | 901.70   | 227.70  | 64.60   | 16.20  | 5.20   | 2.30  |           |     |
| Max   | 89.00  | 52.50  | 367.90 | 488.10  | 10461.80 | 10815.30 | 2631.10  | 343.10  | 159.10  | 33.40  | 10.00  | 2.70  | 10815.30  |     |
| Min   | 11.20  | 9.80   | 2.20   | 2.60    | 306.80   | 488.10   | 271.70   | 166.60  | 28.40   | 10.00  | 2.70   | 1.40  | 1.40      |     |

**WATER YEAR : 2013****Yom RIVER BASIN****Yom River at Ban Huai Sak , Phrae (Y.20)**

Lat 18 - 35 - 06 N Long 100 - 09 - 16 E

**Location : on left bank about 1 kilometer downstream from Sop Ngao.**

|                                      | Ban Huai Sak               | Amphoe Song | Changwat Phrae |
|--------------------------------------|----------------------------|-------------|----------------|
| <b>Drainage Area</b>                 | 5,394 sq.km.               |             |                |
| <b>Method of sampling</b>            | Depth Integrating          |             |                |
| <b>Instrument Used</b>               | US.D-49                    |             |                |
| <b>Period of Available Records</b>   | 1997-Cont'd                |             |                |
| <b>Actual Measurement</b>            | 1997-Cont'd                |             |                |
| <b>Using Rating Curve Water Year</b> | 2013                       |             |                |
| <b>Number of observation</b>         | 30                         |             |                |
| <b>R-Square</b>                      | 0.9784                     |             |                |
| <b>Remarks</b>                       | Continued Sediment Station |             |                |

$$QS = 50.1000 QW^{0.85000}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul      | Aug      | Sep      | Oct      | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |     |
|-------|---------|---------|---------|----------|----------|----------|----------|----------|----------|---------|---------|---------|-----------|-----|
| 1     | 109.20  | 120.20  | 175.80  | 142.50   | 1892.50  | 3459.60  | 1850.70  | 941.60   | 464.70   | 295.90  | 181.30  | 92.20   |           |     |
| 2     | 109.20  | 109.20  | 186.70  | 142.50   | 2563.10  | 2563.10  | 1667.50  | 866.50   | 435.20   | 288.70  | 181.30  | 86.50   |           |     |
| 3     | 142.50  | 97.90   | 226.50  | 120.20   | 1553.00  | 1808.70  | 2604.60  | 815.70   | 425.30   | 281.50  | 164.80  | 80.60   |           |     |
| 4     | 181.30  | 103.60  | 245.90  | 170.40   | 1337.40  | 1337.40  | 3843.30  | 764.40   | 415.30   | 281.50  | 170.40  | 80.60   |           |     |
| 5     | 170.40  | 125.70  | 332.50  | 274.30   | 966.40   | 1160.20  | 2604.60  | 727.10   | 405.30   | 259.70  | 164.80  | 86.50   |           |     |
| 6     | 159.30  | 397.40  | 281.50  | 340.80   | 1004.20  | 1596.10  | 2340.20  | 692.70   | 381.30   | 245.90  | 159.30  | 86.50   |           |     |
| 7     | 142.50  | 415.30  | 288.70  | 267.00   | 1173.10  | 3843.30  | 3019.90  | 658.00   | 381.30   | 245.90  | 148.10  | 80.60   |           |     |
| 8     | 131.10  | 357.10  | 288.70  | 245.90   | 2382.30  | 3378.80  | 2438.20  | 646.40   | 373.30   | 233.00  | 148.10  | 74.70   |           |     |
| 9     | 114.70  | 381.30  | 245.90  | 239.50   | 3411.20  | 3748.00  | 1989.40  | 646.40   | 357.10   | 226.50  | 153.70  | 74.70   |           |     |
| 10    | 103.60  | 317.20  | 295.90  | 226.50   | 4749.90  | 3443.50  | 1380.90  | 634.70   | 357.10   | 226.50  | 148.10  | 74.70   |           |     |
| 11    | 103.60  | 303.00  | 634.70  | 267.00   | 7392.30  | 2507.70  | 1198.70  | 599.40   | 357.10   | 220.00  | 148.10  | 65.90   |           |     |
| 12    | 92.20   | 310.20  | 1121.70 | 288.70   | 5619.70  | 2368.30  | 1082.70  | 599.40   | 332.50   | 213.40  | 142.50  | 61.40   |           |     |
| 13    | 80.60   | 295.90  | 790.10  | 310.20   | 3189.50  | 2590.80  | 1004.20  | 599.40   | 332.50   | 213.40  | 142.50  | 56.80   |           |     |
| 14    | 80.60   | 252.30  | 484.10  | 310.20   | 2312.10  | 3281.30  | 916.70   | 611.20   | 324.30   | 220.00  | 131.10  | 56.80   |           |     |
| 15    | 245.90  | 226.50  | 373.30  | 611.20   | 2127.80  | 3066.30  | 841.20   | 764.40   | 357.10   | 213.40  | 131.10  | 61.40   |           |     |
| 16    | 303.00  | 206.80  | 295.90  | 484.10   | 1892.50  | 3874.90  | 790.10   | 669.60   | 751.50   | 213.40  | 125.70  | 61.40   |           |     |
| 17    | 213.40  | 220.00  | 267.00  | 435.20   | 1836.70  | 3620.40  | 751.50   | 623.00   | 738.50   | 206.80  | 125.70  | 61.40   |           |     |
| 18    | 220.00  | 213.40  | 239.50  | 599.40   | 1710.00  | 2754.40  | 1293.60  | 599.40   | 539.80   | 206.80  | 131.10  | 61.40   |           |     |
| 19    | 193.40  | 186.70  | 213.40  | 599.40   | 1249.60  | 2382.30  | 1989.40  | 599.40   | 445.00   | 200.10  | 114.70  | 61.40   |           |     |
| 20    | 175.80  | 175.80  | 186.70  | 474.40   | 1069.80  | 1961.80  | 1667.50  | 611.20   | 405.30   | 206.80  | 114.70  | 56.80   |           |     |
| 21    | 159.30  | 181.30  | 181.30  | 464.70   | 1424.20  | 1624.70  | 1322.90  | 646.40   | 373.30   | 200.10  | 114.70  | 52.20   |           |     |
| 22    | 136.80  | 233.00  | 186.70  | 340.80   | 1808.70  | 1495.90  | 1409.80  | 599.40   | 365.20   | 193.40  | 103.60  | 47.50   |           |     |
| 23    | 136.80  | 252.30  | 181.30  | 303.00   | 3427.30  | 1308.30  | 1380.90  | 563.80   | 348.90   | 193.40  | 103.60  | 47.50   |           |     |
| 24    | 181.30  | 220.00  | 175.80  | 503.50   | 3330.10  | 1249.60  | 1538.60  | 527.70   | 324.30   | 186.70  | 97.90   | 52.20   |           |     |
| 25    | 233.00  | 226.50  | 175.80  | 454.90   | 2507.70  | 2058.10  | 3050.80  | 503.50   | 310.20   | 193.40  | 97.90   | 61.40   |           |     |
| 26    | 181.30  | 381.30  | 175.80  | 474.40   | 2044.40  | 2283.90  | 2563.10  | 503.50   | 310.20   | 193.40  | 103.60  | 61.40   |           |     |
| 27    | 170.40  | 295.90  | 164.80  | 503.50   | 1892.50  | 4749.90  | 1710.00  | 493.80   | 310.20   | 193.40  | 97.90   | 56.80   |           |     |
| 28    | 175.80  | 259.70  | 170.40  | 464.70   | 1850.70  | 4663.20  | 1380.90  | 493.80   | 303.00   | 193.40  | 97.90   | 56.80   |           |     |
| 29    | 159.30  | 226.50  | 159.30  | 425.30   | 1581.70  | 2926.70  | 1173.10  | 484.10   | 267.00   | 193.40  |         | 56.80   |           |     |
| 30    | 136.80  | 200.10  | 136.80  | 1510.10  | 1906.40  | 2368.30  | 1095.80  | 474.40   | 281.50   | 186.70  |         | 61.40   |           |     |
| 31    |         | 175.80  |         | 2326.20  | 3019.90  |          | 1017.50  |          | 288.70   | 186.70  |         | 70.30   |           |     |
| Total | 4743.10 | 7467.90 | 8882.50 | 14320.50 | 74226.70 | 79475.50 | 52918.30 | 18960.30 | 12062.00 | 6813.20 | 3744.20 | 2046.60 | 285660.80 | Ton |
| Mean  | 158.10  | 240.90  | 296.10  | 462.00   | 2394.40  | 2649.20  | 1707.00  | 632.00   | 389.10   | 219.80  | 133.70  | 66.00   |           |     |
| Max   | 303.00  | 415.30  | 1121.70 | 2326.20  | 7392.30  | 4749.90  | 3843.30  | 941.60   | 751.50   | 295.90  | 181.30  | 92.20   | 7392.30   |     |
| Min   | 80.60   | 97.90   | 136.80  | 120.20   | 966.40   | 1160.20  | 751.50   | 474.40   | 267.00   | 186.70  | 97.90   | 47.50   | 47.50     |     |

**WATER YEAR : 2013****Yom RIVER BASIN****Yom River at Ban Wang Chin , Phrae (Y.37)**

Lat 17 - 53 - 48 N Long 99 - 36 - 28 E

**Location : on left bank at the bridge on road.**

|                                      |                            |                         |                       |
|--------------------------------------|----------------------------|-------------------------|-----------------------|
|                                      | <b>Ban</b> Wang Chin       | <b>Amphoe</b> Wang Chin | <b>Changwat</b> Phrae |
| <b>Drainge Area</b>                  | 10,305 sq.km.              |                         |                       |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                       |
| <b>Instrument Used</b>               | US.D-49                    |                         |                       |
| <b>Period of Available Records</b>   | 2007-Cont'd                |                         |                       |
| <b>Actual Measurement</b>            | 2007-Cont'd                |                         |                       |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                       |
| <b>Number of observation</b>         | 30                         |                         |                       |
| <b>R-Square</b>                      | 9038                       |                         |                       |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                       |

$$QS = 1.6698 QW^{1.38400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun     | Jul     | Aug      | Sep       | Oct      | Nov     | Dec     | Jan    | Feb   | Mar  | Annual    |            |
|-------|--------|---------|---------|---------|----------|-----------|----------|---------|---------|--------|-------|------|-----------|------------|
| 1     | 12.00  | 26.60   | 23.70   | 25.20   | 538.70   | 17974.20  | 3439.30  | 577.70  | 142.10  | 23.70  | 1.00  | 0.10 |           |            |
| 2     | 13.10  | 23.70   | 26.60   | 22.30   | 1094.20  | 13026.00  | 2104.90  | 529.10  | 135.80  | 22.30  | 1.10  | 0.20 |           |            |
| 3     | 13.10  | 22.30   | 26.60   | 19.50   | 1286.90  | 6440.60   | 2165.50  | 399.70  | 129.60  | 22.30  | 1.00  | 0.00 |           |            |
| 4     | 13.10  | 19.50   | 23.70   | 16.80   | 1441.00  | 3929.30   | 3233.70  | 399.70  | 117.40  | 20.90  | 1.00  | 0.00 |           |            |
| 5     | 13.10  | 18.10   | 20.90   | 16.80   | 1456.70  | 1488.20   | 3107.00  | 408.60  | 105.50  | 19.50  | 1.00  | 0.00 |           |            |
| 6     | 13.10  | 38.50   | 20.90   | 13.10   | 1065.20  | 1123.20   | 2846.10  | 373.30  | 96.10   | 19.50  | 1.00  | 0.00 |           |            |
| 7     | 13.10  | 41.50   | 20.90   | 13.10   | 710.50   | 1211.80   | 1815.90  | 339.00  | 96.10   | 19.50  | 1.00  | 0.00 |           |            |
| 8     | 13.10  | 123.40  | 38.50   | 10.90   | 1137.90  | 1763.10   | 1583.80  | 289.20  | 87.00   | 16.80  | 0.90  | 0.00 |           |            |
| 9     | 14.30  | 87.00   | 41.50   | 47.90   | 3157.50  | 3081.80   | 1567.70  | 289.20  | 82.50   | 15.50  | 0.90  | 0.00 |           |            |
| 10    | 15.50  | 78.10   | 35.50   | 189.40  | 4805.70  | 3491.20   | 1152.60  | 273.10  | 73.80   | 13.10  | 0.80  | 0.00 |           |            |
| 11    | 15.50  | 54.40   | 35.50   | 289.20  | 7986.20  | 3361.80   | 762.40   | 273.10  | 54.40   | 13.10  | 0.60  | 0.00 |           |            |
| 12    | 15.50  | 47.90   | 38.50   | 257.20  | 11729.40 | 2868.90   | 577.70   | 273.10  | 29.70   | 12.00  | 0.50  | 0.00 |           |            |
| 13    | 18.10  | 41.50   | 38.50   | 123.40  | 11571.90 | 2144.40   | 510.00   | 226.40  | 26.60   | 10.90  | 0.50  | 0.00 |           |            |
| 14    | 18.10  | 41.50   | 135.80  | 73.80   | 5845.40  | 2068.20   | 491.10   | 226.40  | 26.60   | 8.80   | 0.50  | 0.00 |           |            |
| 15    | 15.50  | 38.50   | 175.10  | 65.40   | 3056.70  | 2960.50   | 463.20   | 226.40  | 26.60   | 5.90   | 0.50  | 0.00 |           |            |
| 16    | 13.10  | 38.50   | 73.80   | 44.70   | 2031.60  | 4969.70   | 382.10   | 226.40  | 20.90   | 4.20   | 0.50  | 0.00 |           |            |
| 17    | 13.10  | 29.70   | 44.70   | 26.60   | 1241.70  | 5409.70   | 472.40   | 218.80  | 22.30   | 4.20   | 0.50  | 0.00 |           |            |
| 18    | 18.10  | 26.60   | 38.50   | 32.50   | 938.10   | 5735.60   | 3387.50  | 218.80  | 26.60   | 4.20   | 0.50  | 0.00 |           |            |
| 19    | 51.10  | 73.80   | 26.60   | 54.40   | 855.70   | 3708.00   | 3056.70  | 226.40  | 26.60   | 3.50   | 0.50  | 0.00 |           |            |
| 20    | 41.50  | 51.10   | 26.60   | 87.00   | 659.60   | 2532.30   | 2598.70  | 226.40  | 51.10   | 3.20   | 0.50  | 0.00 |           |            |
| 21    | 26.60  | 41.50   | 23.70   | 111.40  | 587.50   | 1815.90   | 2207.80  | 234.00  | 54.40   | 1.70   | 0.40  | 0.00 |           |            |
| 22    | 26.60  | 61.20   | 20.90   | 78.10   | 883.00   | 1488.20   | 2049.90  | 226.40  | 47.90   | 1.40   | 0.40  | 0.00 |           |            |
| 23    | 26.60  | 38.50   | 16.80   | 73.80   | 1648.40  | 1256.70   | 1798.30  | 211.40  | 41.50   | 1.70   | 0.40  | 0.00 |           |            |
| 24    | 54.40  | 29.70   | 13.10   | 54.40   | 2532.30  | 1079.70   | 1409.80  | 211.40  | 29.70   | 1.70   | 0.30  | 0.00 |           |            |
| 25    | 78.10  | 26.60   | 13.10   | 61.20   | 2937.50  | 762.40    | 1363.40  | 196.60  | 26.60   | 1.40   | 0.30  | 0.00 |           |            |
| 26    | 44.70  | 23.70   | 13.10   | 61.20   | 2314.60  | 762.40    | 1504.00  | 189.40  | 26.60   | 1.40   | 0.20  | 0.00 |           |            |
| 27    | 26.60  | 23.70   | 29.70   | 69.60   | 1535.80  | 2576.50   | 1905.00  | 175.10  | 23.70   | 1.40   | 0.20  | 0.00 |           |            |
| 28    | 26.60  | 20.90   | 51.10   | 69.60   | 1022.30  | 7648.70   | 1680.90  | 154.90  | 23.70   | 1.20   | 0.10  | 0.00 |           |            |
| 29    | 23.70  | 22.30   | 28.20   | 69.60   | 842.20   | 8869.80   | 1036.60  | 154.90  | 26.60   | 1.10   |       | 0.00 |           |            |
| 30    | 26.60  | 26.60   | 32.50   | 135.80  | 924.20   | 5409.70   | 802.00   | 154.90  | 25.20   | 1.00   |       | 0.00 |           |            |
| 31    |        | 26.60   |         | 364.70  | 1940.90  |           | 672.20   |         | 23.70   | 1.00   |       | 0.00 |           |            |
| Total | 713.60 | 1263.50 | 1154.60 | 2578.60 | 79779.30 | 120958.50 | 52148.20 | 8129.80 | 1726.90 | 278.10 | 17.10 | 0.30 | 268748.50 | <b>Ton</b> |
| Mean  | 23.80  | 40.80   | 38.50   | 83.20   | 2573.50  | 4032.00   | 1682.20  | 271.00  | 55.70   | 9.00   | 0.60  | 0.00 |           |            |
| Max   | 78.10  | 123.40  | 175.10  | 364.70  | 11729.40 | 17974.20  | 3439.30  | 577.70  | 142.10  | 23.70  | 1.10  | 0.20 | 17974.20  |            |
| Min   | 12.00  | 18.10   | 13.10   | 10.90   | 538.70   | 762.40    | 382.10   | 154.90  | 20.90   | 1.00   | 0.10  | 0.00 | 0.00      |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Forestry Office , Nan (N.1)**

Lat 18 - 46 - 26 N Long 100 - 46 - 56 E

**Location : on right bank in front of Forestry Office.**

|                                      |                            |                 |               |        |                 |     |
|--------------------------------------|----------------------------|-----------------|---------------|--------|-----------------|-----|
|                                      | <b>Ban</b>                 | Forestry Office | <b>Amphoe</b> | Mueang | <b>Changwat</b> | Nan |
| <b>Drainage Area</b>                 | 4,560                      | sq.km.          |               |        |                 |     |
| <b>Method of sampling</b>            | Depth                      | Integrating     |               |        |                 |     |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |        |                 |     |
| <b>Period of Available Records</b>   | 1979-Cont'd                |                 |               |        |                 |     |
| <b>Actual Measurement</b>            | 1979-Cont'd                |                 |               |        |                 |     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |               |        |                 |     |
| <b>Number of observation</b>         | 33                         |                 |               |        |                 |     |
| <b>R-Square</b>                      | 0.9760                     |                 |               |        |                 |     |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |        |                 |     |

$$QS = 0.12700 QW^{1.98160}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun     | Jul       | Aug       | Sep       | Oct      | Nov     | Dec     | Jan     | Feb    | Mar    | Annual    |            |
|-------|--------|---------|---------|-----------|-----------|-----------|----------|---------|---------|---------|--------|--------|-----------|------------|
| 1     | 14.10  | 4.00    | 27.20   | 122.80    | 28611.90  | 12700.70  | 1762.80  | 374.40  | 149.90  | 73.30   | 24.60  | 9.70   |           |            |
| 2     | 19.70  | 4.00    | 64.80   | 116.40    | 25806.90  | 7827.20   | 1794.70  | 349.80  | 142.80  | 73.30   | 24.60  | 8.40   |           |            |
| 3     | 14.10  | 8.40    | 229.30  | 69.00     | 10968.10  | 5421.60   | 1891.90  | 337.80  | 142.80  | 73.30   | 22.10  | 8.40   |           |            |
| 4     | 11.00  | 35.90   | 98.30   | 64.80     | 6855.90   | 3756.30   | 1859.10  | 314.50  | 142.80  | 69.00   | 22.10  | 8.40   |           |            |
| 5     | 9.70   | 42.30   | 142.80  | 349.80    | 5293.70   | 3185.40   | 1547.90  | 291.90  | 129.30  | 69.00   | 19.70  | 7.20   |           |            |
| 6     | 8.40   | 73.30   | 195.60  | 259.70    | 4215.00   | 10675.40  | 1489.20  | 270.20  | 110.20  | 64.80   | 19.70  | 7.20   |           |            |
| 7     | 7.20   | 64.80   | 122.80  | 149.90    | 5616.30   | 25263.10  | 1431.60  | 259.70  | 110.20  | 64.80   | 19.70  | 7.20   |           |            |
| 8     | 7.20   | 60.70   | 77.80   | 110.20    | 16388.60  | 11066.50  | 1059.10  | 259.70  | 104.20  | 60.70   | 19.70  | 6.10   |           |            |
| 9     | 6.10   | 73.30   | 82.40   | 116.40    | 27472.70  | 10968.10  | 947.00   | 249.40  | 104.20  | 60.70   | 17.50  | 6.10   |           |            |
| 10    | 5.10   | 220.60  | 87.10   | 239.30    | 71921.30  | 8617.70   | 845.60   | 249.40  | 98.30   | 56.80   | 17.50  | 6.10   |           |            |
| 11    | 5.10   | 110.20  | 731.40  | 179.70    | 40014.80  | 5486.10   | 768.50   | 239.30  | 98.30   | 53.00   | 15.70  | 5.10   |           |            |
| 12    | 5.10   | 56.80   | 527.70  | 608.50    | 19412.90  | 4535.40   | 731.40   | 220.60  | 104.20  | 49.30   | 15.70  | 5.10   |           |            |
| 13    | 5.10   | 42.30   | 142.80  | 496.90    | 9914.00   | 5357.50   | 695.10   | 239.30  | 98.30   | 42.30   | 15.70  | 4.10   |           |            |
| 14    | 6.10   | 45.70   | 73.30   | 1265.20   | 8780.30   | 4589.90   | 659.80   | 374.40  | 92.70   | 42.30   | 14.10  | 4.10   |           |            |
| 15    | 12.50  | 24.60   | 45.70   | 1238.40   | 7446.10   | 8060.40   | 608.50   | 239.30  | 122.80  | 39.00   | 14.10  | 4.10   |           |            |
| 16    | 17.50  | 17.50   | 27.20   | 1991.60   | 6783.80   | 10675.40  | 575.50   | 270.20  | 947.00  | 39.00   | 14.10  | 4.10   |           |            |
| 17    | 14.10  | 12.50   | 19.70   | 1669.10   | 7521.60   | 6499.30   | 591.90   | 229.30  | 947.00  | 35.90   | 15.70  | 4.10   |           |            |
| 18    | 8.40   | 11.00   | 15.70   | 1159.90   | 5167.30   | 5167.30   | 749.80   | 212.10  | 291.90  | 35.90   | 15.70  | 4.10   |           |            |
| 19    | 6.10   | 9.70    | 17.50   | 1292.10   | 3756.30   | 4427.30   | 967.90   | 220.60  | 203.70  | 35.90   | 14.10  | 4.10   |           |            |
| 20    | 6.10   | 11.00   | 17.50   | 947.00    | 5104.70   | 4059.20   | 787.40   | 249.40  | 172.00  | 32.80   | 14.10  | 4.10   |           |            |
| 21    | 5.10   | 35.90   | 164.40  | 642.50    | 5167.30   | 3050.00   | 659.80   | 291.90  | 157.10  | 32.80   | 12.50  | 4.10   |           |            |
| 22    | 5.10   | 29.90   | 82.40   | 608.50    | 12912.80  | 2527.90   | 575.50   | 229.30  | 136.00  | 32.80   | 12.50  | 4.10   |           |            |
| 23    | 4.10   | 29.90   | 56.80   | 2720.70   | 14317.90  | 2093.80   | 625.40   | 212.10  | 122.80  | 32.80   | 12.50  | 4.10   |           |            |
| 24    | 5.10   | 24.60   | 39.00   | 3370.60   | 12074.80  | 1859.10   | 608.50   | 195.60  | 116.40  | 32.80   | 12.50  | 5.10   |           |            |
| 25    | 8.40   | 136.00  | 45.70   | 2760.20   | 9820.80   | 2604.10   | 1010.50  | 179.70  | 110.20  | 32.80   | 11.00  | 7.20   |           |            |
| 26    | 7.20   | 92.70   | 82.40   | 4699.90   | 7001.20   | 2720.70   | 806.60   | 164.40  | 104.20  | 32.80   | 9.70   | 12.50  |           |            |
| 27    | 6.10   | 53.00   | 87.10   | 2565.70   | 6855.90   | 4535.40   | 575.50   | 157.10  | 98.30   | 29.90   | 9.70   | 14.10  |           |            |
| 28    | 5.10   | 29.90   | 129.30  | 2642.80   | 5814.40   | 4589.90   | 496.90   | 157.10  | 98.30   | 29.90   | 9.70   | 7.20   |           |            |
| 29    | 4.10   | 17.50   | 136.00  | 35349.50  | 4535.40   | 3050.00   | 467.10   | 149.90  | 92.70   | 29.90   |        | 7.20   |           |            |
| 30    | 4.00   | 14.10   | 142.80  | 151214.00 | 4162.80   | 2233.80   | 439.60   | 164.40  | 87.10   | 29.90   |        | 7.20   |           |            |
| 31    |        | 19.70   |         | 47629.20  | 10386.60  |           | 412.90   |         | 77.80   | 27.20   |        | 4.10   |           |            |
| Total | 243.00 | 1411.80 | 3712.50 | 266650.30 | 410102.20 | 187604.50 | 28443.00 | 7352.80 | 5513.50 | 1414.70 | 446.30 | 194.70 | 913089.30 | <b>Ton</b> |
| Mean  | 8.10   | 45.50   | 123.70  | 8601.60   | 13229.10  | 6253.50   | 917.50   | 245.10  | 177.90  | 45.60   | 15.90  | 6.30   |           |            |
| Max   | 19.70  | 220.60  | 731.40  | 151214.00 | 71921.30  | 25263.10  | 1891.90  | 374.40  | 947.00  | 73.30   | 24.60  | 14.10  | 151214.00 |            |
| Min   | 4.00   | 4.00    | 15.70   | 64.80     | 3756.30   | 1859.10   | 412.90   | 149.90  | 77.80   | 27.20   | 9.70   | 4.10   | 4.00      |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Ban Hor Krai , Phichit (N.8A)**

Lat 16 - 04 - 45 N Long 100 - 24 - 00 E

**Location : on right bank opposite to Wat Bang Mun Nak.**

|                                      |                            |                 |               |                     |                 |                |
|--------------------------------------|----------------------------|-----------------|---------------|---------------------|-----------------|----------------|
|                                      | <b>Ban</b>                 | <b>Hor Krai</b> | <b>Amphoe</b> | <b>Bang Mun Nak</b> | <b>Changwat</b> | <b>Phichit</b> |
| <b>Drainge Area</b>                  | 31,472                     | sq.km.          |               |                     |                 |                |
| <b>Method of sampling</b>            | Depth Integrating          |                 |               |                     |                 |                |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |                     |                 |                |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                 |               |                     |                 |                |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                 |               |                     |                 |                |
| <b>Using Rating Curve Water Year</b> | 1997-2013                  |                 |               |                     |                 |                |
| <b>Number of observation</b>         | 430                        |                 |               |                     |                 |                |
| <b>R-Square</b>                      | 0.7205                     |                 |               |                     |                 |                |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |                     |                 |                |

$$QS = 2.8627 QW^{1.21850}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May      | Jun      | Jul      | Aug      | Sep       | Oct       | Nov      | Dec      | Jan      | Feb      | Mar      | Annual    |            |
|-------|----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|----------|----------|-----------|------------|
| 1     | 800.20   | 800.20   | 686.80   | 1301.10  | 1919.70  | 2012.60   | 11200.50  | 6389.10  | 703.60   | 1235.60  | 1374.60  | 1121.10  |           |            |
| 2     | 754.50   | 783.00   | 603.90   | 996.70   | 2140.40  | 2072.10   | 11265.10  | 6128.80  | 571.30   | 1293.80  | 1411.60  | 1141.00  |           |            |
| 3     | 881.40   | 858.10   | 609.40   | 875.60   | 2123.30  | 2523.20   | 11232.80  | 5943.00  | 565.90   | 1337.80  | 1396.80  | 1187.60  |           |            |
| 4     | 1061.80  | 910.70   | 582.10   | 788.80   | 2192.00  | 3276.90   | 10942.80  | 5526.40  | 698.00   | 1359.80  | 1330.40  | 1167.60  |           |            |
| 5     | 1088.10  | 1301.10  | 598.40   | 765.90   | 2055.00  | 3519.60   | 10750.20  | 5148.90  | 754.50   | 1345.10  | 1301.10  | 1160.90  |           |            |
| 6     | 1055.30  | 1597.20  | 670.10   | 887.30   | 1761.30  | 3361.00   | 10750.20  | 4642.00  | 916.60   | 1374.60  | 1308.40  | 1293.80  |           |            |
| 7     | 1029.20  | 1662.50  | 952.10   | 875.60   | 1404.20  | 2934.30   | 10814.30  | 4144.80  | 1127.70  | 1264.60  | 1315.70  | 1201.00  |           |            |
| 8     | 1022.70  | 1703.50  | 1214.40  | 771.60   | 1187.60  | 2645.60   | 10325.90  | 3626.10  | 1301.10  | 1221.10  | 1286.50  | 1042.20  |           |            |
| 9     | 1003.20  | 1802.70  | 1337.80  | 970.90   | 1101.30  | 2569.80   | 9702.10   | 3182.80  | 1448.80  | 1286.50  | 1257.30  | 893.10   |           |            |
| 10    | 946.10   | 1844.40  | 1160.90  | 1654.30  | 1009.70  | 2769.50   | 9232.20   | 2855.90  | 1597.20  | 1194.30  | 1180.90  | 754.50   |           |            |
| 11    | 940.20   | 1662.50  | 1068.40  | 2157.60  | 1048.80  | 2954.90   | 8467.30   | 2560.40  | 1389.40  | 1114.50  | 1094.70  | 698.00   |           |            |
| 12    | 940.20   | 1448.80  | 1075.00  | 2569.80  | 1597.20  | 3078.80   | 7652.80   | 2347.80  | 1228.30  | 983.80   | 1107.90  | 675.70   |           |            |
| 13    | 916.60   | 1352.50  | 1207.70  | 3068.50  | 2488.00  | 3445.40   | 7259.80   | 2183.30  | 1055.30  | 1022.70  | 1134.30  | 737.50   |           |            |
| 14    | 940.20   | 1147.60  | 1382.00  | 3224.60  | 3959.70  | 3690.20   | 6780.50   | 1744.70  | 910.70   | 990.20   | 1187.60  | 794.50   |           |            |
| 15    | 940.20   | 1035.70  | 1753.00  | 3016.80  | 4642.00  | 3927.20   | 6598.30   | 1580.90  | 846.40   | 940.20   | 1167.60  | 748.80   |           |            |
| 16    | 916.60   | 1101.30  | 1961.80  | 2769.50  | 4809.90  | 4122.90   | 6253.20   | 1493.70  | 964.40   | 934.30   | 1107.90  | 794.50   |           |            |
| 17    | 928.40   | 1389.40  | 1802.70  | 1794.40  | 4832.40  | 4375.60   | 5574.60   | 1411.60  | 893.10   | 1029.20  | 1134.30  | 829.10   |           |            |
| 18    | 990.20   | 1471.20  | 1419.10  | 1160.90  | 4787.40  | 5480.40   | 5297.00   | 1508.70  | 1167.60  | 1094.70  | 1194.30  | 829.10   |           |            |
| 19    | 794.50   | 1382.00  | 1174.20  | 1061.80  | 4776.20  | 5980.10   | 5171.60   | 1736.50  | 1264.60  | 1042.20  | 1187.60  | 754.50   |           |            |
| 20    | 777.30   | 1242.80  | 1094.70  | 1088.10  | 4530.60  | 6103.90   | 5228.60   | 1753.00  | 1107.90  | 964.40   | 1257.30  | 720.50   |           |            |
| 21    | 794.50   | 1242.80  | 1081.50  | 1075.00  | 4035.70  | 6228.30   | 5388.60   | 1441.40  | 893.10   | 858.10   | 1201.00  | 806.00   |           |            |
| 22    | 1035.70  | 1235.60  | 1187.60  | 1055.30  | 3006.40  | 6389.10   | 5758.20   | 1264.60  | 893.10   | 869.70   | 1134.30  | 829.10   |           |            |
| 23    | 958.00   | 1286.50  | 1330.40  | 904.80   | 2417.70  | 7150.40   | 5758.20   | 1009.70  | 1221.10  | 946.10   | 1141.00  | 748.80   |           |            |
| 24    | 958.00   | 1286.50  | 1556.60  | 823.30   | 2374.00  | 8309.60   | 5746.00   | 940.20   | 1493.70  | 1009.70  | 1088.10  | 681.20   |           |            |
| 25    | 1075.00  | 1201.00  | 1961.80  | 863.90   | 2588.70  | 8520.00   | 5623.40   | 817.50   | 1532.40  | 1022.70  | 1114.50  | 771.60   |           |            |
| 26    | 1180.90  | 1147.60  | 2149.00  | 1035.70  | 3722.40  | 8625.50   | 5746.00   | 726.20   | 1471.20  | 1154.20  | 1101.30  | 922.50   |           |            |
| 27    | 1088.10  | 946.10   | 1978.70  | 1194.30  | 4035.70  | 8832.80   | 6278.10   | 709.30   | 1404.20  | 1250.10  | 1081.50  | 1048.80  |           |            |
| 28    | 1009.70  | 743.10   | 1928.10  | 1121.10  | 3540.90  | 9455.40   | 6836.80   | 686.80   | 1352.50  | 1367.20  | 1121.10  | 1068.40  |           |            |
| 29    | 881.40   | 788.80   | 1869.40  | 1478.70  | 2944.60  | 9882.20   | 6921.30   | 681.20   | 1293.80  | 1330.40  |          | 1035.70  |           |            |
| 30    | 829.10   | 811.70   | 1777.80  | 1869.40  | 2417.70  | 10750.20  | 6893.10   | 726.20   | 1264.60  | 1286.50  |          | 1068.40  |           |            |
| 31    |          | 817.50   |          | 1886.20  | 2114.70  |           | 6682.30   |          | 1207.70  | 1345.10  |          | 1042.20  |           |            |
| Total | 28537.30 | 38004.40 | 39175.40 | 45107.50 | 87565.20 | 154987.50 | 238131.80 | 74911.50 | 34539.80 | 35469.20 | 33719.60 | 28567.70 | 838716.90 | <b>Ton</b> |
| Mean  | 951.20   | 1225.90  | 1305.80  | 1455.10  | 2824.70  | 5166.30   | 7681.70   | 2497.10  | 1114.20  | 1144.20  | 1204.30  | 921.50   |           |            |
| Max   | 1180.90  | 1844.40  | 2149.00  | 3224.60  | 4832.40  | 10750.20  | 11265.10  | 6389.10  | 1597.20  | 1374.60  | 1411.60  | 1293.80  | 11265.10  |            |
| Min   | 754.50   | 743.10   | 582.10   | 765.90   | 1009.70  | 2012.60   | 5171.60   | 681.20   | 565.90   | 858.10   | 1081.50  | 675.70   | 565.90    |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Khek River at Ban Wang Nok Aen , Phitsanulok (N.24A)**

Lat 16 - 50 - 36 N Long 100 - 31 - 20 E

**Location : on right bank about 2 kilometers downstream from Sakunothayan Fall.**

|                                      | <b>Ban</b> Wang Nok Aen    | <b>Amphoe</b> Wang Thong | <b>Changwat</b> Phitsanulok |
|--------------------------------------|----------------------------|--------------------------|-----------------------------|
| <b>Drainage Area</b>                 | 1,838 sq.km.               |                          |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                          |                             |
| <b>Instrument Used</b>               | US.D-49                    |                          |                             |
| <b>Period of Available Records</b>   | 1996-Cont'd                |                          |                             |
| <b>Actual Measurement</b>            | 1996-Cont'd                |                          |                             |
| <b>Using Rating Curve Water Year</b> | 2013                       |                          |                             |
| <b>Number of observation</b>         | 32                         |                          |                             |
| <b>R-Square</b>                      | 0.7774                     |                          |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                          |                             |

$$QS = 5.5386 QW^{1.23150}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date         | Apr    | May     | Jun     | Jul      | Aug      | Sep      | Oct      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual    |            |
|--------------|--------|---------|---------|----------|----------|----------|----------|---------|---------|--------|--------|--------|-----------|------------|
| 1            | 3.30   | 9.10    | 37.20   | 75.00    | 715.50   | 1519.80  | 3024.70  | 273.20  | 65.10   | 26.80  | 9.70   | 3.90   |           |            |
| 2            | 3.00   | 7.30    | 69.50   | 60.80    | 530.40   | 1133.20  | 2380.80  | 360.70  | 59.80   | 25.90  | 9.70   | 3.90   |           |            |
| 3            | 2.70   | 7.30    | 75.00   | 56.60    | 433.70   | 787.60   | 3385.40  | 243.70  | 56.60   | 25.90  | 9.10   | 3.90   |           |            |
| 4            | 2.70   | 11.40   | 65.10   | 48.30    | 345.00   | 530.40   | 2551.40  | 210.80  | 54.50   | 25.00  | 9.10   | 3.60   |           |            |
| 5            | 2.40   | 8.40    | 466.50  | 97.90    | 347.20   | 488.50   | 1977.20  | 188.70  | 51.30   | 24.10  | 8.80   | 3.60   |           |            |
| 6            | 2.00   | 6.20    | 417.50  | 60.80    | 258.30   | 394.60   | 1599.50  | 171.00  | 50.30   | 23.20  | 8.40   | 3.60   |           |            |
| 7            | 1.80   | 51.30   | 1007.60 | 463.60   | 264.70   | 347.20   | 1191.90  | 159.30  | 47.20   | 22.30  | 8.40   | 3.60   |           |            |
| 8            | 1.70   | 36.30   | 553.10  | 1065.90  | 347.20   | 564.30   | 957.00   | 153.60  | 46.20   | 21.40  | 8.40   | 3.60   |           |            |
| 9            | 1.50   | 18.20   | 288.10  | 550.20   | 260.40   | 777.20   | 791.00   | 146.00  | 45.20   | 20.80  | 8.00   | 3.30   |           |            |
| 10           | 1.40   | 19.50   | 110.70  | 536.00   | 466.50   | 794.50   | 668.20   | 138.50  | 44.20   | 20.10  | 7.70   | 3.30   |           |            |
| 11           | 1.30   | 55.50   | 72.80   | 1091.60  | 1743.20  | 590.10   | 590.10   | 132.00  | 42.20   | 19.50  | 7.30   | 3.30   |           |            |
| 12           | 1.10   | 18.20   | 54.50   | 843.40   | 2253.50  | 621.50   | 524.70   | 125.80  | 42.20   | 18.80  | 7.30   | 3.60   |           |            |
| 13           | 1.50   | 16.30   | 81.80   | 513.50   | 1662.10  | 953.40   | 502.50   | 121.20  | 41.20   | 18.20  | 6.90   | 3.60   |           |            |
| 14           | 1.40   | 14.40   | 458.30  | 320.70   | 1550.60  | 1590.60  | 474.60   | 119.60  | 39.20   | 17.50  | 6.60   | 3.60   |           |            |
| 15           | 1.40   | 10.90   | 312.00  | 210.80   | 1608.40  | 2317.00  | 455.50   | 113.60  | 38.20   | 16.90  | 6.20   | 3.30   |           |            |
| 16           | 1.50   | 8.80    | 149.80  | 182.70   | 1029.40  | 2264.10  | 399.20   | 110.70  | 65.10   | 16.30  | 6.20   | 3.00   |           |            |
| 17           | 1.40   | 9.70    | 450.00  | 286.00   | 1225.70  | 1852.40  | 385.50   | 106.10  | 53.40   | 15.70  | 5.90   | 3.00   |           |            |
| 18           | 1.30   | 12.00   | 186.70  | 198.70   | 868.00   | 2957.90  | 550.20   | 101.40  | 88.60   | 15.00  | 5.50   | 2.70   |           |            |
| 19           | 1.30   | 9.70    | 85.20   | 178.80   | 575.70   | 2127.60  | 651.40   | 97.90   | 76.10   | 14.40  | 5.50   | 2.70   |           |            |
| 20           | 1.10   | 8.00    | 94.40   | 149.80   | 444.60   | 1939.80  | 705.30   | 93.20   | 53.40   | 13.80  | 5.20   | 2.70   |           |            |
| 21           | 1.00   | 86.30   | 113.60  | 146.00   | 394.60   | 1471.30  | 522.00   | 88.60   | 45.20   | 13.20  | 4.90   | 4.50   |           |            |
| 22           | 1.00   | 133.50  | 447.20  | 147.90   | 371.90   | 4127.40  | 433.70   | 85.20   | 40.20   | 12.60  | 4.90   | 4.20   |           |            |
| 23           | 0.90   | 186.70  | 303.30  | 106.10   | 1541.70  | 2428.90  | 374.20   | 80.60   | 37.20   | 12.00  | 4.50   | 3.90   |           |            |
| 24           | 1.00   | 85.20   | 208.70  | 488.50   | 1519.80  | 1953.60  | 581.60   | 78.40   | 35.30   | 11.40  | 4.50   | 3.60   |           |            |
| 25           | 67.30  | 89.80   | 171.00  | 1515.30  | 924.80   | 1680.00  | 746.20   | 76.10   | 33.40   | 10.90  | 4.20   | 2.70   |           |            |
| 26           | 7.30   | 48.30   | 122.80  | 985.80   | 889.20   | 1725.10  | 558.60   | 76.10   | 32.40   | 10.30  | 4.20   | 2.40   |           |            |
| 27           | 4.20   | 33.40   | 106.10  | 491.20   | 957.00   | 2991.20  | 441.80   | 77.30   | 31.50   | 9.70   | 4.20   | 2.70   |           |            |
| 28           | 3.00   | 20.10   | 94.40   | 316.30   | 648.10   | 5932.70  | 356.20   | 75.00   | 30.50   | 9.70   | 3.90   | 3.00   |           |            |
| 29           | 2.20   | 15.00   | 85.20   | 347.20   | 547.40   | 5370.90  | 312.00   | 71.70   | 29.60   | 10.30  |        | 2.70   |           |            |
| 30           | 12.00  | 12.60   | 76.10   | 1040.30  | 598.80   | 4572.70  | 281.70   | 68.40   | 28.70   | 10.30  |        | 3.30   |           |            |
| 31           |        | 69.50   |         | 753.10   | 1729.50  |          | 283.80   |         | 27.70   | 9.70   |        | 3.00   |           |            |
| <b>Total</b> | 135.70 | 1118.90 | 6764.20 | 13328.80 | 27052.90 | 56805.50 | 28657.90 | 3944.40 | 1431.70 | 521.70 | 185.20 | 103.80 | 140050.70 | <b>Ton</b> |
| <b>Mean</b>  | 4.50   | 36.10   | 225.50  | 430.00   | 872.70   | 1893.50  | 924.40   | 131.50  | 46.20   | 16.80  | 6.60   | 3.30   |           |            |
| <b>Max</b>   | 67.30  | 186.70  | 1007.60 | 1515.30  | 2253.50  | 5932.70  | 3385.40  | 360.70  | 88.60   | 26.80  | 9.70   | 4.50   | 5932.70   |            |
| <b>Min</b>   | 0.90   | 6.20    | 37.20   | 48.30    | 258.30   | 347.20   | 281.70   | 68.40   | 27.70   | 9.70   | 3.90   | 2.40   | 0.90      |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Nam Khwae Noi at Ban Nong Krathao , Phitsanulok (N.36)**

Lat 17 - 04 - 59 N Long 100 - 49 - 44 E

**Location : on left bank about 50 meters upstream from the bridge along Lom Sak - Nakhon Thai Road, Tambon Nong Krathao.**

|                                      | Ban Nong Krathao           | Amphoe Nakhon Thai | Changwat Phitsanulok |
|--------------------------------------|----------------------------|--------------------|----------------------|
| <b>Drainage Area</b>                 | 1,710 sq.km.               |                    |                      |
| <b>Method of sampling</b>            | Depth Integrating          |                    |                      |
| <b>Instrument Used</b>               | US.D-49                    |                    |                      |
| <b>Period of Available Records</b>   | 2000-Cont'd                |                    |                      |
| <b>Actual Measurement</b>            | 2000-Cont'd                |                    |                      |
| <b>Using Rating Curve Water Year</b> | 2000-2013                  |                    |                      |
| <b>Number of observation</b>         | 192                        |                    |                      |
| <b>R-Square</b>                      | 0.7596                     |                    |                      |
| <b>Remarks</b>                       | Continued Sediment Station |                    |                      |

$$QS = 4.9602 QW^{1.36490}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep       | Oct      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual    |            |
|-------|---------|---------|----------|----------|----------|-----------|----------|---------|---------|---------|---------|---------|-----------|------------|
| 1     | 27.40   | 39.80   | 55.70    | 172.20   | 2101.40  | 5126.30   | 5126.30  | 296.00  | 52.60   | 55.70   | 43.40   | 37.50   |           |            |
| 2     | 26.40   | 38.60   | 54.10    | 117.80   | 1391.10  | 4921.70   | 3551.50  | 265.50  | 52.60   | 55.70   | 43.40   | 36.30   |           |            |
| 3     | 26.40   | 37.50   | 42.20    | 73.40    | 872.60   | 3308.50   | 3861.20  | 212.70  | 51.10   | 54.10   | 41.00   | 36.30   |           |            |
| 4     | 26.40   | 51.10   | 65.20    | 144.00   | 675.30   | 2468.30   | 4679.20  | 174.90  | 63.60   | 52.60   | 39.80   | 37.50   |           |            |
| 5     | 26.40   | 60.40   | 252.30   | 320.30   | 474.00   | 1633.20   | 2742.80  | 164.40  | 60.40   | 51.10   | 43.40   | 37.50   |           |            |
| 6     | 26.40   | 62.00   | 1658.10  | 334.40   | 323.80   | 1133.80   | 1904.80  | 141.60  | 62.00   | 48.30   | 41.00   | 37.50   |           |            |
| 7     | 26.40   | 63.60   | 2875.50  | 282.30   | 201.70   | 1153.80   | 1414.10  | 129.30  | 66.80   | 47.10   | 41.00   | 36.30   |           |            |
| 8     | 26.40   | 90.00   | 1569.70  | 670.30   | 2352.20  | 1514.70   | 1049.00  | 120.00  | 62.00   | 47.10   | 42.20   | 36.30   |           |            |
| 9     | 26.40   | 75.10   | 695.50   | 1207.60  | 2318.50  | 1685.00   | 848.90   | 117.80  | 65.20   | 47.10   | 43.40   | 35.20   |           |            |
| 10    | 26.40   | 60.40   | 126.80   | 843.00   | 2640.80  | 1641.10   | 685.40   | 117.80  | 65.20   | 45.80   | 43.40   | 35.20   |           |            |
| 11    | 25.60   | 70.10   | 66.80    | 993.30   | 4325.90  | 1649.10   | 610.70   | 113.40  | 65.20   | 44.60   | 42.20   | 36.30   |           |            |
| 12    | 27.40   | 54.10   | 149.10   | 1153.80  | 4840.50  | 1667.00   | 547.80   | 113.40  | 66.80   | 43.40   | 42.20   | 44.60   |           |            |
| 13    | 27.40   | 45.80   | 80.20    | 975.00   | 5126.30  | 1849.20   | 1200.80  | 129.30  | 66.80   | 42.20   | 43.40   | 44.60   |           |            |
| 14    | 27.40   | 42.20   | 149.10   | 490.60   | 3551.50  | 2285.00   | 809.50   | 111.20  | 65.20   | 42.20   | 43.40   | 41.00   |           |            |
| 15    | 27.40   | 37.50   | 543.10   | 422.30   | 2597.40  | 4962.40   | 547.80   | 124.40  | 65.20   | 41.00   | 43.40   | 43.40   |           |            |
| 16    | 26.40   | 39.80   | 204.40   | 445.40   | 2080.30  | 8335.40   | 385.00   | 96.20   | 73.40   | 41.00   | 44.60   | 51.10   |           |            |
| 17    | 26.40   | 38.60   | 788.50   | 299.40   | 2352.20  | 7062.00   | 407.30   | 87.90   | 218.30  | 41.00   | 44.60   | 49.60   |           |            |
| 18    | 29.60   | 38.60   | 825.50   | 323.80   | 2262.70  | 4962.40   | 640.30   | 85.90   | 98.30   | 39.80   | 43.40   | 49.60   |           |            |
| 19    | 29.60   | 42.20   | 229.50   | 215.50   | 1282.60  | 4325.90   | 605.80   | 83.90   | 66.80   | 39.80   | 44.60   | 48.30   |           |            |
| 20    | 35.20   | 41.00   | 1030.40  | 221.10   | 804.30   | 3203.00   | 635.30   | 78.50   | 65.20   | 39.80   | 42.20   | 47.10   |           |            |
| 21    | 41.00   | 47.10   | 1160.50  | 385.00   | 650.20   | 2341.00   | 482.30   | 75.10   | 63.60   | 38.60   | 42.20   | 57.20   |           |            |
| 22    | 44.60   | 71.70   | 820.10   | 316.80   | 1120.50  | 2386.00   | 381.30   | 80.20   | 62.00   | 43.40   | 43.40   | 58.80   |           |            |
| 23    | 52.60   | 68.40   | 433.70   | 154.10   | 4450.50  | 2454.00   | 309.80   | 78.50   | 60.40   | 42.20   | 42.20   | 62.00   |           |            |
| 24    | 52.60   | 78.50   | 182.80   | 309.80   | 7158.00  | 1970.20   | 710.80   | 76.80   | 57.20   | 45.80   | 44.60   | 60.40   |           |            |
| 25    | 51.10   | 70.10   | 685.40   | 1593.40  | 4921.70  | 1784.80   | 645.30   | 78.50   | 55.70   | 44.60   | 43.40   | 58.80   |           |            |
| 26    | 58.80   | 70.10   | 700.60   | 1483.60  | 4921.70  | 1979.60   | 670.30   | 78.50   | 57.20   | 44.60   | 42.20   | 57.20   |           |            |
| 27    | 57.20   | 65.20   | 515.70   | 793.70   | 4294.90  | 4140.70   | 388.70   | 78.50   | 55.70   | 43.40   | 41.00   | 58.80   |           |            |
| 28    | 54.10   | 47.10   | 503.10   | 494.70   | 3393.50  | 6129.00   | 302.90   | 115.50  | 55.70   | 42.20   | 43.40   | 62.00   |           |            |
| 29    | 54.10   | 43.40   | 503.10   | 1353.10  | 2858.90  | 7254.20   | 258.90   | 122.20  | 57.20   | 41.00   |         | 55.70   |           |            |
| 30    | 41.00   | 65.20   | 337.90   | 2597.40  | 2611.80  | 5623.90   | 236.00   | 68.40   | 57.20   | 38.60   |         | 52.60   |           |            |
| 31    |         | 58.80   |          | 2554.10  | 2611.80  |           | 226.70   |         | 55.70   | 38.60   |         | 51.10   |           |            |
| Total | 1054.50 | 1714.00 | 17304.60 | 21741.20 | 81568.60 | 100951.20 | 36866.50 | 3616.30 | 2090.30 | 1382.40 | 1198.40 | 1455.80 | 270943.90 | <b>Ton</b> |
| Mean  | 35.10   | 55.30   | 576.80   | 701.30   | 2631.20  | 3365.00   | 1189.20  | 120.50  | 67.40   | 44.60   | 42.80   | 47.00   |           |            |
| Max   | 58.80   | 90.00   | 2875.50  | 2597.40  | 7158.00  | 8335.40   | 5126.30  | 296.00  | 218.30  | 55.70   | 44.60   | 62.00   | 8335.40   |            |
| Min   | 25.60   | 37.50   | 42.20    | 73.40    | 201.70   | 1133.80   | 226.70   | 68.40   | 51.10   | 38.60   | 39.80   | 35.20   | 25.60     |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Nam Phak at Ban Tha Sakae , Phitsanulok (N.55)**

Lat 17 - 15 - 06 N Long 100 - 37 - 53 E

**Location : on left bank at the bridge of Nakhon Thai - Chat Trakan Road , Tambon Pa Daeng.**

|                                      | Ban Tha Sakae              | Amphoe Chat Trakan | Changwat Phitsanulok |
|--------------------------------------|----------------------------|--------------------|----------------------|
| <b>Drainage Area</b>                 | 971 sq.km.                 |                    |                      |
| <b>Method of sampling</b>            | Depth Integrating          |                    |                      |
| <b>Instrument Used</b>               | US.D-49                    |                    |                      |
| <b>Period of Available Records</b>   | 1994-Cont'd                |                    |                      |
| <b>Actual Measurement</b>            | 1994-Cont'd                |                    |                      |
| <b>Using Rating Curve Water Year</b> | 2001-2013                  |                    |                      |
| <b>Number of observation</b>         | 228                        |                    |                      |
| <b>R-Square</b>                      | 7270                       |                    |                      |
| <b>Remarks</b>                       | Continued Sediment Station |                    |                      |

$$QS = 2.6656 QW^{1.39120}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul     | Aug     | Sep      | Oct     | Nov     | Dec    | Jan    | Feb    | Mar    | Annual   |     |
|-------|--------|--------|--------|---------|---------|----------|---------|---------|--------|--------|--------|--------|----------|-----|
| 1     | 9.60   | 9.60   | 10.10  | 17.00   | 395.20  | 278.70   | 581.10  | 60.20   | 27.20  | 19.80  | 13.70  | 10.60  |          |     |
| 2     | 9.60   | 9.60   | 15.80  | 16.40   | 167.80  | 272.90   | 438.90  | 62.90   | 26.60  | 17.50  | 13.70  | 10.10  |          |     |
| 3     | 9.60   | 9.20   | 9.60   | 14.70   | 188.10  | 186.60   | 438.90  | 66.50   | 26.60  | 17.50  | 13.70  | 10.10  |          |     |
| 4     | 9.20   | 9.20   | 22.20  | 14.20   | 118.90  | 153.40   | 364.50  | 57.50   | 25.90  | 16.40  | 13.70  | 10.10  |          |     |
| 5     | 9.20   | 14.20  | 23.40  | 56.70   | 100.60  | 129.70   | 305.90  | 55.10   | 25.90  | 15.80  | 14.70  | 10.10  |          |     |
| 6     | 9.20   | 12.60  | 76.80  | 69.30   | 74.90   | 114.30   | 307.90  | 48.90   | 25.30  | 15.80  | 14.20  | 10.10  |          |     |
| 7     | 9.20   | 15.30  | 47.40  | 97.60   | 67.40   | 127.30   | 232.10  | 48.20   | 24.70  | 16.40  | 14.20  | 10.10  |          |     |
| 8     | 9.20   | 20.40  | 32.50  | 229.00  | 188.10  | 167.80   | 197.00  | 47.40   | 24.70  | 16.40  | 13.70  | 9.60   |          |     |
| 9     | 8.70   | 17.50  | 27.20  | 153.40  | 356.20  | 155.90   | 175.00  | 45.20   | 22.20  | 15.80  | 13.20  | 9.60   |          |     |
| 10    | 8.70   | 13.70  | 20.40  | 333.80  | 404.30  | 159.80   | 161.10  | 43.70   | 21.60  | 15.80  | 12.60  | 9.60   |          |     |
| 11    | 8.70   | 11.10  | 16.40  | 225.90  | 662.80  | 132.10   | 137.10  | 42.30   | 21.00  | 15.30  | 12.10  | 9.60   |          |     |
| 12    | 9.60   | 9.60   | 16.40  | 133.40  | 703.10  | 132.10   | 123.70  | 42.30   | 20.40  | 14.70  | 11.60  | 10.10  |          |     |
| 13    | 9.60   | 10.60  | 17.00  | 86.50   | 399.70  | 204.50   | 155.90  | 40.10   | 21.60  | 14.20  | 11.60  | 9.60   |          |     |
| 14    | 14.70  | 10.60  | 21.00  | 52.80   | 267.20  | 339.90   | 132.10  | 40.10   | 20.40  | 14.70  | 11.10  | 8.70   |          |     |
| 15    | 14.20  | 9.60   | 22.20  | 44.50   | 251.10  | 775.20   | 107.90  | 42.30   | 19.80  | 17.00  | 11.10  | 9.60   |          |     |
| 16    | 15.80  | 10.60  | 13.20  | 35.20   | 216.70  | 899.40   | 99.60   | 40.10   | 26.60  | 15.30  | 11.10  | 9.20   |          |     |
| 17    | 15.30  | 10.60  | 12.10  | 63.80   | 170.70  | 913.70   | 99.60   | 39.40   | 37.30  | 15.30  | 12.10  | 9.60   |          |     |
| 18    | 14.70  | 9.60   | 13.70  | 44.50   | 134.60  | 742.50   | 105.80  | 40.10   | 26.60  | 16.40  | 12.10  | 8.70   |          |     |
| 19    | 14.20  | 9.60   | 12.10  | 34.50   | 109.00  | 518.70   | 197.00  | 39.40   | 38.70  | 17.50  | 12.10  | 9.20   |          |     |
| 20    | 13.70  | 10.10  | 11.60  | 28.50   | 93.50   | 450.60   | 114.30  | 37.30   | 33.10  | 16.40  | 11.60  | 9.60   |          |     |
| 21    | 13.20  | 14.70  | 16.40  | 20.40   | 90.50   | 319.80   | 65.60   | 35.90   | 22.20  | 16.40  | 11.60  | 9.20   |          |     |
| 22    | 12.60  | 21.00  | 22.20  | 33.10   | 122.50  | 254.30   | 91.50   | 34.50   | 22.20  | 16.40  | 11.60  | 9.20   |          |     |
| 23    | 12.10  | 16.40  | 21.00  | 27.20   | 620.90  | 221.30   | 83.60   | 33.10   | 23.40  | 16.40  | 11.60  | 8.70   |          |     |
| 24    | 11.60  | 21.60  | 24.70  | 94.50   | 815.70  | 240.00   | 87.50   | 32.50   | 24.00  | 16.40  | 10.60  | 9.60   |          |     |
| 25    | 12.60  | 19.20  | 31.80  | 177.90  | 889.80  | 282.50   | 102.70  | 30.50   | 24.70  | 16.40  | 10.60  | 11.10  |          |     |
| 26    | 12.60  | 15.80  | 48.20  | 163.70  | 627.10  | 344.00   | 102.70  | 31.10   | 22.80  | 16.40  | 10.60  | 11.60  |          |     |
| 27    | 11.10  | 17.00  | 43.00  | 80.70   | 379.40  | 699.70   | 76.80   | 31.10   | 23.40  | 16.40  | 10.60  | 12.10  |          |     |
| 28    | 10.60  | 14.20  | 43.00  | 62.90   | 251.10  | 1188.20  | 69.30   | 31.80   | 22.20  | 16.40  | 10.60  | 11.60  |          |     |
| 29    | 10.10  | 11.60  | 25.90  | 247.90  | 204.50  | 1105.90  | 62.90   | 29.10   | 20.40  | 14.70  |        | 11.60  |          |     |
| 30    | 10.10  | 10.60  | 19.80  | 643.00  | 207.50  | 815.70   | 63.80   | 29.10   | 19.80  | 14.70  |        | 11.60  |          |     |
| 31    |        | 9.60   |        | 676.20  | 188.10  |          | 65.60   |         | 21.60  | 14.20  |        | 11.10  |          |     |
| Total | 339.30 | 405.00 | 737.10 | 3979.20 | 9467.00 | 12326.50 | 5347.40 | 1257.70 | 762.90 | 498.80 | 341.70 | 311.30 | 35773.90 | Ton |
| Mean  | 11.30  | 13.10  | 24.60  | 128.40  | 305.40  | 410.90   | 172.50  | 41.90   | 24.60  | 16.10  | 12.20  | 10.00  |          |     |
| Max   | 15.80  | 21.60  | 76.80  | 676.20  | 889.80  | 1188.20  | 581.10  | 66.50   | 38.70  | 19.80  | 14.70  | 12.10  | 1188.20  |     |
| Min   | 8.70   | 9.20   | 9.60   | 14.20   | 67.40   | 114.30   | 62.90   | 29.10   | 19.80  | 14.20  | 10.60  | 8.70   | 8.70     |     |



**WATER YEAR : 2013****NAN RIVER BASIN****Nam Fua at Ban Nam Fua , Phitsanulok (N.58)**

Lat 17 - 08 - 45 N Long 100 - 56 - 04 E

**Location : on left bank at the bridge of Nakhon Thai - Dan Sai Road from the guidpost 11.5**

|                                      | <b>Ban</b> Nam Fua         | <b>Amphoe</b> Nakhon Thai | <b>Changwat</b> Phitsanulok |
|--------------------------------------|----------------------------|---------------------------|-----------------------------|
| <b>Drainage Area</b>                 | 317 sq.km.                 |                           |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                           |                             |
| <b>Instrument Used</b>               | US.D-49                    |                           |                             |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                           |                             |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                           |                             |
| <b>Using Rating Curve Water Year</b> | 2001-2013                  |                           |                             |
| <b>Number of observation</b>         | 181                        |                           |                             |
| <b>R-Square</b>                      | 0.7105                     |                           |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                           |                             |

$$QS = 12.8352 QW^{1.59720}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul     | Aug     | Sep     | Oct    | Nov    | Dec    | Jan    | Feb   | Mar    | Annual   |            |
|-------|--------|--------|---------|---------|---------|---------|--------|--------|--------|--------|-------|--------|----------|------------|
| 1     | 6.30   | 11.20  | 13.70   | 22.00   | 230.50  | 252.00  | 48.50  | 7.60   | 6.30   | 5.10   | 3.50  | 2.50   |          |            |
| 2     | 6.30   | 11.20  | 12.00   | 19.50   | 213.90  | 209.80  | 48.50  | 7.60   | 6.30   | 5.10   | 3.50  | 2.50   |          |            |
| 3     | 6.30   | 11.20  | 12.00   | 17.20   | 205.70  | 197.70  | 48.50  | 7.60   | 6.30   | 4.50   | 3.50  | 2.50   |          |            |
| 4     | 13.70  | 10.50  | 12.00   | 15.40   | 197.70  | 189.80  | 44.60  | 6.90   | 5.70   | 4.50   | 3.50  | 2.50   |          |            |
| 5     | 10.50  | 10.50  | 159.30  | 13.70   | 197.70  | 182.00  | 44.60  | 6.90   | 5.70   | 4.50   | 3.50  | 2.50   |          |            |
| 6     | 10.50  | 10.50  | 452.10  | 13.70   | 189.80  | 174.30  | 40.70  | 6.30   | 5.70   | 4.00   | 3.50  | 3.00   |          |            |
| 7     | 9.70   | 108.30 | 102.80  | 13.70   | 929.20  | 174.30  | 40.70  | 6.30   | 6.30   | 4.00   | 3.50  | 3.00   |          |            |
| 8     | 9.00   | 61.20  | 52.70   | 50.60   | 929.20  | 166.70  | 37.00  | 6.30   | 6.30   | 4.00   | 3.00  | 3.00   |          |            |
| 9     | 9.00   | 40.70  | 25.80   | 52.70   | 617.10  | 189.80  | 31.70  | 6.30   | 6.30   | 4.50   | 3.00  | 3.50   |          |            |
| 10    | 9.00   | 40.70  | 20.70   | 40.70   | 256.40  | 305.80  | 30.00  | 6.30   | 5.70   | 4.50   | 3.00  | 3.50   |          |            |
| 11    | 7.60   | 37.00  | 17.20   | 40.70   | 230.50  | 201.70  | 30.00  | 6.30   | 5.70   | 4.50   | 3.00  | 4.00   |          |            |
| 12    | 7.60   | 33.40  | 17.20   | 37.00   | 209.80  | 148.90  | 27.20  | 6.30   | 5.10   | 5.10   | 3.00  | 4.00   |          |            |
| 13    | 6.30   | 30.00  | 15.40   | 37.00   | 193.70  | 116.60  | 24.50  | 6.30   | 5.10   | 5.10   | 3.00  | 4.50   |          |            |
| 14    | 6.30   | 28.60  | 15.40   | 37.00   | 201.70  | 163.00  | 24.50  | 6.30   | 5.70   | 5.10   | 3.00  | 4.50   |          |            |
| 15    | 6.30   | 24.50  | 13.70   | 33.40   | 193.70  | 1647.90 | 22.00  | 6.30   | 5.70   | 4.50   | 3.00  | 4.50   |          |            |
| 16    | 6.30   | 24.50  | 13.70   | 33.40   | 201.70  | 174.30  | 22.00  | 6.30   | 6.30   | 4.50   | 3.00  | 5.10   |          |            |
| 17    | 6.30   | 22.00  | 50.60   | 33.40   | 197.70  | 338.60  | 19.50  | 6.30   | 6.30   | 4.50   | 3.00  | 5.10   |          |            |
| 18    | 6.30   | 22.00  | 48.50   | 33.40   | 189.80  | 111.00  | 18.30  | 6.30   | 8.30   | 4.00   | 2.50  | 5.10   |          |            |
| 19    | 6.30   | 22.00  | 48.50   | 33.40   | 189.80  | 111.00  | 17.20  | 6.30   | 8.30   | 4.00   | 2.50  | 5.10   |          |            |
| 20    | 5.10   | 19.50  | 54.80   | 33.40   | 189.80  | 100.20  | 16.30  | 6.30   | 7.60   | 4.00   | 2.50  | 5.10   |          |            |
| 21    | 5.10   | 19.50  | 48.50   | 33.40   | 77.40   | 111.00  | 15.40  | 6.30   | 6.90   | 4.50   | 2.50  | 5.70   |          |            |
| 22    | 5.10   | 19.50  | 48.50   | 37.00   | 810.20  | 100.20  | 15.40  | 6.30   | 6.90   | 4.50   | 2.50  | 5.70   |          |            |
| 23    | 5.10   | 19.50  | 48.50   | 33.40   | 459.90  | 97.50   | 14.50  | 6.30   | 6.30   | 4.50   | 2.50  | 5.70   |          |            |
| 24    | 5.10   | 17.20  | 48.50   | 42.60   | 338.60  | 116.60  | 13.70  | 6.30   | 6.30   | 4.00   | 2.50  | 5.70   |          |            |
| 25    | 38.80  | 15.40  | 44.60   | 178.10  | 155.60  | 279.40  | 12.00  | 6.30   | 5.70   | 4.00   | 2.50  | 5.70   |          |            |
| 26    | 19.50  | 15.40  | 37.00   | 222.10  | 507.70  | 159.30  | 12.00  | 6.30   | 5.10   | 4.00   | 2.50  | 6.30   |          |            |
| 27    | 13.70  | 15.40  | 19.50   | 174.30  | 139.80  | 789.10  | 10.50  | 6.30   | 5.10   | 3.50   | 2.50  | 6.30   |          |            |
| 28    | 12.00  | 13.70  | 12.80   | 197.70  | 189.80  | 747.40  | 10.50  | 22.00  | 5.70   | 3.50   | 2.50  | 6.30   |          |            |
| 29    | 11.20  | 48.50  | 10.50   | 929.20  | 189.80  | 222.10  | 9.00   | 15.40  | 5.70   | 3.50   |       | 6.30   |          |            |
| 30    | 11.20  | 15.40  | 5.70    | 205.70  | 148.90  | 108.30  | 8.30   | 12.00  | 5.10   | 3.50   |       | 6.30   |          |            |
| 31    |        | 11.20  |         | 68.00   | 133.80  |         | 8.30   |        | 5.10   | 3.50   |       | 6.30   |          |            |
| Total | 281.50 | 790.20 | 1482.20 | 2732.80 | 9116.90 | 7886.30 | 765.90 | 224.60 | 188.60 | 133.00 | 82.00 | 141.80 | 23825.80 | <b>Ton</b> |
| Mean  | 9.40   | 25.50  | 49.40   | 88.20   | 294.10  | 262.90  | 24.70  | 7.50   | 6.10   | 4.30   | 2.90  | 4.60   |          |            |
| Max   | 38.80  | 108.30 | 452.10  | 929.20  | 929.20  | 1647.90 | 48.50  | 22.00  | 8.30   | 5.10   | 3.50  | 6.30   | 1647.90  |            |
| Min   | 5.10   | 10.50  | 5.70    | 13.70   | 77.40   | 97.50   | 8.30   | 6.30   | 5.10   | 3.50   | 2.50  | 2.50   | 2.50     |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Lam Nam Khan at Ban Na Pho Na Chan , Phitsanulok (N.59)**

Lat 17 - 01 - 49 N Long 100 - 50 - 35 E

**Location : on left bank at Ban Na Chan.**

|                                      |                            |                |               |                    |                 |                    |
|--------------------------------------|----------------------------|----------------|---------------|--------------------|-----------------|--------------------|
|                                      | <b>Ban</b>                 | <b>Na Chan</b> | <b>Amphoe</b> | <b>Nakhon Thai</b> | <b>Changwat</b> | <b>Phitsanulok</b> |
| <b>Drainage Area</b>                 | 415                        | sq.km.         |               |                    |                 |                    |
| <b>Method of sampling</b>            | Depth                      | Integrating    |               |                    |                 |                    |
| <b>Instrument Used</b>               | US.D-49                    |                |               |                    |                 |                    |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                |               |                    |                 |                    |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                |               |                    |                 |                    |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |               |                    |                 |                    |
| <b>Number of observation</b>         | 26                         |                |               |                    |                 |                    |
| <b>R-Square</b>                      | 0.8247                     |                |               |                    |                 |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                |               |                    |                 |                    |

$$QS = 3.4169 QW^{1.49320}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun     | Jul     | Aug     | Sep      | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|-------|--------|---------|---------|---------|----------|---------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 0.70  | 1.30   | 7.00    | 8.50    | 14.80   | 819.20   | 238.00  | 41.10  | 5.50   | 4.30   | 2.80  | 2.10  |          |            |
| 2     | 0.70  | 1.30   | 9.80    | 7.80    | 8.60    | 254.40   | 180.90  | 32.20  | 5.40   | 4.30   | 2.80  | 2.10  |          |            |
| 3     | 0.70  | 1.20   | 11.50   | 6.00    | 32.90   | 116.70   | 1253.00 | 26.40  | 5.10   | 4.20   | 2.70  | 2.00  |          |            |
| 4     | 0.70  | 1.10   | 5.00    | 26.40   | 76.80   | 94.70    | 169.30  | 21.00  | 5.00   | 4.00   | 2.60  | 2.00  |          |            |
| 5     | 0.70  | 5.80   | 28.10   | 31.40   | 15.80   | 80.00    | 119.00  | 15.80  | 4.80   | 3.90   | 2.20  | 1.80  |          |            |
| 6     | 0.80  | 12.60  | 210.60  | 7.80    | 10.80   | 76.80    | 121.30  | 14.30  | 4.70   | 3.90   | 2.50  | 1.80  |          |            |
| 7     | 0.80  | 9.90   | 85.70   | 18.70   | 52.70   | 56.60    | 65.80   | 12.40  | 4.80   | 3.80   | 2.50  | 1.70  |          |            |
| 8     | 1.10  | 9.60   | 9.60    | 140.40  | 122.50  | 113.30   | 51.50   | 12.20  | 4.80   | 3.70   | 2.20  | 1.60  |          |            |
| 9     | 1.00  | 2.80   | 6.10    | 57.80   | 28.50   | 36.40    | 31.90   | 11.70  | 4.70   | 3.70   | 2.10  | 1.60  |          |            |
| 10    | 1.00  | 1.80   | 3.70    | 24.30   | 180.90  | 32.20    | 25.70   | 11.00  | 4.60   | 3.70   | 2.80  | 2.20  |          |            |
| 11    | 0.90  | 1.30   | 16.30   | 18.70   | 147.70  | 24.60    | 21.20   | 10.60  | 4.40   | 3.60   | 2.20  | 2.10  |          |            |
| 12    | 1.00  | 0.70   | 5.40    | 15.60   | 333.40  | 140.40   | 17.90   | 15.60  | 4.60   | 3.50   | 2.00  | 2.00  |          |            |
| 13    | 0.90  | 1.30   | 3.00    | 26.80   | 177.50  | 113.30   | 152.70  | 16.30  | 4.90   | 3.40   | 2.00  | 1.90  |          |            |
| 14    | 0.90  | 1.30   | 16.60   | 14.80   | 287.70  | 306.60   | 52.10   | 13.80  | 4.90   | 3.30   | 2.10  | 1.80  |          |            |
| 15    | 0.90  | 1.00   | 18.20   | 12.20   | 101.50  | 3057.80  | 24.60   | 9.90   | 4.80   | 3.20   | 2.10  | 1.70  |          |            |
| 16    | 0.90  | 1.00   | 6.00    | 49.60   | 165.40  | 531.80   | 22.00   | 9.50   | 19.80  | 3.10   | 2.10  | 1.60  |          |            |
| 17    | 0.80  | 1.10   | 438.20  | 15.10   | 373.70  | 232.50   | 27.10   | 9.10   | 8.60   | 3.10   | 2.10  | 2.10  |          |            |
| 18    | 0.80  | 0.80   | 25.00   | 14.10   | 180.90  | 133.10   | 23.60   | 8.50   | 6.40   | 3.00   | 2.00  | 3.80  |          |            |
| 19    | 0.80  | 0.80   | 100.70  | 10.60   | 80.00   | 97.30    | 21.20   | 8.10   | 5.50   | 2.90   | 1.90  | 2.50  |          |            |
| 20    | 0.90  | 8.40   | 77.50   | 8.10    | 43.70   | 80.70    | 19.00   | 7.80   | 4.80   | 2.80   | 1.80  | 2.20  |          |            |
| 21    | 1.00  | 12.90  | 162.80  | 8.40    | 39.50   | 46.60    | 21.20   | 7.50   | 4.70   | 2.80   | 1.90  | 2.00  |          |            |
| 22    | 1.60  | 6.50   | 12.20   | 7.30    | 362.30  | 247.40   | 21.00   | 7.20   | 4.60   | 2.90   | 1.80  | 1.90  |          |            |
| 23    | 1.40  | 2.60   | 18.20   | 7.40    | 1402.90 | 234.30   | 20.30   | 7.00   | 4.60   | 2.90   | 1.80  | 1.80  |          |            |
| 24    | 1.40  | 2.20   | 16.60   | 24.30   | 354.70  | 362.30   | 77.50   | 6.60   | 4.60   | 2.90   | 2.00  | 1.80  |          |            |
| 25    | 5.10  | 2.00   | 30.00   | 162.80  | 123.60  | 128.30   | 112.10  | 6.60   | 4.50   | 2.90   | 2.00  | 1.80  |          |            |
| 26    | 2.20  | 1.80   | 37.00   | 80.00   | 184.30  | 97.30    | 89.70   | 6.60   | 4.40   | 2.90   | 2.00  | 1.70  |          |            |
| 27    | 1.60  | 1.50   | 17.90   | 27.40   | 151.50  | 1284.00  | 24.60   | 6.60   | 4.40   | 2.80   | 2.00  | 1.60  |          |            |
| 28    | 1.40  | 1.40   | 15.60   | 19.80   | 53.40   | 1669.00  | 21.60   | 6.90   | 4.40   | 2.70   | 2.10  | 1.50  |          |            |
| 29    | 1.30  | 1.40   | 14.60   | 133.10  | 127.20  | 741.90   | 19.20   | 6.50   | 4.40   | 2.80   |       | 1.40  |          |            |
| 30    | 1.20  | 1.40   | 14.10   | 100.70  | 75.20   | 1072.50  | 17.90   | 6.30   | 4.30   | 2.80   |       | 1.40  |          |            |
| 31    |       | 1.30   |         | 26.40   | 51.50   |          | 16.30   |        | 4.30   | 2.70   |       | 1.40  |          |            |
| Total | 35.20 | 100.10 | 1423.00 | 1112.30 | 5361.90 | 12282.00 | 3079.20 | 375.10 | 167.30 | 102.50 | 61.10 | 58.90 | 24158.60 | <b>Ton</b> |
| Mean  | 1.20  | 3.20   | 47.40   | 35.90   | 173.00  | 409.40   | 99.30   | 12.50  | 5.40   | 3.30   | 2.20  | 1.90  |          |            |
| Max   | 5.10  | 12.90  | 438.20  | 162.80  | 1402.90 | 3057.80  | 1253.00 | 41.10  | 19.80  | 4.30   | 2.80  | 3.80  | 3057.80  |            |
| Min   | 0.70  | 0.70   | 3.00    | 6.00    | 8.60    | 24.60    | 16.30   | 6.30   | 4.30   | 2.70   | 1.80  | 1.40  | 0.70     |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Nan River at Ban Pha Khwang , Nan (N.64)**

Lat 19 - 00 - 32 N Long 100 - 47 - 19 E

**Location : on right bank at the bridge on highway from Tambon Bo.**

|                                      |                            |                      |                     |
|--------------------------------------|----------------------------|----------------------|---------------------|
|                                      | <b>Ban</b> Pha Khwang      | <b>Amphoe</b> Mueang | <b>Changwat</b> Nan |
| <b>Drainage Area</b>                 | 3,476 sq.km.               |                      |                     |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                     |
| <b>Instrument Used</b>               | US.D-49                    |                      |                     |
| <b>Period of Available Records</b>   | 1994-Cont'd                |                      |                     |
| <b>Actual Measurement</b>            | 1994-Cont'd                |                      |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                     |
| <b>Number of observation</b>         | 33                         |                      |                     |
| <b>R-Square</b>                      | 0.8621                     |                      |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                     |

$$QS = 0.4400 QW^{1.75350}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date         | Apr    | May     | Jun     | Jul       | Aug       | Sep       | Oct      | Nov     | Dec     | Jan    | Feb    | Mar    | Annual    |            |
|--------------|--------|---------|---------|-----------|-----------|-----------|----------|---------|---------|--------|--------|--------|-----------|------------|
| 1            | 18.80  | 13.90   | 47.60   | 146.50    | 23715.40  | 5547.70   | 1558.40  | 224.90  | 112.80  | 52.60  | 13.90  | 2.80   |           |            |
| 2            | 22.20  | 15.40   | 42.80   | 97.40     | 14449.50  | 3973.10   | 1268.60  | 204.00  | 105.00  | 47.60  | 13.90  | 4.40   |           |            |
| 3            | 29.70  | 52.60   | 90.10   | 83.00     | 7894.80   | 2943.20   | 1004.90  | 183.90  | 105.00  | 47.60  | 13.90  | 4.40   |           |            |
| 4            | 22.20  | 52.60   | 105.00  | 83.00     | 4237.70   | 2059.00   | 926.00   | 174.20  | 105.00  | 47.60  | 12.40  | 4.40   |           |            |
| 5            | 22.20  | 129.20  | 90.10   | 224.90    | 3319.90   | 2373.10   | 900.90   | 174.20  | 105.00  | 47.60  | 12.40  | 4.40   |           |            |
| 6            | 18.80  | 146.50  | 183.90  | 155.50    | 2852.00   | 9678.60   | 926.00   | 155.50  | 105.00  | 42.80  | 12.40  | 3.80   |           |            |
| 7            | 18.80  | 120.90  | 112.80  | 112.80    | 9593.80   | 15102.00  | 851.40   | 120.90  | 105.00  | 38.20  | 10.90  | 3.80   |           |            |
| 8            | 17.10  | 105.00  | 97.40   | 83.00     | 13526.90  | 6547.00   | 601.20   | 137.80  | 105.00  | 42.80  | 10.90  | 3.30   |           |            |
| 9            | 15.40  | 146.50  | 90.10   | 112.80    | 42694.40  | 8248.60   | 503.30   | 155.50  | 76.20   | 38.20  | 10.90  | 3.30   |           |            |
| 10           | 15.40  | 337.80  | 97.40   | 214.40    | 43242.80  | 5017.10   | 487.00   | 155.50  | 52.60   | 38.20  | 10.90  | 3.30   |           |            |
| 11           | 15.40  | 137.80  | 380.20  | 214.40    | 25004.30  | 3565.10   | 439.70   | 137.80  | 52.60   | 33.80  | 8.30   | 3.30   |           |            |
| 12           | 15.40  | 83.00   | 214.40  | 272.10    | 12465.90  | 2989.20   | 439.70   | 146.50  | 52.60   | 33.80  | 8.30   | 2.80   |           |            |
| 13           | 15.40  | 63.20   | 155.50  | 380.20    | 7073.10   | 4345.50   | 409.60   | 146.50  | 57.80   | 29.70  | 8.30   | 2.80   |           |            |
| 14           | 17.10  | 52.60   | 63.20   | 439.70    | 6290.50   | 2852.00   | 394.70   | 146.50  | 57.80   | 29.70  | 7.10   | 3.30   |           |            |
| 15           | 25.80  | 38.20   | 47.60   | 851.40    | 4732.20   | 7965.00   | 365.80   | 137.80  | 105.00  | 33.80  | 7.10   | 3.30   |           |            |
| 16           | 25.80  | 33.80   | 38.20   | 1061.20   | 4845.30   | 6611.80   | 365.80   | 137.80  | 1491.80 | 38.20  | 7.10   | 2.80   |           |            |
| 17           | 29.70  | 29.70   | 25.80   | 1148.10   | 5427.80   | 4237.70   | 380.20   | 137.80  | 351.60  | 25.80  | 7.10   | 2.80   |           |            |
| 18           | 25.80  | 18.80   | 22.20   | 851.40    | 3223.90   | 3515.50   | 439.70   | 129.20  | 137.80  | 25.80  | 7.10   | 2.40   |           |            |
| 19           | 18.80  | 25.80   | 25.80   | 710.20    | 3665.40   | 3082.10   | 471.10   | 129.20  | 146.50  | 25.80  | 7.10   | 2.40   |           |            |
| 20           | 17.10  | 47.60   | 47.60   | 487.00    | 5427.80   | 2673.50   | 424.50   | 155.50  | 164.80  | 22.20  | 6.00   | 2.40   |           |            |
| 21           | 15.40  | 105.00  | 164.80  | 394.70    | 4620.30   | 1801.20   | 337.80   | 146.50  | 155.50  | 18.80  | 5.00   | 2.40   |           |            |
| 22           | 15.40  | 63.20   | 129.20  | 409.60    | 13233.90  | 1524.90   | 324.30   | 137.80  | 112.80  | 18.80  | 5.00   | 2.40   |           |            |
| 23           | 15.40  | 69.60   | 63.20   | 1765.60   | 8391.90   | 1268.60   | 324.30   | 105.00  | 83.00   | 18.80  | 5.00   | 2.40   |           |            |
| 24           | 17.10  | 69.60   | 57.80   | 3417.10   | 10107.60  | 1362.40   | 380.20   | 97.40   | 76.20   | 18.80  | 5.00   | 2.80   |           |            |
| 25           | 17.10  | 164.80  | 57.80   | 2762.20   | 5250.10   | 1837.10   | 733.00   | 90.10   | 63.20   | 17.10  | 5.00   | 2.80   |           |            |
| 26           | 18.80  | 90.10   | 90.10   | 2021.30   | 4078.00   | 2021.30   | 394.70   | 90.10   | 63.20   | 17.10  | 5.00   | 6.00   |           |            |
| 27           | 18.80  | 63.20   | 105.00  | 1491.80   | 4131.00   | 3665.40   | 324.30   | 120.90  | 63.20   | 15.40  | 5.00   | 6.00   |           |            |
| 28           | 17.10  | 42.80   | 137.80  | 1837.10   | 3515.50   | 4564.80   | 284.80   | 120.90  | 57.80   | 15.40  | 5.00   | 6.00   |           |            |
| 29           | 13.90  | 29.70   | 174.20  | 59118.10  | 2806.90   | 2852.00   | 259.80   | 112.80  | 57.80   | 15.40  |        | 5.00   |           |            |
| 30           | 13.90  | 22.20   | 146.50  | 87260.50  | 3368.30   | 1873.30   | 235.70   | 112.80  | 52.60   | 15.40  |        | 4.40   |           |            |
| 31           |        | 38.20   |         | 21361.10  | 9274.30   |           | 235.70   |         | 52.60   | 13.90  |        | 3.80   |           |            |
| <b>Total</b> | 569.80 | 2409.30 | 3104.10 | 189568.10 | 312461.20 | 126097.80 | 16993.10 | 4225.30 | 4432.80 | 926.70 | 236.00 | 110.20 | 661134.40 | <b>Ton</b> |
| <b>Mean</b>  | 19.00  | 77.70   | 103.50  | 6115.10   | 10079.40  | 4203.30   | 548.20   | 140.80  | 143.00  | 29.90  | 8.40   | 3.60   |           |            |
| <b>Max</b>   | 29.70  | 337.80  | 380.20  | 87260.50  | 43242.80  | 15102.00  | 1558.40  | 224.90  | 1491.80 | 52.60  | 13.90  | 6.00   | 87260.50  |            |
| <b>Min</b>   | 13.90  | 13.90   | 22.20   | 83.00     | 2806.90   | 1268.60   | 235.70   | 90.10   | 52.60   | 13.90  | 5.00   | 2.40   | 2.40      |            |

**WATER YEAR : 2013****Nan RIVER BASIN****Nam Yao at Ban Pang Sa , Nan (N.65)**

Lat 19 - 13 - 47 N Long 100 - 45 - 27 E

**Location : on right bank at the bridge on highway.**

|                                      |                            |                |               |                     |                 |            |
|--------------------------------------|----------------------------|----------------|---------------|---------------------|-----------------|------------|
|                                      | <b>Ban</b>                 | <b>Pang Sa</b> | <b>Amphoe</b> | <b>Tha Wang Pha</b> | <b>Changwat</b> | <b>Nan</b> |
| <b>Drainage Area</b>                 | 621                        | sq.km.         |               |                     |                 |            |
| <b>Method of sampling</b>            | Depth Integrating          |                |               |                     |                 |            |
| <b>Instrument Used</b>               | US.D-49                    |                |               |                     |                 |            |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                |               |                     |                 |            |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                |               |                     |                 |            |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |               |                     |                 |            |
| <b>Number of observation</b>         | 33                         |                |               |                     |                 |            |
| <b>R-Square</b>                      | 0.8511                     |                |               |                     |                 |            |
| <b>Remarks</b>                       | Continued Sediment Station |                |               |                     |                 |            |

$$QS = 0.3498 QW^{1.91620}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul      | Aug      | Sep     | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|--------|--------|--------|----------|----------|---------|---------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 2.00   | 5.00   | 5.70   | 9.20     | 947.70   | 115.30  | 125.00  | 35.80  | 14.60  | 7.40   | 3.60  | 1.60  |          |            |
| 2     | 1.40   | 11.80  | 13.20  | 7.40     | 514.90   | 102.90  | 95.00   | 33.50  | 14.60  | 7.40   | 3.60  | 1.60  |          |            |
| 3     | 1.20   | 8.20   | 5.70   | 5.00     | 236.70   | 91.10   | 95.00   | 33.50  | 13.20  | 6.50   | 0.10  | 1.40  |          |            |
| 4     | 1.20   | 7.40   | 5.00   | 5.70     | 154.40   | 83.80   | 83.80   | 33.50  | 13.20  | 6.50   | 3.10  | 1.40  |          |            |
| 5     | 1.00   | 11.80  | 7.40   | 6.50     | 136.40   | 111.10  | 76.60   | 29.20  | 13.20  | 6.50   | 3.10  | 1.40  |          |            |
| 6     | 0.90   | 8.20   | 9.20   | 8.20     | 221.90   | 1120.70 | 80.20   | 27.10  | 13.20  | 6.50   | 3.10  | 1.20  |          |            |
| 7     | 0.90   | 8.20   | 6.50   | 7.40     | 410.10   | 514.90  | 76.60   | 25.10  | 11.80  | 6.50   | 3.10  | 1.20  |          |            |
| 8     | 1.00   | 9.20   | 23.20  | 7.40     | 269.80   | 672.30  | 73.20   | 23.20  | 11.80  | 5.70   | 3.10  | 1.20  |          |            |
| 9     | 5.70   | 7.40   | 19.50  | 9.20     | 1995.30  | 931.30  | 66.50   | 23.20  | 11.80  | 5.70   | 2.50  | 1.20  |          |            |
| 10    | 5.70   | 10.40  | 8.20   | 14.60    | 2046.80  | 490.60  | 60.20   | 23.20  | 11.80  | 5.70   | 2.50  | 1.20  |          |            |
| 11    | 5.70   | 6.50   | 21.30  | 21.30    | 1249.70  | 244.40  | 60.20   | 23.20  | 10.40  | 5.70   | 2.50  | 0.90  |          |            |
| 12    | 3.10   | 6.50   | 11.80  | 38.20    | 617.60   | 229.20  | 60.20   | 21.30  | 10.40  | 5.00   | 2.50  | 0.70  |          |            |
| 13    | 5.00   | 6.50   | 6.50   | 31.30    | 421.10   | 207.40  | 60.20   | 21.30  | 10.40  | 5.00   | 2.50  | 0.70  |          |            |
| 14    | 4.30   | 5.00   | 3.60   | 23.20    | 336.50   | 107.00  | 60.20   | 19.50  | 10.40  | 5.00   | 2.50  | 0.70  |          |            |
| 15    | 5.00   | 4.30   | 3.60   | 23.20    | 269.80   | 432.40  | 48.40   | 19.50  | 27.10  | 5.00   | 2.50  | 0.70  |          |            |
| 16    | 6.50   | 3.60   | 3.10   | 21.30    | 758.70   | 552.30  | 43.20   | 19.50  | 60.20  | 5.00   | 2.50  | 0.60  |          |            |
| 17    | 5.00   | 1.80   | 2.50   | 21.30    | 326.50   | 326.50  | 45.70   | 19.50  | 17.80  | 5.00   | 2.50  | 0.60  |          |            |
| 18    | 5.00   | 1.60   | 2.00   | 29.20    | 193.50   | 236.70  | 48.40   | 19.50  | 16.20  | 5.00   | 2.50  | 0.50  |          |            |
| 19    | 4.30   | 3.10   | 2.00   | 31.30    | 154.40   | 173.40  | 45.70   | 19.50  | 11.80  | 4.30   | 2.00  | 0.30  |          |            |
| 20    | 4.30   | 5.00   | 7.40   | 23.20    | 221.90   | 136.40  | 45.70   | 21.30  | 11.80  | 4.30   | 2.00  | 0.30  |          |            |
| 21    | 4.30   | 3.60   | 9.20   | 17.80    | 200.40   | 125.00  | 43.20   | 23.20  | 10.40  | 4.30   | 2.00  | 0.70  |          |            |
| 22    | 4.30   | 4.30   | 4.30   | 16.20    | 758.70   | 95.00   | 40.60   | 21.30  | 10.40  | 4.30   | 2.00  | 0.60  |          |            |
| 23    | 7.40   | 2.50   | 5.00   | 43.20    | 236.70   | 102.90  | 40.60   | 17.80  | 10.40  | 4.30   | 1.80  | 0.50  |          |            |
| 24    | 5.70   | 25.10  | 4.30   | 51.20    | 236.70   | 98.90   | 45.70   | 16.20  | 9.20   | 4.30   | 1.80  | 1.80  |          |            |
| 25    | 5.00   | 17.80  | 4.30   | 102.90   | 180.00   | 119.50  | 45.70   | 16.20  | 8.20   | 4.30   | 1.80  | 1.60  |          |            |
| 26    | 5.70   | 8.20   | 3.10   | 35.80    | 207.40   | 154.40  | 43.20   | 16.20  | 8.20   | 4.30   | 1.80  | 1.40  |          |            |
| 27    | 5.00   | 6.50   | 4.30   | 25.10    | 166.90   | 229.20  | 40.60   | 17.80  | 8.20   | 3.60   | 1.80  | 1.20  |          |            |
| 28    | 5.00   | 4.30   | 5.00   | 866.60   | 130.70   | 207.40  | 38.20   | 16.20  | 8.20   | 3.60   | 1.80  | 1.20  |          |            |
| 29    | 4.30   | 3.60   | 6.50   | 17864.40 | 119.50   | 136.40  | 40.60   | 16.20  | 7.40   | 3.60   |       | 1.20  |          |            |
| 30    | 4.30   | 3.60   | 5.00   | 3270.40  | 111.10   | 119.50  | 38.20   | 16.20  | 7.40   | 3.60   |       | 1.20  |          |            |
| 31    |        | 3.60   |        | 1120.70  | 130.70   |         | 38.20   |        | 6.50   | 3.60   |       | 1.20  |          |            |
| Total | 120.20 | 214.60 | 218.40 | 23758.40 | 13962.50 | 8267.90 | 1804.80 | 668.70 | 410.20 | 157.50 | 66.60 | 32.00 | 49681.80 | <b>Ton</b> |
| Mean  | 4.00   | 6.90   | 7.30   | 766.40   | 450.40   | 275.60  | 58.20   | 22.30  | 13.20  | 5.10   | 2.40  | 1.00  |          |            |
| Max   | 7.40   | 25.10  | 23.20  | 17864.40 | 2046.80  | 1120.70 | 125.00  | 35.80  | 60.20  | 7.40   | 3.60  | 1.80  | 17864.40 |            |
| Min   | 0.90   | 1.60   | 2.00   | 5.00     | 111.10   | 83.80   | 38.20   | 16.20  | 6.50   | 3.60   | 0.10  | 0.30  | 0.10     |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Huai Om Sing at Ban Noen Phoem , Phitsanulok (N.66)**

Lat 17 - 07 - 22 N Long 100 - 53 - 58 E

**Location : on right bank at Ban Noen Phoem.**

|                                      |                            |             |               |             |                 |             |
|--------------------------------------|----------------------------|-------------|---------------|-------------|-----------------|-------------|
|                                      | <b>Ban</b>                 | Noen Phoem  | <b>Amphoe</b> | Nakhon Thai | <b>Changwat</b> | Phitsanulok |
| <b>Drainage Area</b>                 | 152                        | sq.km.      |               |             |                 |             |
| <b>Method of sampling</b>            | Depth                      | Integrating |               |             |                 |             |
| <b>Instrument Used</b>               | US.D-49                    |             |               |             |                 |             |
| <b>Period of Available Records</b>   | 2001-Cont'd                |             |               |             |                 |             |
| <b>Actual Measurement</b>            | 2001-Cont'd                |             |               |             |                 |             |
| <b>Using Rating Curve Water Year</b> | 2001-2013                  |             |               |             |                 |             |
| <b>Number of observation</b>         | 169                        |             |               |             |                 |             |
| <b>R-Square</b>                      | 0.7479                     |             |               |             |                 |             |
| <b>Remarks</b>                       | Continued Sediment Station |             |               |             |                 |             |

$$QS = 11.9837 QW^{1.43780}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May   | Jun     | Jul     | Aug     | Sep     | Oct    | Nov    | Dec   | Jan   | Feb   | Mar   | Annual   |            |
|-------|------|-------|---------|---------|---------|---------|--------|--------|-------|-------|-------|-------|----------|------------|
| 1     | 0.00 | 0.00  | 0.80    | 3.00    | 80.80   | 214.20  | 70.20  | 8.70   | 1.50  | 2.50  | 0.60  | 0.60  |          |            |
| 2     | 0.00 | 0.00  | 18.80   | 1.90    | 48.10   | 155.70  | 98.60  | 6.60   | 1.40  | 2.10  | 0.60  | 0.60  |          |            |
| 3     | 0.00 | 0.00  | 3.70    | 1.60    | 35.30   | 79.80   | 126.10 | 6.00   | 1.20  | 2.00  | 0.60  | 0.60  |          |            |
| 4     | 0.00 | 0.20  | 43.50   | 1.50    | 28.30   | 100.90  | 69.30  | 4.70   | 1.00  | 1.90  | 0.60  | 0.60  |          |            |
| 5     | 0.00 | 0.90  | 380.10  | 2.50    | 21.90   | 57.90   | 55.40  | 4.20   | 0.90  | 1.80  | 0.60  | 0.60  |          |            |
| 6     | 0.00 | 1.30  | 623.50  | 4.40    | 16.50   | 65.50   | 48.90  | 4.20   | 0.90  | 1.60  | 0.60  | 0.60  |          |            |
| 7     | 0.00 | 11.10 | 50.50   | 4.40    | 227.60  | 111.20  | 42.70  | 3.90   | 0.80  | 1.40  | 0.60  | 0.60  |          |            |
| 8     | 0.00 | 4.40  | 10.80   | 40.40   | 212.20  | 88.60   | 37.50  | 3.70   | 0.80  | 1.30  | 0.60  | 0.60  |          |            |
| 9     | 0.00 | 0.90  | 2.30    | 35.30   | 264.40  | 90.80   | 32.50  | 3.40   | 0.70  | 1.10  | 0.60  | 0.60  |          |            |
| 10    | 0.00 | 0.40  | 1.40    | 52.10   | 465.20  | 143.40  | 25.70  | 3.20   | 0.60  | 0.90  | 0.60  | 0.60  |          |            |
| 11    | 0.00 | 0.30  | 84.20   | 19.40   | 603.00  | 78.60   | 23.80  | 2.80   | 0.60  | 0.80  | 0.60  | 0.60  |          |            |
| 12    | 0.00 | 0.20  | 1.50    | 52.90   | 195.80  | 203.10  | 23.80  | 2.50   | 0.60  | 0.70  | 0.60  | 0.60  |          |            |
| 13    | 0.00 | 0.20  | 0.90    | 13.20   | 97.60   | 144.90  | 22.50  | 2.50   | 0.60  | 0.70  | 0.60  | 0.60  |          |            |
| 14    | 0.00 | 0.10  | 21.30   | 12.70   | 60.40   | 186.60  | 20.00  | 2.30   | 1.10  | 0.70  | 0.60  | 0.60  |          |            |
| 15    | 0.00 | 0.10  | 29.70   | 6.00    | 197.40  | 804.60  | 18.80  | 2.30   | 2.50  | 0.70  | 0.60  | 0.60  |          |            |
| 16    | 0.00 | 0.10  | 1.70    | 9.80    | 54.60   | 324.10  | 16.50  | 2.10   | 18.30 | 0.60  | 0.60  | 0.60  |          |            |
| 17    | 0.00 | 0.10  | 7.50    | 16.50   | 87.30   | 214.20  | 27.00  | 2.10   | 8.70  | 0.60  | 0.60  | 0.60  |          |            |
| 18    | 0.00 | 0.10  | 2.30    | 10.80   | 42.70   | 158.70  | 31.10  | 2.00   | 3.90  | 0.60  | 0.60  | 0.60  |          |            |
| 19    | 0.00 | 1.40  | 3.20    | 6.00    | 31.10   | 110.20  | 20.60  | 1.90   | 4.20  | 0.60  | 0.60  | 0.60  |          |            |
| 20    | 0.00 | 1.80  | 114.00  | 98.60   | 27.00   | 82.90   | 15.40  | 1.80   | 3.90  | 0.60  | 0.60  | 0.60  |          |            |
| 21    | 0.00 | 36.00 | 82.00   | 176.40  | 23.10   | 69.30   | 12.70  | 1.70   | 3.90  | 0.60  | 0.60  | 0.60  |          |            |
| 22    | 0.00 | 3.20  | 18.80   | 41.20   | 424.30  | 167.50  | 12.70  | 1.60   | 3.70  | 0.60  | 0.60  | 0.60  |          |            |
| 23    | 0.00 | 0.80  | 6.90    | 25.10   | 273.30  | 117.40  | 10.80  | 1.60   | 3.40  | 0.60  | 0.60  | 0.60  |          |            |
| 24    | 0.00 | 5.50  | 18.80   | 61.20   | 203.10  | 71.10   | 12.70  | 1.60   | 3.20  | 0.60  | 0.60  | 0.60  |          |            |
| 25    | 0.00 | 0.90  | 31.80   | 91.80   | 140.50  | 66.40   | 14.30  | 1.50   | 3.20  | 0.60  | 0.60  | 0.60  |          |            |
| 26    | 0.00 | 0.40  | 9.50    | 32.50   | 303.70  | 57.90   | 9.50   | 1.50   | 3.00  | 0.60  | 0.60  | 0.60  |          |            |
| 27    | 0.00 | 0.30  | 4.70    | 24.40   | 121.20  | 218.00  | 9.80   | 1.40   | 3.00  | 0.60  | 0.60  | 0.60  |          |            |
| 28    | 0.00 | 0.20  | 2.50    | 31.10   | 75.60   | 188.60  | 7.90   | 9.50   | 2.80  | 0.60  | 0.60  | 0.60  |          |            |
| 29    | 0.00 | 5.70  | 1.80    | 157.20  | 214.20  | 221.70  | 7.50   | 5.70   | 2.80  | 0.60  |       | 0.60  |          |            |
| 30    | 0.00 | 17.70 | 1.30    | 106.90  | 107.90  | 308.70  | 7.50   | 3.40   | 2.50  | 0.60  |       | 0.60  |          |            |
| 31    |      | 1.10  |         | 64.70   | 134.70  |         | 7.20   |        | 2.50  | 0.60  |       | 0.60  |          |            |
| Total | 0.00 | 95.40 | 1579.80 | 1205.50 | 4818.80 | 4902.50 | 939.00 | 100.40 | 88.20 | 29.80 | 16.80 | 18.60 | 13794.80 | <b>Ton</b> |
| Mean  | 0.00 | 3.10  | 52.70   | 38.90   | 155.40  | 163.40  | 30.30  | 3.30   | 2.80  | 1.00  | 0.60  | 0.60  |          |            |
| Max   | 0.00 | 36.00 | 623.50  | 176.40  | 603.00  | 804.60  | 126.10 | 9.50   | 18.30 | 2.50  | 0.60  | 0.60  | 804.60   |            |
| Min   | 0.00 | 0.00  | 0.80    | 1.50    | 16.50   | 57.90   | 7.20   | 1.40   | 0.60  | 0.60  | 0.60  | 0.60  | 0.00     |            |

**WATER YEAR : 2013****NAN RIVER BASIN****Khlong Tron at Ban Wang Pla Kod , Uttaradit (N.72)**

Lat 17 - 27 - 24 N Long 100 - 16 - 39 E

**Location : on right bank at Ban Wang Pla Kod.**

|                                      |                            |                               |                           |
|--------------------------------------|----------------------------|-------------------------------|---------------------------|
|                                      | <b>Ban</b> Wang Pla Kod    | <b>Amphoe</b> Thong Saen Khan | <b>Changwat</b> Uttaradit |
| <b>Drainage Area</b>                 | 225 sq.km.                 |                               |                           |
| <b>Method of sampling</b>            | Depth Integrating          |                               |                           |
| <b>Instrument Used</b>               | US.D-49                    |                               |                           |
| <b>Period of Available Records</b>   | 2005-Cont'd                |                               |                           |
| <b>Actual Measurement</b>            | 2005-Cont'd                |                               |                           |
| <b>Using Rating Curve Water Year</b> | 2005-2013                  |                               |                           |
| <b>Number of observation</b>         | 150                        |                               |                           |
| <b>R-Square</b>                      | 0.8942                     |                               |                           |
| <b>Remarks</b>                       | Continued Sediment Station |                               |                           |

$$QS = 4.5987 QW^{1.80490}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul     | Aug     | Sep      | Oct      | Nov     | Dec    | Jan   | Feb    | Mar    | Annual   |            |
|-------|---------|---------|---------|---------|---------|----------|----------|---------|--------|-------|--------|--------|----------|------------|
| 1     | 35.90   | 41.00   | 17.20   | 16.10   | 77.10   | 67.00    | 380.60   | 122.70  | 48.50  | 15.40 | 0.00   | 2.20   |          |            |
| 2     | 44.60   | 35.90   | 14.60   | 10.10   | 90.80   | 666.20   | 263.50   | 118.80  | 37.50  | 16.10 | 0.00   | 1.90   |          |            |
| 3     | 72.00   | 32.60   | 13.30   | 8.40    | 90.80   | 445.30   | 2043.90  | 118.80  | 22.30  | 17.20 | 0.00   | 0.80   |          |            |
| 4     | 74.50   | 23.70   | 12.00   | 64.50   | 74.50   | 195.70   | 2553.80  | 111.20  | 25.10  | 16.10 | 0.00   | 0.30   |          |            |
| 5     | 79.80   | 59.70   | 494.30  | 250.50  | 55.10   | 151.80   | 371.70   | 103.70  | 25.10  | 12.60 | 0.00   | 0.00   |          |            |
| 6     | 88.00   | 59.70   | 126.70  | 219.30  | 39.20   | 143.20   | 250.50   | 107.40  | 15.40  | 9.60  | 0.00   | 0.00   |          |            |
| 7     | 72.00   | 59.70   | 64.50   | 237.80  | 39.20   | 201.50   | 184.40   | 111.20  | 12.00  | 4.10  | 0.00   | 0.90   |          |            |
| 8     | 151.80  | 55.10   | 62.10   | 1383.40 | 39.20   | 231.60   | 139.00   | 111.20  | 9.00   | 2.20  | 0.00   | 15.40  |          |            |
| 9     | 72.00   | 50.70   | 46.40   | 1284.50 | 35.90   | 225.40   | 118.80   | 111.20  | 5.50   | 0.70  | 0.00   | 9.00   |          |            |
| 10    | 44.60   | 44.60   | 35.90   | 922.30  | 32.60   | 225.40   | 122.70   | 115.00  | 3.40   | 0.10  | 0.00   | 4.40   |          |            |
| 11    | 79.80   | 28.00   | 34.20   | 354.30  | 118.80  | 174.20   | 111.20   | 126.70  | 1.40   | 0.00  | 0.00   | 3.70   |          |            |
| 12    | 32.60   | 67.00   | 37.50   | 380.60  | 93.60   | 363.00   | 103.70   | 122.70  | 0.30   | 0.00  | 0.00   | 2.80   |          |            |
| 13    | 44.60   | 93.60   | 41.00   | 190.00  | 59.70   | 840.10   | 103.70   | 118.80  | 0.10   | 0.00  | 0.00   | 2.20   |          |            |
| 14    | 52.90   | 67.00   | 37.50   | 126.70  | 88.00   | 715.90   | 122.70   | 122.70  | 0.00   | 0.00  | 0.00   | 1.70   |          |            |
| 15    | 67.00   | 44.60   | 32.60   | 90.80   | 88.00   | 973.20   | 107.40   | 130.80  | 0.00   | 0.00  | 0.00   | 0.70   |          |            |
| 16    | 79.80   | 28.00   | 28.00   | 74.50   | 93.60   | 1025.30  | 88.00    | 111.20  | 0.00   | 0.00  | 0.00   | 0.20   |          |            |
| 17    | 69.40   | 18.50   | 19.70   | 67.00   | 90.80   | 1972.70  | 312.20   | 126.70  | 29.50  | 0.00  | 0.00   | 0.00   |          |            |
| 18    | 62.10   | 18.50   | 14.00   | 59.70   | 79.80   | 524.80   | 577.40   | 122.70  | 15.40  | 0.00  | 0.50   | 0.00   |          |            |
| 19    | 44.60   | 19.70   | 12.00   | 52.90   | 74.50   | 237.80   | 677.70   | 118.80  | 10.70  | 0.00  | 1.40   | 0.10   |          |            |
| 20    | 35.90   | 19.70   | 28.00   | 44.60   | 64.50   | 169.60   | 320.50   | 96.50   | 12.00  | 0.00  | 32.60  | 0.20   |          |            |
| 21    | 62.10   | 41.00   | 79.80   | 41.00   | 67.00   | 134.90   | 219.30   | 82.50   | 14.00  | 0.00  | 50.70  | 0.40   |          |            |
| 22    | 79.80   | 41.00   | 85.20   | 37.50   | 93.60   | 160.60   | 165.10   | 74.50   | 12.00  | 0.00  | 21.00  | 9.60   |          |            |
| 23    | 93.60   | 39.20   | 59.70   | 34.20   | 231.60  | 250.50   | 151.80   | 74.50   | 10.70  | 0.00  | 18.50  | 79.80  |          |            |
| 24    | 118.80  | 35.90   | 44.60   | 15.40   | 184.40  | 184.40   | 389.60   | 72.00   | 5.50   | 0.00  | 16.10  | 64.50  |          |            |
| 25    | 118.80  | 35.90   | 37.50   | 44.60   | 126.70  | 134.90   | 407.80   | 69.40   | 2.60   | 0.00  | 14.60  | 55.10  |          |            |
| 26    | 100.10  | 35.90   | 44.60   | 15.40   | 115.00  | 96.50    | 426.40   | 69.40   | 2.40   | 0.00  | 18.50  | 44.60  |          |            |
| 27    | 85.20   | 31.00   | 90.80   | 13.30   | 85.20   | 4948.70  | 244.10   | 64.50   | 6.40   | 0.00  | 9.00   | 28.00  |          |            |
| 28    | 72.00   | 31.00   | 52.90   | 12.00   | 77.10   | 12371.20 | 195.70   | 59.70   | 11.40  | 0.00  | 5.50   | 15.40  |          |            |
| 29    | 67.00   | 31.00   | 46.40   | 17.20   | 69.40   | 4993.60  | 160.60   | 57.40   | 16.10  | 0.00  |        | 6.40   |          |            |
| 30    | 62.10   | 28.00   | 44.60   | 15.40   | 67.00   | 3726.10  | 130.80   | 55.10   | 13.30  | 0.00  |        | 3.20   |          |            |
| 31    |         | 28.00   |         | 12.60   | 72.00   |          | 130.80   |         | 14.00  | 0.00  |        | 0.80   |          |            |
| Total | 2163.40 | 1245.20 | 1757.60 | 6096.60 | 2614.70 | 36551.10 | 11575.40 | 3007.80 | 381.60 | 94.10 | 188.40 | 354.30 | 66030.20 | <b>Ton</b> |
| Mean  | 72.10   | 40.20   | 58.60   | 196.70  | 84.30   | 1218.40  | 373.40   | 100.30  | 12.30  | 3.00  | 6.70   | 11.40  |          |            |
| Max   | 151.80  | 93.60   | 494.30  | 1383.40 | 231.60  | 12371.20 | 2553.80  | 130.80  | 48.50  | 17.20 | 50.70  | 79.80  | 12371.20 |            |
| Min   | 32.60   | 18.50   | 12.00   | 8.40    | 32.60   | 67.00    | 88.00    | 55.10   | 0.00   | 0.00  | 0.00   | 0.00   | 0.00     |            |

**WATER YEAR : 2013****CHAO PHRAYA RIVER BASIN****Chao Phraya River at Khai Chira Prawat, Nakhon Sawan (C.2)**

Lat 15 - 40 - 15 N Long 100 - 06 - 49 E

**Location : on left bank at Ban Phai Lom**

|                                      |                            |                      |                              |
|--------------------------------------|----------------------------|----------------------|------------------------------|
|                                      | <b>Ban</b> Phai Lom        | <b>Amphoe</b> Mueang | <b>Changwat</b> Nakhon Sawan |
| <b>Drainage Area</b>                 | 109,973 sq.km.             |                      |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                              |
| <b>Instrument Used</b>               | US.D-49                    |                      |                              |
| <b>Period of Available Records</b>   | 1956-Cont'd                |                      |                              |
| <b>Actual Measurement</b>            | 1956-Cont'd                |                      |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                              |
| <b>Number of observation</b>         | 34                         |                      |                              |
| <b>R-Square</b>                      | 0.8030                     |                      |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                              |

$$QS = 0.2010 QW^{1.55400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May      | Jun      | Jul      | Aug       | Sep       | Oct       | Nov       | Dec      | Jan      | Feb     | Mar     | Annual   |            |     |
|-------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|----------|----------|---------|---------|----------|------------|-----|
| 1     | 470.00   | 704.60   | 1780.20  | 1501.50  | 1916.00   | 2795.00   | 22042.60  | 16477.50  | 714.90   | 853.00   | 1057.20 | 1044.00 |          |            |     |
| 2     | 463.10   | 663.70   | 1685.40  | 1152.80  | 2325.00   | 2562.50   | 22620.40  | 15222.00  | 663.70   | 915.10   | 1057.20 | 978.80  |          |            |     |
| 3     | 429.00   | 663.70   | 1519.50  | 966.00   | 2562.50   | 2742.70   | 22869.70  | 13939.10  | 575.10   | 940.40   | 1030.90 | 978.80  |          |            |     |
| 4     | 449.40   | 644.70   | 1377.20  | 853.00   | 2795.00   | 3393.00   | 22454.80  | 12819.30  | 500.10   | 927.70   | 1044.00 | 1017.80 |          |            |     |
| 5     | 524.70   | 828.60   | 1275.30  | 663.70   | 2821.30   | 3980.00   | 22869.70  | 11733.40  | 484.00   | 978.80   | 1004.70 | 978.80  |          |            |     |
| 6     | 549.70   | 1137.80  | 1377.20  | 635.90   | 2511.80   | 4205.40   | 22620.40  | 10612.80  | 500.10   | 1004.70  | 1057.20 | 915.10  |          |            |     |
| 7     | 541.30   | 1325.20  | 1592.50  | 684.00   | 2078.90   | 4172.90   | 22372.10  | 9463.30   | 600.90   | 1004.70  | 978.80  | 953.20  |          |            |     |
| 8     | 541.30   | 1629.40  | 1838.00  | 746.30   | 1742.10   | 4012.00   | 22703.40  | 8267.60   | 828.60   | 927.70   | 991.70  | 877.60  |          |            |     |
| 9     | 541.30   | 2167.30  | 1896.40  | 828.60   | 1704.30   | 3794.60   | 22703.40  | 7190.90   | 1465.60  | 915.10   | 991.70  | 704.60  |          |            |     |
| 10    | 524.70   | 2511.80  | 1916.00  | 1152.80  | 1857.40   | 4568.40   | 22454.80  | 6236.10   | 1761.10  | 902.60   | 1017.80 | 609.60  |          |            |     |
| 11    | 492.00   | 2537.10  | 1666.70  | 1742.10  | 2347.80   | 5150.20   | 22042.60  | 5503.90   | 1723.10  | 828.60   | 991.70  | 516.50  |          |            |     |
| 12    | 492.00   | 2463.30  | 1685.40  | 2370.80  | 3336.90   | 5539.80   | 21064.50  | 4976.50   | 1648.00  | 816.40   | 915.10  | 470.00  |          |            |     |
| 13    | 516.50   | 2370.80  | 2015.20  | 2954.00  | 4873.40   | 6124.20   | 20060.80  | 4501.60   | 1290.90  | 792.40   | 927.70  | 533.00  |          |            |     |
| 14    | 533.00   | 2234.40  | 2664.90  | 3678.20  | 7148.90   | 7529.60   | 19160.10  | 3884.80   | 1017.80  | 725.30   | 953.20  | 524.70  |          |            |     |
| 15    | 575.10   | 2100.90  | 3980.00  | 3765.40  | 8783.40   | 9316.10   | 18347.60  | 3393.00   | 927.70   | 673.90   | 1030.90 | 516.50  |          |            |     |
| 16    | 583.60   | 1876.90  | 4703.10  | 3364.90  | 9710.40   | 11382.20  | 17152.50  | 2980.80   | 902.60   | 609.60   | 1004.70 | 575.10  |          |            |     |
| 17    | 644.70   | 1610.90  | 4172.90  | 2900.60  | 10288.90  | 14002.30  | 16143.70  | 2613.50   | 792.40   | 592.20   | 940.40  | 644.70  |          |            |     |
| 18    | 780.50   | 1610.90  | 3421.10  | 2189.60  | 9809.90   | 14383.50  | 15156.90  | 2370.80   | 704.60   | 618.30   | 978.80  | 684.00  |          |            |     |
| 19    | 816.40   | 1648.00  | 2716.70  | 1629.40  | 9169.70   | 14897.50  | 14639.70  | 2463.30   | 828.60   | 644.70   | 953.20  | 694.30  |          |            |     |
| 20    | 746.30   | 1704.30  | 2347.80  | 1325.20  | 8497.60   | 15548.90  | 14511.40  | 2393.80   | 927.70   | 627.10   | 978.80  | 644.70  |          |            |     |
| 21    | 792.40   | 1780.20  | 2256.90  | 1183.00  | 7529.60   | 15944.50  | 14447.40  | 2167.30   | 828.60   | 618.30   | 966.00  | 684.00  |          |            |     |
| 22    | 840.70   | 1916.00  | 2486.60  | 1083.90  | 6124.20   | 17356.90  | 14962.20  | 1799.40   | 746.30   | 768.60   | 991.70  | 694.30  |          |            |     |
| 23    | 927.70   | 1935.70  | 2690.80  | 966.00   | 4770.90   | 19085.80  | 16477.50  | 1447.70   | 828.60   | 915.10   | 991.70  | 653.70  |          |            |     |
| 24    | 865.30   | 2035.30  | 2927.30  | 902.60   | 3980.00   | 20983.70  | 17288.70  | 1259.70   | 953.20   | 902.60   | 1044.00 | 583.60  |          |            |     |
| 25    | 915.10   | 2122.90  | 2980.80  | 828.60   | 3736.20   | 21064.50  | 17356.90  | 1083.90   | 1044.00  | 953.20   | 865.30  | 558.10  |          |            |     |
| 26    | 1017.80  | 1935.70  | 2847.60  | 953.20   | 4076.10   | 20060.80  | 17562.10  | 991.70    | 1070.50  | 966.00   | 853.00  | 558.10  |          |            |     |
| 27    | 1044.00  | 1935.70  | 2664.90  | 1290.90  | 4602.00   | 19458.70  | 20592.90  | 865.30    | 1044.00  | 978.80   | 927.70  | 627.10  |          |            |     |
| 28    | 1004.70  | 2057.00  | 2393.80  | 1430.00  | 4568.40   | 19758.90  | 21714.80  | 816.40    | 1030.90  | 1083.90  | 1017.80 | 635.90  |          |            |     |
| 29    | 927.70   | 1975.30  | 2100.90  | 1447.70  | 4205.40   | 19985.20  | 20440.40  | 780.50    | 953.20   | 1044.00  |         | 609.60  |          |            |     |
| 30    | 780.50   | 1916.00  | 1818.70  | 1574.10  | 3620.50   | 20983.70  | 19085.80  | 725.30    | 927.70   | 1070.50  |         | 600.90  |          |            |     |
| 31    |          | 1818.70  |          | 1648.00  | 3198.20   |           | 17909.70  |           | 877.60   | 1044.00  |         | 600.90  |          |            |     |
| Total | 20330.50 | 53862.80 | 70799.80 | 48412.80 | 146692.70 | 334783.50 | 601829.40 | 158981.20 | 29162.10 | 26643.30 | 27562.9 | 2       | 1668.00  | 1540729.10 | Ton |
| Mean  | 677.70   | 1737.50  | 2360.00  | 1561.70  | 4732.00   | 11159.40  | 19413.90  | 5299.40   | 940.70   | 859.50   | 984.40  | 699.00  |          |            |     |
| Max   | 1044.00  | 2537.10  | 4703.10  | 3765.40  | 10288.90  | 21064.50  | 22869.70  | 16477.50  | 1761.10  | 1083.90  | 1057.20 | 1044.00 | 22869.70 |            |     |
| Min   | 429.00   | 644.70   | 1275.30  | 635.90   | 1704.30   | 2562.50   | 14447.40  | 725.30    | 484.00   | 592.20   | 853.00  | 470.00  | 429.00   |            |     |

**WATER YEAR : 2013****CHAO PHRAYA RIVER BASIN****Chao Phraya River at Ban Bang Phutsa, Sing Buri (C.3)**

Lat 14 - 53 - 50 N Long 100 - 24 - 18 E

**Location : on right bank at Ban Bang Phutsa.**

|                                      |                            |                    |               |               |                 |                  |
|--------------------------------------|----------------------------|--------------------|---------------|---------------|-----------------|------------------|
|                                      | <b>Ban</b>                 | <b>Bang Phutsa</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b> | <b>Sing Buri</b> |
| <b>Drainage Area</b>                 | 118,752 sq.km.             |                    |               |               |                 |                  |
| <b>Method of sampling</b>            | Depth Integrating          |                    |               |               |                 |                  |
| <b>Instrument Used</b>               | US.D-49                    |                    |               |               |                 |                  |
| <b>Period of Available Records</b>   | 1950-Cont'd                |                    |               |               |                 |                  |
| <b>Actual Measurement</b>            | 1950-Cont'd                |                    |               |               |                 |                  |
| <b>Using Rating Curve Water Year</b> | 2013                       |                    |               |               |                 |                  |
| <b>Number of observation</b>         | 26                         |                    |               |               |                 |                  |
| <b>R-Square</b>                      | 0.8110                     |                    |               |               |                 |                  |
| <b>Remarks</b>                       | Continued Sediment Station |                    |               |               |                 |                  |

$$QS = 4.6320 QW^{1.01500}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep       | Oct       | Nov      | Dec     | Jan     | Feb     | Mar      | Annual    |     |
|-------|---------|---------|----------|----------|----------|-----------|-----------|----------|---------|---------|---------|----------|-----------|-----|
| 1     | 220.70  | 297.50  | 255.60   | 448.50   | 231.10   | 902.30    | 10862.50  | 6630.00  | 318.50  | 241.60  | 241.60  | 416.80   |           |     |
| 2     | 213.70  | 266.10  | 252.10   | 378.20   | 231.10   | 749.00    | 10878.30  | 6220.80  | 297.50  | 241.60  | 234.60  | 402.80   |           |     |
| 3     | 213.70  | 259.10  | 252.10   | 311.50   | 252.10   | 688.20    | 10878.30  | 5704.50  | 290.50  | 241.60  | 231.10  | 413.30   |           |     |
| 4     | 227.70  | 259.10  | 252.10   | 269.50   | 259.10   | 679.10    | 10609.40  | 5270.70  | 294.00  | 238.10  | 227.70  | 409.80   |           |     |
| 5     | 217.20  | 262.60  | 255.60   | 280.00   | 280.00   | 935.90    | 10419.70  | 4710.40  | 283.50  | 227.70  | 227.70  | 399.30   |           |     |
| 6     | 206.80  | 245.10  | 259.10   | 311.50   | 304.50   | 1454.80   | 10309.00  | 4295.00  | 283.50  | 241.60  | 227.70  | 409.80   |           |     |
| 7     | 196.30  | 262.60  | 266.10   | 245.10   | 290.50   | 1952.00   | 10198.40  | 3798.30  | 280.00  | 241.60  | 252.10  | 565.40   |           |     |
| 8     | 199.80  | 304.50  | 269.50   | 189.40   | 294.00   | 2441.70   | 10056.20  | 3345.50  | 255.60  | 234.60  | 269.50  | 510.90   |           |     |
| 9     | 210.20  | 318.50  | 276.50   | 171.00   | 301.00   | 3053.90   | 9866.60   | 2960.80  | 231.10  | 224.20  | 290.50  | 406.30   |           |     |
| 10    | 206.80  | 325.50  | 280.00   | 159.10   | 304.50   | 3095.30   | 9620.20   | 2598.50  | 224.20  | 224.20  | 318.50  | 395.70   |           |     |
| 11    | 206.80  | 322.00  | 287.00   | 156.10   | 304.50   | 3559.60   | 9345.50   | 2272.10  | 224.20  | 241.60  | 329.00  | 406.30   |           |     |
| 12    | 234.60  | 322.00  | 280.00   | 171.00   | 297.50   | 4061.10   | 9055.70   | 1995.70  | 231.10  | 227.70  | 332.60  | 395.70   |           |     |
| 13    | 248.60  | 329.00  | 290.50   | 304.50   | 413.30   | 4645.30   | 8796.50   | 1797.80  | 227.70  | 224.20  | 332.60  | 392.20   |           |     |
| 14    | 255.60  | 322.00  | 294.00   | 524.60   | 2160.80  | 5310.90   | 8369.90   | 1609.00  | 234.60  | 220.70  | 336.10  | 399.30   |           |     |
| 15    | 252.10  | 325.50  | 395.70   | 1132.40  | 3433.00  | 5949.00   | 7974.00   | 1404.20  | 231.10  | 224.20  | 336.10  | 399.30   |           |     |
| 16    | 259.10  | 315.00  | 1230.40  | 1295.80  | 3726.60  | 6728.90   | 7610.90   | 1120.20  | 234.60  | 227.70  | 346.60  | 409.80   |           |     |
| 17    | 304.50  | 343.10  | 2272.10  | 1095.70  | 4120.90  | 7493.40   | 7405.30   | 804.80   | 231.10  | 234.60  | 346.60  | 409.80   |           |     |
| 18    | 304.50  | 315.00  | 1765.00  | 804.80   | 4282.50  | 8111.00   | 7302.60   | 683.70   | 217.20  | 231.10  | 336.10  | 413.30   |           |     |
| 19    | 297.50  | 276.50  | 1447.20  | 592.70   | 4037.20  | 8537.40   | 7229.20   | 674.60   | 238.10  | 234.60  | 329.00  | 434.40   |           |     |
| 20    | 280.00  | 262.60  | 1120.20  | 455.50   | 3643.10  | 8964.20   | 7464.00   | 583.60   | 259.10  | 234.60  | 318.50  | 430.90   |           |     |
| 21    | 266.10  | 259.10  | 896.70   | 336.10   | 2981.50  | 9467.60   | 7913.10   | 570.00   | 248.60  | 224.20  | 360.60  | 423.90   |           |     |
| 22    | 255.60  | 248.60  | 784.50   | 259.10   | 2598.50  | 9835.00   | 8111.00   | 565.40   | 238.10  | 224.20  | 378.20  | 423.90   |           |     |
| 23    | 273.00  | 248.60  | 896.70   | 231.10   | 2021.90  | 10151.00  | 8141.40   | 470.10   | 227.70  | 227.70  | 364.10  | 406.30   |           |     |
| 24    | 266.10  | 252.10  | 958.20   | 220.70   | 1585.40  | 10467.10  | 8111.00   | 416.80   | 234.60  | 227.70  | 385.20  | 406.30   |           |     |
| 25    | 290.50  | 255.60  | 1071.30  | 227.70   | 1242.70  | 10783.40  | 7943.50   | 385.20   | 220.70  | 224.20  | 399.30  | 402.80   |           |     |
| 26    | 297.50  | 259.10  | 1065.20  | 227.70   | 855.60   | 10783.40  | 7700.00   | 423.90   | 231.10  | 224.20  | 399.30  | 395.70   |           |     |
| 27    | 318.50  | 290.50  | 991.80   | 227.70   | 941.50   | 10751.70  | 7669.60   | 474.20   | 224.20  | 227.70  | 395.70  | 392.20   |           |     |
| 28    | 336.10  | 311.50  | 789.60   | 224.20   | 1309.10  | 10767.50  | 7867.40   | 445.00   | 227.70  | 224.20  | 409.80  | 427.40   |           |     |
| 29    | 357.10  | 301.00  | 638.20   | 220.70   | 1397.00  | 10767.50  | 7684.80   | 381.70   | 241.60  | 241.60  |         | 409.80   |           |     |
| 30    | 346.60  | 276.50  | 547.20   | 220.70   | 1262.60  | 10878.30  | 7317.20   | 332.60   | 241.60  | 245.10  |         | 423.90   |           |     |
| 31    |         | 252.10  |          | 224.20   | 1083.50  |           | 7011.70   |          | 238.10  | 238.10  |         | 448.50   |           |     |
| Total | 7763.30 | 8888.00 | 20640.20 | 11916.80 | 46446.60 | 183965.50 | 269722.90 | 62945.10 | 7661.20 | 7186.70 | 8956.40 | 12981.80 | 649074.50 | Ton |
| Mean  | 258.80  | 286.70  | 688.00   | 384.40   | 1498.30  | 6132.20   | 8700.70   | 2098.20  | 247.10  | 231.80  | 319.90  | 418.80   |           |     |
| Max   | 357.10  | 343.10  | 2272.10  | 1295.80  | 4282.50  | 10878.30  | 10878.30  | 6630.00  | 318.50  | 245.10  | 409.80  | 565.40   | 10878.30  |     |
| Min   | 196.30  | 245.10  | 252.10   | 156.10   | 231.10   | 679.10    | 7011.70   | 332.60   | 217.20  | 220.70  | 227.70  | 392.20   | 156.10    |     |



**WATER YEAR : 2013****CHAO PHRAYA RIVER BASIN****Chao Phraya River at Ban Bang Kaeo, Ang Thong (C.7A)**

at 14 - 35 - 05 N Long 100 - 27 - 12 E

**Location : on left bank at Ban Bang Kaeo.**

|                                      |                            |                      |                           |
|--------------------------------------|----------------------------|----------------------|---------------------------|
|                                      | <b>Ban</b> Bang Keao       | <b>Amphoe</b> Mueang | <b>Changwat</b> Ang Thong |
| <b>Drainage Area</b>                 | Flood Plain                |                      |                           |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                           |
| <b>Instrument Used</b>               | US.D-49                    |                      |                           |
| <b>Period of Available Records</b>   | 2006-Cont'd                |                      |                           |
| <b>Actual Measurement</b>            | 2006-Cont'd                |                      |                           |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                           |
| <b>Number of observation</b>         | 23                         |                      |                           |
| <b>R-Square</b>                      | 0.8890                     |                      |                           |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                           |

$$QS = 1.0770 QW^{1.30100}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May      | Jun      | Jul      | Aug      | Sep       | Oct       | Nov       | Dec      | Jan      | Feb       | Mar     | Annual     |            |
|-------|----------|----------|----------|----------|----------|-----------|-----------|-----------|----------|----------|-----------|---------|------------|------------|
| 1     | 731.20   | 758.00   | 397.40   | 584.20   | 550.80   | 1198.60   | 22213.70  | 11544.60  | 848.60   | 652.50   | 584.20    | 669.80  |            |            |
| 2     | 704.80   | 661.10   | 417.30   | 567.50   | 444.20   | 1130.90   | 22364.50  | 10707.60  | 766.90   | 740.10   | 609.60    | 635.20  |            |            |
| 3     | 722.40   | 559.10   | 437.50   | 567.50   | 499.20   | 1017.40   | 22465.20  | 9843.80   | 848.60   | 740.10   | 567.50    | 618.10  |            |            |
| 4     | 696.00   | 506.10   | 492.20   | 513.10   | 584.20   | 950.90    | 22163.50  | 8757.90   | 876.20   | 687.20   | 559.10    | 669.80  |            |            |
| 5     | 575.80   | 444.20   | 542.50   | 457.80   | 559.10   | 1027.00   | 21391.20  | 7702.40   | 793.90   | 661.10   | 609.60    | 678.50  |            |            |
| 6     | 424.00   | 417.30   | 478.40   | 471.50   | 513.10   | 1383.50   | 21015.80  | 6880.90   | 894.70   | 775.90   | 661.10    | 713.60  |            |            |
| 7     | 306.60   | 592.70   | 430.70   | 567.50   | 451.00   | 1911.80   | 20735.20  | 6036.00   | 941.50   | 713.60   | 661.10    | 812.00  |            |            |
| 8     | 311.80   | 478.40   | 478.40   | 478.40   | 471.50   | 2515.20   | 20408.90  | 5279.60   | 876.20   | 550.80   | 696.00    | 830.30  |            |            |
| 9     | 386.50   | 550.80   | 499.20   | 471.50   | 687.20   | 3503.30   | 19991.30  | 4757.50   | 749.00   | 601.10   | 592.70    | 766.90  |            |            |
| 10    | 444.20   | 550.80   | 499.20   | 451.00   | 766.90   | 3745.50   | 19437.50  | 4178.00   | 618.10   | 704.80   | 559.10    | 731.20  |            |            |
| 11    | 513.10   | 601.10   | 506.10   | 464.70   | 867.00   | 4324.60   | 18796.00  | 3603.80   | 601.10   | 696.00   | 513.10    | 722.40  |            |            |
| 12    | 609.60   | 704.80   | 550.80   | 451.00   | 803.00   | 5207.70   | 17978.60  | 3101.20   | 542.50   | 567.50   | 464.70    | 661.10  |            |            |
| 13    | 643.80   | 669.80   | 592.70   | 492.20   | 749.00   | 6210.00   | 17214.50  | 2769.30   | 592.70   | 492.20   | 635.20    | 527.20  |            |            |
| 14    | 713.60   | 626.70   | 592.70   | 527.20   | 1371.80  | 7428.40   | 16193.00  | 2515.20   | 601.10   | 550.80   | 635.20    | 464.70  |            |            |
| 15    | 740.10   | 609.60   | 687.20   | 812.00   | 3324.20  | 8852.60   | 15186.20  | 2216.10   | 584.20   | 584.20   | 696.00    | 520.10  |            |            |
| 16    | 749.00   | 575.80   | 922.70   | 1119.70  | 4387.80  | 10636.90  | 14300.50  | 1897.60   | 643.80   | 618.10   | 830.30    | 687.20  |            |            |
| 17    | 758.00   | 506.10   | 2012.10  | 988.80   | 5088.30  | 12748.20  | 13778.50  | 1610.70   | 559.10   | 550.80   | 803.00    | 722.40  |            |            |
| 18    | 609.60   | 499.20   | 2098.90  | 766.90   | 5691.50  | 14421.60  | 13539.10  | 1478.20   | 471.50   | 534.20   | 678.50    | 669.80  |            |            |
| 19    | 478.40   | 457.80   | 1714.90  | 661.10   | 5496.80  | 15622.10  | 13340.30  | 1418.80   | 559.10   | 643.80   | 652.50    | 713.60  |            |            |
| 20    | 492.20   | 386.50   | 1325.10  | 567.50   | 4804.40  | 16902.00  | 13419.80  | 1418.80   | 731.20   | 618.10   | 643.80    | 704.80  |            |            |
| 21    | 444.20   | 370.10   | 969.80   | 652.50   | 4094.80  | 18159.50  | 14502.40  | 1301.90   | 775.90   | 534.20   | 830.30    | 793.90  |            |            |
| 22    | 410.70   | 381.00   | 904.00   | 609.60   | 3136.60  | 19437.50  | 15056.00  | 1255.70   | 669.80   | 499.20   | 784.90    | 812.00  |            |            |
| 23    | 397.40   | 370.10   | 960.30   | 527.20   | 2424.60  | 20269.50  | 15273.20  | 1221.40   | 652.50   | 575.80   | 766.90    | 867.00  |            |            |
| 24    | 391.90   | 397.40   | 1007.80  | 550.80   | 1954.60  | 20922.10  | 15229.70  | 1187.30   | 626.70   | 567.50   | 784.90    | 876.20  |            |            |
| 25    | 417.30   | 457.80   | 1153.40  | 534.20   | 1574.30  | 21815.50  | 14839.60  | 1036.60   | 592.70   | 492.20   | 793.90    | 839.40  |            |            |
| 26    | 499.20   | 534.20   | 1198.60  | 550.80   | 1290.30  | 21912.80  | 14381.20  | 941.50    | 669.80   | 559.10   | 661.10    | 784.90  |            |            |
| 27    | 534.20   | 542.50   | 1142.10  | 542.50   | 1075.20  | 21815.50  | 14219.90  | 867.00    | 534.20   | 609.60   | 652.50    | 687.20  |            |            |
| 28    | 678.50   | 592.70   | 998.30   | 575.80   | 1313.50  | 21862.70  | 14340.80  | 848.60    | 661.10   | 559.10   | 618.10    | 592.70  |            |            |
| 29    | 704.80   | 542.50   | 830.30   | 550.80   | 1442.50  | 21768.20  | 14179.60  | 812.00    | 722.40   | 567.50   |           | 592.70  |            |            |
| 30    | 793.90   | 506.10   | 722.40   | 559.10   | 1407.00  | 22213.70  | 13142.30  | 793.90    | 704.80   | 534.20   |           | 661.10  |            |            |
| 31    |          | 492.20   |          | 520.10   | 1371.80  |           | 12318.00  |           | 635.20   | 527.20   |           | 643.80  |            |            |
| Total | 16882.80 | 16342.50 | 25563.00 | 18154.50 | 59196.20 | 330915.20 | 523416.00 | 107983.90 | 21345.10 | 18708.50 | 18544.9 2 | 1669.60 | 1178722.30 | <b>Ton</b> |
| Mean  | 562.80   | 527.20   | 852.10   | 585.60   | 1909.60  | 11030.50  | 16884.40  | 3599.50   | 688.60   | 603.50   | 662.30    | 699.00  |            |            |
| Max   | 793.90   | 758.00   | 2098.90  | 1119.70  | 5691.50  | 22213.70  | 22465.20  | 11544.60  | 941.50   | 775.90   | 830.30    | 876.20  | 22465.20   |            |
| Min   | 306.60   | 370.10   | 397.40   | 451.00   | 444.20   | 950.90    | 12318.00  | 793.90    | 471.50   | 492.20   | 464.70    | 464.70  | 306.60     |            |

**WATER YEAR : 2013****CHAO PHRAYA RIVER BASIN****Chao Phraya River at Ban Bang Luang, Chai Nat (C.13)**

Lat 15 - 10 - 07 N Long 100 - 11 - 48 E

**Location : on left bank at Wat Pho Ngam about 1.5 kilometers downstream from Chao Phraya Diversion Dam**

|                                      |                            |                   |               |                 |                 |                 |
|--------------------------------------|----------------------------|-------------------|---------------|-----------------|-----------------|-----------------|
|                                      | <b>Ban</b>                 | <b>Bang Luang</b> | <b>Amphoe</b> | <b>Sanphaya</b> | <b>Changwat</b> | <b>Chai Nat</b> |
| <b>Drainge Area</b>                  | 117,187 sq.km.             |                   |               |                 |                 |                 |
| <b>Method of sampling</b>            | Depth Integrating          |                   |               |                 |                 |                 |
| <b>Instrument Used</b>               | US.D-49                    |                   |               |                 |                 |                 |
| <b>Period of Available Records</b>   | 1953-Cont'd                |                   |               |                 |                 |                 |
| <b>Actual Measurement</b>            | 1953-Cont'd                |                   |               |                 |                 |                 |
| <b>Using Rating Curve Water Year</b> | 2013                       |                   |               |                 |                 |                 |
| <b>Number of observation</b>         | 27                         |                   |               |                 |                 |                 |
| <b>R-Square</b>                      | 0.7960                     |                   |               |                 |                 |                 |
| <b>Remarks</b>                       | Continued Sediment Station |                   |               |                 |                 |                 |

$$QS = 10.5500 QW^{0.88900}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May      | Jun      | Jul      | Aug      | Sep       | Oct       | Nov      | Dec     | Jan      | Feb     | Mar     | Annual    |
|-------|----------|----------|----------|----------|----------|-----------|-----------|----------|---------|----------|---------|---------|-----------|
| 1     | 341.70   | 371.90   | 371.90   | 520.10   | 311.10   | 720.90    | 9911.50   | 5471.70  | 371.90  | 311.10   | 371.90  | 536.20  |           |
| 2     | 341.70   | 371.90   | 371.90   | 397.10   | 311.10   | 686.50    | 9911.50   | 5104.00  | 371.90  | 311.10   | 371.90  | 536.20  |           |
| 3     | 341.70   | 371.90   | 371.90   | 365.90   | 314.20   | 670.90    | 9876.30   | 4704.10  | 371.90  | 311.10   | 371.90  | 536.20  |           |
| 4     | 341.70   | 371.90   | 353.80   | 311.10   | 314.20   | 720.90    | 9577.20   | 4230.70  | 371.90  | 311.10   | 371.90  | 536.20  |           |
| 5     | 341.70   | 371.90   | 341.70   | 311.10   | 368.90   | 1182.30   | 9383.00   | 3786.20  | 371.90  | 311.10   | 371.90  | 568.20  |           |
| 6     | 341.70   | 371.90   | 341.70   | 298.80   | 362.90   | 1559.30   | 9260.00   | 3435.40  | 335.60  | 311.10   | 371.90  | 580.20  |           |
| 7     | 341.70   | 422.00   | 341.70   | 280.20   | 347.80   | 1809.30   | 9090.80   | 3054.20  | 311.10  | 311.10   | 413.70  | 588.10  |           |
| 8     | 341.70   | 455.00   | 341.70   | 280.20   | 311.10   | 2392.50   | 9006.00   | 2613.30  | 311.10  | 311.10   | 426.10  | 536.20  |           |
| 9     | 341.70   | 455.00   | 341.70   | 280.20   | 311.10   | 2500.90   | 8734.20   | 2283.60  | 311.10  | 335.60   | 455.00  | 536.20  |           |
| 10    | 341.70   | 455.00   | 341.70   | 280.20   | 311.10   | 2829.90   | 8461.20   | 1959.50  | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 11    | 353.80   | 455.00   | 311.10   | 280.20   | 311.10   | 3234.30   | 8085.00   | 1700.30  | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 12    | 371.90   | 455.00   | 311.10   | 365.90   | 388.70   | 3724.00   | 7835.70   | 1517.00  | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 13    | 371.90   | 455.00   | 311.10   | 576.20   | 826.30   | 4049.20   | 7475.50   | 1396.40  | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 14    | 371.90   | 455.00   | 380.30   | 908.50   | 2455.80  | 4833.90   | 7049.90   | 1213.40  | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 15    | 371.90   | 450.90   | 674.80   | 1269.30  | 3244.40  | 5174.20   | 6653.00   | 1077.60  | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 16    | 422.00   | 371.90   | 2238.00  | 1151.00  | 3475.50  | 6014.20   | 6270.80   | 791.30   | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 17    | 455.00   | 371.90   | 2128.10  | 861.00   | 3734.40  | 6624.50   | 6094.80   | 639.50   | 311.10  | 341.70   | 455.00  | 536.20  |           |
| 18    | 455.00   | 371.90   | 1460.40  | 707.60   | 3651.40  | 7113.20   | 6014.20   | 588.10   | 311.10  | 341.70   | 455.00  | 560.20  |           |
| 19    | 430.30   | 371.90   | 1144.70  | 560.20   | 3325.00  | 7585.30   | 5988.70   | 532.20   | 311.10  | 341.70   | 455.00  | 576.20  |           |
| 20    | 413.70   | 371.90   | 927.30   | 430.30   | 3093.00  | 8007.20   | 6297.90   | 536.20   | 311.10  | 341.70   | 463.20  | 576.20  |           |
| 21    | 413.70   | 371.90   | 821.90   | 332.60   | 2365.40  | 8580.80   | 6738.50   | 604.00   | 311.10  | 341.70   | 503.90  | 576.20  |           |
| 22    | 413.70   | 371.90   | 821.90   | 311.10   | 1917.90  | 8870.20   | 6897.40   | 487.70   | 311.10  | 341.70   | 536.20  | 576.20  |           |
| 23    | 413.70   | 371.90   | 932.10   | 311.10   | 1538.20  | 9073.80   | 6927.40   | 371.90   | 311.10  | 341.70   | 536.20  | 576.20  |           |
| 24    | 413.70   | 371.90   | 951.40   | 311.10   | 1194.70  | 9682.90   | 6912.40   | 371.90   | 311.10  | 341.70   | 536.20  | 536.20  |           |
| 25    | 455.00   | 371.90   | 1138.40  | 311.10   | 961.00   | 9964.10   | 6710.00   | 371.90   | 311.10  | 341.70   | 536.20  | 536.20  |           |
| 26    | 455.00   | 371.90   | 1003.60  | 311.10   | 659.20   | 9911.50   | 6446.30   | 532.20   | 311.10  | 341.70   | 536.20  | 536.20  |           |
| 27    | 479.50   | 455.00   | 852.30   | 311.10   | 1093.40  | 9876.30   | 6459.70   | 532.20   | 311.10  | 341.70   | 536.20  | 576.20  |           |
| 28    | 495.80   | 455.00   | 743.00   | 311.10   | 1287.80  | 9911.50   | 6724.20   | 475.40   | 311.10  | 353.80   | 536.20  | 576.20  |           |
| 29    | 495.80   | 405.40   | 686.50   | 311.10   | 1250.70  | 9911.50   | 6392.40   | 371.90   | 311.10  | 353.80   |         | 576.20  |           |
| 30    | 450.90   | 371.90   | 588.10   | 311.10   | 1008.90  | 9911.50   | 6081.20   | 371.90   | 311.10  | 371.90   |         | 576.20  |           |
| 31    |          | 371.90   |          | 311.10   | 891.20   |           | 5809.90   |          | 311.10  | 371.90   |         | 576.20  |           |
| Total | 11921.20 | 12439.40 | 21945.80 | 13878.70 | 41937.50 | 167127.50 | 233076.70 | 51125.70 | 9972.60 | 10426.40 | 12796.7 | 7174.10 | 603822.30 |
| Mean  | 397.40   | 401.30   | 731.50   | 447.70   | 1352.80  | 5570.90   | 7518.60   | 1704.20  | 321.70  | 336.30   | 457.00  | 554.00  |           |
| Max   | 495.80   | 455.00   | 2238.00  | 1269.30  | 3734.40  | 9964.10   | 9911.50   | 5471.70  | 371.90  | 371.90   | 536.20  | 588.10  | 9964.10   |
| Min   | 341.70   | 371.90   | 311.10   | 280.20   | 311.10   | 670.90    | 5809.90   | 371.90   | 311.10  | 311.10   | 371.90  | 536.20  | 280.20    |

**WATER YEAR : 2013****SAKAE KRANG RIVER BASIN****Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet (Ct.5A)**

Lat 15 - 55 - 33 N Long 99 - 30 - 22 E

**Location : on left bank behind Wat Pang Makha.**

|                                      |                            |                   |               |                            |                 |                       |
|--------------------------------------|----------------------------|-------------------|---------------|----------------------------|-----------------|-----------------------|
|                                      | <b>Ban</b>                 | <b>Pang Makha</b> | <b>Amphoe</b> | <b>Khanu Woralaksaburi</b> | <b>Changwat</b> | <b>Kamphaeng Phet</b> |
| <b>Drainage Area</b>                 | 977                        | sq.km.            |               |                            |                 |                       |
| <b>Method of sampling</b>            | Depth                      | Integrating       |               |                            |                 |                       |
| <b>Instrument Used</b>               | US.D-49                    |                   |               |                            |                 |                       |
| <b>Period of Available Records</b>   | 1969-Cont'd                |                   |               |                            |                 |                       |
| <b>Actual Measurement</b>            | 1969-Cont'd                |                   |               |                            |                 |                       |
| <b>Using Rating Curve Water Year</b> | 2013                       |                   |               |                            |                 |                       |
| <b>Number of observation</b>         | 29                         |                   |               |                            |                 |                       |
| <b>R-Square</b>                      | 0.9190                     |                   |               |                            |                 |                       |
| <b>Remarks</b>                       | Continued Sediment Station |                   |               |                            |                 |                       |

$$QS = 2.1180 QW^{1.40300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun    | Jul    | Aug     | Sep     | Oct     | Nov    | Dec  | Jan  | Feb   | Mar   | Annual   |            |
|-------|-------|-------|--------|--------|---------|---------|---------|--------|------|------|-------|-------|----------|------------|
| 1     | 0.20  | 8.50  | 26.20  | 0.20   | 8.10    | 1.50    | 168.20  | 26.20  | 0.20 | 0.00 | 3.70  | 1.70  |          |            |
| 2     | 0.20  | 4.30  | 22.60  | 0.10   | 10.80   | 3.70    | 115.60  | 17.40  | 0.20 | 0.00 | 3.70  | 1.50  |          |            |
| 3     | 0.20  | 2.90  | 10.80  | 0.20   | 4.30    | 3.70    | 1008.20 | 12.40  | 0.20 | 0.00 | 3.70  | 1.40  |          |            |
| 4     | 0.20  | 2.70  | 1.90   | 11.60  | 2.50    | 5.20    | 1558.70 | 9.00   | 0.20 | 0.00 | 3.70  | 1.40  |          |            |
| 5     | 0.10  | 17.40 | 0.20   | 18.20  | 3.90    | 5.70    | 502.30  | 7.20   | 0.10 | 0.00 | 3.70  | 1.30  |          |            |
| 6     | 0.10  | 3.50  | 1.10   | 9.90   | 3.30    | 3.30    | 95.80   | 5.90   | 0.10 | 0.00 | 3.70  | 1.30  |          |            |
| 7     | 0.10  | 1.40  | 103.10 | 5.40   | 3.50    | 4.50    | 65.30   | 5.00   | 0.10 | 0.00 | 3.50  | 1.20  |          |            |
| 8     | 0.10  | 0.60  | 79.80  | 3.50   | 52.40   | 3.30    | 48.20   | 4.50   | 0.10 | 0.00 | 3.30  | 1.10  |          |            |
| 9     | 0.10  | 0.10  | 5.00   | 41.50  | 15.60   | 67.60   | 34.10   | 3.90   | 0.10 | 0.00 | 3.30  | 1.10  |          |            |
| 10    | 0.20  | 0.00  | 2.90   | 12.40  | 56.60   | 18.20   | 26.20   | 3.70   | 0.10 | 0.00 | 3.30  | 1.00  |          |            |
| 11    | 0.20  | 0.00  | 14.00  | 5.00   | 673.40  | 12.40   | 16.50   | 3.50   | 0.00 | 0.00 | 2.30  | 1.00  |          |            |
| 12    | 0.20  | 0.00  | 40.00  | 3.30   | 2838.50 | 44.60   | 9.00    | 3.10   | 0.00 | 0.00 | 2.30  | 1.00  |          |            |
| 13    | 0.40  | 0.00  | 56.60  | 5.70   | 300.00  | 152.10  | 5.20    | 2.90   | 0.00 | 0.00 | 2.30  | 0.90  |          |            |
| 14    | 0.50  | 0.00  | 67.60  | 2.50   | 92.50   | 119.80  | 3.90    | 2.50   | 0.00 | 0.00 | 2.10  | 0.90  |          |            |
| 15    | 0.60  | 0.00  | 10.80  | 1.30   | 111.40  | 173.60  | 3.70    | 1.30   | 0.00 | 0.00 | 2.10  | 0.90  |          |            |
| 16    | 0.60  | 0.00  | 5.90   | 3.50   | 35.50   | 50.30   | 3.50    | 1.10   | 0.00 | 0.00 | 2.10  | 0.90  |          |            |
| 17    | 0.80  | 0.00  | 3.30   | 1.50   | 21.40   | 67.60   | 8.50    | 1.00   | 0.00 | 0.00 | 2.10  | 0.80  |          |            |
| 18    | 1.00  | 0.00  | 2.00   | 0.70   | 13.20   | 119.80  | 35.50   | 0.90   | 0.00 | 0.00 | 2.10  | 0.80  |          |            |
| 19    | 1.30  | 0.00  | 3.70   | 0.40   | 8.50    | 63.10   | 67.60   | 0.80   | 0.00 | 0.00 | 2.00  | 0.80  |          |            |
| 20    | 1.30  | 0.00  | 12.40  | 0.20   | 6.40    | 388.50  | 397.20  | 0.80   | 0.00 | 0.00 | 2.00  | 0.80  |          |            |
| 21    | 1.40  | 0.00  | 3.70   | 0.10   | 5.90    | 1383.60 | 492.40  | 0.70   | 0.00 | 0.00 | 2.00  | 1.20  |          |            |
| 22    | 1.40  | 0.00  | 4.50   | 0.00   | 5.00    | 1480.10 | 190.30  | 0.60   | 0.00 | 0.00 | 1.90  | 1.20  |          |            |
| 23    | 1.50  | 0.00  | 3.30   | 0.10   | 4.50    | 346.10  | 89.30   | 0.60   | 0.00 | 0.00 | 1.90  | 9.90  |          |            |
| 24    | 1.70  | 0.00  | 2.00   | 5.00   | 3.90    | 388.50  | 46.20   | 0.60   | 0.00 | 0.00 | 1.90  | 2.50  |          |            |
| 25    | 3.30  | 0.00  | 1.40   | 1.80   | 3.50    | 244.60  | 307.30  | 0.50   | 0.00 | 0.00 | 1.90  | 1.20  |          |            |
| 26    | 2.70  | 0.00  | 1.40   | 1.00   | 2.90    | 82.90   | 563.40  | 0.40   | 0.00 | 0.00 | 1.80  | 1.00  |          |            |
| 27    | 4.30  | 0.10  | 1.10   | 0.80   | 3.30    | 65.30   | 141.70  | 0.40   | 0.00 | 0.00 | 1.80  | 0.90  |          |            |
| 28    | 7.70  | 0.00  | 0.80   | 0.70   | 3.70    | 52.40   | 76.70   | 0.40   | 0.00 | 0.00 | 1.70  | 0.90  |          |            |
| 29    | 13.20 | 0.00  | 0.70   | 3.30   | 2.00    | 73.60   | 48.20   | 0.30   | 0.00 | 0.00 |       | 0.90  |          |            |
| 30    | 5.90  | 0.00  | 0.50   | 13.20  | 1.30    | 207.80  | 34.10   | 0.20   | 0.00 | 0.00 |       | 0.80  |          |            |
| 31    |       | 26.20 |        | 17.40  | 1.00    |         | 29.90   |        | 0.00 | 0.00 |       | 0.80  |          |            |
| Total | 51.50 | 67.70 | 489.30 | 170.50 | 4298.80 | 5633.40 | 6192.70 | 117.80 | 1.40 | 0.00 | 71.90 | 43.10 | 17138.10 | <b>Ton</b> |
| Mean  | 1.70  | 2.20  | 16.30  | 5.50   | 138.70  | 187.80  | 199.80  | 3.90   | 0.00 | 0.00 | 2.60  | 1.40  |          |            |
| Max   | 13.20 | 26.20 | 103.10 | 41.50  | 2838.50 | 1480.10 | 1558.70 | 26.20  | 0.20 | 0.00 | 3.70  | 9.90  | 2838.50  |            |
| Min   | 0.10  | 0.00  | 0.20   | 0.00   | 1.00    | 1.50    | 3.50    | 0.20   | 0.00 | 0.00 | 1.70  | 0.80  | 0.00     |            |

**WATER YEAR : 2013****SAKAE KRANG RIVER BASIN****Khlong Pho at Ban Mai Khlong Charoen, Nakhon Sawan (Ct.7)**

Lat 15 - 38 - 24 N Long 99 - 32 - 24 E

**Location : on right bank at Ban Mai Khlong Charoen.**

|                                      |                               |                        |                              |
|--------------------------------------|-------------------------------|------------------------|------------------------------|
|                                      | <b>Ban</b> Mai Khlong Charoen | <b>Amphoe</b> Mae Poen | <b>Changwat</b> Nakhon Sawan |
| <b>Drainage Area</b>                 | 453                           | sq.km.                 |                              |
| <b>Method of sampling</b>            | Depth Integrating             |                        |                              |
| <b>Instrument Used</b>               | US.D-49                       |                        |                              |
| <b>Period of Available Records</b>   | 1998-Cont'd                   |                        |                              |
| <b>Actual Measurement</b>            | 1998-Cont'd                   |                        |                              |
| <b>Using Rating Curve Water Year</b> | 1998-2013                     |                        |                              |
| <b>Number of observation</b>         | 150                           |                        |                              |
| <b>R-Square</b>                      | 0.8010                        |                        |                              |
| <b>Remarks</b>                       | Continued Sediment Station    |                        |                              |

$$QS = 7.4150 QW^{1.20200}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May    | Jun    | Jul    | Aug    | Sep     | Oct     | Nov     | Dec    | Jan    | Feb    | Mar    | Annual   |            |
|-------|---------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|----------|------------|
| 1     | 5.90    | 1.20   | 2.80   | 2.80   | 3.00   | 7.00    | 201.50  | 36.90   | 6.20   | 70.30  | 3.20   | 6.40   |          |            |
| 2     | 2.80    | 1.10   | 2.80   | 2.70   | 2.80   | 5.20    | 181.50  | 32.10   | 5.20   | 70.30  | 3.20   | 5.20   |          |            |
| 3     | 2.30    | 0.90   | 2.80   | 2.50   | 2.80   | 6.20    | 426.30  | 28.20   | 4.40   | 42.60  | 3.00   | 4.20   |          |            |
| 4     | 1.90    | 0.90   | 3.20   | 3.90   | 3.20   | 8.00    | 595.90  | 25.60   | 4.20   | 9.80   | 3.00   | 7.80   |          |            |
| 5     | 1.70    | 0.90   | 5.70   | 31.30  | 3.00   | 10.90   | 421.00  | 23.00   | 3.90   | 5.70   | 3.00   | 7.00   |          |            |
| 6     | 1.60    | 0.80   | 3.70   | 7.80   | 2.80   | 19.70   | 269.70  | 20.70   | 3.70   | 4.70   | 3.00   | 5.20   |          |            |
| 7     | 1.60    | 0.80   | 3.20   | 46.40  | 2.80   | 8.30    | 184.50  | 18.60   | 3.50   | 3.90   | 3.00   | 4.70   |          |            |
| 8     | 1.60    | 0.80   | 4.20   | 50.80  | 2.80   | 6.20    | 128.10  | 18.10   | 3.50   | 18.10  | 3.00   | 7.00   |          |            |
| 9     | 1.40    | 0.60   | 3.00   | 54.20  | 2.80   | 16.00   | 95.70   | 17.60   | 3.50   | 44.50  | 3.00   | 12.10  |          |            |
| 10    | 1.40    | 3.20   | 4.70   | 67.80  | 2.70   | 10.20   | 73.50   | 16.50   | 3.20   | 26.20  | 3.00   | 6.20   |          |            |
| 11    | 1.20    | 3.20   | 8.30   | 56.40  | 7.20   | 15.00   | 58.80   | 16.00   | 3.20   | 18.60  | 2.80   | 5.20   |          |            |
| 12    | 1.20    | 1.90   | 21.80  | 55.30  | 17.60  | 20.70   | 49.70   | 27.50   | 3.20   | 10.50  | 2.80   | 4.70   |          |            |
| 13    | 1.10    | 1.20   | 29.70  | 54.20  | 8.00   | 12.10   | 40.70   | 50.80   | 3.00   | 5.70   | 2.80   | 4.40   |          |            |
| 14    | 1.10    | 1.10   | 9.00   | 51.90  | 5.40   | 10.90   | 32.90   | 48.60   | 3.20   | 5.40   | 2.80   | 4.40   |          |            |
| 15    | 1.10    | 1.20   | 6.40   | 53.10  | 5.20   | 10.50   | 28.20   | 48.60   | 3.70   | 13.00  | 2.80   | 4.90   |          |            |
| 16    | 1.70    | 1.10   | 4.90   | 33.70  | 3.90   | 26.90   | 25.60   | 47.50   | 8.30   | 43.50  | 2.80   | 5.20   |          |            |
| 17    | 49.70   | 1.10   | 3.90   | 7.20   | 3.20   | 61.30   | 27.50   | 47.50   | 5.90   | 40.70  | 3.00   | 20.20  |          |            |
| 18    | 184.50  | 36.90  | 3.70   | 4.40   | 3.00   | 114.40  | 32.90   | 26.90   | 24.30  | 27.50  | 3.00   | 9.00   |          |            |
| 19    | 93.80   | 81.40  | 3.90   | 3.90   | 3.00   | 211.80  | 97.70   | 7.00    | 62.60  | 23.00  | 21.20  | 6.20   |          |            |
| 20    | 178.40  | 175.40 | 3.50   | 3.50   | 2.80   | 458.90  | 410.50  | 28.90   | 14.50  | 36.90  | 40.70  | 5.70   |          |            |
| 21    | 198.10  | 175.40 | 3.20   | 3.00   | 2.80   | 1250.10 | 499.10  | 73.50   | 7.50   | 41.60  | 38.80  | 5.40   |          |            |
| 22    | 198.10  | 172.40 | 3.90   | 3.00   | 2.80   | 1834.70 | 330.00  | 67.80   | 17.10  | 40.70  | 17.60  | 5.20   |          |            |
| 23    | 191.30  | 53.10  | 7.20   | 2.80   | 3.70   | 1029.90 | 204.90  | 60.10   | 7.20   | 26.20  | 36.10  | 5.20   |          |            |
| 24    | 76.60   | 6.20   | 5.40   | 2.80   | 3.00   | 642.90  | 135.90  | 60.10   | 69.00  | 6.70   | 38.80  | 5.20   |          |            |
| 25    | 4.40    | 3.90   | 3.90   | 2.80   | 2.80   | 431.60  | 107.60  | 60.10   | 135.90 | 5.40   | 38.80  | 4.40   |          |            |
| 26    | 2.80    | 3.20   | 3.50   | 2.80   | 3.50   | 261.20  | 109.90  | 67.80   | 79.80  | 4.70   | 35.30  | 3.50   |          |            |
| 27    | 2.10    | 2.80   | 5.70   | 2.70   | 5.70   | 175.40  | 91.90   | 83.00   | 65.20  | 4.40   | 42.60  | 3.50   |          |            |
| 28    | 1.90    | 2.70   | 3.90   | 2.70   | 5.40   | 135.90  | 73.50   | 84.60   | 71.90  | 4.20   | 27.50  | 3.20   |          |            |
| 29    | 1.60    | 2.70   | 3.20   | 3.00   | 4.20   | 109.90  | 60.10   | 48.60   | 73.50  | 3.90   |        | 3.20   |          |            |
| 30    | 1.40    | 2.30   | 3.00   | 3.70   | 3.20   | 141.10  | 50.80   | 8.70    | 73.50  | 3.70   |        | 3.20   |          |            |
| 31    |         | 2.10   |        | 3.70   | 4.20   |         | 43.50   |         | 73.50  | 3.50   |        | 3.20   |          |            |
| Total | 1214.30 | 742.50 | 174.10 | 626.80 | 129.30 | 7052.90 | 5089.40 | 1200.90 | 847.30 | 665.90 | 390.60 | 180.90 | 18314.90 | <b>Ton</b> |
| Mean  | 40.50   | 24.00  | 5.80   | 20.20  | 4.20   | 235.10  | 164.20  | 40.00   | 27.30  | 21.50  | 13.90  | 5.80   |          |            |
| Max   | 198.10  | 175.40 | 29.70  | 67.80  | 17.60  | 1834.70 | 595.90  | 84.60   | 135.90 | 70.30  | 42.60  | 20.20  | 1834.70  |            |
| Min   | 1.10    | 0.60   | 2.80   | 2.50   | 2.70   | 5.20    | 25.60   | 7.00    | 3.00   | 3.50   | 2.80   | 3.20   | 0.60     |            |

**WATER YEAR : 2013****SAKAE KRANG RIVER BASIN****Huai Tak Dad at Ban Don Yai, Uthai Thani (Ct.19)**

Lat 15 - 27 - 07 N Long 100 - 02 - 00 E

**Location : on right bank at Ban Don Yai.**

|                                      |                            |                |               |               |                 |                    |
|--------------------------------------|----------------------------|----------------|---------------|---------------|-----------------|--------------------|
|                                      | <b>Ban</b>                 | <b>Don Yai</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b> | <b>Uthai Thani</b> |
| <b>Drainage Area</b>                 | 3,454                      | sq.km.         |               |               |                 |                    |
| <b>Method of sampling</b>            | Depth Integrating          |                |               |               |                 |                    |
| <b>Instrument Used</b>               | US.D-49                    |                |               |               |                 |                    |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                |               |               |                 |                    |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                |               |               |                 |                    |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |               |               |                 |                    |
| <b>Number of observation</b>         | 26                         |                |               |               |                 |                    |
| <b>R-Square</b>                      | 0.8570                     |                |               |               |                 |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                |               |               |                 |                    |

**QS = 6.4200 QW<sup>1.09300</sup>****Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun     | Jul     | Aug     | Sep      | Oct      | Nov    | Dec  | Jan  | Feb  | Mar  | Annual    |            |
|-------|------|------|---------|---------|---------|----------|----------|--------|------|------|------|------|-----------|------------|
| 1     | 0.00 | 0.00 | 0.00    | 16.70   | 0.00    | 2.40     | 2045.40  | 79.50  | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 2     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 1.10     | 1744.90  | 37.30  | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 3     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00     | 1405.40  | 30.80  | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 4     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00     | 1465.40  | 26.00  | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 5     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00     | 2058.00  | 13.70  | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 6     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00     | 2242.20  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 7     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 6.40     | 1794.70  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 8     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 338.20   | 735.20   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 9     | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 510.50   | 555.50   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 10    | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 724.70   | 306.90   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 11    | 0.00 | 0.00 | 0.00    | 12.20   | 0.00    | 942.20   | 215.60   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 12    | 0.00 | 0.00 | 0.00    | 181.70  | 465.90  | 1310.20  | 91.80    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 13    | 0.00 | 0.00 | 0.00    | 461.90  | 1004.60 | 1658.00  | 110.40   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 14    | 0.00 | 0.00 | 0.00    | 522.80  | 1455.40 | 2173.00  | 86.50    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 15    | 0.00 | 0.00 | 809.00  | 275.80  | 1222.20 | 2530.10  | 62.30    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 16    | 0.00 | 0.00 | 539.10  | 272.00  | 798.40  | 2312.70  | 57.20    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 17    | 0.00 | 0.00 | 299.10  | 201.40  | 486.10  | 2095.90  | 64.00    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 18    | 0.00 | 0.00 | 110.40  | 74.30   | 235.50  | 1944.80  | 62.30    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 19    | 0.00 | 0.00 | 74.30   | 27.60   | 83.00   | 2710.30  | 330.40   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 20    | 0.00 | 0.00 | 81.30   | 6.40    | 38.90   | 3279.60  | 1435.40  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 21    | 0.00 | 0.00 | 235.50  | 0.00    | 16.70   | 4082.90  | 1882.10  | 3.70   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 22    | 0.00 | 0.00 | 268.10  | 0.00    | 9.30    | 4667.30  | 2032.80  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 23    | 0.00 | 0.00 | 162.20  | 0.00    | 7.80    | 5062.00  | 1624.30  | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 24    | 0.00 | 0.00 | 110.40  | 0.00    | 9.30    | 5322.50  | 793.10   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 25    | 0.00 | 0.00 | 156.70  | 0.00    | 9.30    | 5432.00  | 405.60   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 26    | 0.00 | 0.00 | 123.90  | 0.00    | 9.30    | 5459.40  | 310.80   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 27    | 0.00 | 0.00 | 50.50   | 0.00    | 10.70   | 5140.00  | 377.70   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 28    | 0.00 | 0.00 | 72.60   | 0.00    | 7.80    | 3604.20  | 357.90   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| 29    | 0.00 | 0.00 | 93.50   | 0.00    | 5.00    | 3029.90  | 235.50   | 0.00   | 0.00 | 0.00 |      | 0.00 |           |            |
| 30    | 0.00 | 0.00 | 48.80   | 0.00    | 3.70    | 2283.80  | 84.80    | 0.00   | 0.00 | 0.00 |      | 0.00 |           |            |
| 31    |      | 0.00 |         | 0.00    | 2.40    |          | 90.00    |        | 0.00 | 0.00 |      | 0.00 |           |            |
| Total | 0.00 | 0.00 | 3235.40 | 2052.80 | 5881.30 | 66624.10 | 25064.10 | 191.00 | 0.00 | 0.00 | 0.00 | 0.00 | 103048.70 | <b>Ton</b> |
| Mean  | 0.00 | 0.00 | 107.80  | 66.20   | 189.70  | 2220.80  | 808.50   | 6.40   | 0.00 | 0.00 | 0.00 | 0.00 |           |            |
| Max   | 0.00 | 0.00 | 809.00  | 522.80  | 1455.40 | 5459.40  | 2242.20  | 79.50  | 0.00 | 0.00 | 0.00 | 0.00 | 5459.40   |            |
| Min   | 0.00 | 0.00 | 0.00    | 0.00    | 0.00    | 0.00     | 57.20    | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00      |            |

**WATER YEAR : 2013****PASAK RIVER BASIN****Pasak River at Ban Pa , Saraburi (S.9)**

Lat 14 - 37 - 39 N Long 101 - 01 - 02 E

**Location : on left bank at Ban Mueang Nua railway bridge.**

|                                      |                            |               |                   |                 |                 |
|--------------------------------------|----------------------------|---------------|-------------------|-----------------|-----------------|
|                                      | <b>Ban Pa</b>              | <b>Amphoe</b> | <b>Kaeng Khoi</b> | <b>Changwat</b> | <b>Saraburi</b> |
| <b>Drainage Area</b>                 | 14,233                     | sq.km.        |                   |                 |                 |
| <b>Method of sampling</b>            | Depth Integrating          |               |                   |                 |                 |
| <b>Instrument Used</b>               | US.D-49                    |               |                   |                 |                 |
| <b>Period of Available Records</b>   | 1978-Cont'd                |               |                   |                 |                 |
| <b>Actual Measurement</b>            | 1978-Cont'd                |               |                   |                 |                 |
| <b>Using Rating Curve Water Year</b> | 2013                       |               |                   |                 |                 |
| <b>Number of observation</b>         | 38                         |               |                   |                 |                 |
| <b>R-Square</b>                      | 0.8020                     |               |                   |                 |                 |
| <b>Remarks</b>                       | Continued Sediment Station |               |                   |                 |                 |

$$QS = 4.4040 QW^{1.03300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul    | Aug     | Sep      | Oct      | Nov     | Dec     | Jan     | Feb     | Mar     | Annual    |            |
|-------|---------|---------|---------|--------|---------|----------|----------|---------|---------|---------|---------|---------|-----------|------------|
| 1     | 147.80  | 84.20   | 122.40  | 30.90  | 36.80   | 30.90    | 2295.50  | 443.50  | 120.40  | 309.80  | 347.90  | 275.40  |           |            |
| 2     | 181.00  | 84.20   | 118.40  | 30.90  | 76.20   | 29.50    | 2636.20  | 272.30  | 158.00  | 300.40  | 334.80  | 253.60  |           |            |
| 3     | 193.80  | 84.20   | 125.00  | 28.00  | 78.20   | 32.40    | 3059.10  | 235.00  | 242.80  | 275.40  | 232.40  | 235.00  |           |            |
| 4     | 191.30  | 122.40  | 112.30  | 25.10  | 82.20   | 32.40    | 4059.10  | 240.20  | 256.80  | 272.30  | 219.60  | 232.40  |           |            |
| 5     | 191.30  | 158.00  | 104.30  | 26.60  | 70.20   | 29.50    | 4619.30  | 206.70  | 256.80  | 341.10  | 201.50  | 232.40  |           |            |
| 6     | 191.30  | 158.00  | 110.30  | 29.50  | 64.30   | 29.50    | 4663.60  | 137.60  | 256.80  | 351.50  | 224.70  | 235.00  |           |            |
| 7     | 191.30  | 150.40  | 140.20  | 36.80  | 94.20   | 23.70    | 4545.40  | 112.30  | 256.80  | 355.20  | 248.00  | 245.40  |           |            |
| 8     | 191.30  | 152.90  | 127.50  | 36.80  | 135.10  | 29.50    | 4464.30  | 112.30  | 316.00  | 344.20  | 248.00  | 240.20  |           |            |
| 9     | 191.30  | 150.40  | 118.40  | 30.90  | 116.40  | 56.40    | 4412.60  | 106.30  | 334.80  | 281.70  | 278.50  | 217.00  |           |            |
| 10    | 188.70  | 150.40  | 114.40  | 33.80  | 96.20   | 42.60    | 4368.40  | 100.20  | 334.80  | 284.80  | 297.30  | 217.00  |           |            |
| 11    | 191.30  | 145.30  | 122.40  | 35.30  | 88.20   | 74.20    | 4324.20  | 100.20  | 328.50  | 316.00  | 291.00  | 222.10  |           |            |
| 12    | 193.80  | 140.20  | 125.00  | 36.80  | 90.20   | 80.20    | 4279.90  | 112.30  | 259.90  | 325.40  | 235.00  | 224.70  |           |            |
| 13    | 224.70  | 170.80  | 84.20   | 33.80  | 96.20   | 114.40   | 4228.40  | 104.30  | 245.40  | 316.00  | 222.10  | 224.70  |           |            |
| 14    | 229.90  | 147.80  | 74.20   | 30.90  | 90.20   | 114.40   | 4228.40  | 108.30  | 250.50  | 316.00  | 242.80  | 235.00  |           |            |
| 15    | 222.10  | 147.80  | 72.20   | 29.50  | 88.20   | 137.60   | 4176.80  | 116.40  | 316.00  | 316.00  | 275.40  | 235.00  |           |            |
| 16    | 145.30  | 170.80  | 58.40   | 29.50  | 82.20   | 155.50   | 4000.30  | 112.30  | 355.20  | 312.90  | 309.80  | 219.60  |           |            |
| 17    | 127.50  | 222.10  | 56.40   | 28.00  | 68.30   | 173.30   | 3340.50  | 112.30  | 355.20  | 312.90  | 325.40  | 256.80  |           |            |
| 18    | 140.20  | 250.50  | 50.50   | 26.60  | 38.20   | 142.70   | 2262.70  | 98.20   | 362.50  | 309.80  | 322.30  | 263.00  |           |            |
| 19    | 137.60  | 253.60  | 48.50   | 25.10  | 41.20   | 142.70   | 2073.60  | 72.20   | 344.20  | 316.00  | 281.70  | 259.90  |           |            |
| 20    | 147.80  | 248.00  | 54.40   | 25.10  | 39.70   | 947.90   | 2201.60  | 74.20   | 259.90  | 306.60  | 266.10  | 250.50  |           |            |
| 21    | 150.40  | 256.80  | 39.70   | 25.10  | 42.60   | 2031.00  | 1763.70  | 66.30   | 253.60  | 334.80  | 269.20  | 227.30  |           |            |
| 22    | 150.40  | 245.40  | 32.40   | 25.10  | 62.30   | 1282.90  | 1539.90  | 80.20   | 351.50  | 347.90  | 269.20  | 219.60  |           |            |
| 23    | 163.10  | 256.80  | 30.90   | 25.10  | 33.80   | 550.90   | 1435.80  | 90.20   | 355.20  | 337.90  | 275.40  | 227.30  |           |            |
| 24    | 137.60  | 256.80  | 30.90   | 28.00  | 29.50   | 300.40   | 1233.80  | 78.20   | 278.50  | 337.90  | 272.30  | 214.40  |           |            |
| 25    | 132.60  | 253.60  | 33.80   | 33.80  | 33.80   | 272.30   | 957.60   | 64.30   | 272.30  | 344.20  | 294.10  | 196.40  |           |            |
| 26    | 127.50  | 256.80  | 39.70   | 36.80  | 41.20   | 543.40   | 817.00   | 66.30   | 337.90  | 344.20  | 306.60  | 191.30  |           |            |
| 27    | 114.40  | 224.70  | 33.80   | 36.80  | 18.00   | 788.00   | 436.10   | 64.30   | 351.50  | 331.70  | 291.00  | 191.30  |           |            |
| 28    | 100.20  | 155.50  | 32.40   | 32.40  | 28.00   | 1184.80  | 380.90   | 70.20   | 355.20  | 325.40  | 303.50  | 188.70  |           |            |
| 29    | 96.20   | 140.20  | 32.40   | 32.40  | 29.50   | 1618.40  | 358.90   | 80.20   | 337.90  | 325.40  |         | 186.10  |           |            |
| 30    | 86.20   | 130.00  | 30.90   | 30.90  | 26.60   | 1964.00  | 358.90   | 74.20   | 297.30  | 331.70  |         | 186.10  |           |            |
| 31    |         | 125.00  |         | 32.40  | 29.50   |          | 395.60   |         | 306.60  | 341.10  |         | 193.80  |           |            |
| Total | 4877.90 | 5493.60 | 2276.30 | 948.70 | 1947.20 | 12955.40 | 83918.10 | 3711.50 | 9108.80 | 9966.20 | 7685.60 | 6997.00 | 149886.30 | <b>Ton</b> |
| Mean  | 162.60  | 177.20  | 75.90   | 30.60  | 62.80   | 431.80   | 2707.00  | 123.70  | 293.80  | 321.50  | 274.50  | 225.70  |           |            |
| Max   | 229.90  | 256.80  | 140.20  | 36.80  | 135.10  | 2031.00  | 4663.60  | 443.50  | 362.50  | 355.20  | 347.90  | 275.40  | 4663.60   |            |
| Min   | 86.20   | 84.20   | 30.90   | 25.10  | 18.00   | 23.70    | 358.90   | 64.30   | 120.40  | 272.30  | 201.50  | 186.10  | 18.00     |            |

**WATER YEAR : 2013****PASAK RIVER BASIN****Pasak River at Ban Nong Bua , Lop Buri (S.28)**

Lat 14 - 50 - 21 N Long 101 - 04 - 08 E

**Location : on left bank at Ban Nong Bua.**

|                                      |                            |          |               |                  |                 |          |
|--------------------------------------|----------------------------|----------|---------------|------------------|-----------------|----------|
|                                      | <b>Ban</b>                 | Nong Bua | <b>Amphoe</b> | Phatthana Nikhom | <b>Changwat</b> | Lop Buri |
| <b>Drainage Area</b>                 | 8,778                      | sq.km.   |               |                  |                 |          |
| <b>Method of sampling</b>            | Depth Integrating          |          |               |                  |                 |          |
| <b>Instrument Used</b>               | US.D-49                    |          |               |                  |                 |          |
| <b>Period of Available Records</b>   | 1998-Cont'd                |          |               |                  |                 |          |
| <b>Actual Measurement</b>            | 1998-Cont'd                |          |               |                  |                 |          |
| <b>Using Rating Curve Water Year</b> | 2013                       |          |               |                  |                 |          |
| <b>Number of observation</b>         | 33                         |          |               |                  |                 |          |
| <b>R-Square</b>                      | 0.8050                     |          |               |                  |                 |          |
| <b>Remarks</b>                       | Continued Sediment Station |          |               |                  |                 |          |

$$QS = 1.0430 QW^{1.11100}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun    | Jul   | Aug    | Sep     | Oct      | Nov    | Dec     | Jan     | Feb     | Mar     | Annual   |     |
|-------|--------|---------|--------|-------|--------|---------|----------|--------|---------|---------|---------|---------|----------|-----|
| 1     | 32.00  | 11.70   | 21.50  | 0.90  | 0.80   | 7.90    | 813.50   | 108.90 | 27.10   | 73.80   | 87.00   | 73.20   |          |     |
| 2     | 41.90  | 11.40   | 20.30  | 0.90  | 1.40   | 8.20    | 943.70   | 59.40  | 44.50   | 73.20   | 63.50   | 60.90   |          |     |
| 3     | 40.90  | 15.70   | 20.70  | 0.90  | 0.80   | 8.20    | 1216.50  | 60.40  | 57.30   | 72.60   | 46.00   | 59.40   |          |     |
| 4     | 41.90  | 28.70   | 16.50  | 0.80  | 0.80   | 8.20    | 1556.10  | 54.20  | 59.40   | 84.80   | 46.00   | 58.80   |          |     |
| 5     | 42.90  | 30.10   | 14.20  | 0.80  | 1.20   | 7.60    | 1672.20  | 29.10  | 58.80   | 105.20  | 48.50   | 59.90   |          |     |
| 6     | 43.50  | 28.70   | 17.60  | 0.80  | 7.40   | 7.10    | 1656.50  | 18.00  | 58.30   | 105.90  | 62.00   | 59.40   |          |     |
| 7     | 44.00  | 28.70   | 18.40  | 0.80  | 10.20  | 7.40    | 1631.30  | 15.70  | 65.80   | 105.20  | 62.00   | 59.40   |          |     |
| 8     | 43.50  | 28.30   | 15.70  | 0.80  | 11.40  | 7.40    | 1618.80  | 14.20  | 84.80   | 84.80   | 63.00   | 59.90   |          |     |
| 9     | 42.90  | 28.30   | 14.20  | 0.90  | 8.50   | 7.60    | 1603.10  | 11.40  | 85.50   | 72.00   | 73.20   | 58.30   |          |     |
| 10    | 43.50  | 27.50   | 15.70  | 0.90  | 6.50   | 7.60    | 1587.40  | 11.10  | 85.50   | 75.70   | 73.20   | 57.80   |          |     |
| 11    | 43.50  | 27.50   | 14.20  | 0.90  | 6.80   | 7.40    | 1571.80  | 11.10  | 70.10   | 87.70   | 68.30   | 58.80   |          |     |
| 12    | 49.00  | 27.90   | 7.90   | 0.80  | 7.10   | 4.90    | 1543.60  | 10.80  | 54.70   | 87.00   | 59.40   | 58.30   |          |     |
| 13    | 54.20  | 28.30   | 2.90   | 0.80  | 7.10   | 5.10    | 1537.40  | 9.60   | 55.20   | 87.00   | 59.90   | 57.30   |          |     |
| 14    | 52.10  | 28.30   | 2.90   | 0.80  | 7.40   | 6.00    | 1559.20  | 10.50  | 62.00   | 87.70   | 68.90   | 56.20   |          |     |
| 15    | 33.50  | 29.60   | 3.10   | 0.80  | 7.60   | 6.00    | 1509.80  | 9.90   | 92.80   | 87.00   | 78.40   | 56.80   |          |     |
| 16    | 22.30  | 41.40   | 3.10   | 0.80  | 6.50   | 7.10    | 1320.20  | 9.90   | 90.60   | 85.50   | 85.50   | 60.90   |          |     |
| 17    | 22.30  | 57.80   | 2.90   | 0.80  | 7.10   | 6.00    | 913.80   | 9.60   | 92.80   | 85.50   | 85.50   | 71.30   |          |     |
| 18    | 23.90  | 64.10   | 2.70   | 0.80  | 7.40   | 4.90    | 521.20   | 6.80   | 94.90   | 87.00   | 82.70   | 72.60   |          |     |
| 19    | 24.30  | 60.40   | 3.10   | 0.70  | 7.60   | 7.60    | 637.40   | 5.40   | 68.90   | 86.30   | 76.30   | 72.60   |          |     |
| 20    | 29.10  | 63.00   | 1.90   | 0.70  | 9.60   | 135.00  | 562.80   | 5.40   | 57.30   | 86.30   | 75.10   | 62.00   |          |     |
| 21    | 29.10  | 62.50   | 0.80   | 0.70  | 15.00  | 283.00  | 460.80   | 5.40   | 72.60   | 91.30   | 73.80   | 57.80   |          |     |
| 22    | 28.70  | 63.50   | 0.70   | 0.80  | 10.80  | 100.80  | 440.40   | 5.10   | 103.00  | 92.00   | 73.20   | 56.80   |          |     |
| 23    | 26.30  | 64.60   | 0.70   | 0.70  | 7.10   | 50.60   | 414.60   | 5.10   | 87.00   | 92.00   | 73.20   | 53.70   |          |     |
| 24    | 23.10  | 60.90   | 0.70   | 0.80  | 7.10   | 40.40   | 311.70   | 5.10   | 70.70   | 92.00   | 76.30   | 46.00   |          |     |
| 25    | 22.70  | 64.60   | 0.90   | 0.80  | 7.10   | 71.30   | 252.70   | 5.70   | 83.40   | 91.30   | 81.90   | 46.00   |          |     |
| 26    | 22.70  | 58.30   | 0.90   | 0.80  | 7.10   | 163.90  | 173.10   | 5.40   | 103.00  | 91.30   | 81.20   | 45.50   |          |     |
| 27    | 22.30  | 39.90   | 0.90   | 0.80  | 7.10   | 221.50  | 94.20    | 5.10   | 103.70  | 90.60   | 81.90   | 45.00   |          |     |
| 28    | 16.90  | 28.70   | 0.90   | 0.80  | 7.40   | 373.10  | 95.70    | 5.10   | 103.70  | 90.60   | 76.90   | 44.50   |          |     |
| 29    | 11.70  | 24.70   | 0.80   | 0.80  | 7.40   | 501.90  | 94.90    | 5.10   | 87.00   | 88.40   |         | 44.50   |          |     |
| 30    | 11.70  | 24.70   | 0.90   | 0.70  | 7.60   | 661.80  | 108.10   | 14.20  | 76.30   | 87.00   |         | 45.00   |          |     |
| 31    |        | 24.30   |        | 0.70  | 8.20   |         | 117.70   |        | 75.70   | 87.70   |         | 45.50   |          |     |
| Total | 986.40 | 1184.10 | 227.70 | 24.80 | 215.10 | 2735.50 | 28540.20 | 532.70 | 2332.40 | 2714.40 | 1982.80 | 1764.10 | 43240.20 | Ton |
| Mean  | 32.90  | 38.20   | 7.60   | 0.80  | 6.90   | 91.20   | 920.70   | 17.80  | 75.20   | 87.60   | 70.80   | 56.90   |          |     |
| Max   | 54.20  | 64.60   | 21.50  | 0.90  | 15.00  | 661.80  | 1672.20  | 108.90 | 103.70  | 105.90  | 87.00   | 73.20   | 1672.20  |     |
| Min   | 11.70  | 11.40   | 0.70   | 0.70  | 0.80   | 4.90    | 94.20    | 5.10   | 27.10   | 72.00   | 46.00   | 44.50   | 0.70     |     |

**WATER YEAR : 2013****PASAK RIVER BASIN****Pasak River at Ban Tha Hi Yong , Phetchabun (S.33)**

Lat 17 - 00 - 10 N Long 101 - 21 - 23 E

**Location : on left bank at Ban Tha Hai Yong**

|                                      |                            |                       |                            |
|--------------------------------------|----------------------------|-----------------------|----------------------------|
|                                      | <b>Ban</b> Tha Hai Yong    | <b>Amphoe</b> Lom Kao | <b>Changwat</b> Phetchabun |
| <b>Drainage Area</b>                 | 521 sq.km.                 |                       |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                            |
| <b>Instrument Used</b>               | US.D-49                    |                       |                            |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                       |                            |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                       |                            |
| <b>Using Rating Curve Water Year</b> | 2001-2013                  |                       |                            |
| <b>Number of observation</b>         | 424                        |                       |                            |
| <b>R-Square</b>                      | 0.7070                     |                       |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                            |

$$QS = 4.1105 QW^{1.80490}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul      | Aug      | Sep      | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual    |            |
|-------|-------|--------|--------|----------|----------|----------|---------|--------|--------|--------|-------|-------|-----------|------------|
| 1     | 1.00  | 1.60   | 4.90   | 1.40     | 420.00   | 2308.90  | 975.20  | 58.90  | 16.10  | 6.60   | 3.70  | 2.20  |           |            |
| 2     | 2.40  | 1.20   | 4.10   | 2.20     | 633.50   | 420.00   | 1226.10 | 47.50  | 14.40  | 6.60   | 3.70  | 1.90  |           |            |
| 3     | 2.20  | 1.20   | 13.10  | 2.20     | 279.10   | 214.70   | 1380.90 | 44.70  | 14.40  | 6.60   | 3.40  | 1.90  |           |            |
| 4     | 2.20  | 1.40   | 5.70   | 360.70   | 104.30   | 195.60   | 512.90  | 39.40  | 14.40  | 6.60   | 3.40  | 1.90  |           |            |
| 5     | 2.20  | 4.10   | 399.20 | 25.50    | 58.90    | 120.50   | 350.90  | 36.80  | 14.40  | 6.60   | 3.40  | 1.90  |           |            |
| 6     | 2.20  | 5.70   | 68.40  | 9.60     | 42.10    | 350.90   | 279.10  | 34.50  | 14.40  | 6.60   | 3.10  | 1.90  |           |            |
| 7     | 2.20  | 3.40   | 11.90  | 154.20   | 120.50   | 2225.90  | 221.20  | 32.20  | 13.10  | 6.60   | 3.10  | 1.90  |           |            |
| 8     | 2.40  | 2.70   | 21.50  | 1854.00  | 47.50    | 2509.90  | 177.30  | 32.20  | 13.10  | 5.70   | 2.70  | 1.60  |           |            |
| 9     | 1.90  | 2.40   | 6.60   | 475.20   | 827.50   | 1728.00  | 154.20  | 29.90  | 13.10  | 5.70   | 2.70  | 1.60  |           |            |
| 10    | 2.20  | 1.60   | 3.40   | 1655.20  | 1207.40  | 440.70   | 129.00  | 27.70  | 13.10  | 5.70   | 2.70  | 1.60  |           |            |
| 11    | 1.90  | 14.40  | 2.70   | 208.30   | 2090.20  | 177.30   | 120.50  | 27.70  | 13.10  | 4.90   | 2.70  | 1.60  |           |            |
| 12    | 1.60  | 3.40   | 7.50   | 148.60   | 154.20   | 332.30   | 112.30  | 25.50  | 11.90  | 4.90   | 2.70  | 1.60  |           |            |
| 13    | 1.60  | 2.20   | 2.70   | 29.90    | 171.40   | 891.80   | 100.60  | 27.70  | 11.90  | 4.90   | 2.70  | 1.60  |           |            |
| 14    | 1.60  | 1.60   | 2.40   | 17.80    | 137.80   | 3351.10  | 93.00   | 27.70  | 11.90  | 4.90   | 2.40  | 1.60  |           |            |
| 15    | 1.60  | 2.20   | 2.40   | 14.40    | 58.90    | 37132.10 | 89.20   | 27.70  | 10.70  | 4.10   | 2.40  | 1.60  |           |            |
| 16    | 1.60  | 1.20   | 2.20   | 13.10    | 50.20    | 1400.80  | 78.40   | 27.70  | 27.70  | 4.10   | 2.40  | 1.60  |           |            |
| 17    | 1.60  | 2.40   | 1.90   | 201.90   | 68.40    | 1930.50  | 189.40  | 27.70  | 17.80  | 4.10   | 2.40  | 1.60  |           |            |
| 18    | 1.60  | 1.40   | 2.40   | 21.50    | 56.00    | 2422.50  | 255.20  | 27.70  | 11.90  | 4.10   | 2.40  | 1.60  |           |            |
| 19    | 1.60  | 1.20   | 1.90   | 10.70    | 47.50    | 875.50   | 183.30  | 25.50  | 10.70  | 4.10   | 2.40  | 1.60  |           |            |
| 20    | 1.60  | 1.20   | 3.40   | 42.10    | 25.50    | 605.80   | 108.10  | 25.50  | 10.70  | 4.10   | 2.40  | 1.60  |           |            |
| 21    | 1.40  | 2.20   | 27.70  | 7.50     | 17.80    | 475.20   | 82.00   | 25.50  | 10.70  | 4.10   | 2.40  | 1.40  |           |            |
| 22    | 9.60  | 1.60   | 4.10   | 5.70     | 1061.90  | 705.40   | 75.10   | 23.50  | 9.60   | 4.10   | 2.20  | 1.40  |           |            |
| 23    | 2.40  | 25.50  | 3.10   | 47.50    | 31779.00 | 735.10   | 68.40   | 23.50  | 8.50   | 3.70   | 2.20  | 1.40  |           |            |
| 24    | 1.40  | 78.40  | 25.50  | 500.20   | 3385.10  | 323.40   | 65.30   | 23.50  | 8.50   | 3.70   | 2.20  | 1.60  |           |            |
| 25    | 3.10  | 25.50  | 5.70   | 380.00   | 305.40   | 450.90   | 104.30  | 23.50  | 8.50   | 3.70   | 2.20  | 1.60  |           |            |
| 26    | 5.70  | 4.10   | 5.70   | 39.40    | 341.30   | 592.10   | 112.30  | 23.50  | 8.50   | 3.70   | 2.20  | 1.60  |           |            |
| 27    | 1.60  | 4.90   | 16.10  | 25.50    | 270.40   | 10187.30 | 68.40   | 21.50  | 8.50   | 3.70   | 2.20  | 1.60  |           |            |
| 28    | 1.90  | 8.50   | 10.70  | 112.30   | 811.80   | 3485.00  | 62.10   | 21.50  | 7.50   | 3.70   | 2.20  | 1.60  |           |            |
| 29    | 1.90  | 3.40   | 8.50   | 2197.70  | 399.20   | 1930.50  | 53.20   | 21.50  | 7.50   | 3.70   |       | 1.40  |           |            |
| 30    | 1.60  | 3.40   | 1.00   | 676.30   | 143.20   | 1151.80  | 47.50   | 21.50  | 7.50   | 3.70   |       | 1.40  |           |            |
| 31    |       | 10.70  |        | 1443.10  | 14441.50 |          | 47.50   |        | 6.60   | 3.70   |       | 1.40  |           |            |
| Total | 67.80 | 224.70 | 676.40 | 10683.70 | 59557.50 | 79671.50 | 7522.90 | 883.20 | 370.70 | 149.00 | 74.60 | 50.80 | 159932.80 | <b>Ton</b> |
| Mean  | 2.30  | 7.20   | 22.50  | 344.60   | 1921.20  | 2655.70  | 242.70  | 29.40  | 12.00  | 4.80   | 2.70  | 1.60  |           |            |
| Max   | 9.60  | 78.40  | 399.20 | 2197.70  | 31779.00 | 37132.10 | 1380.90 | 58.90  | 27.70  | 6.60   | 3.70  | 2.20  | 37132.10  |            |
| Min   | 1.00  | 1.20   | 1.00   | 1.40     | 17.80    | 120.50   | 47.50   | 21.50  | 6.60   | 3.70   | 2.20  | 1.40  | 1.00      |            |



**WATER YEAR : 2013****THA CHIN BASIN****Lower Huai Kra Sieo at Ban Thap Man, Suphan Buri (T.12A)**

Lat 15 - 00 - 45 N Long 99 - 37 - 12 E

**Location : on left bank at Ban Thap Man.**

|                                      |                            |                         |                             |
|--------------------------------------|----------------------------|-------------------------|-----------------------------|
|                                      | <b>Ban</b> Thap Man        | <b>Amphoe</b> Dan Chang | <b>Changwat</b> Suphan Buri |
| <b>Drainage Area</b>                 | 686 sq.km.                 |                         |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                             |
| <b>Instrument Used</b>               | US.D-49                    |                         |                             |
| <b>Period of Available Records</b>   | 2003-Cont'd                |                         |                             |
| <b>Actual Measurement</b>            | 2003-Cont'd                |                         |                             |
| <b>Using Rating Curve Water Year</b> | 2003-2013                  |                         |                             |
| <b>Number of observation</b>         | 76                         |                         |                             |
| <b>R-Square</b>                      | 0.7540                     |                         |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                             |

$$QS = 5.9890 QW^{1.31300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul     | Aug     | Sep     | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 16.70  | 16.70  | 16.70   | 355.80  | 37.00   | 43.90   | 412.20  | 54.80  | 15.80  | 10.40  | 1.80  | 1.50  |          |            |
| 2     | 16.70  | 16.70  | 16.70   | 344.20  | 37.00   | 37.00   | 355.80  | 51.10  | 14.10  | 10.40  | 1.80  | 1.50  |          |            |
| 3     | 16.70  | 16.70  | 16.70   | 338.40  | 37.00   | 37.00   | 687.10  | 45.70  | 14.10  | 10.40  | 1.80  | 1.50  |          |            |
| 4     | 0.00   | 16.70  | 16.70   | 338.40  | 37.00   | 37.00   | 412.20  | 40.40  | 14.10  | 10.40  | 1.80  | 1.50  |          |            |
| 5     | 16.70  | 16.70  | 16.70   | 344.20  | 37.00   | 37.00   | 289.20  | 37.00  | 13.30  | 10.40  | 1.80  | 1.50  |          |            |
| 6     | 16.70  | 16.70  | 16.70   | 373.80  | 35.60   | 37.00   | 226.70  | 34.30  | 13.30  | 10.40  | 1.80  | 1.50  |          |            |
| 7     | 16.70  | 16.70  | 16.70   | 438.70  | 25.50   | 53.00   | 193.30  | 33.00  | 13.30  | 10.40  | 1.80  | 1.50  |          |            |
| 8     | 16.70  | 16.70  | 16.70   | 583.90  | 24.20   | 61.30   | 304.70  | 31.70  | 12.60  | 10.40  | 1.80  | 1.50  |          |            |
| 9     | 16.70  | 16.70  | 16.70   | 294.30  | 24.20   | 54.80   | 222.30  | 45.70  | 12.60  | 10.40  | 1.80  | 1.50  |          |            |
| 10    | 16.70  | 16.70  | 16.70   | 268.70  | 40.40   | 59.10   | 169.90  | 40.40  | 12.60  | 10.40  | 1.80  | 1.50  |          |            |
| 11    | 16.70  | 16.70  | 16.70   | 110.40  | 510.10  | 344.20  | 143.60  | 33.00  | 12.60  | 10.40  | 1.80  | 1.50  |          |            |
| 12    | 16.70  | 16.70  | 22.30   | 101.30  | 803.30  | 386.50  | 123.10  | 29.20  | 11.80  | 10.40  | 1.80  | 1.50  |          |            |
| 13    | 16.70  | 16.70  | 29.20   | 68.00   | 713.50  | 162.30  | 107.20  | 26.70  | 11.80  | 10.40  | 1.80  | 1.50  |          |            |
| 14    | 16.70  | 16.70  | 42.10   | 54.80   | 350.00  | 244.80  | 93.10   | 25.50  | 11.10  | 10.40  | 1.80  | 1.50  |          |            |
| 15    | 16.70  | 16.70  | 57.00   | 40.40   | 231.20  | 412.20  | 82.30   | 38.70  | 11.10  | 6.50   | 1.80  | 1.50  |          |            |
| 16    | 16.70  | 16.70  | 74.80   | 37.00   | 132.90  | 181.50  | 74.80   | 31.70  | 11.10  | 2.10   | 1.80  | 1.50  |          |            |
| 17    | 16.70  | 16.70  | 93.10   | 37.00   | 87.70   | 139.90  | 350.00  | 31.70  | 11.10  | 2.10   | 1.50  | 1.50  |          |            |
| 18    | 16.70  | 16.70  | 113.50  | 37.00   | 72.50   | 231.20  | 169.90  | 27.90  | 11.10  | 2.10   | 1.50  | 1.50  |          |            |
| 19    | 16.70  | 16.70  | 151.00  | 37.00   | 54.80   | 803.30  | 546.70  | 25.50  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 20    | 16.70  | 16.70  | 181.50  | 37.00   | 54.80   | 1483.60 | 947.20  | 23.30  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 21    | 16.70  | 16.70  | 201.30  | 37.00   | 42.10   | 1299.50 | 399.30  | 22.30  | 11.10  | 2.10   | 1.50  | 1.50  |          |            |
| 22    | 16.70  | 16.70  | 235.70  | 37.00   | 37.00   | 517.30  | 258.60  | 21.30  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 23    | 16.70  | 16.70  | 263.70  | 37.00   | 40.40   | 327.00  | 201.30  | 20.40  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 24    | 16.70  | 16.70  | 299.50  | 37.00   | 37.00   | 289.20  | 162.30  | 20.40  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 25    | 16.70  | 16.70  | 373.80  | 37.00   | 37.00   | 254.00  | 139.90  | 20.40  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 26    | 16.70  | 16.70  | 386.50  | 35.60   | 37.00   | 197.30  | 126.40  | 20.40  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 27    | 16.70  | 16.70  | 431.70  | 37.00   | 35.60   | 181.50  | 104.10  | 19.40  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 28    | 16.70  | 16.70  | 399.30  | 37.00   | 25.50   | 244.80  | 87.70   | 19.40  | 11.10  | 1.80   | 1.50  | 1.50  |          |            |
| 29    | 16.70  | 16.70  | 373.80  | 37.00   | 24.20   | 278.90  | 79.70   | 18.50  | 11.10  | 1.80   |       | 1.50  |          |            |
| 30    | 16.70  | 16.70  | 361.70  | 37.00   | 25.50   | 304.70  | 70.20   | 18.50  | 11.10  | 1.80   |       | 1.50  |          |            |
| 31    |        | 16.70  |         | 37.00   | 25.50   |         | 61.30   |        | 10.40  | 1.80   |       | 1.50  |          |            |
| Total | 484.30 | 517.70 | 4275.20 | 4645.90 | 3712.50 | 8740.80 | 7602.10 | 908.30 | 371.10 | 182.10 | 46.80 | 46.50 | 31533.30 | <b>Ton</b> |
| Mean  | 16.10  | 16.70  | 142.50  | 149.90  | 119.80  | 291.40  | 245.20  | 30.30  | 12.00  | 5.90   | 1.70  | 1.50  |          |            |
| Max   | 16.70  | 16.70  | 431.70  | 583.90  | 803.30  | 1483.60 | 947.20  | 54.80  | 15.80  | 10.40  | 1.80  | 1.50  | 1483.60  |            |
| Min   | 0.00   | 16.70  | 16.70   | 35.60   | 24.20   | 37.00   | 61.30   | 18.50  | 10.40  | 1.80   | 1.50  | 1.50  | 0.00     |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Lam Ta Phoen at Ban Thung Na Nang Rok , Kanchanaburi (K.12)**

Lat 14 - 09 - 17 N Long 99 - 25 - 07 E

**Location : on left bank about 50 meters downstream from Wat Thung Na Nang Rok.**

|                                      |                            |                          |               |               |                 |                     |
|--------------------------------------|----------------------------|--------------------------|---------------|---------------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | <b>Thung Na Nang Rok</b> | <b>Amphoe</b> | <b>Mueang</b> | <b>Changwat</b> | <b>Kanchanaburi</b> |
| <b>Drainage Area</b>                 | 2,375                      | sq.km.                   |               |               |                 |                     |
| <b>Method of sampling</b>            | Depth                      | Integrating              |               |               |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                          |               |               |                 |                     |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                          |               |               |                 |                     |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                          |               |               |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                          |               |               |                 |                     |
| <b>Number of observation</b>         | 25                         |                          |               |               |                 |                     |
| <b>R-Square</b>                      | 0.8940                     |                          |               |               |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                          |               |               |                 |                     |

$$QS = 2.8460 QW^{1.28600}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun     | Jul    | Aug    | Sep     | Oct     | Nov     | Dec    | Jan   | Feb   | Mar   | Annual   |            |
|-------|-------|-------|---------|--------|--------|---------|---------|---------|--------|-------|-------|-------|----------|------------|
| 1     | 0.50  | 0.80  | 0.50    | 13.70  | 11.70  | 2.60    | 115.10  | 79.60   | 23.50  | 5.40  | 1.70  | 1.60  |          |            |
| 2     | 0.50  | 0.60  | 0.50    | 11.20  | 16.90  | 2.40    | 141.00  | 68.60   | 22.10  | 4.70  | 1.60  | 0.80  |          |            |
| 3     | 0.50  | 0.50  | 8.30    | 10.20  | 15.80  | 2.30    | 169.50  | 59.00   | 20.30  | 3.10  | 1.60  | 0.80  |          |            |
| 4     | 0.20  | 0.50  | 23.50   | 9.20   | 13.20  | 2.10    | 215.80  | 52.00   | 19.70  | 2.60  | 1.60  | 0.70  |          |            |
| 5     | 0.50  | 0.50  | 42.50   | 6.90   | 10.70  | 2.00    | 274.90  | 47.20   | 19.10  | 2.60  | 1.60  | 0.70  |          |            |
| 6     | 0.50  | 2.30  | 28.50   | 7.40   | 8.30   | 1.50    | 287.60  | 41.50   | 18.00  | 2.60  | 1.50  | 0.60  |          |            |
| 7     | 0.50  | 5.40  | 66.30   | 13.70  | 6.10   | 1.50    | 310.80  | 37.90   | 17.50  | 2.80  | 1.20  | 0.60  |          |            |
| 8     | 0.50  | 8.80  | 110.60  | 13.20  | 4.70   | 6.10    | 297.80  | 37.90   | 16.90  | 2.80  | 0.80  | 0.60  |          |            |
| 9     | 0.40  | 6.10  | 104.70  | 14.80  | 3.10   | 6.90    | 257.30  | 43.40   | 16.90  | 2.70  | 0.70  | 0.50  |          |            |
| 10    | 0.40  | 2.80  | 98.90   | 18.00  | 2.70   | 7.80    | 257.30  | 44.30   | 16.90  | 2.80  | 0.70  | 0.50  |          |            |
| 11    | 0.50  | 2.30  | 69.80   | 18.60  | 2.60   | 16.40   | 245.40  | 48.20   | 15.30  | 2.80  | 0.60  | 0.50  |          |            |
| 12    | 0.50  | 2.10  | 44.30   | 15.80  | 2.70   | 52.00   | 190.70  | 46.20   | 14.30  | 2.70  | 0.60  | 0.50  |          |            |
| 13    | 0.50  | 1.70  | 62.00   | 14.80  | 2.70   | 81.00   | 139.30  | 39.70   | 11.70  | 2.80  | 0.60  | 0.50  |          |            |
| 14    | 0.50  | 0.90  | 198.90  | 18.60  | 4.40   | 90.20   | 116.60  | 37.90   | 11.20  | 5.40  | 0.50  | 0.20  |          |            |
| 15    | 1.00  | 0.70  | 182.90  | 15.80  | 6.90   | 88.90   | 97.40   | 39.70   | 10.70  | 2.70  | 0.50  | 0.10  |          |            |
| 16    | 6.10  | 0.70  | 153.30  | 12.70  | 5.70   | 90.20   | 86.20   | 51.10   | 10.70  | 1.90  | 0.50  | 0.20  |          |            |
| 17    | 8.80  | 0.50  | 96.00   | 9.20   | 6.90   | 151.60  | 79.60   | 61.00   | 9.70   | 2.00  | 0.50  | 0.20  |          |            |
| 18    | 9.70  | 0.50  | 60.00   | 6.50   | 7.80   | 156.90  | 96.00   | 52.00   | 7.80   | 2.00  | 0.60  | 0.20  |          |            |
| 19    | 9.70  | 0.50  | 73.40   | 4.70   | 6.90   | 118.10  | 182.90  | 43.40   | 7.80   | 2.30  | 0.60  | 1.00  |          |            |
| 20    | 9.70  | 0.50  | 106.20  | 4.10   | 5.00   | 132.50  | 220.20  | 36.00   | 7.80   | 1.90  | 0.60  | 1.70  |          |            |
| 21    | 9.20  | 0.50  | 124.40  | 3.10   | 3.40   | 252.50  | 297.80  | 32.20   | 6.90   | 1.70  | 0.50  | 2.10  |          |            |
| 22    | 5.00  | 0.50  | 90.20   | 2.80   | 3.10   | 380.60  | 386.50  | 27.80   | 7.40   | 1.70  | 0.50  | 2.10  |          |            |
| 23    | 2.30  | 0.50  | 56.00   | 3.40   | 3.10   | 604.60  | 380.60  | 24.20   | 6.50   | 1.70  | 0.60  | 8.30  |          |            |
| 24    | 1.70  | 0.50  | 40.60   | 3.80   | 3.40   | 932.30  | 340.00  | 24.20   | 6.90   | 1.70  | 0.70  | 5.70  |          |            |
| 25    | 1.10  | 0.50  | 33.00   | 2.80   | 3.10   | 671.00  | 290.10  | 22.80   | 6.10   | 1.90  | 1.10  | 4.70  |          |            |
| 26    | 0.90  | 0.50  | 27.80   | 2.60   | 4.10   | 411.60  | 211.40  | 29.20   | 5.40   | 1.90  | 1.00  | 4.70  |          |            |
| 27    | 0.70  | 0.50  | 24.20   | 2.30   | 4.40   | 277.40  | 180.90  | 27.00   | 4.70   | 1.70  | 1.20  | 4.10  |          |            |
| 28    | 0.60  | 0.50  | 20.80   | 2.60   | 4.10   | 192.70  | 175.20  | 27.00   | 5.40   | 1.60  | 2.00  | 3.40  |          |            |
| 29    | 0.50  | 0.50  | 19.70   | 3.10   | 3.40   | 142.80  | 141.00  | 27.80   | 5.40   | 1.60  |       | 3.40  |          |            |
| 30    | 0.80  | 0.50  | 16.90   | 4.10   | 3.10   | 115.10  | 112.10  | 25.60   | 5.40   | 1.70  |       | 2.40  |          |            |
| 31    |       | 0.40  |         | 6.90   | 2.70   |         | 90.20   |         | 5.40   | 1.70  |       | 2.00  |          |            |
| Total | 74.30 | 44.10 | 1984.70 | 276.60 | 182.70 | 4993.60 | 6387.20 | 1234.40 | 363.40 | 77.50 | 26.20 | 55.40 | 15700.10 | <b>Ton</b> |
| Mean  | 2.50  | 1.40  | 66.20   | 8.90   | 5.90   | 166.50  | 206.00  | 41.10   | 11.70  | 2.50  | 0.90  | 1.80  |          |            |
| Max   | 9.70  | 8.80  | 198.90  | 18.60  | 16.90  | 932.30  | 386.50  | 79.60   | 23.50  | 5.40  | 2.00  | 8.30  | 932.30   |            |
| Min   | 0.20  | 0.40  | 0.50    | 2.30   | 2.60   | 1.50    | 79.60   | 22.80   | 4.70   | 1.60  | 0.50  | 0.10  | 0.10     |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Lam Phachi at Ban Bo , Ratchaburi (K.17)**

Lat 13 - 32 - 31 N Long 99 - 21 - 24 E

**Location : on left bank oppositeto the 'Sai Ngam' fronter police station.**

|                                      | Ban Bo                     | Amphoe Suan Phung | Changwat Ratchaburi |
|--------------------------------------|----------------------------|-------------------|---------------------|
| <b>Drainage Area</b>                 | 1,344 sq.km.               |                   |                     |
| <b>Method of sampling</b>            | Depth Integrating          |                   |                     |
| <b>Instrument Used</b>               | US.D-49                    |                   |                     |
| <b>Period of Available Records</b>   | 1999-Cont'd                |                   |                     |
| <b>Actual Measurement</b>            | 1999-Cont'd                |                   |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                   |                     |
| <b>Number of observation</b>         | 34                         |                   |                     |
| <b>R-Square</b>                      | 0.8900                     |                   |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                   |                     |

$$QS = 0.6260 QW^{1.75100}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun    | Jul    | Aug     | Sep    | Oct      | Nov      | Dec    | Jan    | Feb    | Mar    | Annual   |     |
|-------|-------|-------|--------|--------|---------|--------|----------|----------|--------|--------|--------|--------|----------|-----|
| 1     | 0.30  | 4.50  | 1.00   | 8.70   | 622.20  | 4.80   | 36.50    | 57.40    | 34.10  | 10.90  | 9.80   | 5.90   |          |     |
| 2     | 0.30  | 2.70  | 1.00   | 7.10   | 146.00  | 4.80   | 139.20   | 45.80    | 30.50  | 10.90  | 9.80   | 5.90   |          |     |
| 3     | 0.30  | 1.90  | 1.00   | 6.50   | 54.40   | 4.80   | 79.50    | 39.10    | 28.20  | 10.90  | 9.40   | 5.90   |          |     |
| 4     | 0.40  | 1.30  | 1.10   | 6.20   | 31.70   | 8.40   | 189.30   | 34.10    | 27.10  | 10.90  | 9.40   | 5.30   |          |     |
| 5     | 0.70  | 1.10  | 1.60   | 6.20   | 21.80   | 12.00  | 331.60   | 29.30    | 27.10  | 10.90  | 9.10   | 4.80   |          |     |
| 6     | 0.70  | 1.00  | 1.10   | 6.20   | 17.50   | 9.10   | 142.60   | 26.00    | 24.90  | 10.50  | 9.10   | 4.80   |          |     |
| 7     | 0.60  | 1.00  | 1.00   | 6.80   | 15.30   | 7.70   | 5707.70  | 23.90    | 21.80  | 10.50  | 8.70   | 4.50   |          |     |
| 8     | 0.30  | 1.10  | 1.00   | 7.10   | 12.80   | 7.70   | 4678.60  | 552.10   | 18.00  | 10.50  | 8.40   | 3.80   |          |     |
| 9     | 0.30  | 1.30  | 1.00   | 7.10   | 11.20   | 10.90  | 5219.00  | 25281.90 | 16.20  | 10.50  | 8.40   | 3.10   |          |     |
| 10    | 0.30  | 1.40  | 1.00   | 4.80   | 10.10   | 14.40  | 2914.80  | 3495.40  | 14.80  | 10.50  | 8.00   | 2.90   |          |     |
| 11    | 0.30  | 1.40  | 1.40   | 4.30   | 9.40    | 24.90  | 1450.30  | 1165.50  | 14.00  | 10.50  | 7.70   | 2.70   |          |     |
| 12    | 0.30  | 1.40  | 5.60   | 4.80   | 9.80    | 54.40  | 716.00   | 331.60   | 13.20  | 10.50  | 7.70   | 2.50   |          |     |
| 13    | 0.30  | 1.10  | 10.10  | 5.10   | 9.80    | 28.20  | 384.10   | 152.80   | 12.80  | 10.50  | 7.40   | 2.70   |          |     |
| 14    | 0.30  | 1.40  | 10.90  | 4.50   | 9.10    | 19.90  | 282.40   | 116.70   | 12.40  | 10.50  | 7.40   | 2.70   |          |     |
| 15    | 0.30  | 1.30  | 9.10   | 4.50   | 9.10    | 17.50  | 212.10   | 189.30   | 12.00  | 10.50  | 7.10   | 2.70   |          |     |
| 16    | 0.30  | 1.30  | 9.10   | 4.30   | 8.70    | 20.80  | 156.30   | 415.60   | 11.60  | 10.50  | 7.10   | 2.50   |          |     |
| 17    | 0.60  | 1.30  | 8.00   | 4.30   | 8.00    | 37.80  | 132.60   | 611.70   | 11.60  | 10.50  | 6.80   | 2.50   |          |     |
| 18    | 0.40  | 1.40  | 6.50   | 4.30   | 7.70    | 37.80  | 135.90   | 384.10   | 11.20  | 10.50  | 6.80   | 2.70   |          |     |
| 19    | 0.40  | 1.80  | 6.20   | 4.00   | 7.40    | 26.00  | 135.90   | 235.90   | 11.20  | 10.50  | 6.50   | 2.90   |          |     |
| 20    | 0.30  | 1.90  | 5.90   | 4.00   | 7.40    | 23.90  | 113.60   | 167.60   | 11.20  | 10.50  | 6.50   | 2.90   |          |     |
| 21    | 0.30  | 2.30  | 5.60   | 4.00   | 7.40    | 40.40  | 98.80    | 119.80   | 11.20  | 10.50  | 6.20   | 2.90   |          |     |
| 22    | 0.30  | 1.60  | 7.10   | 4.50   | 7.40    | 50.00  | 171.90   | 79.50    | 11.60  | 10.50  | 6.20   | 3.30   |          |     |
| 23    | 0.40  | 1.40  | 18.90  | 4.80   | 7.70    | 60.50  | 262.40   | 66.80    | 12.00  | 10.50  | 6.20   | 4.80   |          |     |
| 24    | 0.90  | 2.10  | 84.80  | 4.50   | 10.10   | 95.90  | 184.90   | 63.60    | 11.60  | 10.50  | 6.20   | 4.50   |          |     |
| 25    | 1.10  | 2.90  | 35.30  | 4.50   | 12.80   | 60.50  | 129.40   | 68.40    | 10.90  | 10.50  | 5.90   | 3.80   |          |     |
| 26    | 2.70  | 1.30  | 21.80  | 4.30   | 12.40   | 44.40  | 384.10   | 60.50    | 10.90  | 10.50  | 5.90   | 3.60   |          |     |
| 27    | 2.30  | 1.00  | 43.00  | 4.30   | 10.90   | 35.30  | 240.80   | 54.40    | 10.90  | 10.50  | 5.90   | 3.30   |          |     |
| 28    | 2.90  | 1.00  | 23.90  | 4.30   | 9.40    | 28.20  | 180.50   | 45.80    | 10.90  | 10.10  | 5.90   | 2.10   |          |     |
| 29    | 4.80  | 1.00  | 15.30  | 9.80   | 7.70    | 23.90  | 135.90   | 41.70    | 10.90  | 10.10  |        | 1.40   |          |     |
| 30    | 8.40  | 1.00  | 11.20  | 250.80 | 5.10    | 30.50  | 98.80    | 36.50    | 10.90  | 10.10  |        | 1.30   |          |     |
| 31    |       | 1.00  |        | 525.20 | 5.10    |        | 71.80    |          | 10.90  | 9.80   |        | 1.30   |          |     |
| Total | 31.80 | 48.20 | 350.50 | 931.80 | 1125.40 | 845.40 | 25117.30 | 33992.80 | 486.60 | 325.60 | 209.50 | 106.00 | 63570.90 | Ton |
| Mean  | 1.10  | 1.60  | 11.70  | 30.10  | 36.30   | 28.20  | 810.20   | 1133.10  | 15.70  | 10.50  | 7.50   | 3.40   |          |     |
| Max   | 8.40  | 4.50  | 84.80  | 525.20 | 622.20  | 95.90  | 5707.70  | 25281.90 | 34.10  | 10.90  | 9.80   | 5.90   | 25281.90 |     |
| Min   | 0.30  | 1.00  | 1.00   | 4.00   | 5.10    | 4.80   | 36.50    | 23.90    | 10.90  | 9.80   | 5.90   | 1.30   | 0.30     |     |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Mae Nam Noi at Ban Nam Chon , Kanchanaburi (K.31)**

Lat 14 - 26 - 04 N Long 98 - 49 - 20 E

**Location : on right bank about 2 kilometers downstream from station K.22A**

|                                      |                            |                 |               |                |                 |                     |
|--------------------------------------|----------------------------|-----------------|---------------|----------------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | <b>Nam Chon</b> | <b>Amphoe</b> | <b>Sai Yok</b> | <b>Changwat</b> | <b>Kanchanaburi</b> |
| <b>Drainage Area</b>                 | 799                        | sq.km.          |               |                |                 |                     |
| <b>Method of sampling</b>            | Depth                      | Integrating     |               |                |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |                |                 |                     |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                 |               |                |                 |                     |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                 |               |                |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |               |                |                 |                     |
| <b>Number of observation</b>         | 42                         |                 |               |                |                 |                     |
| <b>R-Square</b>                      | 0.8430                     |                 |               |                |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |                |                 |                     |

$$QS = 0.1730 QW^{1.80000}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun    | Jul      | Aug     | Sep     | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual   |            |
|-------|-------|-------|--------|----------|---------|---------|---------|--------|--------|--------|-------|-------|----------|------------|
| 1     | 0.50  | 0.40  | 0.60   | 5.00     | 1428.90 | 59.70   | 167.60  | 34.70  | 12.70  | 5.40   | 2.70  | 1.60  |          |            |
| 2     | 0.40  | 0.40  | 0.60   | 4.70     | 488.20  | 52.40   | 136.00  | 32.10  | 12.10  | 5.40   | 2.70  | 1.40  |          |            |
| 3     | 0.40  | 0.30  | 0.80   | 4.70     | 299.80  | 47.40   | 132.40  | 29.60  | 11.50  | 5.40   | 2.30  | 1.40  |          |            |
| 4     | 0.40  | 0.30  | 1.10   | 4.70     | 208.20  | 40.10   | 189.70  | 29.60  | 11.50  | 5.00   | 2.50  | 1.40  |          |            |
| 5     | 0.40  | 0.30  | 1.10   | 6.10     | 139.60  | 37.30   | 150.80  | 27.20  | 10.90  | 5.00   | 2.50  | 1.20  |          |            |
| 6     | 0.40  | 0.30  | 1.60   | 20.80    | 101.40  | 38.70   | 299.80  | 26.00  | 10.90  | 5.00   | 2.50  | 1.20  |          |            |
| 7     | 0.40  | 0.30  | 1.60   | 10.30    | 79.80   | 34.70   | 176.30  | 23.70  | 10.90  | 4.70   | 2.50  | 1.20  |          |            |
| 8     | 0.40  | 0.40  | 1.40   | 7.30     | 73.50   | 38.70   | 154.90  | 23.70  | 10.30  | 4.70   | 2.30  | 1.10  |          |            |
| 9     | 0.40  | 0.50  | 1.20   | 9.20     | 67.40   | 41.50   | 128.80  | 167.60 | 10.30  | 4.70   | 2.30  | 1.10  |          |            |
| 10    | 0.30  | 0.40  | 1.60   | 8.70     | 56.00   | 47.40   | 106.80  | 52.40  | 9.80   | 4.70   | 2.30  | 1.10  |          |            |
| 11    | 0.30  | 0.40  | 1.90   | 7.30     | 54.20   | 82.00   | 101.40  | 38.70  | 9.20   | 4.40   | 2.30  | 1.10  |          |            |
| 12    | 0.30  | 0.40  | 2.90   | 8.10     | 57.80   | 154.90  | 82.00   | 29.60  | 9.20   | 4.10   | 2.10  | 1.10  |          |            |
| 13    | 0.30  | 0.40  | 5.00   | 7.70     | 47.40   | 86.30   | 388.90  | 27.20  | 8.70   | 4.10   | 2.10  | 1.10  |          |            |
| 14    | 0.30  | 0.40  | 4.40   | 8.10     | 56.00   | 75.60   | 176.30  | 27.20  | 8.70   | 4.10   | 2.10  | 1.00  |          |            |
| 15    | 0.30  | 0.30  | 3.10   | 8.70     | 52.40   | 82.00   | 171.90  | 30.80  | 8.70   | 3.80   | 2.10  | 1.00  |          |            |
| 16    | 0.40  | 0.30  | 2.50   | 8.10     | 77.70   | 248.00  | 118.40  | 23.70  | 8.10   | 3.80   | 2.10  | 2.10  |          |            |
| 17    | 0.40  | 0.30  | 1.90   | 12.10    | 79.80   | 639.90  | 115.00  | 23.70  | 7.70   | 3.80   | 2.30  | 1.90  |          |            |
| 18    | 0.40  | 0.30  | 2.10   | 11.50    | 63.50   | 416.30  | 203.50  | 21.70  | 7.30   | 3.80   | 2.30  | 1.60  |          |            |
| 19    | 0.30  | 0.30  | 2.90   | 9.80     | 54.20   | 388.90  | 121.80  | 19.00  | 7.30   | 3.80   | 1.90  | 1.20  |          |            |
| 20    | 0.30  | 0.30  | 5.00   | 10.30    | 59.70   | 480.80  | 96.20   | 17.30  | 6.90   | 3.60   | 1.90  | 1.10  |          |            |
| 21    | 0.30  | 0.40  | 14.00  | 9.80     | 217.80  | 1056.00 | 82.00   | 18.10  | 6.90   | 3.60   | 1.90  | 1.00  |          |            |
| 22    | 0.70  | 0.40  | 65.50  | 10.30    | 287.90  | 1015.90 | 73.50   | 18.10  | 6.90   | 3.60   | 1.90  | 1.00  |          |            |
| 23    | 1.20  | 0.40  | 98.80  | 14.80    | 1700.10 | 728.90  | 63.50   | 17.30  | 6.50   | 3.60   | 1.90  | 1.20  |          |            |
| 24    | 0.80  | 0.50  | 139.60 | 30.80    | 611.40  | 503.20  | 57.80   | 17.30  | 6.50   | 3.40   | 1.90  | 1.10  |          |            |
| 25    | 0.60  | 0.60  | 75.60  | 176.30   | 375.60  | 466.10  | 52.40   | 17.30  | 6.50   | 3.40   | 1.90  | 1.10  |          |            |
| 26    | 0.50  | 0.70  | 34.70  | 176.30   | 253.60  | 369.00  | 84.10   | 15.60  | 6.10   | 3.40   | 1.70  | 1.10  |          |            |
| 27    | 0.50  | 0.70  | 16.40  | 248.00   | 176.30  | 349.50  | 56.00   | 14.80  | 6.10   | 3.40   | 1.60  | 1.00  |          |            |
| 28    | 0.50  | 0.70  | 9.80   | 611.40   | 121.80  | 259.20  | 47.40   | 14.80  | 6.10   | 3.40   | 1.60  | 0.80  |          |            |
| 29    | 0.50  | 0.60  | 7.70   | 3522.10  | 98.80   | 217.80  | 44.40   | 14.00  | 5.70   | 3.40   |       | 0.80  |          |            |
| 30    | 0.50  | 0.50  | 5.70   | 5778.80  | 84.10   | 189.70  | 41.50   | 13.40  | 5.70   | 3.10   |       | 0.80  |          |            |
| 31    |       | 0.60  |        | 3690.20  | 73.50   |         | 40.10   |        | 5.40   | 3.10   |       | 0.70  |          |            |
| Total | 13.40 | 13.10 | 511.10 | 14442.00 | 7546.40 | 8247.90 | 3861.20 | 866.20 | 261.10 | 126.70 | 60.20 | 36.50 | 35985.80 | <b>Ton</b> |
| Mean  | 0.40  | 0.40  | 17.00  | 465.90   | 243.40  | 274.90  | 124.60  | 28.90  | 8.40   | 4.10   | 2.20  | 1.20  |          |            |
| Max   | 1.20  | 0.70  | 139.60 | 5778.80  | 1700.10 | 1056.00 | 388.90  | 167.60 | 12.70  | 5.40   | 2.70  | 2.10  | 5778.80  |            |
| Min   | 0.30  | 0.30  | 0.60   | 4.70     | 47.40   | 34.70   | 40.10   | 13.40  | 5.40   | 3.10   | 1.60  | 0.70  | 0.30     |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Bong Ti at Ban Bong Ti , Kanchanaburi (K.32A)**

Lat 14 - 16 - 27 N Long 98 - 56 - 04 E

**Location : on right bank at Ban Bong Ti.**

|                                      |                            |                |               |                |                 |                     |
|--------------------------------------|----------------------------|----------------|---------------|----------------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | <b>Bong Ti</b> | <b>Amphoe</b> | <b>Sai Yok</b> | <b>Changwat</b> | <b>Kanchanaburi</b> |
| <b>Drainage Area</b>                 | 518                        | sq.km.         |               |                |                 |                     |
| <b>Method of sampling</b>            | Depth                      | Integrating    |               |                |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                |               |                |                 |                     |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                |               |                |                 |                     |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                |               |                |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |               |                |                 |                     |
| <b>Number of observation</b>         | 45                         |                |               |                |                 |                     |
| <b>R-Square</b>                      | 0.8550                     |                |               |                |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                |               |                |                 |                     |

$$QS = 2.2530 QW^{1.69400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May   | Jun   | Jul     | Aug     | Sep      | Oct     | Nov     | Dec    | Jan   | Feb   | Mar   | Annual   |            |
|-------|------|-------|-------|---------|---------|----------|---------|---------|--------|-------|-------|-------|----------|------------|
| 1     | 0.00 | 0.10  | 0.60  | 1.40    | 2300.10 | 24.60    | 84.60   | 20.20   | 9.20   | 1.70  | 0.80  | 0.50  |          |            |
| 2     | 0.00 | 0.10  | 0.90  | 1.20    | 732.40  | 35.10    | 93.30   | 17.70   | 8.00   | 1.70  | 0.80  | 0.40  |          |            |
| 3     | 0.00 | 0.10  | 0.60  | 1.00    | 328.90  | 53.70    | 99.40   | 15.40   | 6.90   | 1.70  | 0.80  | 0.40  |          |            |
| 4     | 0.00 | 0.00  | 0.80  | 1.00    | 214.40  | 39.80    | 449.20  | 12.50   | 6.90   | 1.50  | 0.80  | 0.40  |          |            |
| 5     | 0.00 | 0.00  | 6.90  | 25.80   | 111.90  | 24.60    | 431.30  | 9.90    | 6.40   | 1.50  | 0.70  | 0.40  |          |            |
| 6     | 0.00 | 0.00  | 2.00  | 31.00   | 76.20   | 21.00    | 374.20  | 9.90    | 6.40   | 1.40  | 0.70  | 0.40  |          |            |
| 7     | 0.00 | 0.00  | 1.20  | 38.00   | 47.50   | 21.00    | 336.30  | 8.00    | 5.40   | 1.40  | 0.70  | 0.40  |          |            |
| 8     | 0.00 | 0.00  | 1.20  | 31.00   | 35.10   | 102.50   | 321.60  | 18.50   | 5.40   | 1.40  | 0.60  | 0.40  |          |            |
| 9     | 0.00 | 0.00  | 0.80  | 29.70   | 31.00   | 70.70    | 351.20  | 3045.80 | 4.90   | 1.40  | 0.60  | 0.30  |          |            |
| 10    | 0.00 | 0.00  | 0.60  | 36.50   | 28.40   | 49.60    | 272.30  | 694.90  | 4.90   | 1.40  | 0.60  | 0.30  |          |            |
| 11    | 0.00 | 0.10  | 0.90  | 53.70   | 23.70   | 1706.10  | 193.10  | 314.30  | 4.40   | 1.40  | 0.60  | 0.30  |          |            |
| 12    | 0.00 | 0.10  | 0.80  | 62.90   | 27.10   | 670.30   | 123.30  | 177.80  | 4.00   | 1.30  | 0.60  | 0.30  |          |            |
| 13    | 0.00 | 0.10  | 6.90  | 25.80   | 29.70   | 440.20   | 105.60  | 115.20  | 4.00   | 1.30  | 0.60  | 0.30  |          |            |
| 14    | 0.00 | 0.10  | 8.60  | 15.40   | 193.10  | 682.50   | 76.20   | 102.50  | 3.70   | 1.20  | 0.60  | 0.20  |          |            |
| 15    | 0.00 | 0.10  | 3.20  | 9.20    | 149.10  | 535.50   | 73.40   | 81.70   | 3.70   | 1.20  | 0.60  | 0.20  |          |            |
| 16    | 0.00 | 0.10  | 2.00  | 11.10   | 81.70   | 440.20   | 45.60   | 65.50   | 3.70   | 1.10  | 0.80  | 0.30  |          |            |
| 17    | 0.00 | 0.10  | 1.40  | 6.40    | 51.60   | 719.80   | 51.60   | 57.90   | 3.40   | 1.10  | 4.40  | 0.40  |          |            |
| 18    | 0.00 | 0.60  | 1.70  | 4.40    | 38.00   | 504.70   | 588.60  | 43.60   | 3.20   | 1.10  | 1.40  | 0.40  |          |            |
| 19    | 0.00 | 4.40  | 2.00  | 3.20    | 31.00   | 366.50   | 343.70  | 25.80   | 2.90   | 1.10  | 1.10  | 1.00  |          |            |
| 20    | 0.00 | 1.10  | 2.00  | 3.20    | 22.80   | 514.90   | 242.20  | 21.90   | 2.60   | 1.00  | 0.90  | 1.30  |          |            |
| 21    | 0.00 | 0.60  | 2.90  | 2.40    | 22.80   | 1159.00  | 177.80  | 21.00   | 2.60   | 1.00  | 0.80  | 1.30  |          |            |
| 22    | 0.00 | 0.40  | 6.40  | 2.00    | 31.00   | 1031.00  | 158.10  | 20.20   | 2.60   | 1.00  | 0.70  | 1.40  |          |            |
| 23    | 0.40 | 0.30  | 6.90  | 1.70    | 272.30  | 903.00   | 105.60  | 17.70   | 2.40   | 1.00  | 0.70  | 1.10  |          |            |
| 24    | 0.20 | 0.60  | 9.20  | 5.40    | 321.60  | 634.10   | 78.90   | 16.90   | 2.40   | 1.00  | 0.60  | 1.10  |          |            |
| 25    | 0.10 | 0.40  | 8.00  | 23.70   | 230.90  | 413.70   | 62.90   | 16.90   | 2.40   | 1.00  | 0.60  | 2.20  |          |            |
| 26    | 0.10 | 0.70  | 5.40  | 21.00   | 153.60  | 259.60   | 60.40   | 15.40   | 2.40   | 1.00  | 0.60  | 1.40  |          |            |
| 27    | 0.30 | 0.50  | 3.40  | 13.20   | 93.30   | 188.00   | 45.60   | 13.90   | 2.20   | 1.00  | 0.60  | 1.10  |          |            |
| 28    | 0.10 | 0.30  | 2.40  | 29.70   | 57.90   | 127.50   | 35.10   | 12.50   | 2.20   | 1.00  | 0.50  | 0.90  |          |            |
| 29    | 0.10 | 0.30  | 2.00  | 1380.70 | 39.80   | 102.50   | 31.00   | 10.50   | 2.00   | 1.00  |       | 0.80  |          |            |
| 30    | 0.10 | 0.30  | 1.50  | 1861.20 | 32.30   | 105.60   | 27.10   | 10.50   | 2.00   | 1.00  |       | 0.60  |          |            |
| 31    |      | 0.80  |       | 3657.90 | 33.70   |          | 22.80   |         | 2.00   | 0.90  |       | 0.60  |          |            |
| Total | 1.40 | 12.30 | 93.20 | 7390.80 | 5842.90 | 11947.30 | 5462.00 | 5014.50 | 125.20 | 37.80 | 23.80 | 21.10 | 35972.30 | <b>Ton</b> |
| Mean  | 0.00 | 0.40  | 3.10  | 238.40  | 188.50  | 398.20   | 176.20  | 167.10  | 4.00   | 1.20  | 0.90  | 0.70  |          |            |
| Max   | 0.40 | 4.40  | 9.20  | 3657.90 | 2300.10 | 1706.10  | 588.60  | 3045.80 | 9.20   | 1.70  | 4.40  | 2.20  | 3657.90  |            |
| Min   | 0.00 | 0.00  | 0.60  | 1.00    | 22.80   | 21.00    | 22.80   | 8.00    | 2.00   | 0.90  | 0.50  | 0.20  | 0.00     |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Khwaee Noi River at Ban Wang Yen , Kanchanaburi (K.37)**

Lat 13 - 55 - 54 N Long 99 - 25 - 38 E

**Location : on left bank at Ban Wang Yen.**

|                                      |                            |                      |                              |
|--------------------------------------|----------------------------|----------------------|------------------------------|
|                                      | <b>Ban</b> Wang Yen        | <b>Amphoe</b> Mueang | <b>Changwat</b> Kanchanaburi |
| <b>Drainage Area</b>                 | 10,557 sq.km.              |                      |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                              |
| <b>Instrument Used</b>               | US.D-49                    |                      |                              |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                      |                              |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                      |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                              |
| <b>Number of observation</b>         | 22                         |                      |                              |
| <b>R-Square</b>                      | 0.8070                     |                      |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                              |

$$QS = 0.0010 QW^{2.51500}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr       | May      | Jun      | Jul      | Aug      | Sep       | Oct       | Nov       | Dec     | Jan      | Feb      | Mar      | Annual    |
|-------|-----------|----------|----------|----------|----------|-----------|-----------|-----------|---------|----------|----------|----------|-----------|
| 1     | 995.40    | 2395.80  | 767.70   | 541.90   | 20858.40 | 2838.60   | 3457.10   | 1386.90   | 422.20  | 241.20   | 1276.30  | 1171.10  |           |
| 2     | 1726.70   | 2956.50  | 781.90   | 333.80   | 8882.10  | 2292.10   | 3370.30   | 1150.80   | 431.50  | 241.20   | 1233.60  | 1071.40  |           |
| 3     | 3284.90   | 2431.00  | 712.50   | 241.20   | 2395.80  | 2125.30   | 3159.30   | 621.80    | 363.70  | 241.20   | 1071.40  | 1052.10  |           |
| 4     | 3589.60   | 2292.10  | 531.30   | 161.40   | 2028.90  | 2191.10   | 5118.20   | 500.00    | 440.90  | 413.00   | 1171.10  | 1090.90  |           |
| 5     | 3370.30   | 2574.80  | 552.70   | 201.60   | 1551.20  | 2258.10   | 6507.10   | 460.10    | 379.20  | 422.20   | 1071.40  | 855.30   |           |
| 6     | 5060.30   | 2538.40  | 621.80   | 152.20   | 1386.90  | 2466.40   | 4721.10   | 479.80    | 341.10  | 431.50   | 1071.40  | 1033.00  |           |
| 7     | 5176.50   | 1700.90  | 646.90   | 285.30   | 1859.10  | 2395.80   | 4776.60   | 413.00    | 326.60  | 685.80   | 1071.40  | 1191.70  |           |
| 8     | 5657.30   | 1254.80  | 712.50   | 212.50   | 1600.20  | 2466.40   | 11683.30  | 541.90    | 387.10  | 1052.10  | 1212.50  | 1150.80  |           |
| 9     | 5235.20   | 1456.00  | 646.90   | 143.30   | 1600.20  | 2326.30   | 12321.30  | 12657.50  | 312.50  | 1191.70  | 1233.60  | 1171.10  |           |
| 10    | 5474.00   | 1479.40  | 609.40   | 247.20   | 1551.20  | 2838.60   | 7010.80   | 49132.50  | 312.50  | 1090.90  | 1110.60  | 1342.00  |           |
| 11    | 5294.30   | 1456.00  | 469.90   | 235.30   | 1409.70  | 4665.90   | 5595.80   | 12543.30  | 348.60  | 1212.50  | 976.90   | 1650.10  |           |
| 12    | 6099.40   | 1503.10  | 500.00   | 265.80   | 1551.20  | 5235.20   | 3413.50   | 3910.70   | 312.50  | 1364.30  | 1052.10  | 1033.00  |           |
| 13    | 5474.00   | 1342.00  | 646.90   | 196.20   | 1479.40  | 5781.60   | 2761.70   | 1969.20   | 305.50  | 1191.70  | 1212.50  | 1171.10  |           |
| 14    | 4611.20   | 1191.70  | 363.70   | 223.70   | 1726.70  | 5294.30   | 3327.50   | 1479.40   | 312.50  | 726.10   | 1212.50  | 1191.70  |           |
| 15    | 4005.50   | 1150.80  | 207.00   | 185.90   | 1600.20  | 4888.90   | 2877.60   | 1859.10   | 291.90  | 1171.10  | 1212.50  | 1191.70  |           |
| 16    | 3500.90   | 1276.30  | 191.00   | 103.90   | 1364.30  | 4053.50   | 2574.80   | 1600.20   | 278.70  | 976.90   | 1150.80  | 1171.10  |           |
| 17    | 2224.50   | 1386.90  | 134.70   | 147.70   | 1298.00  | 4348.20   | 2224.50   | 2191.10   | 298.70  | 825.50   | 1130.60  | 1171.10  |           |
| 18    | 2838.60   | 1342.00  | 110.90   | 80.40    | 1254.80  | 7233.60   | 2538.40   | 2060.70   | 305.50  | 825.50   | 1052.10  | 1033.00  |           |
| 19    | 3327.50   | 1503.10  | 143.30   | 100.80   | 1052.10  | 7010.80   | 4611.20   | 1575.60   | 285.30  | 825.50   | 976.90   | 940.60   |           |
| 20    | 2761.70   | 1298.00  | 156.70   | 88.80    | 1033.00  | 6648.70   | 3958.00   | 1233.60   | 272.20  | 840.30   | 1212.50  | 1191.70  |           |
| 21    | 2877.60   | 1110.60  | 156.70   | 83.10    | 1675.40  | 8531.50   | 2761.70   | 940.60    | 259.60  | 840.30   | 1191.70  | 1233.60  |           |
| 22    | 2326.30   | 1233.60  | 166.10   | 88.80    | 2092.90  | 12106.40  | 2648.60   | 781.90    | 272.20  | 1110.60  | 1212.50  | 1233.60  |           |
| 23    | 2800.00   | 1409.70  | 201.60   | 80.40    | 3118.10  | 11999.80  | 2686.00   | 699.10    | 235.30  | 1254.80  | 1191.70  | 1276.30  |           |
| 24    | 3200.90   | 1432.70  | 265.80   | 180.80   | 6720.20  | 8445.20   | 2395.80   | 634.30    | 272.20  | 1319.90  | 1298.00  | 1171.10  |           |
| 25    | 2611.50   | 1726.70  | 341.10   | 387.10   | 7084.60  | 5118.20   | 2125.30   | 646.90    | 285.30  | 1298.00  | 1551.20  | 870.50   |           |
| 26    | 3200.90   | 1575.60  | 609.40   | 753.70   | 4888.90  | 3863.80   | 2125.30   | 563.60    | 241.20  | 1150.80  | 1150.80  | 1014.10  |           |
| 27    | 2611.50   | 1364.30  | 574.70   | 1191.70  | 3545.10  | 3118.10   | 2648.60   | 609.40    | 229.50  | 1212.50  | 1364.30  | 1212.50  |           |
| 28    | 2800.00   | 1033.00  | 767.70   | 1254.80  | 3284.90  | 2574.80   | 2125.30   | 563.60    | 241.20  | 1233.60  | 1191.70  | 1191.70  |           |
| 29    | 2648.60   | 585.90   | 767.70   | 2158.10  | 3036.60  | 2060.70   | 1805.40   | 510.30    | 253.40  | 1110.60  |          | 1233.60  |           |
| 30    | 2060.70   | 659.70   | 781.90   | 9985.30  | 2956.50  | 2028.90   | 1726.70   | 460.10    | 223.70  | 1503.10  |          | 1110.60  |           |
| 31    |           | 767.70   |          | 14822.30 | 2838.60  |           | 1503.10   |           | 247.20  | 1364.30  |          | 1033.00  |           |
| Total | 106845.80 | 47429.10 | 14140.40 | 35135.00 | 98725.20 | 139206.80 | 120559.90 | 104177.00 | 9489.50 | 29368.70 | 32864.60 | 35455.10 | 773397.10 |
| Mean  | 3561.50   | 1530.00  | 471.30   | 1133.40  | 3184.70  | 4640.20   | 3889.00   | 3472.60   | 306.10  | 947.40   | 1173.70  | 1143.70  |           |
| Max   | 6099.40   | 2956.50  | 781.90   | 14822.30 | 20858.40 | 12106.40  | 12321.30  | 49132.50  | 440.90  | 1503.10  | 1551.20  | 1650.10  | 49132.50  |
| Min   | 995.40    | 585.90   | 110.90   | 80.40    | 1033.00  | 2028.90   | 1503.10   | 413.00    | 223.70  | 241.20   | 976.90   | 855.30   | 80.40     |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Lin Thin at Ban Nong Bang , Kanchanaburi (K.38A)**

Lat 14 - 34 - 28 N Long 98 - 49 - 07 E

**Location : on left bank at KM. 95+700 on Kanchanaburi - Thong Pha Phum Highway.**

|                                      |                            |                  |               |                       |                 |                     |
|--------------------------------------|----------------------------|------------------|---------------|-----------------------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | <b>Nong Bang</b> | <b>Amphoe</b> | <b>Thong Pha Phum</b> | <b>Changwat</b> | <b>Kanchanaburi</b> |
| <b>Drainage Area</b>                 | 122                        | sq.km.           |               |                       |                 |                     |
| <b>Method of sampling</b>            | Depth                      | Integrating      |               |                       |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                  |               |                       |                 |                     |
| <b>Period of Available Records</b>   | 2001-Cont'd                |                  |               |                       |                 |                     |
| <b>Actual Measurement</b>            | 2001-Cont'd                |                  |               |                       |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                  |               |                       |                 |                     |
| <b>Number of observation</b>         | 26                         |                  |               |                       |                 |                     |
| <b>R-Square</b>                      | 0.9410                     |                  |               |                       |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                  |               |                       |                 |                     |

$$QS = 2.5540 QW^{1.94300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun   | Jul     | Aug     | Sep     | Oct    | Nov    | Dec    | Jan   | Feb   | Mar   | Annual  |            |
|-------|------|------|-------|---------|---------|---------|--------|--------|--------|-------|-------|-------|---------|------------|
| 1     | 0.20 | 0.20 | 0.20  | 0.90    | 140.30  | 14.00   | 55.10  | 10.20  | 7.00   | 3.80  | 1.90  | 0.90  |         |            |
| 2     | 0.20 | 0.20 | 0.20  | 0.90    | 95.80   | 13.00   | 55.10  | 10.20  | 7.00   | 3.80  | 1.90  | 0.90  |         |            |
| 3     | 0.20 | 0.20 | 0.50  | 0.90    | 73.60   | 11.10   | 55.10  | 10.20  | 7.00   | 3.80  | 1.60  | 0.90  |         |            |
| 4     | 0.20 | 0.20 | 0.50  | 0.90    | 47.30   | 10.20   | 45.00  | 9.30   | 7.00   | 3.80  | 1.60  | 0.80  |         |            |
| 5     | 0.20 | 0.10 | 0.50  | 0.90    | 40.70   | 8.50    | 40.70  | 8.50   | 7.00   | 3.30  | 1.60  | 0.80  |         |            |
| 6     | 0.20 | 0.10 | 1.90  | 1.60    | 18.00   | 11.10   | 32.80  | 8.50   | 7.00   | 3.30  | 1.60  | 0.80  |         |            |
| 7     | 0.20 | 0.10 | 1.20  | 1.60    | 14.00   | 10.20   | 32.80  | 8.50   | 7.00   | 3.30  | 1.60  | 0.80  |         |            |
| 8     | 0.20 | 0.10 | 1.20  | 2.40    | 11.10   | 16.60   | 32.80  | 8.50   | 7.00   | 3.30  | 1.60  | 0.80  |         |            |
| 9     | 0.20 | 0.00 | 2.40  | 1.60    | 10.20   | 16.60   | 40.70  | 29.10  | 6.30   | 2.80  | 1.60  | 0.80  |         |            |
| 10    | 0.20 | 0.00 | 1.60  | 2.40    | 11.10   | 32.80   | 36.70  | 19.40  | 6.30   | 2.80  | 1.20  | 0.80  |         |            |
| 11    | 0.20 | 0.00 | 3.30  | 3.30    | 10.20   | 104.10  | 36.70  | 13.00  | 6.30   | 2.80  | 1.20  | 0.80  |         |            |
| 12    | 0.20 | 0.00 | 3.80  | 2.80    | 9.30    | 108.30  | 32.80  | 13.00  | 6.30   | 2.40  | 1.20  | 0.80  |         |            |
| 13    | 0.10 | 0.00 | 2.40  | 2.40    | 8.50    | 38.70   | 32.80  | 13.00  | 6.30   | 2.40  | 1.20  | 0.80  |         |            |
| 14    | 0.10 | 0.00 | 1.60  | 2.40    | 42.90   | 40.70   | 24.00  | 13.00  | 6.30   | 2.40  | 1.20  | 0.80  |         |            |
| 15    | 0.40 | 0.00 | 0.60  | 2.80    | 29.10   | 61.00   | 22.40  | 16.60  | 6.30   | 2.40  | 1.20  | 0.80  |         |            |
| 16    | 0.50 | 0.00 | 0.40  | 2.40    | 24.00   | 58.00   | 22.40  | 15.30  | 5.60   | 2.40  | 1.20  | 0.80  |         |            |
| 17    | 0.50 | 0.00 | 0.40  | 2.40    | 20.90   | 64.00   | 29.10  | 12.00  | 5.60   | 2.40  | 1.20  | 0.80  |         |            |
| 18    | 0.40 | 0.00 | 0.90  | 1.90    | 15.30   | 55.10   | 25.70  | 11.10  | 5.60   | 2.40  | 1.20  | 0.60  |         |            |
| 19    | 0.40 | 0.20 | 0.60  | 1.90    | 12.00   | 73.60   | 25.70  | 11.10  | 5.60   | 2.40  | 1.20  | 0.60  |         |            |
| 20    | 0.60 | 0.20 | 0.90  | 1.90    | 8.50    | 289.90  | 22.40  | 10.20  | 5.60   | 2.40  | 1.20  | 0.60  |         |            |
| 21    | 0.40 | 0.20 | 2.40  | 2.40    | 25.70   | 183.30  | 22.40  | 10.20  | 5.60   | 2.40  | 1.20  | 0.60  |         |            |
| 22    | 0.20 | 0.20 | 3.30  | 4.40    | 15.30   | 150.20  | 24.00  | 9.30   | 5.60   | 2.40  | 1.20  | 0.60  |         |            |
| 23    | 0.20 | 0.20 | 3.80  | 12.00   | 95.80   | 170.90  | 19.40  | 9.30   | 5.00   | 2.40  | 1.20  | 0.60  |         |            |
| 24    | 0.20 | 0.20 | 11.10 | 27.40   | 87.90   | 135.50  | 16.60  | 8.50   | 4.40   | 2.40  | 1.20  | 0.60  |         |            |
| 25    | 0.50 | 0.20 | 5.00  | 29.10   | 52.30   | 130.70  | 16.60  | 8.50   | 5.00   | 2.40  | 1.20  | 0.90  |         |            |
| 26    | 0.50 | 0.20 | 1.90  | 15.30   | 40.70   | 91.80   | 16.60  | 7.70   | 5.60   | 2.40  | 0.90  | 0.90  |         |            |
| 27    | 0.40 | 0.20 | 1.20  | 38.70   | 40.70   | 87.90   | 12.00  | 7.70   | 5.60   | 2.40  | 0.90  | 0.90  |         |            |
| 28    | 0.40 | 0.20 | 1.20  | 67.20   | 27.40   | 70.40   | 13.00  | 7.70   | 5.00   | 2.40  | 0.90  | 0.90  |         |            |
| 29    | 0.20 | 0.20 | 1.20  | 237.20  | 22.40   | 61.00   | 12.00  | 7.00   | 5.00   | 1.90  |       | 0.90  |         |            |
| 30    | 0.20 | 0.20 | 1.20  | 1525.30 | 18.00   | 80.40   | 10.20  | 7.00   | 5.00   | 1.90  |       | 0.80  |         |            |
| 31    |      | 0.20 |       | 424.70  | 15.30   |         | 10.20  |        | 4.40   | 1.90  |       | 0.80  |         |            |
| Total | 8.60 | 3.80 | 57.40 | 2422.00 | 1084.30 | 2199.60 | 873.80 | 333.60 | 184.30 | 83.30 | 36.90 | 24.20 | 7311.80 | <b>Ton</b> |
| Mean  | 0.30 | 0.10 | 1.90  | 78.10   | 35.00   | 73.30   | 28.20  | 11.10  | 5.90   | 2.70  | 1.30  | 0.80  |         |            |
| Max   | 0.60 | 0.20 | 11.10 | 1525.30 | 140.30  | 289.90  | 55.10  | 29.10  | 7.00   | 3.80  | 1.90  | 0.90  | 1525.30 |            |
| Min   | 0.10 | 0.00 | 0.20  | 0.90    | 8.50    | 8.50    | 10.20  | 7.00   | 4.40   | 1.90  | 0.90  | 0.60  | 0.00    |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Ong Thi at Ban Ong Thi , Kanchanaburi (K.39)**

Lat 14 - 42 - 21 N Long 98 - 40 - 19 E

**Location : on right bank at KM. 121+600 on Kanchanaburi - Thong Pha Phum Highway.**

|                                      |                            |                |               |                       |                 |                     |
|--------------------------------------|----------------------------|----------------|---------------|-----------------------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | <b>Ong Thi</b> | <b>Amphoe</b> | <b>Thong Pha Phum</b> | <b>Changwat</b> | <b>Kanchanaburi</b> |
| <b>Drainage Area</b>                 | 51                         | sq.km.         |               |                       |                 |                     |
| <b>Method of sampling</b>            | Depth Integrating          |                |               |                       |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                |               |                       |                 |                     |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                |               |                       |                 |                     |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                |               |                       |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |               |                       |                 |                     |
| <b>Number of observation</b>         | 22                         |                |               |                       |                 |                     |
| <b>R-Square</b>                      | 0.8830                     |                |               |                       |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                |               |                       |                 |                     |

$$QS = 2.0070 QW^{1.54900}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun   | Jul    | Aug    | Sep    | Oct    | Nov   | Dec   | Jan   | Feb   | Mar  | Annual  |            |
|-------|------|------|-------|--------|--------|--------|--------|-------|-------|-------|-------|------|---------|------------|
| 1     | 0.10 | 0.10 | 0.10  | 0.30   | 16.80  | 2.30   | 5.90   | 3.20  | 1.20  | 0.80  | 0.60  | 0.30 |         |            |
| 2     | 0.10 | 0.10 | 0.20  | 0.30   | 11.90  | 2.30   | 6.80   | 3.00  | 1.00  | 0.80  | 0.60  | 0.30 |         |            |
| 3     | 0.10 | 0.10 | 0.10  | 0.30   | 11.10  | 4.60   | 23.70  | 2.70  | 1.00  | 0.70  | 0.60  | 0.30 |         |            |
| 4     | 0.10 | 0.10 | 0.10  | 0.20   | 7.30   | 3.00   | 14.20  | 2.50  | 1.00  | 0.70  | 0.60  | 0.30 |         |            |
| 5     | 0.10 | 0.10 | 0.20  | 0.20   | 5.40   | 21.60  | 9.00   | 2.50  | 1.00  | 0.70  | 0.60  | 0.30 |         |            |
| 6     | 0.00 | 0.10 | 0.30  | 0.20   | 4.60   | 3.80   | 11.90  | 2.50  | 0.90  | 0.70  | 0.60  | 0.30 |         |            |
| 7     | 0.00 | 0.10 | 0.20  | 0.40   | 3.80   | 2.30   | 8.30   | 2.30  | 0.90  | 0.70  | 0.60  | 0.30 |         |            |
| 8     | 0.10 | 0.10 | 0.20  | 1.30   | 3.80   | 2.30   | 8.30   | 3.20  | 0.90  | 0.70  | 0.60  | 0.30 |         |            |
| 9     | 0.10 | 0.10 | 0.20  | 1.40   | 3.20   | 11.10  | 5.90   | 2.70  | 0.90  | 0.70  | 0.60  | 0.20 |         |            |
| 10    | 0.10 | 0.10 | 0.20  | 0.90   | 2.70   | 31.80  | 5.40   | 2.50  | 0.90  | 0.70  | 0.60  | 0.20 |         |            |
| 11    | 0.10 | 0.10 | 0.20  | 0.70   | 2.70   | 5.00   | 5.00   | 2.30  | 0.80  | 0.70  | 0.60  | 0.20 |         |            |
| 12    | 0.10 | 0.00 | 0.20  | 0.40   | 9.70   | 15.00  | 4.60   | 2.30  | 0.80  | 0.70  | 0.60  | 0.20 |         |            |
| 13    | 0.10 | 0.10 | 0.70  | 0.40   | 3.80   | 7.30   | 5.40   | 2.00  | 0.80  | 0.70  | 0.60  | 0.20 |         |            |
| 14    | 0.10 | 0.10 | 0.20  | 0.70   | 3.50   | 5.40   | 5.40   | 1.80  | 0.80  | 0.70  | 0.50  | 0.20 |         |            |
| 15    | 0.10 | 0.10 | 0.20  | 0.40   | 4.20   | 5.40   | 5.00   | 2.00  | 0.80  | 0.70  | 0.50  | 0.20 |         |            |
| 16    | 0.10 | 0.10 | 0.20  | 0.80   | 4.60   | 14.20  | 4.20   | 1.80  | 0.80  | 0.70  | 0.50  | 0.20 |         |            |
| 17    | 0.10 | 0.10 | 0.20  | 0.60   | 3.00   | 13.40  | 7.30   | 1.80  | 0.80  | 0.70  | 0.40  | 0.20 |         |            |
| 18    | 0.10 | 0.10 | 0.20  | 0.60   | 3.00   | 11.90  | 41.30  | 1.80  | 0.70  | 0.70  | 0.40  | 0.20 |         |            |
| 19    | 0.10 | 0.10 | 0.30  | 0.60   | 2.50   | 12.60  | 15.00  | 1.80  | 0.70  | 0.70  | 0.40  | 0.50 |         |            |
| 20    | 0.10 | 0.10 | 0.40  | 0.70   | 3.00   | 24.70  | 9.70   | 1.60  | 0.70  | 0.70  | 0.40  | 0.30 |         |            |
| 21    | 0.10 | 0.10 | 0.60  | 0.60   | 6.30   | 50.90  | 9.00   | 1.60  | 0.70  | 0.70  | 0.40  | 0.20 |         |            |
| 22    | 0.10 | 0.10 | 0.90  | 0.40   | 9.00   | 20.60  | 8.30   | 1.40  | 0.70  | 0.70  | 0.40  | 0.20 |         |            |
| 23    | 0.10 | 0.10 | 0.40  | 0.40   | 10.40  | 17.70  | 6.30   | 1.40  | 0.70  | 0.60  | 0.40  | 0.20 |         |            |
| 24    | 0.10 | 0.20 | 2.50  | 0.50   | 8.30   | 12.60  | 5.90   | 1.40  | 0.70  | 0.60  | 0.40  | 0.20 |         |            |
| 25    | 0.10 | 0.10 | 0.70  | 3.50   | 6.80   | 11.90  | 5.90   | 1.30  | 0.60  | 0.60  | 0.40  | 0.30 |         |            |
| 26    | 0.10 | 0.10 | 1.20  | 1.80   | 5.00   | 10.40  | 5.40   | 1.30  | 0.60  | 0.60  | 0.30  | 0.30 |         |            |
| 27    | 0.10 | 0.10 | 0.80  | 5.40   | 5.00   | 11.10  | 4.60   | 1.30  | 0.60  | 0.60  | 0.30  | 0.30 |         |            |
| 28    | 0.10 | 0.10 | 0.40  | 41.30  | 3.00   | 9.00   | 4.60   | 1.30  | 0.60  | 0.60  | 0.30  | 0.30 |         |            |
| 29    | 0.10 | 0.10 | 0.30  | 35.60  | 3.00   | 7.30   | 4.20   | 1.30  | 0.60  | 0.60  |       | 0.30 |         |            |
| 30    | 0.10 | 0.10 | 0.30  | 236.70 | 2.70   | 6.30   | 4.20   | 1.20  | 0.60  | 0.60  |       | 0.20 |         |            |
| 31    |      | 0.10 |       | 28.10  | 2.70   |        | 3.50   |       | 0.60  | 0.60  |       | 0.20 |         |            |
| Total | 2.80 | 3.10 | 12.70 | 365.70 | 172.80 | 357.80 | 264.20 | 59.80 | 24.40 | 21.00 | 13.80 | 7.90 | 1306.00 | <b>Ton</b> |
| Mean  | 0.10 | 0.10 | 0.40  | 11.80  | 5.60   | 11.90  | 8.50   | 2.00  | 0.80  | 0.70  | 0.50  | 0.30 |         |            |
| Max   | 0.10 | 0.20 | 2.50  | 236.70 | 16.80  | 50.90  | 41.30  | 3.20  | 1.20  | 0.80  | 0.60  | 0.50 | 236.70  |            |
| Min   | 0.00 | 0.00 | 0.10  | 0.20   | 2.50   | 2.30   | 3.50   | 1.20  | 0.60  | 0.60  | 0.30  | 0.20 | 0.00    |            |



**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Diso at Ban Hin Laem , Kanchanaburi (K.50)**

Lat 14 - 38 - 39 N Long 98 - 42 - 04 E

**Location : on right bank at the bridge on Kanchanaburi - Thong Pha Phum Highway from Tambon Tha Khanun.**

|                                      |                            |                              |                              |
|--------------------------------------|----------------------------|------------------------------|------------------------------|
|                                      | <b>Ban</b> Hin Laem        | <b>Amphoe</b> Thong Pha Phum | <b>Changwat</b> Kanchanaburi |
| <b>Drainage Area</b>                 | 123 sq.km.                 |                              |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                              |                              |
| <b>Instrument Used</b>               | US.D-49                    |                              |                              |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                              |                              |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                              |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                              |                              |
| <b>Number of observation</b>         | 26                         |                              |                              |
| <b>R-Square</b>                      | 0.8890                     |                              |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                              |                              |

$$QS = 1.0770 QW^{1.88300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun   | Jul    | Aug    | Sep     | Oct    | Nov   | Dec   | Jan  | Feb  | Mar  | Annual  |            |
|-------|------|------|-------|--------|--------|---------|--------|-------|-------|------|------|------|---------|------------|
| 1     | 0.00 | 0.00 | 0.00  | 0.30   | 73.20  | 2.60    | 7.00   | 2.40  | 0.70  | 0.30 | 0.10 | 0.00 |         |            |
| 2     | 0.00 | 0.00 | 0.10  | 0.30   | 24.20  | 2.00    | 10.80  | 2.20  | 0.70  | 0.30 | 0.10 | 0.00 |         |            |
| 3     | 0.00 | 0.00 | 0.10  | 0.20   | 14.00  | 4.60    | 30.30  | 2.20  | 0.70  | 0.30 | 0.10 | 0.00 |         |            |
| 4     | 0.00 | 0.00 | 0.10  | 0.20   | 11.30  | 4.00    | 10.80  | 2.00  | 0.70  | 0.30 | 0.10 | 0.00 |         |            |
| 5     | 0.00 | 0.00 | 0.10  | 0.20   | 8.60   | 3.80    | 8.60   | 2.00  | 0.70  | 0.30 | 0.10 | 0.00 |         |            |
| 6     | 0.00 | 0.00 | 0.10  | 0.80   | 7.70   | 3.30    | 7.40   | 2.00  | 0.70  | 0.20 | 0.10 | 0.00 |         |            |
| 7     | 0.00 | 0.00 | 0.10  | 11.80  | 6.00   | 2.40    | 6.70   | 1.70  | 0.60  | 0.20 | 0.10 | 0.00 |         |            |
| 8     | 0.00 | 0.00 | 0.10  | 15.80  | 4.60   | 15.20   | 6.70   | 1.70  | 0.60  | 0.20 | 0.10 | 0.00 |         |            |
| 9     | 0.00 | 0.00 | 0.10  | 11.80  | 3.50   | 36.00   | 4.30   | 2.40  | 0.60  | 0.20 | 0.10 | 0.00 |         |            |
| 10    | 0.00 | 0.00 | 0.10  | 2.60   | 4.30   | 9.50    | 3.50   | 2.20  | 0.60  | 0.20 | 0.10 | 0.00 |         |            |
| 11    | 0.00 | 0.00 | 3.00  | 0.80   | 6.40   | 9.90    | 3.50   | 1.80  | 0.60  | 0.20 | 0.10 | 0.00 |         |            |
| 12    | 0.00 | 0.00 | 0.30  | 1.50   | 94.30  | 94.30   | 4.60   | 1.80  | 0.60  | 0.20 | 0.10 | 0.00 |         |            |
| 13    | 0.00 | 0.00 | 0.70  | 1.50   | 14.60  | 56.90   | 7.00   | 1.80  | 0.50  | 0.20 | 0.10 | 0.00 |         |            |
| 14    | 0.00 | 0.00 | 0.60  | 1.40   | 9.00   | 17.00   | 5.10   | 2.00  | 0.50  | 0.20 | 0.10 | 0.00 |         |            |
| 15    | 0.00 | 0.00 | 0.40  | 1.50   | 15.20  | 24.20   | 5.70   | 2.00  | 0.50  | 0.20 | 0.10 | 0.00 |         |            |
| 16    | 0.00 | 0.00 | 0.30  | 1.70   | 14.60  | 36.00   | 3.00   | 1.50  | 0.40  | 0.20 | 0.10 | 0.00 |         |            |
| 17    | 0.00 | 0.00 | 0.30  | 1.70   | 5.70   | 36.00   | 7.00   | 1.40  | 0.40  | 0.20 | 0.10 | 0.00 |         |            |
| 18    | 0.00 | 0.20 | 0.30  | 1.50   | 4.00   | 23.40   | 110.20 | 1.40  | 0.30  | 0.10 | 0.10 | 0.00 |         |            |
| 19    | 0.00 | 0.10 | 0.30  | 1.70   | 4.00   | 40.60   | 23.40  | 1.40  | 0.30  | 0.10 | 0.10 | 0.20 |         |            |
| 20    | 0.00 | 0.10 | 0.60  | 1.50   | 3.30   | 107.70  | 9.50   | 1.20  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 21    | 0.00 | 0.20 | 0.40  | 1.20   | 2.60   | 212.20  | 7.00   | 1.20  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 22    | 0.00 | 0.10 | 0.50  | 0.90   | 6.00   | 143.30  | 4.80   | 1.10  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 23    | 0.10 | 0.10 | 0.90  | 1.10   | 92.30  | 56.90   | 4.00   | 1.10  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 24    | 0.10 | 0.20 | 1.80  | 4.60   | 36.00  | 35.00   | 3.50   | 1.10  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 25    | 0.10 | 0.20 | 2.00  | 14.60  | 23.40  | 24.20   | 3.30   | 0.90  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 26    | 0.10 | 0.20 | 1.20  | 8.60   | 9.00   | 16.40   | 3.30   | 0.90  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 27    | 0.10 | 0.10 | 1.50  | 10.80  | 6.70   | 15.80   | 3.00   | 0.90  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 28    | 0.10 | 0.10 | 1.20  | 90.20  | 5.40   | 12.30   | 2.80   | 0.80  | 0.30  | 0.10 | 0.10 | 0.10 |         |            |
| 29    | 0.00 | 0.10 | 0.60  | 173.40 | 3.80   | 9.90    | 2.60   | 0.80  | 0.30  | 0.10 |      | 0.10 |         |            |
| 30    | 0.00 | 0.00 | 0.60  | 289.00 | 10.40  | 7.70    | 2.40   | 0.70  | 0.20  | 0.10 |      | 0.10 |         |            |
| 31    |      | 0.00 |       | 216.10 | 6.40   |         | 2.40   |       | 0.20  | 0.10 |      | 0.10 |         |            |
| Total | 0.60 | 1.70 | 18.40 | 869.30 | 530.50 | 1063.10 | 314.20 | 46.60 | 14.10 | 5.30 | 2.80 | 1.40 | 2868.00 | <b>Ton</b> |
| Mean  | 0.00 | 0.10 | 0.60  | 28.00  | 17.10  | 35.40   | 10.10  | 1.60  | 0.50  | 0.20 | 0.10 | 0.00 |         |            |
| Max   | 0.10 | 0.20 | 3.00  | 289.00 | 94.30  | 212.20  | 110.20 | 2.40  | 0.70  | 0.30 | 0.10 | 0.20 | 289.00  |            |
| Min   | 0.00 | 0.00 | 0.00  | 0.20   | 2.60   | 2.00    | 2.40   | 0.70  | 0.20  | 0.10 | 0.10 | 0.00 | 0.00    |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Mae Kraban at Ban Si Mong Khon , Kanchanaburi (K.53)**

Lat 14 - 01 - 38 N Long 99 - 13 - 23 E

**Location : on right bank at the bridge on road.**

|                                      |                            |                       |                              |
|--------------------------------------|----------------------------|-----------------------|------------------------------|
|                                      | <b>Ban</b> Si Mong Khon    | <b>Amphoe</b> Sai Yok | <b>Changwat</b> Kanchanaburi |
| <b>Drainage Area</b>                 | 308 sq.km.                 |                       |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                              |
| <b>Instrument Used</b>               | US.D-49                    |                       |                              |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                       |                              |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                       |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |                              |
| <b>Number of observation</b>         | 22                         |                       |                              |
| <b>R-Square</b>                      | 0.9090                     |                       |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                              |

$$QS = 4.7020 QW^{1.42600}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun   | Jul    | Aug    | Sep    | Oct     | Nov     | Dec    | Jan   | Feb  | Mar  | Annual  |            |
|-------|------|------|-------|--------|--------|--------|---------|---------|--------|-------|------|------|---------|------------|
| 1     | 0.00 | 0.00 | 0.00  | 0.30   | 129.20 | 0.70   | 78.50   | 3.90    | 9.90   | 1.90  | 0.40 | 0.20 |         |            |
| 2     | 0.00 | 0.00 | 0.00  | 0.30   | 38.90  | 0.50   | 31.40   | 3.50    | 5.70   | 1.70  | 0.40 | 0.20 |         |            |
| 3     | 0.00 | 0.00 | 0.70  | 0.20   | 31.40  | 1.70   | 31.40   | 3.20    | 6.80   | 1.60  | 0.40 | 0.20 |         |            |
| 4     | 0.00 | 0.00 | 3.70  | 0.40   | 11.90  | 1.60   | 263.70  | 2.80    | 6.80   | 1.40  | 0.40 | 0.20 |         |            |
| 5     | 0.00 | 0.00 | 6.80  | 31.40  | 8.00   | 0.90   | 148.00  | 2.70    | 5.00   | 1.40  | 0.40 | 0.20 |         |            |
| 6     | 0.00 | 0.00 | 1.40  | 11.90  | 5.70   | 0.70   | 78.50   | 2.30    | 4.30   | 1.30  | 0.30 | 0.20 |         |            |
| 7     | 0.00 | 0.00 | 2.00  | 31.60  | 3.90   | 0.70   | 315.80  | 2.00    | 3.70   | 1.10  | 0.30 | 0.20 |         |            |
| 8     | 0.00 | 0.00 | 0.70  | 7.60   | 3.20   | 0.80   | 1534.90 | 45.10   | 3.40   | 1.10  | 0.30 | 0.20 |         |            |
| 9     | 0.00 | 0.00 | 0.20  | 4.30   | 2.80   | 1.00   | 576.90  | 1614.90 | 2.70   | 1.10  | 0.30 | 0.20 |         |            |
| 10    | 0.00 | 0.00 | 0.10  | 10.40  | 2.80   | 1.60   | 188.30  | 244.20  | 2.80   | 1.00  | 0.30 | 0.20 |         |            |
| 11    | 0.00 | 0.00 | 0.00  | 54.30  | 3.40   | 268.60 | 99.60   | 83.50   | 2.80   | 1.00  | 0.30 | 0.20 |         |            |
| 12    | 0.00 | 0.00 | 0.00  | 35.90  | 4.50   | 68.70  | 54.30   | 37.40   | 2.70   | 1.00  | 0.30 | 0.20 |         |            |
| 13    | 0.00 | 0.00 | 0.90  | 7.20   | 5.40   | 31.60  | 31.60   | 31.40   | 2.70   | 1.00  | 0.30 | 0.10 |         |            |
| 14    | 0.00 | 0.00 | 0.30  | 3.70   | 31.30  | 88.60  | 31.40   | 31.30   | 2.70   | 0.90  | 0.30 | 0.10 |         |            |
| 15    | 0.00 | 0.00 | 0.20  | 2.50   | 31.30  | 73.60  | 31.30   | 31.30   | 3.70   | 0.90  | 0.30 | 0.10 |         |            |
| 16    | 0.00 | 0.00 | 1.90  | 1.90   | 6.50   | 52.40  | 11.90   | 13.50   | 5.70   | 0.90  | 0.30 | 0.10 |         |            |
| 17    | 0.00 | 0.00 | 0.30  | 1.40   | 4.10   | 64.30  | 10.90   | 31.30   | 7.60   | 0.90  | 0.20 | 0.10 |         |            |
| 18    | 0.00 | 0.00 | 0.70  | 1.00   | 3.00   | 46.70  | 81.00   | 10.90   | 6.80   | 0.90  | 0.20 | 0.10 |         |            |
| 19    | 0.00 | 0.00 | 2.80  | 0.80   | 2.50   | 31.60  | 126.10  | 8.40    | 7.20   | 0.80  | 0.20 | 0.10 |         |            |
| 20    | 0.00 | 0.00 | 1.00  | 0.70   | 2.00   | 33.00  | 73.60   | 11.40   | 7.60   | 0.80  | 0.20 | 0.10 |         |            |
| 21    | 0.00 | 0.00 | 0.70  | 0.40   | 1.70   | 34.40  | 38.90   | 11.40   | 6.10   | 0.80  | 0.20 | 0.20 |         |            |
| 22    | 0.00 | 0.00 | 0.90  | 0.30   | 1.60   | 31.60  | 31.60   | 12.50   | 6.80   | 0.80  | 0.20 | 0.20 |         |            |
| 23    | 0.00 | 0.00 | 0.90  | 0.30   | 2.00   | 31.60  | 31.40   | 12.50   | 8.40   | 0.70  | 0.20 | 0.10 |         |            |
| 24    | 0.00 | 0.00 | 1.30  | 0.30   | 2.20   | 31.40  | 31.30   | 13.00   | 6.80   | 0.70  | 0.20 | 0.10 |         |            |
| 25    | 0.00 | 3.00 | 1.70  | 0.30   | 1.90   | 31.30  | 11.90   | 11.40   | 5.40   | 0.70  | 0.20 | 0.10 |         |            |
| 26    | 0.00 | 1.40 | 1.10  | 0.30   | 1.70   | 10.90  | 13.00   | 11.40   | 6.50   | 0.70  | 0.20 | 0.10 |         |            |
| 27    | 0.00 | 0.10 | 0.90  | 0.30   | 1.40   | 8.90   | 8.90    | 31.40   | 5.40   | 0.70  | 0.20 | 0.10 |         |            |
| 28    | 0.00 | 0.00 | 0.70  | 0.30   | 1.10   | 6.80   | 7.60    | 11.40   | 3.40   | 0.70  | 0.20 | 0.10 |         |            |
| 29    | 0.00 | 0.00 | 0.40  | 1.30   | 0.90   | 5.70   | 6.50    | 10.40   | 2.70   | 0.70  |      | 0.10 |         |            |
| 30    | 0.00 | 0.00 | 0.30  | 42.00  | 0.80   | 4.70   | 5.40    | 9.40    | 2.30   | 0.50  |      | 0.10 |         |            |
| 31    |      | 0.00 |       | 196.40 | 0.70   |        | 4.50    |         | 2.70   | 0.50  |      | 0.10 |         |            |
| Total | 0.00 | 4.50 | 32.60 | 450.00 | 347.80 | 966.60 | 3990.10 | 2349.80 | 157.10 | 30.20 | 7.70 | 4.50 | 8340.90 | <b>Ton</b> |
| Mean  | 0.00 | 0.10 | 1.10  | 14.50  | 11.20  | 32.20  | 128.70  | 78.30   | 5.10   | 1.00  | 0.30 | 0.10 |         |            |
| Max   | 0.00 | 3.00 | 6.80  | 196.40 | 129.20 | 268.60 | 1534.90 | 1614.90 | 9.90   | 1.90  | 0.40 | 0.20 | 1614.90 |            |
| Min   | 0.00 | 0.00 | 0.00  | 0.20   | 0.70   | 0.50   | 4.50    | 2.00    | 2.30   | 0.50  | 0.20 | 0.10 | 0.00    |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Huai Kui Mang at Ban Kui Mang , Kanchanaburi (K.60)**

Lat 14 - 37 - 32 N Long 98 - 43 - 50 E

Location : on right bank at the bridge on road.

|                                      |                            |                              |                              |
|--------------------------------------|----------------------------|------------------------------|------------------------------|
|                                      | <b>Ban</b> Kui Mang        | <b>Amphoe</b> Thong Pha Phum | <b>Changwat</b> Kanchanaburi |
| <b>Drainage Area</b>                 | 128 sq.km.                 |                              |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                              |                              |
| <b>Instrument Used</b>               | US.D-49                    |                              |                              |
| <b>Period of Available Records</b>   | 2002-Cont'd                |                              |                              |
| <b>Actual Measurement</b>            | 2002-Cont'd                |                              |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                              |                              |
| <b>Number of observation</b>         | 23                         |                              |                              |
| <b>R-Square</b>                      | 0.8530                     |                              |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                              |                              |

$$QS = 1.3580 QW^{1.82900}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun   | Jul     | Aug     | Sep     | Oct    | Nov    | Dec   | Jan   | Feb   | Mar   | Annual  |            |
|-------|------|------|-------|---------|---------|---------|--------|--------|-------|-------|-------|-------|---------|------------|
| 1     | 0.00 | 0.00 | 0.10  | 0.90    | 148.40  | 7.00    | 31.30  | 7.00   | 3.00  | 1.60  | 1.20  | 0.50  |         |            |
| 2     | 0.00 | 0.00 | 0.10  | 0.80    | 112.70  | 5.60    | 28.00  | 7.00   | 3.00  | 1.60  | 1.20  | 0.50  |         |            |
| 3     | 0.00 | 0.00 | 0.20  | 0.70    | 97.70   | 6.50    | 68.60  | 6.50   | 3.00  | 1.60  | 1.20  | 0.50  |         |            |
| 4     | 0.00 | 0.10 | 0.20  | 0.60    | 86.00   | 6.50    | 53.30  | 6.50   | 2.70  | 1.60  | 1.20  | 0.50  |         |            |
| 5     | 0.00 | 0.00 | 0.10  | 0.80    | 68.60   | 7.00    | 45.70  | 6.10   | 2.70  | 1.60  | 1.20  | 0.50  |         |            |
| 6     | 0.00 | 0.00 | 0.10  | 1.50    | 59.80   | 33.60   | 38.70  | 6.10   | 2.70  | 1.60  | 1.20  | 0.50  |         |            |
| 7     | 0.00 | 0.00 | 0.10  | 1.60    | 50.20   | 45.70   | 50.20  | 5.60   | 2.70  | 1.60  | 1.00  | 0.50  |         |            |
| 8     | 0.00 | 0.00 | 0.30  | 3.40    | 34.80   | 45.70   | 53.30  | 5.60   | 2.70  | 1.60  | 1.00  | 0.50  |         |            |
| 9     | 0.00 | 0.00 | 0.20  | 4.40    | 17.30   | 210.00  | 29.10  | 53.30  | 2.40  | 1.60  | 1.00  | 0.50  |         |            |
| 10    | 0.00 | 0.00 | 0.30  | 6.10    | 10.60   | 41.40   | 19.10  | 7.50   | 2.40  | 1.50  | 1.00  | 0.50  |         |            |
| 11    | 0.00 | 0.00 | 0.40  | 2.10    | 8.50    | 44.30   | 14.30  | 5.60   | 2.40  | 1.50  | 1.00  | 0.40  |         |            |
| 12    | 0.00 | 0.00 | 0.50  | 2.40    | 13.00   | 549.00  | 13.60  | 5.20   | 2.40  | 1.50  | 0.90  | 0.40  |         |            |
| 13    | 0.00 | 0.00 | 0.80  | 1.60    | 17.30   | 61.50   | 12.40  | 5.20   | 2.40  | 1.50  | 0.90  | 0.40  |         |            |
| 14    | 0.00 | 0.00 | 1.20  | 1.30    | 23.80   | 47.20   | 22.80  | 5.20   | 2.40  | 1.50  | 0.90  | 0.40  |         |            |
| 15    | 0.00 | 0.00 | 0.80  | 1.60    | 47.20   | 42.80   | 18.20  | 5.60   | 2.40  | 1.50  | 0.80  | 0.40  |         |            |
| 16    | 0.00 | 0.00 | 0.60  | 1.60    | 25.90   | 112.70  | 13.60  | 5.60   | 2.40  | 1.50  | 0.80  | 0.70  |         |            |
| 17    | 0.00 | 0.00 | 0.60  | 2.40    | 21.90   | 126.90  | 13.00  | 5.20   | 2.40  | 1.50  | 0.80  | 0.60  |         |            |
| 18    | 0.00 | 0.00 | 0.90  | 1.50    | 18.20   | 79.30   | 302.60 | 4.80   | 2.40  | 1.50  | 0.80  | 0.60  |         |            |
| 19    | 0.00 | 0.30 | 0.80  | 2.70    | 15.60   | 118.30  | 30.20  | 4.40   | 2.10  | 1.50  | 0.80  | 1.50  |         |            |
| 20    | 0.00 | 0.20 | 0.60  | 2.40    | 14.30   | 388.10  | 19.10  | 4.10   | 2.10  | 1.50  | 0.70  | 1.20  |         |            |
| 21    | 0.00 | 0.20 | 0.70  | 2.40    | 33.60   | 490.20  | 15.60  | 4.10   | 2.10  | 1.30  | 0.70  | 1.00  |         |            |
| 22    | 0.00 | 0.30 | 0.90  | 2.10    | 50.20   | 202.30  | 14.90  | 4.10   | 2.10  | 1.30  | 0.70  | 0.80  |         |            |
| 23    | 0.10 | 0.20 | 0.90  | 2.10    | 183.50  | 165.50  | 12.40  | 3.70   | 2.10  | 1.30  | 0.70  | 0.70  |         |            |
| 24    | 0.60 | 0.30 | 2.10  | 11.20   | 107.60  | 100.20  | 11.20  | 3.70   | 1.90  | 1.30  | 0.60  | 0.60  |         |            |
| 25    | 0.30 | 0.40 | 3.00  | 38.70   | 61.50   | 90.60   | 10.10  | 3.70   | 1.90  | 1.20  | 0.60  | 0.60  |         |            |
| 26    | 0.50 | 0.20 | 2.10  | 12.40   | 34.80   | 86.00   | 9.50   | 3.40   | 1.90  | 1.20  | 0.60  | 0.60  |         |            |
| 27    | 0.30 | 0.10 | 1.30  | 13.00   | 26.90   | 61.50   | 9.50   | 3.40   | 1.90  | 1.20  | 0.60  | 0.50  |         |            |
| 28    | 0.00 | 0.10 | 1.20  | 59.80   | 20.90   | 51.80   | 8.50   | 3.40   | 1.90  | 1.00  | 0.50  | 0.50  |         |            |
| 29    | 0.00 | 0.10 | 1.20  | 956.50  | 17.30   | 42.80   | 8.00   | 3.40   | 1.90  | 1.00  |       | 0.50  |         |            |
| 30    | 0.00 | 0.10 | 1.00  | 811.10  | 13.60   | 34.80   | 7.50   | 3.00   | 1.90  | 1.00  |       | 0.50  |         |            |
| 31    |      | 0.00 |       | 498.10  | 10.10   |         | 7.00   |        | 1.90  | 0.90  |       | 0.50  |         |            |
| Total | 1.80 | 2.60 | 23.30 | 2447.80 | 1451.80 | 3304.80 | 991.30 | 198.00 | 72.20 | 43.60 | 24.60 | 18.40 | 8580.20 | <b>Ton</b> |
| Mean  | 0.10 | 0.10 | 0.80  | 79.00   | 46.80   | 110.20  | 32.00  | 6.60   | 2.30  | 1.40  | 0.90  | 0.60  |         |            |
| Max   | 0.60 | 0.40 | 3.00  | 956.50  | 183.50  | 549.00  | 302.60 | 53.30  | 3.00  | 1.60  | 1.20  | 1.50  | 956.50  |            |
| Min   | 0.00 | 0.00 | 0.10  | 0.60    | 8.50    | 5.60    | 7.00   | 3.00   | 1.90  | 0.90  | 0.50  | 0.40  | 0.00    |            |

**WATER YEAR : 2013****MAE KLONG RIVER BASIN****Lam Phachi at Ban Dan Thaptako , Ratchaburi (K.61)**

Lat 13 - 41 - 28 N Long 99 - 27 - 08 E

**Location : on right bank at the bridge on highway.**

|                                      | <b>Ban Dan Thaptako</b>    | <b>Amphoe Chom Bung</b> | <b>Changwat Ratchaburi</b> |
|--------------------------------------|----------------------------|-------------------------|----------------------------|
| <b>Drainage Area</b>                 | 1,844 sq.km.               |                         |                            |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                            |
| <b>Instrument Used</b>               | US.D-49                    |                         |                            |
| <b>Period of Available Records</b>   | 2003-Cont'd                |                         |                            |
| <b>Actual Measurement</b>            | 2003-Cont'd                |                         |                            |
| <b>Using Rating Curve Water Year</b> | 2003-2013                  |                         |                            |
| <b>Number of observation</b>         | 245                        |                         |                            |
| <b>R-Square</b>                      | 0.8930                     |                         |                            |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                            |

$$QS = 2.1280 QW^{1.48600}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun     | Jul     | Aug     | Sep     | Oct      | Nov      | Dec      | Jan     | Feb    | Mar    | Annual    |            |
|-------|--------|---------|---------|---------|---------|---------|----------|----------|----------|---------|--------|--------|-----------|------------|
| 1     | 9.30   | 77.60   | 26.10   | 137.10  | 1358.20 | 55.70   | 320.30   | 192.80   | 816.20   | 224.60  | 50.30  | 7.30   |           |            |
| 2     | 9.30   | 62.80   | 18.00   | 119.00  | 580.10  | 62.80   | 491.40   | 181.20   | 670.30   | 211.70  | 50.30  | 5.10   |           |            |
| 3     | 9.30   | 45.00   | 18.00   | 110.30  | 270.30  | 85.40   | 428.20   | 169.80   | 643.50   | 186.60  | 50.30  | 4.70   |           |            |
| 4     | 9.30   | 35.10   | 26.10   | 101.80  | 216.70  | 147.80  | 626.20   | 169.80   | 643.50   | 174.40  | 50.30  | 5.50   |           |            |
| 5     | 9.30   | 30.50   | 50.30   | 101.80  | 181.20  | 169.80  | 1321.80  | 169.80   | 617.10   | 139.60  | 50.30  | 6.00   |           |            |
| 6     | 9.30   | 26.10   | 55.70   | 119.00  | 158.60  | 128.00  | 731.40   | 169.80   | 591.00   | 128.60  | 50.30  | 3.90   |           |            |
| 7     | 9.30   | 21.90   | 55.70   | 137.10  | 147.80  | 101.80  | 9302.20  | 169.80   | 565.30   | 117.80  | 50.30  | 3.90   |           |            |
| 8     | 10.90  | 21.90   | 55.70   | 158.60  | 128.00  | 110.30  | 13779.70 | 1545.20  | 540.00   | 107.40  | 50.30  | 3.90   |           |            |
| 9     | 10.90  | 21.90   | 45.00   | 137.10  | 110.30  | 192.80  | 10677.40 | 37216.30 | 515.10   | 107.40  | 44.20  | 3.30   |           |            |
| 10    | 10.90  | 21.90   | 45.00   | 119.00  | 110.30  | 181.20  | 7113.20  | 10904.00 | 490.50   | 99.50   | 38.40  | 3.90   |           |            |
| 11    | 9.30   | 30.50   | 40.00   | 119.00  | 101.80  | 181.20  | 3673.50  | 3493.90  | 466.30   | 91.90   | 31.30  | 3.90   |           |            |
| 12    | 10.90  | 30.50   | 62.80   | 128.00  | 110.30  | 303.30  | 2099.80  | 3702.50  | 466.30   | 84.40   | 13.10  | 3.60   |           |            |
| 13    | 9.30   | 26.10   | 169.80  | 128.00  | 110.30  | 270.30  | 1321.80  | 2007.00  | 466.30   | 77.10   | 10.60  | 3.00   |           |            |
| 14    | 9.30   | 26.10   | 147.80  | 119.00  | 101.80  | 229.00  | 759.30   | 1627.70  | 442.60   | 70.10   | 7.80   | 1.00   |           |            |
| 15    | 9.30   | 26.10   | 128.00  | 101.80  | 101.80  | 216.70  | 470.00   | 2139.10  | 442.60   | 63.20   | 15.80  | 3.90   |           |            |
| 16    | 9.30   | 26.10   | 128.00  | 101.80  | 93.50   | 229.00  | 355.10   | 4582.70  | 419.20   | 56.60   | 7.80   | 3.30   |           |            |
| 17    | 9.30   | 35.10   | 192.80  | 93.50   | 93.50   | 270.30  | 303.30   | 7034.70  | 419.20   | 56.60   | 7.30   | 2.50   |           |            |
| 18    | 9.30   | 30.50   | 119.00  | 93.50   | 85.40   | 303.30  | 337.50   | 3900.10  | 398.10   | 50.30   | 7.80   | 2.30   |           |            |
| 19    | 10.90  | 21.90   | 110.30  | 85.40   | 85.40   | 254.30  | 320.30   | 2493.80  | 377.20   | 50.30   | 6.90   | 2.10   |           |            |
| 20    | 14.30  | 21.90   | 101.80  | 85.40   | 77.60   | 241.50  | 270.30   | 1877.70  | 377.20   | 50.30   | 6.90   | 1.80   |           |            |
| 21    | 18.00  | 40.00   | 101.80  | 101.80  | 70.10   | 270.30  | 254.30   | 1405.50  | 356.80   | 50.30   | 6.90   | 2.30   |           |            |
| 22    | 14.30  | 55.70   | 110.30  | 119.00  | 70.10   | 303.30  | 470.00   | 1149.50  | 336.70   | 56.60   | 7.80   | 2.30   |           |            |
| 23    | 14.30  | 45.00   | 158.60  | 110.30  | 85.40   | 337.50  | 703.80   | 1051.90  | 317.00   | 56.60   | 8.30   | 2.10   |           |            |
| 24    | 10.90  | 40.00   | 286.70  | 101.80  | 119.00  | 409.50  | 372.90   | 1011.20  | 317.00   | 56.60   | 15.80  | 18.60  |           |            |
| 25    | 18.00  | 55.70   | 270.30  | 85.40   | 137.10  | 372.90  | 286.70   | 1051.90  | 317.00   | 50.30   | 15.80  | 13.10  |           |            |
| 26    | 30.50  | 50.30   | 216.70  | 85.40   | 128.00  | 337.50  | 1217.00  | 1011.20  | 317.00   | 50.30   | 21.60  | 7.30   |           |            |
| 27    | 45.00  | 40.00   | 229.00  | 93.50   | 119.00  | 303.30  | 676.60   | 1011.20  | 297.70   | 50.30   | 15.80  | 6.40   |           |            |
| 28    | 40.00  | 40.00   | 229.00  | 93.50   | 101.80  | 286.70  | 355.10   | 1011.20  | 278.80   | 50.30   | 15.80  | 3.90   |           |            |
| 29    | 45.00  | 35.10   | 192.80  | 119.00  | 93.50   | 270.30  | 270.30   | 1011.20  | 260.30   | 50.30   |        | 3.60   |           |            |
| 30    | 77.60  | 35.10   | 158.60  | 391.10  | 77.60   | 337.50  | 241.50   | 1011.20  | 260.30   | 50.30   |        | 2.80   |           |            |
| 31    |        | 35.10   |         | 1025.50 | 62.80   |         | 216.70   |          | 242.30   | 50.30   |        | 2.30   |           |            |
| Total | 512.60 | 1111.50 | 3549.70 | 4622.50 | 5287.30 | 6963.30 | 59767.60 | 94473.70 | 13668.40 | 2720.60 | 708.10 | 139.60 | 193524.90 | <b>Ton</b> |
| Mean  | 17.10  | 35.90   | 118.30  | 149.10  | 170.60  | 232.10  | 1928.00  | 3149.10  | 440.90   | 87.80   | 25.30  | 4.50   |           |            |
| Max   | 77.60  | 77.60   | 286.70  | 1025.50 | 1358.20 | 409.50  | 13779.70 | 37216.30 | 816.20   | 224.60  | 50.30  | 18.60  | 37216.30  |            |
| Min   | 9.30   | 21.90   | 18.00   | 85.40   | 62.80   | 55.70   | 216.70   | 169.80   | 242.30   | 50.30   | 6.90   | 1.00   | 1.00      |            |

**WATER YEAR : 2013****PRACHIN BURI RIVER BASIN****Khlong Phra Sathung at Ban Khao Chakan , Sa Kaeo (Kgt.9)**

Lat 13 - 40 - 11 N Long 102 - 04 - 38 E

**Location : on right bank near Wat Khao Chakan.**

|                                      |                            |                           |                         |
|--------------------------------------|----------------------------|---------------------------|-------------------------|
|                                      | <b>Ban</b> Khao Chakan     | <b>Amphoe</b> Khao Chakan | <b>Changwat</b> Sa Kaeo |
| <b>Drainage Area</b>                 | 2,264 sq.km.               |                           |                         |
| <b>Method of sampling</b>            | Depth Integrating          |                           |                         |
| <b>Instrument Used</b>               | US.D-49                    |                           |                         |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                           |                         |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                           |                         |
| <b>Using Rating Curve Water Year</b> | 2013                       |                           |                         |
| <b>Number of observation</b>         | 16                         |                           |                         |
| <b>R-Square</b>                      | 0.8055                     |                           |                         |
| <b>Remarks</b>                       | Continued Sediment Station |                           |                         |

$$QS = 113.3800 QW^{0.80550}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May      | Jun      | Jul      | Aug      | Sep       | Oct       | Nov      | Dec      | Jan      | Feb     | Mar      | Annual    |            |
|-------|----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|---------|----------|-----------|------------|
| 1     | 353.30   | 493.00   | 515.30   | 917.10   | 3485.40  | 1650.90   | 9886.80   | 1134.50  | 917.10   | 537.30   | 377.40  | 377.40   |           |            |
| 2     | 353.30   | 493.00   | 706.90   | 892.20   | 3717.20  | 1520.50   | 10041.80  | 990.80   | 867.20   | 537.30   | 377.40  | 377.40   |           |            |
| 3     | 353.30   | 493.00   | 768.00   | 808.00   | 10518.50 | 1273.90   | 9371.20   | 917.10   | 808.00   | 537.30   | 377.40  | 377.40   |           |            |
| 4     | 353.30   | 377.40   | 1063.20  | 827.80   | 4427.10  | 1409.70   | 11779.30  | 941.80   | 768.00   | 537.30   | 377.40  | 353.30   |           |            |
| 5     | 353.30   | 377.40   | 1432.00  | 1039.20  | 3459.50  | 1364.80   | 17366.50  | 966.40   | 768.00   | 537.30   | 328.80  | 353.30   |           |            |
| 6     | 353.30   | 328.80   | 1476.40  | 1158.00  | 2367.80  | 1409.70   | 24266.90  | 892.20   | 768.00   | 515.30   | 328.80  | 353.30   |           |            |
| 7     | 353.30   | 328.80   | 1110.90  | 1409.70  | 1821.00  | 1409.70   | 22368.90  | 966.40   | 768.00   | 515.30   | 328.80  | 353.30   |           |            |
| 8     | 353.30   | 808.00   | 1204.70  | 1432.00  | 1862.90  | 2279.70   | 19850.70  | 1883.80  | 768.00   | 515.30   | 377.40  | 353.30   |           |            |
| 9     | 353.30   | 917.10   | 990.80   | 1273.90  | 2943.70  | 4998.90   | 16581.70  | 4715.10  | 768.00   | 515.30   | 377.40  | 377.40   |           |            |
| 10    | 353.30   | 706.90   | 847.50   | 1273.90  | 2257.50  | 4294.70   | 9534.40   | 6756.70  | 768.00   | 515.30   | 377.40  | 377.40   |           |            |
| 11    | 328.80   | 917.10   | 917.10   | 1227.80  | 2459.40  | 2691.40   | 2640.30   | 8318.60  | 747.80   | 515.30   | 377.40  | 377.40   |           |            |
| 12    | 328.80   | 706.90   | 990.80   | 1227.80  | 3691.70  | 4188.00   | 2168.40   | 1607.70  | 747.80   | 515.30   | 377.40  | 353.30   |           |            |
| 13    | 328.80   | 602.30   | 1342.20  | 1227.80  | 3768.30  | 3433.40   | 1883.80   | 1273.90  | 727.40   | 515.30   | 377.40  | 353.30   |           |            |
| 14    | 328.80   | 493.00   | 2279.70  | 1134.50  | 5690.60  | 4241.40   | 1757.70   | 1564.20  | 727.40   | 515.30   | 328.80  | 353.30   |           |            |
| 15    | 328.80   | 493.00   | 2918.70  | 917.10   | 9886.80  | 3869.80   | 1564.20   | 2078.40  | 706.90   | 515.30   | 328.80  | 353.30   |           |            |
| 16    | 328.80   | 377.40   | 2146.00  | 867.20   | 2843.40  | 3640.40   | 4973.30   | 1476.40  | 706.90   | 493.00   | 328.80  | 353.30   |           |            |
| 17    | 328.80   | 377.40   | 1650.90  | 788.00   | 2918.70  | 3459.50   | 10896.20  | 1273.90  | 706.90   | 493.00   | 328.80  | 353.30   |           |            |
| 18    | 328.80   | 377.40   | 1650.90  | 788.00   | 1629.30  | 2389.70   | 11832.90  | 1273.90  | 706.90   | 493.00   | 303.80  | 353.30   |           |            |
| 19    | 328.80   | 377.40   | 1364.80  | 747.80   | 1296.80  | 2818.20   | 12323.90  | 1204.70  | 686.30   | 493.00   | 303.80  | 328.80   |           |            |
| 20    | 328.80   | 493.00   | 1250.90  | 706.90   | 1883.80  | 10288.50  | 13692.70  | 990.80   | 665.50   | 493.00   | 303.80  | 328.80   |           |            |
| 21    | 328.80   | 493.00   | 1204.70  | 747.80   | 2146.00  | 16092.10  | 11850.70  | 917.10   | 644.60   | 493.00   | 252.30  | 328.80   |           |            |
| 22    | 353.30   | 493.00   | 1273.90  | 917.10   | 131.30   | 16351.10  | 7333.00   | 917.10   | 602.30   | 493.00   | 252.30  | 328.80   |           |            |
| 23    | 493.00   | 424.50   | 1432.00  | 1387.30  | 1134.50  | 10564.40  | 2588.90   | 917.10   | 602.30   | 447.60   | 303.80  | 328.80   |           |            |
| 24    | 493.00   | 377.40   | 2055.70  | 4637.00  | 1273.90  | 3018.40   | 1987.40   | 867.20   | 580.80   | 447.60   | 303.80  | 328.80   |           |            |
| 25    | 493.00   | 377.40   | 2389.70  | 7165.60  | 1672.40  | 2640.30   | 1715.20   | 966.40   | 580.80   | 447.60   | 328.80  | 328.80   |           |            |
| 26    | 493.00   | 424.50   | 2433.30  | 2742.30  | 2640.30  | 2665.90   | 1607.70   | 1087.10  | 559.20   | 377.40   | 377.40  | 328.80   |           |            |
| 27    | 493.00   | 424.50   | 2010.20  | 1862.90  | 1821.00  | 3264.10   | 1342.20   | 990.80   | 559.20   | 377.40   | 401.10  | 328.80   |           |            |
| 28    | 493.00   | 377.40   | 2010.20  | 1946.10  | 1409.70  | 5433.70   | 1273.90   | 966.40   | 559.20   | 377.40   | 424.50  | 303.80   |           |            |
| 29    | 493.00   | 377.40   | 1672.40  | 3485.40  | 1409.70  | 8457.50   | 1204.70   | 941.80   | 537.30   | 377.40   |         | 303.80   |           |            |
| 30    | 493.00   | 377.40   | 1454.20  | 3264.10  | 1387.30  | 5972.80   | 1039.20   | 1015.10  | 537.30   | 377.40   |         | 303.80   |           |            |
| 31    |          | 377.40   |          | 3239.70  | 2843.40  |           | 1039.20   |          | 515.30   | 377.40   |         | 303.80   |           |            |
| Total | 11447.10 | 15062.20 | 44564.00 | 52060.00 | 90798.90 | 137093.10 | 247763.80 | 50813.40 | 21376.40 | 14897.70 | 9631.00 | 10678.40 | 706185.90 | <b>Ton</b> |
| Mean  | 381.60   | 485.90   | 1485.50  | 1679.40  | 2929.00  | 4569.80   | 7992.40   | 1693.80  | 689.60   | 480.60   | 344.00  | 344.50   |           |            |
| Max   | 493.00   | 917.10   | 2918.70  | 7165.60  | 10518.50 | 16351.10  | 24266.90  | 8318.60  | 917.10   | 537.30   | 424.50  | 377.40   | 24266.90  |            |
| Min   | 328.80   | 328.80   | 515.30   | 706.90   | 131.30   | 1273.90   | 1039.20   | 867.20   | 515.30   | 377.40   | 252.30  | 303.80   | 131.30    |            |

**WATER YEAR : 2013****PRACHIN BURI RIVER BASIN****Khlong Phra Prong at Ban Kaeng , Sa Kao (Kgt.12)**

Lat 13 - 56 - 10 N Long 101 - 58 - 27 E

**Location : on left bank near the railway station at Ban Kaeng at about 200 meters upstream from Thot Saphon Sawmill.**

|                                      | Ban Kaeng                  | Amphoe Mueang | Changwat Sa Kao |
|--------------------------------------|----------------------------|---------------|-----------------|
| <b>Drainage Area</b>                 | 1,478 sq.km.               |               |                 |
| <b>Method of sampling</b>            | Depth Integrating          |               |                 |
| <b>Instrument Used</b>               | US.D-49                    |               |                 |
| <b>Period of Available Records</b>   | 1998-Cont'd                |               |                 |
| <b>Actual Measurement</b>            | 1998-Cont'd                |               |                 |
| <b>Using Rating Curve Water Year</b> | 2013                       |               |                 |
| <b>Number of observation</b>         | 16                         |               |                 |
| <b>R-Square</b>                      | 0.8886                     |               |                 |
| <b>Remarks</b>                       | Continued Sediment Station |               |                 |

$$QS = 3.6585 QW^{0.88860}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug     | Sep     | Oct     | Nov    | Dec    | Jan    | Feb    | Mar    | Annual   |     |
|-------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|--------|----------|-----|
| 1     | 15.00  | 15.00  | 7.10   | 18.50  | 129.40  | 47.00   | 407.30  | 39.30  | 15.60  | 10.60  | 13.40  | 14.50  |          |     |
| 2     | 14.50  | 14.50  | 5.90   | 16.40  | 144.30  | 42.70   | 389.60  | 36.30  | 15.60  | 10.90  | 13.40  | 14.70  |          |     |
| 3     | 14.20  | 14.20  | 6.80   | 14.70  | 149.20  | 39.60   | 380.90  | 33.00  | 15.30  | 10.90  | 13.10  | 15.30  |          |     |
| 4     | 13.90  | 13.90  | 10.90  | 13.60  | 152.00  | 35.30   | 412.70  | 30.80  | 14.70  | 10.90  | 13.10  | 16.10  |          |     |
| 5     | 13.40  | 13.40  | 11.10  | 13.10  | 161.10  | 25.90   | 431.20  | 28.90  | 14.50  | 11.10  | 13.10  | 16.10  |          |     |
| 6     | 12.50  | 12.50  | 10.90  | 13.40  | 169.60  | 22.20   | 470.80  | 26.70  | 13.90  | 12.30  | 13.40  | 15.80  |          |     |
| 7     | 11.70  | 11.70  | 11.10  | 14.20  | 166.60  | 20.60   | 553.80  | 25.10  | 13.40  | 12.50  | 13.40  | 15.60  |          |     |
| 8     | 11.70  | 11.70  | 11.10  | 15.30  | 158.50  | 20.10   | 608.20  | 24.40  | 13.40  | 12.80  | 13.40  | 15.30  |          |     |
| 9     | 11.70  | 11.70  | 11.70  | 18.20  | 154.50  | 19.80   | 572.80  | 24.40  | 13.10  | 12.80  | 13.60  | 14.70  |          |     |
| 10    | 11.40  | 11.40  | 12.00  | 23.00  | 150.00  | 24.80   | 535.50  | 27.40  | 13.10  | 13.10  | 13.90  | 14.20  |          |     |
| 11    | 13.10  | 10.90  | 11.70  | 29.30  | 140.10  | 31.20   | 490.20  | 26.30  | 12.80  | 13.10  | 13.60  | 14.20  |          |     |
| 12    | 13.40  | 10.00  | 13.10  | 31.60  | 124.40  | 37.80   | 416.30  | 22.40  | 12.80  | 13.10  | 13.60  | 14.20  |          |     |
| 13    | 13.40  | 8.60   | 15.60  | 33.00  | 113.40  | 59.10   | 345.50  | 21.40  | 12.50  | 13.10  | 13.40  | 13.90  |          |     |
| 14    | 13.40  | 7.10   | 27.00  | 30.80  | 126.50  | 88.60   | 291.60  | 20.60  | 12.50  | 13.10  | 13.40  | 13.60  |          |     |
| 15    | 13.60  | 6.20   | 55.40  | 23.60  | 124.80  | 116.80  | 253.00  | 20.40  | 12.50  | 13.10  | 13.60  | 13.60  |          |     |
| 16    | 13.60  | 6.20   | 83.30  | 19.60  | 117.10  | 147.90  | 224.10  | 20.60  | 12.30  | 13.40  | 13.60  | 13.90  |          |     |
| 17    | 13.60  | 8.30   | 109.20 | 17.40  | 104.70  | 174.60  | 216.50  | 20.90  | 12.30  | 13.40  | 13.60  | 13.90  |          |     |
| 18    | 13.60  | 8.80   | 112.10 | 16.10  | 78.50   | 187.60  | 218.80  | 21.10  | 12.30  | 13.40  | 13.60  | 14.20  |          |     |
| 19    | 13.60  | 8.30   | 73.10  | 15.60  | 38.50   | 194.70  | 238.00  | 20.60  | 12.30  | 13.60  | 13.60  | 14.20  |          |     |
| 20    | 13.60  | 8.60   | 40.70  | 14.50  | 44.60   | 221.20  | 268.20  | 20.10  | 12.30  | 13.60  | 13.90  | 14.20  |          |     |
| 21    | 13.60  | 11.40  | 30.10  | 14.20  | 30.10   | 272.80  | 300.00  | 19.30  | 12.30  | 13.60  | 13.90  | 14.20  |          |     |
| 22    | 13.60  | 13.10  | 27.00  | 14.20  | 24.00   | 334.40  | 325.50  | 18.50  | 12.30  | 13.90  | 13.90  | 14.50  |          |     |
| 23    | 13.60  | 13.90  | 27.40  | 15.00  | 24.00   | 421.70  | 320.00  | 18.00  | 12.30  | 13.90  | 13.90  | 14.70  |          |     |
| 24    | 13.60  | 13.10  | 30.40  | 18.00  | 27.00   | 472.90  | 286.00  | 17.40  | 12.00  | 13.90  | 14.20  | 15.00  |          |     |
| 25    | 13.60  | 12.50  | 33.40  | 24.40  | 32.70   | 460.50  | 244.10  | 17.20  | 12.00  | 13.90  | 14.20  | 15.00  |          |     |
| 26    | 13.60  | 12.30  | 36.70  | 41.80  | 37.80   | 419.90  | 208.30  | 16.60  | 11.70  | 13.60  | 14.50  | 15.60  |          |     |
| 27    | 14.20  | 12.30  | 36.00  | 41.80  | 42.70   | 380.90  | 161.10  | 16.40  | 11.40  | 12.80  | 14.50  | 16.10  |          |     |
| 28    | 14.70  | 11.40  | 31.90  | 28.90  | 46.10   | 374.00  | 113.70  | 16.40  | 11.10  | 12.30  | 14.50  | 16.10  |          |     |
| 29    | 15.00  | 10.60  | 26.70  | 33.00  | 48.00   | 392.70  | 73.60   | 16.40  | 11.10  | 12.50  |        | 15.80  |          |     |
| 30    | 15.30  | 9.70   | 21.40  | 60.50  | 48.90   | 412.70  | 53.10   | 16.10  | 10.90  | 13.40  |        | 15.30  |          |     |
| 31    |        | 8.30   |        | 103.80 | 47.50   |         | 44.20   |        | 10.90  | 13.60  |        | 15.00  |          |     |
| Total | 405.70 | 341.60 | 940.80 | 787.50 | 2956.60 | 5500.00 | 9854.60 | 683.00 | 395.20 | 398.20 | 383.30 | 459.50 | 23106.00 | Ton |
| Mean  | 13.50  | 11.00  | 31.40  | 25.40  | 95.40   | 183.30  | 317.90  | 22.80  | 12.70  | 12.80  | 13.70  | 14.80  |          |     |
| Max   | 15.30  | 15.00  | 112.10 | 103.80 | 169.60  | 472.90  | 608.20  | 39.30  | 15.60  | 13.90  | 14.50  | 16.10  | 608.20   |     |
| Min   | 11.40  | 6.20   | 5.90   | 13.10  | 24.00   | 19.80   | 44.20   | 16.10  | 10.90  | 10.60  | 13.10  | 13.60  | 5.90     |     |

**WATER YEAR : 2013****BANG PAKONG RIVER BASIN****Lower Khlong Ban Na at Ban Pa Kha , Nakhon Nayok (Ny.3)**

Lat 14 - 17 - 04 N Long 101 - 04 - 28 E

**Location : on left bank near Wat Ban Pa Kha.**

|                                      | Ban Pa Kha                 | Amphoe Ban Na | Changwat Nakhon Nayok |
|--------------------------------------|----------------------------|---------------|-----------------------|
| <b>Drainage Area</b>                 | 203 sq.km.                 |               |                       |
| <b>Method of sampling</b>            | Depth Integrating          |               |                       |
| <b>Instrument Used</b>               | US.D-49                    |               |                       |
| <b>Period of Available Records</b>   | 1999-Cont'd                |               |                       |
| <b>Actual Measurement</b>            | 1999-Cont'd                |               |                       |
| <b>Using Rating Curve Water Year</b> | 1999-2013                  |               |                       |
| <b>Number of observation</b>         | 227                        |               |                       |
| <b>R-Square</b>                      | 0.7098                     |               |                       |
| <b>Remarks</b>                       | Continued Sediment Station |               |                       |

$$QS = 20.5880 QW^{0.97720}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May    | Jun    | Jul    | Aug     | Sep      | Oct     | Nov    | Dec   | Jan  | Feb  | Mar  | Annual   |            |
|-------|-------|--------|--------|--------|---------|----------|---------|--------|-------|------|------|------|----------|------------|
| 1     | 0.70  | 22.20  | 0.00   | 7.20   | 74.70   | 104.70   | 466.10  | 50.00  | 3.00  | 0.00 | 0.00 | 0.00 |          |            |
| 2     | 0.70  | 23.80  | 0.00   | 5.50   | 89.10   | 60.60    | 336.60  | 46.10  | 4.70  | 0.00 | 0.00 | 0.00 |          |            |
| 3     | 0.70  | 22.20  | 0.00   | 5.50   | 82.90   | 35.80    | 345.10  | 44.50  | 5.10  | 0.00 | 0.00 | 0.00 |          |            |
| 4     | 0.70  | 21.40  | 0.00   | 5.50   | 36.60   | 31.00    | 860.10  | 42.10  | 4.70  | 0.00 | 0.00 | 0.00 |          |            |
| 5     | 0.70  | 19.80  | 0.00   | 5.50   | 98.50   | 35.80    | 989.40  | 40.50  | 3.90  | 0.00 | 0.00 | 0.00 |          |            |
| 6     | 0.70  | 21.40  | 0.00   | 5.50   | 92.20   | 40.50    | 536.00  | 39.70  | 3.40  | 0.00 | 0.00 | 0.00 |          |            |
| 7     | 0.70  | 20.60  | 0.00   | 5.50   | 65.30   | 30.20    | 384.60  | 36.60  | 2.80  | 0.00 | 0.00 | 0.00 |          |            |
| 8     | 0.70  | 19.00  | 0.00   | 5.50   | 72.40   | 24.60    | 384.60  | 35.00  | 2.80  | 0.00 | 0.00 | 0.00 |          |            |
| 9     | 0.70  | 18.20  | 0.00   | 5.50   | 118.60  | 40.50    | 287.30  | 33.40  | 2.80  | 0.00 | 0.00 | 0.00 |          |            |
| 10    | 0.70  | 16.60  | 0.00   | 6.80   | 81.70   | 106.20   | 207.60  | 31.00  | 2.80  | 0.00 | 0.00 | 0.00 |          |            |
| 11    | 0.70  | 16.60  | 0.00   | 9.60   | 57.10   | 172.40   | 172.40  | 31.00  | 1.70  | 0.00 | 0.00 | 0.00 |          |            |
| 12    | 0.70  | 15.70  | 0.00   | 11.70  | 47.60   | 235.00   | 121.70  | 29.40  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 13    | 0.70  | 14.90  | 0.00   | 12.10  | 42.90   | 353.50   | 118.60  | 30.20  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 14    | 0.70  | 14.10  | 0.00   | 16.60  | 35.80   | 303.20   | 106.20  | 27.80  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 15    | 0.70  | 14.10  | 0.00   | 14.90  | 28.60   | 200.70   | 104.70  | 29.40  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 16    | 0.70  | 17.40  | 1.50   | 15.70  | 21.40   | 241.80   | 126.30  | 24.60  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 17    | 0.70  | 16.60  | 28.60  | 18.20  | 15.70   | 393.00   | 228.10  | 21.40  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 18    | 0.70  | 14.90  | 19.80  | 19.00  | 11.30   | 285.00   | 319.60  | 19.00  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 19    | 0.70  | 13.30  | 17.40  | 19.00  | 12.10   | 350.70   | 353.50  | 19.00  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 20    | 0.70  | 13.30  | 15.70  | 13.30  | 12.50   | 1404.30  | 316.80  | 16.60  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 21    | 0.70  | 13.30  | 18.20  | 10.00  | 11.70   | 1772.20  | 287.30  | 12.50  | 0.70  | 0.00 | 0.00 | 0.00 |          |            |
| 22    | 0.70  | 12.50  | 17.40  | 9.60   | 11.70   | 1616.50  | 225.80  | 11.30  | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 23    | 0.70  | 12.50  | 14.10  | 9.60   | 11.70   | 1139.30  | 162.80  | 9.60   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 24    | 0.70  | 12.50  | 10.00  | 35.00  | 11.70   | 681.20   | 127.80  | 9.60   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 25    | 0.70  | 10.90  | 9.60   | 143.60 | 15.70   | 526.50   | 98.50   | 8.40   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 26    | 0.70  | 10.50  | 9.60   | 87.60  | 31.80   | 407.10   | 81.70   | 6.30   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 27    | 0.70  | 10.00  | 10.00  | 53.60  | 35.80   | 325.30   | 73.50   | 5.50   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 28    | 0.70  | 10.00  | 10.90  | 38.90  | 37.40   | 431.10   | 65.30   | 5.50   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 29    | 0.70  | 8.80   | 10.50  | 25.40  | 42.10   | 555.00   | 60.60   | 5.50   | 0.00  | 0.00 |      | 0.00 |          |            |
| 30    | 0.70  | 8.00   | 10.90  | 31.00  | 41.30   | 580.90   | 54.70   | 5.50   | 0.00  | 0.00 |      | 0.00 |          |            |
| 31    |       | 6.30   |        | 60.60  | 65.30   |          | 57.10   |        | 0.00  | 0.00 |      | 0.00 |          |            |
| Total | 21.00 | 471.40 | 204.20 | 713.00 | 1413.20 | 12484.60 | 8060.40 | 727.00 | 44.70 | 0.00 | 0.00 | 0.00 | 24139.50 | <b>Ton</b> |
| Mean  | 0.70  | 15.20  | 6.80   | 23.00  | 45.60   | 416.20   | 260.00  | 24.20  | 1.40  | 0.00 | 0.00 | 0.00 |          |            |
| Max   | 0.70  | 23.80  | 28.60  | 143.60 | 118.60  | 1772.20  | 989.40  | 50.00  | 5.10  | 0.00 | 0.00 | 0.00 | 1772.20  |            |
| Min   | 0.70  | 6.30   | 0.00   | 5.50   | 11.30   | 24.60    | 54.70   | 5.50   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00     |            |

**WATER YEAR : 2013**

## BANG PAKONG RIVER BASIN

**Upper Khlong Ban Na at Ban Cha Om , Saraburi (Ny.6)**

Lat 14 - 24 - 34 N      Long 101 - 07 - 30 E

**Location :** on left bank about 50 meters from the top staff gage.

|                                      | Ban                        | Cha Om      | Amphoe | Kaeng Khoi | Changwat | Saraburi |
|--------------------------------------|----------------------------|-------------|--------|------------|----------|----------|
| <b>Drainage Area</b>                 | 126                        | sq.km.      |        |            |          |          |
| <b>Method of sampling</b>            | Depth                      | Integrating |        |            |          |          |
| <b>Instrument Used</b>               | US.D-49                    |             |        |            |          |          |
| <b>Period of Available Records</b>   | 1998-Cont'd                |             |        |            |          |          |
| <b>Actual Measurement</b>            | 1998-Cont'd                |             |        |            |          |          |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |             |        |            |          |          |
| <b>Number of observation</b>         | 228                        |             |        |            |          |          |
| <b>R-Square</b>                      | 0.8739                     |             |        |            |          |          |
| <b>Remarks</b>                       | Continued Sediment Station |             |        |            |          |          |

$$QS = 9.1151 QW^{0.91150}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun    | Jul    | Aug     | Sep     | Oct     | Nov    | Dec  | Jan  | Feb  | Mar  | Annual  |
|-------|------|------|--------|--------|---------|---------|---------|--------|------|------|------|------|---------|
| 1     | 0.00 | 0.00 | 0.00   | 17.10  | 57.90   | 30.80   | 83.80   | 14.00  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 2     | 0.00 | 0.00 | 0.00   | 17.10  | 43.80   | 28.60   | 77.10   | 13.20  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 3     | 0.00 | 0.00 | 0.00   | 17.10  | 77.10   | 27.80   | 106.00  | 12.40  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 4     | 0.00 | 0.00 | 0.00   | 17.10  | 71.60   | 26.30   | 224.80  | 12.40  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 5     | 0.00 | 0.00 | 0.00   | 17.10  | 52.30   | 23.30   | 112.50  | 11.60  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 6     | 0.00 | 0.00 | 0.00   | 17.10  | 37.40   | 21.80   | 81.10   | 14.00  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 7     | 0.00 | 0.00 | 0.00   | 17.10  | 32.30   | 34.40   | 83.80   | 13.20  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 8     | 0.00 | 0.00 | 0.00   | 17.10  | 71.60   | 31.50   | 71.60   | 12.40  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 9     | 0.00 | 0.00 | 0.00   | 17.10  | 46.70   | 75.70   | 56.50   | 11.60  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 10    | 0.00 | 0.00 | 0.00   | 17.10  | 38.80   | 81.10   | 43.80   | 10.80  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 11    | 0.00 | 0.00 | 0.00   | 17.10  | 35.90   | 57.90   | 38.80   | 10.80  | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 12    | 0.00 | 0.00 | 0.00   | 17.10  | 34.40   | 87.80   | 35.90   | 9.90   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 13    | 0.00 | 0.00 | 24.80  | 17.10  | 28.60   | 82.40   | 33.00   | 9.10   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 14    | 0.00 | 0.00 | 23.30  | 17.10  | 26.30   | 64.80   | 29.30   | 9.10   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 15    | 0.00 | 0.00 | 23.30  | 17.10  | 24.80   | 46.70   | 24.10   | 8.30   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 16    | 0.00 | 0.00 | 23.30  | 17.10  | 22.50   | 132.80  | 35.90   | 8.30   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 17    | 0.00 | 0.00 | 21.80  | 17.10  | 20.20   | 83.80   | 91.80   | 7.40   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 18    | 0.00 | 0.00 | 21.80  | 17.10  | 18.70   | 89.10   | 70.30   | 7.40   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 19    | 0.00 | 0.00 | 20.20  | 17.10  | 17.10   | 112.50  | 119.00  | 6.60   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 20    | 0.00 | 0.00 | 20.20  | 17.10  | 17.10   | 1390.80 | 99.40   | 5.70   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 21    | 0.00 | 0.00 | 20.20  | 17.10  | 17.10   | 328.80  | 55.10   | 5.70   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 22    | 0.00 | 0.00 | 20.20  | 17.10  | 17.10   | 244.40  | 46.70   | 4.80   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 23    | 0.00 | 0.00 | 20.20  | 17.10  | 17.10   | 144.30  | 36.60   | 4.00   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 24    | 0.00 | 0.00 | 20.20  | 86.50  | 17.10   | 94.40   | 33.00   | 3.00   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 25    | 0.00 | 0.00 | 18.70  | 49.50  | 21.00   | 86.50   | 28.60   | 2.10   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 26    | 0.00 | 0.00 | 18.70  | 34.40  | 30.80   | 81.10   | 24.10   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 27    | 0.00 | 0.00 | 18.70  | 27.80  | 31.50   | 66.20   | 21.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 28    | 0.00 | 0.00 | 18.70  | 24.80  | 29.30   | 153.80  | 17.10   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| 29    | 0.00 | 0.00 | 18.70  | 24.80  | 26.30   | 146.20  | 17.10   | 0.00   | 0.00 | 0.00 |      | 0.00 |         |
| 30    | 0.00 | 0.00 | 18.70  | 45.30  | 27.10   | 115.70  | 14.00   | 0.00   | 0.00 | 0.00 |      | 0.00 |         |
| 31    |      | 0.00 |        | 35.90  | 33.00   |         | 14.00   |        | 0.00 | 0.00 |      | 0.00 |         |
| Total | 0.00 | 0.00 | 371.70 | 722.30 | 1042.50 | 3991.30 | 1825.80 | 227.80 | 0.00 | 0.00 | 0.00 | 0.00 | 8181.40 |
| Mean  | 0.00 | 0.00 | 12.40  | 23.30  | 33.60   | 133.00  | 58.90   | 7.60   | 0.00 | 0.00 | 0.00 | 0.00 |         |
| Max   | 0.00 | 0.00 | 24.80  | 86.50  | 77.10   | 1390.80 | 224.80  | 14.00  | 0.00 | 0.00 | 0.00 |      | 1390.80 |
| Min   | 0.00 | 0.00 | 0.00   | 17.10  | 17.10   | 21.80   | 14.00   | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00    |



**WATER YEAR : 2013****EAST COAST - GULF BASIN****Khlong Phlo at Ban Chamkho , Rayong (Z.18)**

Lat 12 - 57 - 18 N Long 101 - 40 - 32 E

**Location : on right bank at the bridge on road.**

|                                      |                            |                                |                        |
|--------------------------------------|----------------------------|--------------------------------|------------------------|
|                                      | <b>Ban</b> Chamkho         | <b>Amphoe</b> K.A. Khao Chamao | <b>Changwat</b> Rayong |
| <b>Drainage Area</b>                 | 201 sq.km.                 |                                |                        |
| <b>Method of sampling</b>            | Depth Integrating          |                                |                        |
| <b>Instrument Used</b>               | US.D-49                    |                                |                        |
| <b>Period of Available Records</b>   | 1988-Cont'd                |                                |                        |
| <b>Actual Measurement</b>            | 1988-Cont'd                |                                |                        |
| <b>Using Rating Curve Water Year</b> | 1996-2013                  |                                |                        |
| <b>Number of observation</b>         | 252                        |                                |                        |
| <b>R-Square</b>                      | 0.7552                     |                                |                        |
| <b>Remarks</b>                       | Continued Sediment Station |                                |                        |

**QS = 3.5029 QW<sup>1.88590</sup>****Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun     | Jul     | Aug     | Sep      | Oct      | Nov    | Dec   | Jan  | Feb  | Mar  | Annual   |            |
|-------|------|------|---------|---------|---------|----------|----------|--------|-------|------|------|------|----------|------------|
| 1     | 0.00 | 0.00 | 0.00    | 383.50  | 32.20   | 276.50   | 119.50   | 18.70  | 1.90  | 0.00 | 0.00 | 0.00 |          |            |
| 2     | 0.00 | 0.00 | 0.00    | 435.40  | 21.40   | 13.80    | 383.50   | 15.00  | 1.50  | 0.00 | 0.00 | 0.00 |          |            |
| 3     | 0.00 | 0.00 | 0.00    | 264.30  | 17.40   | 12.70    | 3195.60  | 13.80  | 1.50  | 0.00 | 0.00 | 0.00 |          |            |
| 4     | 0.00 | 0.00 | 0.00    | 252.30  | 16.20   | 7.80     | 11147.30 | 11.60  | 1.10  | 0.00 | 0.00 | 0.00 |          |            |
| 5     | 0.00 | 0.00 | 0.00    | 258.30  | 12.70   | 8.70     | 4923.10  | 10.60  | 1.10  | 0.00 | 0.00 | 0.00 |          |            |
| 6     | 0.00 | 0.00 | 0.00    | 258.30  | 12.70   | 5.40     | 2594.90  | 8.70   | 0.80  | 0.00 | 0.00 | 0.00 |          |            |
| 7     | 0.00 | 0.00 | 0.00    | 252.30  | 22.80   | 25.80    | 1426.10  | 7.80   | 0.80  | 0.00 | 0.00 | 0.00 |          |            |
| 8     | 0.00 | 0.00 | 0.00    | 390.70  | 45.00   | 41.10    | 768.10   | 21.40  | 0.80  | 0.00 | 0.00 | 0.00 |          |            |
| 9     | 0.00 | 0.00 | 0.00    | 1029.60 | 46.90   | 78.50    | 514.90   | 70.20  | 0.80  | 0.00 | 0.00 | 0.00 |          |            |
| 10    | 0.00 | 0.00 | 0.00    | 999.30  | 51.10   | 119.50   | 321.30   | 21.40  | 0.80  | 0.00 | 0.00 | 0.00 |          |            |
| 11    | 0.00 | 0.00 | 212.60  | 623.80  | 41.10   | 2387.00  | 202.20   | 27.30  | 0.50  | 0.00 | 0.00 | 0.00 |          |            |
| 12    | 0.00 | 0.00 | 234.90  | 498.50  | 49.00   | 939.90   | 169.40   | 18.70  | 0.50  | 0.00 | 0.00 | 0.00 |          |            |
| 13    | 0.00 | 0.00 | 276.50  | 498.50  | 55.30   | 156.20   | 127.30   | 15.00  | 0.30  | 0.00 | 0.00 | 0.00 |          |            |
| 14    | 0.00 | 0.00 | 270.40  | 474.40  | 276.50  | 173.90   | 99.60    | 28.90  | 0.30  | 0.00 | 0.00 | 0.00 |          |            |
| 15    | 0.00 | 0.00 | 458.60  | 398.00  | 123.40  | 96.40    | 102.80   | 13.80  | 0.30  | 0.00 | 0.00 | 0.00 |          |            |
| 16    | 0.00 | 0.00 | 443.10  | 383.50  | 169.40  | 1139.00  | 3883.00  | 8.70   | 0.10  | 0.00 | 0.00 | 0.00 |          |            |
| 17    | 0.00 | 0.00 | 355.20  | 362.20  | 41.10   | 90.20    | 5604.20  | 3.40   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 18    | 0.00 | 0.00 | 355.20  | 264.30  | 28.90   | 75.70    | 390.70   | 4.70   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 19    | 0.00 | 0.00 | 355.20  | 151.90  | 25.80   | 197.40   | 264.30   | 4.10   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 20    | 0.00 | 0.00 | 362.20  | 13.80   | 22.80   | 1338.50  | 169.40   | 4.10   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 21    | 0.00 | 0.00 | 362.20  | 12.70   | 20.00   | 2211.80  | 135.30   | 4.10   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 22    | 0.00 | 0.00 | 369.20  | 10.60   | 13.80   | 673.70   | 119.50   | 4.10   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 23    | 0.00 | 0.00 | 376.30  | 24.30   | 11.60   | 160.50   | 90.20    | 3.40   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 24    | 0.00 | 0.00 | 383.50  | 663.60  | 9.60    | 127.30   | 64.90    | 2.90   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 25    | 0.00 | 0.00 | 383.50  | 90.20   | 8.70    | 178.50   | 49.00    | 3.40   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 26    | 0.00 | 0.00 | 376.30  | 33.90   | 7.80    | 112.70   | 49.00    | 3.40   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 27    | 0.00 | 0.00 | 412.80  | 24.30   | 7.00    | 64.90    | 43.00    | 2.90   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 28    | 0.00 | 0.00 | 800.80  | 21.40   | 7.80    | 139.30   | 33.90    | 2.90   | 0.00  | 0.00 | 0.00 | 0.00 |          |            |
| 29    | 0.00 | 0.00 | 482.40  | 18.70   | 7.00    | 151.90   | 28.90    | 2.40   | 0.00  | 0.00 |      | 0.00 |          |            |
| 30    | 0.00 | 0.00 | 435.40  | 13.80   | 7.00    | 282.70   | 25.80    | 2.40   | 0.00  | 0.00 |      | 0.00 |          |            |
| 31    |      | 0.00 |         | 12.70   | 258.30  |          | 22.80    |        | 0.00  | 0.00 |      | 0.00 |          |            |
| Total | 0.00 | 0.00 | 7706.30 | 9119.10 | 1470.30 | 11287.30 | 37069.50 | 359.80 | 13.10 | 0.00 | 0.00 | 0.00 | 67025.40 | <b>Ton</b> |
| Mean  | 0.00 | 0.00 | 256.90  | 294.20  | 47.40   | 376.20   | 1195.80  | 12.00  | 0.40  | 0.00 | 0.00 | 0.00 |          |            |
| Max   | 0.00 | 0.00 | 800.80  | 1029.60 | 276.50  | 2387.00  | 11147.30 | 70.20  | 1.90  | 0.00 | 0.00 | 0.00 | 11147.30 |            |
| Min   | 0.00 | 0.00 | 0.00    | 10.60   | 7.00    | 5.40     | 22.80    | 2.40   | 0.00  | 0.00 | 0.00 | 0.00 | 0.00     |            |

**WATER YEAR : 2013****EAST COAST - GULF BASIN****Khlong Aeng at Ban Kho Lae , Trat (Z.45)**

Lat 12 - 36 - 58 N Long 102 - 28 - 42 E

**Location : on right bank near the highway bridge, Tambon Nong Bon.**

|                                      | Ban Kho Lae                | Amphoe Bo Rai | Changwat Trat |
|--------------------------------------|----------------------------|---------------|---------------|
| <b>Drainage Area</b>                 | 58 sq.km.                  |               |               |
| <b>Method of sampling</b>            | Depth Integrating          |               |               |
| <b>Instrument Used</b>               | US.D-49                    |               |               |
| <b>Period of Available Records</b>   | 2005-Cont'd                |               |               |
| <b>Actual Measurement</b>            | 2005-Cont'd                |               |               |
| <b>Using Rating Curve Water Year</b> | 2005-2013                  |               |               |
| <b>Number of observation</b>         | 136                        |               |               |
| <b>R-Square</b>                      | 0.7523                     |               |               |
| <b>Remarks</b>                       | Continued Sediment Station |               |               |

$$QS = 5.4766 QW^{1.02940}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May     | Jun     | Jul     | Aug     | Sep     | Oct     | Nov    | Dec    | Jan    | Feb    | Mar    | Annual   |     |
|-------|--------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|----------|-----|
| 1     | 2.80   | 5.80    | 11.80   | 45.70   | 67.90   | 71.30   | 88.50   | 31.30  | 19.90  | 11.80  | 7.70   | 6.80   |          |     |
| 2     | 3.80   | 7.70    | 15.80   | 40.60   | 73.00   | 66.20   | 98.70   | 33.30  | 19.90  | 10.80  | 7.70   | 6.80   |          |     |
| 3     | 4.80   | 4.80    | 17.80   | 67.90   | 69.60   | 71.30   | 94.30   | 30.20  | 19.90  | 10.80  | 7.70   | 6.80   |          |     |
| 4     | 2.80   | 2.80    | 30.20   | 81.60   | 85.10   | 71.30   | 92.00   | 31.30  | 19.90  | 10.80  | 7.70   | 6.80   |          |     |
| 5     | 3.80   | 5.80    | 39.50   | 73.00   | 71.30   | 71.30   | 103.20  | 32.30  | 19.90  | 10.80  | 7.70   | 6.80   |          |     |
| 6     | 4.80   | 6.80    | 42.30   | 69.60   | 212.80  | 71.30   | 425.60  | 33.30  | 19.90  | 10.80  | 7.70   | 6.80   |          |     |
| 7     | 6.80   | 5.80    | 24.00   | 218.70  | 343.30  | 78.20   | 130.30  | 32.30  | 18.80  | 9.70   | 7.70   | 6.80   |          |     |
| 8     | 6.80   | 6.80    | 11.80   | 148.50  | 173.00  | 85.10   | 233.60  | 33.30  | 18.80  | 9.70   | 7.70   | 6.80   |          |     |
| 9     | 6.80   | 6.80    | 3.80    | 96.50   | 67.90   | 98.70   | 96.50   | 31.30  | 18.80  | 9.70   | 7.70   | 6.80   |          |     |
| 10    | 5.80   | 6.80    | 0.00    | 155.30  | 78.20   | 49.10   | 78.20   | 29.10  | 18.80  | 8.70   | 7.70   | 6.80   |          |     |
| 11    | 8.70   | 6.80    | 36.40   | 116.70  | 83.30   | 73.00   | 81.60   | 29.10  | 17.80  | 8.70   | 6.80   | 5.80   |          |     |
| 12    | 7.70   | 7.70    | 137.10  | 98.70   | 128.10  | 239.60  | 69.60   | 32.30  | 17.80  | 8.70   | 6.80   | 5.80   |          |     |
| 13    | 3.80   | 7.70    | 317.50  | 112.20  | 130.30  | 375.40  | 61.00   | 31.30  | 17.80  | 8.70   | 6.80   | 5.80   |          |     |
| 14    | 5.80   | 4.80    | 429.20  | 329.50  | 141.70  | 479.90  | 69.60   | 32.30  | 16.80  | 8.70   | 6.80   | 5.80   |          |     |
| 15    | 6.80   | 0.00    | 196.90  | 343.30  | 107.80  | 101.00  | 90.30   | 32.30  | 16.80  | 8.70   | 6.80   | 5.80   |          |     |
| 16    | 7.70   | 28.10   | 263.50  | 101.00  | 79.90   | 88.50   | 90.30   | 31.30  | 16.80  | 8.70   | 6.80   | 5.80   |          |     |
| 17    | 5.80   | 50.80   | 364.70  | 101.00  | 76.50   | 86.80   | 85.10   | 30.20  | 15.80  | 8.70   | 6.80   | 5.80   |          |     |
| 18    | 4.80   | 50.80   | 96.50   | 112.20  | 64.50   | 221.70  | 71.30   | 31.30  | 15.80  | 8.70   | 6.80   | 5.80   |          |     |
| 19    | 6.80   | 54.20   | 92.00   | 116.70  | 69.60   | 275.40  | 59.30   | 32.30  | 15.80  | 8.70   | 6.80   | 5.80   |          |     |
| 20    | 7.70   | 47.40   | 66.20   | 116.70  | 74.80   | 101.00  | 57.60   | 33.30  | 14.80  | 8.70   | 6.80   | 5.80   |          |     |
| 21    | 7.70   | 64.50   | 105.50  | 123.50  | 61.00   | 103.20  | 52.50   | 31.30  | 14.80  | 7.70   | 6.80   | 5.80   |          |     |
| 22    | 7.70   | 132.60  | 202.20  | 134.90  | 96.50   | 101.00  | 49.10   | 30.20  | 14.80  | 7.70   | 6.80   | 4.80   |          |     |
| 23    | 6.80   | 123.50  | 305.50  | 196.90  | 107.80  | 107.80  | 45.70   | 30.20  | 13.80  | 7.70   | 6.80   | 4.80   |          |     |
| 24    | 6.80   | 74.80   | 121.30  | 175.70  | 81.60   | 92.00   | 40.60   | 33.30  | 13.80  | 7.70   | 6.80   | 4.80   |          |     |
| 25    | 15.80  | 125.80  | 61.00   | 137.10  | 62.70   | 103.20  | 40.60   | 32.30  | 13.80  | 7.70   | 6.80   | 4.80   |          |     |
| 26    | 14.80  | 139.40  | 49.10   | 112.20  | 76.50   | 96.50   | 39.50   | 31.30  | 12.80  | 7.70   | 6.80   | 4.80   |          |     |
| 27    | 7.70   | 74.80   | 34.30   | 98.70   | 69.60   | 90.30   | 38.50   | 31.30  | 12.80  | 7.70   | 6.80   | 4.80   |          |     |
| 28    | 7.70   | 50.80   | 44.00   | 79.90   | 78.20   | 94.30   | 37.40   | 28.10  | 12.80  | 7.70   | 6.80   | 4.80   |          |     |
| 29    | 7.70   | 47.40   | 47.40   | 90.30   | 66.20   | 134.90  | 35.40   | 25.00  | 12.80  | 7.70   |        | 4.80   |          |     |
| 30    | 9.70   | 39.50   | 47.40   | 257.60  | 71.30   | 71.30   | 35.40   | 21.90  | 11.80  | 7.70   |        | 4.80   |          |     |
| 31    |        | 16.80   |         | 94.30   | 73.00   |         | 32.30   |        | 11.80  | 7.70   |        | 4.80   |          |     |
| Total | 207.00 | 1208.10 | 3214.70 | 4046.50 | 3043.00 | 3770.60 | 2623.60 | 928.30 | 506.40 | 275.30 | 199.40 | 179.80 | 20202.70 | Ton |
| Mean  | 6.90   | 39.00   | 107.20  | 130.50  | 98.20   | 125.70  | 84.60   | 30.90  | 16.30  | 8.90   | 7.10   | 5.80   |          |     |
| Max   | 15.80  | 139.40  | 429.20  | 343.30  | 343.30  | 479.90  | 425.60  | 33.30  | 19.90  | 11.80  | 7.70   | 6.80   | 479.90   |     |
| Min   | 2.80   | 0.00    | 0.00    | 40.60   | 61.00   | 49.10   | 32.30   | 21.90  | 11.80  | 7.70   | 6.80   | 4.80   | 0.00     |     |

**WATER YEAR : 2013****PHETCHABURI RIVER BASIN****Phetchaburi River at Ban Song Phi Nong , Phetchaburi (B.3A)**

Lat 12 - 51 - 47 N Long 99 - 40 - 42 E

**Location : on left bank at Ban Song Phi Nong.**

|                                      |                            |                      |               |                      |                 |                    |
|--------------------------------------|----------------------------|----------------------|---------------|----------------------|-----------------|--------------------|
|                                      | <b>Ban</b>                 | <b>Song Phi Nong</b> | <b>Amphoe</b> | <b>Kaeng Krachan</b> | <b>Changwat</b> | <b>Phetchaburi</b> |
| <b>Drainage Area</b>                 | 2,220                      | sq.km.               |               |                      |                 |                    |
| <b>Method of sampling</b>            | Depth                      | Integrating          |               |                      |                 |                    |
| <b>Instrument Used</b>               | US.D-49                    |                      |               |                      |                 |                    |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                      |               |                      |                 |                    |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                      |               |                      |                 |                    |
| <b>Using Rating Curve Water Year</b> | 2004-2013                  |                      |               |                      |                 |                    |
| <b>Number of observation</b>         | 213                        |                      |               |                      |                 |                    |
| <b>R-Square</b>                      | 0.7300                     |                      |               |                      |                 |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                      |               |                      |                 |                    |

$$QS = 1.0470 QW^{1.19100}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun    | Jul    | Aug     | Sep     | Oct     | Nov     | Dec    | Jan     | Feb     | Mar     | Annual   |            |
|-------|---------|---------|--------|--------|---------|---------|---------|---------|--------|---------|---------|---------|----------|------------|
| 1     | 112.90  | 122.80  | 85.80  | 7.60   | 60.90   | 67.30   | 25.90   | 106.80  | 18.50  | 35.00   | 92.20   | 112.90  |          |            |
| 2     | 115.30  | 122.80  | 83.70  | 6.30   | 74.70   | 71.00   | 32.00   | 92.20   | 18.50  | 35.00   | 92.20   | 114.10  |          |            |
| 3     | 116.50  | 124.10  | 29.30  | 5.90   | 70.10   | 71.00   | 73.80   | 117.80  | 18.50  | 35.00   | 95.40   | 114.10  |          |            |
| 4     | 95.40   | 122.80  | 37.90  | 5.90   | 189.00  | 71.00   | 71.90   | 121.60  | 18.50  | 48.80   | 115.30  | 111.70  |          |            |
| 5     | 116.50  | 121.60  | 30.70  | 8.40   | 174.90  | 71.90   | 56.30   | 158.00  | 18.50  | 48.80   | 115.30  | 111.70  |          |            |
| 6     | 115.30  | 129.30  | 32.70  | 16.30  | 79.70   | 76.70   | 24.80   | 184.30  | 19.10  | 47.20   | 116.50  | 103.40  |          |            |
| 7     | 114.10  | 129.30  | 32.70  | 15.80  | 56.30   | 77.70   | 9.70    | 227.60  | 25.30  | 46.40   | 120.30  | 90.00   |          |            |
| 8     | 115.30  | 129.30  | 32.70  | 12.40  | 66.40   | 81.70   | 6.70    | 250.80  | 31.40  | 45.60   | 120.30  | 94.30   |          |            |
| 9     | 137.30  | 126.70  | 31.40  | 9.70   | 66.40   | 81.70   | 5.90    | 100.00  | 30.00  | 46.40   | 121.60  | 94.30   |          |            |
| 10    | 128.00  | 122.80  | 32.70  | 6.30   | 60.90   | 80.70   | 4.80    | 52.10   | 30.70  | 46.40   | 120.30  | 94.30   |          |            |
| 11    | 130.60  | 133.20  | 32.70  | 8.80   | 60.00   | 80.70   | 25.30   | 21.90   | 30.70  | 46.40   | 119.00  | 100.00  |          |            |
| 12    | 129.30  | 128.00  | 32.00  | 8.00   | 60.00   | 74.70   | 95.40   | 10.10   | 31.40  | 45.60   | 104.50  | 98.80   |          |            |
| 13    | 130.60  | 116.50  | 31.40  | 7.60   | 60.00   | 69.10   | 168.60  | 19.10   | 31.40  | 46.40   | 94.30   | 98.80   |          |            |
| 14    | 130.60  | 116.50  | 31.40  | 7.60   | 57.20   | 53.00   | 265.30  | 72.90   | 32.00  | 58.10   | 93.30   | 94.30   |          |            |
| 15    | 111.70  | 116.50  | 30.70  | 8.80   | 53.80   | 49.60   | 259.80  | 87.90   | 32.00  | 60.00   | 94.30   | 104.50  |          |            |
| 16    | 108.00  | 101.10  | 30.70  | 8.40   | 53.80   | 30.70   | 258.00  | 47.90   | 32.00  | 60.00   | 94.30   | 104.50  |          |            |
| 17    | 108.00  | 100.00  | 28.60  | 8.40   | 53.80   | 26.60   | 256.20  | 21.90   | 32.70  | 77.70   | 95.40   | 102.20  |          |            |
| 18    | 101.10  | 101.10  | 18.00  | 8.40   | 54.60   | 32.00   | 250.80  | 27.90   | 32.70  | 67.30   | 94.30   | 106.80  |          |            |
| 19    | 102.20  | 101.10  | 9.70   | 8.00   | 53.80   | 65.40   | 190.60  | 18.50   | 32.70  | 66.40   | 94.30   | 105.70  |          |            |
| 20    | 102.20  | 101.10  | 15.80  | 7.60   | 44.80   | 27.90   | 167.10  | 18.00   | 37.20  | 67.30   | 95.40   | 105.70  |          |            |
| 21    | 102.20  | 101.10  | 15.80  | 7.60   | 47.20   | 27.90   | 162.50  | 18.00   | 33.50  | 66.40   | 95.40   | 108.00  |          |            |
| 22    | 103.40  | 100.00  | 15.80  | 7.60   | 34.20   | 29.30   | 160.90  | 18.00   | 33.50  | 67.30   | 96.60   | 108.00  |          |            |
| 23    | 103.40  | 96.60   | 15.30  | 7.20   | 55.50   | 29.30   | 158.00  | 18.00   | 33.50  | 67.30   | 96.60   | 108.00  |          |            |
| 24    | 108.00  | 97.70   | 14.70  | 15.30  | 54.60   | 34.20   | 156.60  | 18.50   | 33.50  | 67.30   | 95.40   | 108.00  |          |            |
| 25    | 108.00  | 95.40   | 9.20   | 16.90  | 54.60   | 47.20   | 156.60  | 18.50   | 34.20  | 68.20   | 96.60   | 102.20  |          |            |
| 26    | 108.00  | 97.70   | 8.80   | 11.90  | 54.60   | 41.00   | 155.20  | 18.50   | 34.20  | 68.20   | 96.60   | 101.10  |          |            |
| 27    | 109.30  | 96.60   | 8.80   | 15.30  | 55.50   | 41.00   | 140.00  | 18.50   | 34.20  | 68.20   | 104.50  | 101.10  |          |            |
| 28    | 110.50  | 89.00   | 9.70   | 24.20  | 55.50   | 41.00   | 121.60  | 18.50   | 32.00  | 69.10   | 112.90  | 102.20  |          |            |
| 29    | 109.30  | 89.00   | 9.20   | 63.60  | 55.50   | 41.70   | 117.80  | 18.50   | 34.20  | 69.10   |         | 98.80   |          |            |
| 30    | 116.50  | 89.00   | 8.80   | 63.60  | 45.60   | 42.50   | 117.80  | 18.50   | 35.00  | 82.70   |         | 90.00   |          |            |
| 31    |         | 84.70   |        | 61.80  | 56.30   |         | 119.00  |         | 35.00  | 92.20   |         | 90.00   |          |            |
| Total | 3399.50 | 3403.40 | 806.70 | 471.20 | 2020.20 | 1635.50 | 3814.90 | 1940.80 | 926.60 | 1815.80 | 2883.10 | 3179.50 | 26297.20 | <b>Ton</b> |
| Mean  | 113.30  | 109.80  | 26.90  | 15.20  | 65.20   | 54.50   | 123.10  | 64.70   | 29.90  | 58.60   | 103.00  | 102.60  |          |            |
| Max   | 137.30  | 133.20  | 85.80  | 63.60  | 189.00  | 81.70   | 265.30  | 250.80  | 37.20  | 92.20   | 121.60  | 114.10  | 265.30   |            |
| Min   | 95.40   | 84.70   | 8.80   | 5.90   | 34.20   | 26.60   | 4.80    | 10.10   | 18.50  | 35.00   | 92.20   | 90.00   | 4.80     |            |

**WATER YEAR : 2013****PHETCHABURI RIVER BASIN****Huai Phak at Ban Prong Khae , Phetchaburi (B.8A)**

Lat 12 - 48 - 50 N Long 99 - 42 - 16 E

**Location : on left bank at Ban Prong Khae.**

|                                      |                            |                        |                             |
|--------------------------------------|----------------------------|------------------------|-----------------------------|
|                                      | <b>Ban</b> Prong Khae      | <b>Amphoe</b> Tha Yang | <b>Changwat</b> Phetchaburi |
| <b>Drainage Area</b>                 | 301 sq.km.                 |                        |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                        |                             |
| <b>Instrument Used</b>               | US.D-49                    |                        |                             |
| <b>Period of Available Records</b>   | 2010-Cont'd                |                        |                             |
| <b>Actual Measurement</b>            | 2010-Cont'd                |                        |                             |
| <b>Using Rating Curve Water Year</b> | 2010-2013                  |                        |                             |
| <b>Number of observation</b>         | 46                         |                        |                             |
| <b>R-Square</b>                      | 0.8860                     |                        |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                        |                             |

$$QS = 1.9880 QW^{1.37500}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun   | Jul   | Aug   | Sep  | Oct    | Nov    | Dec   | Jan  | Feb  | Mar  | Annual  |            |
|-------|-------|-------|-------|-------|-------|------|--------|--------|-------|------|------|------|---------|------------|
| 1     | 0.90  | 0.90  | 0.90  | 0.10  | 1.50  | 0.00 | 0.60   | 1.70   | 1.20  | 0.20 | 0.10 | 0.20 |         |            |
| 2     | 0.90  | 0.90  | 0.90  | 0.10  | 1.20  | 0.00 | 0.80   | 1.70   | 1.20  | 0.40 | 0.10 | 0.20 |         |            |
| 3     | 0.90  | 0.90  | 0.90  | 0.10  | 1.10  | 0.00 | 1.20   | 1.60   | 1.20  | 0.50 | 0.10 | 0.10 |         |            |
| 4     | 0.90  | 0.90  | 0.90  | 0.10  | 0.90  | 0.00 | 2.40   | 1.50   | 1.10  | 0.30 | 0.00 | 0.10 |         |            |
| 5     | 0.90  | 0.90  | 0.90  | 1.50  | 0.70  | 0.00 | 7.00   | 1.30   | 1.10  | 0.30 | 0.00 | 0.10 |         |            |
| 6     | 0.90  | 0.90  | 0.90  | 7.00  | 0.50  | 0.00 | 10.70  | 1.80   | 1.10  | 0.20 | 0.10 | 0.10 |         |            |
| 7     | 0.90  | 0.90  | 0.90  | 0.20  | 0.40  | 0.00 | 43.30  | 7.00   | 1.10  | 0.20 | 0.10 | 0.10 |         |            |
| 8     | 0.90  | 0.90  | 0.90  | 0.10  | 0.30  | 0.00 | 34.80  | 79.20  | 1.00  | 0.20 | 0.10 | 0.10 |         |            |
| 9     | 0.90  | 0.90  | 0.90  | 0.10  | 0.10  | 0.10 | 90.40  | 347.10 | 1.00  | 0.20 | 0.10 | 0.10 |         |            |
| 10    | 0.90  | 0.90  | 0.90  | 0.10  | 0.10  | 0.00 | 50.10  | 86.00  | 1.00  | 0.20 | 0.10 | 0.10 |         |            |
| 11    | 0.90  | 0.90  | 0.90  | 0.10  | 0.10  | 0.00 | 18.70  | 34.80  | 1.00  | 0.20 | 0.00 | 0.10 |         |            |
| 12    | 0.90  | 0.90  | 0.90  | 0.10  | 0.10  | 0.00 | 11.40  | 18.70  | 1.00  | 0.20 | 0.00 | 0.10 |         |            |
| 13    | 0.90  | 0.90  | 0.90  | 0.10  | 0.10  | 1.20 | 9.60   | 13.90  | 0.90  | 0.10 | 0.10 | 0.10 |         |            |
| 14    | 0.90  | 0.90  | 0.20  | 0.10  | 0.10  | 0.80 | 11.40  | 44.30  | 0.90  | 0.10 | 0.10 | 0.10 |         |            |
| 15    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.50 | 9.90   | 102.80 | 0.90  | 0.10 | 0.10 | 0.10 |         |            |
| 16    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.30 | 9.60   | 93.30  | 0.80  | 0.10 | 0.10 | 0.10 |         |            |
| 17    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.30 | 9.90   | 25.60  | 0.80  | 0.10 | 0.10 | 0.10 |         |            |
| 18    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.30 | 15.20  | 7.00   | 0.80  | 0.10 | 0.10 | 0.10 |         |            |
| 19    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.20 | 60.30  | 2.30   | 0.80  | 0.10 | 0.10 | 0.10 |         |            |
| 20    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.20 | 60.30  | 2.00   | 0.80  | 0.10 | 0.10 | 0.10 |         |            |
| 21    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.30 | 29.70  | 1.70   | 0.90  | 0.10 | 0.10 | 0.10 |         |            |
| 22    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.30 | 23.20  | 1.50   | 1.30  | 0.10 | 0.20 | 0.10 |         |            |
| 23    | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.60 | 10.70  | 1.50   | 1.00  | 0.10 | 0.20 | 0.10 |         |            |
| 24    | 0.90  | 0.90  | 0.10  | 0.10  | 0.50  | 0.90 | 7.30   | 2.00   | 0.40  | 0.10 | 0.20 | 0.10 |         |            |
| 25    | 0.90  | 0.90  | 0.10  | 0.10  | 0.50  | 0.70 | 7.00   | 1.90   | 0.20  | 0.10 | 0.30 | 0.10 |         |            |
| 26    | 0.90  | 0.90  | 0.10  | 0.10  | 0.40  | 0.50 | 7.00   | 1.70   | 0.10  | 0.10 | 0.20 | 0.10 |         |            |
| 27    | 0.90  | 0.90  | 0.10  | 0.10  | 0.30  | 0.40 | 7.00   | 1.50   | 0.10  | 0.10 | 0.10 | 0.10 |         |            |
| 28    | 0.90  | 0.90  | 0.10  | 0.10  | 0.40  | 0.30 | 2.00   | 1.30   | 0.10  | 0.10 | 0.10 | 0.10 |         |            |
| 29    | 0.90  | 0.90  | 0.10  | 0.10  | 0.30  | 0.30 | 1.80   | 1.30   | 0.10  | 0.10 |      | 0.10 |         |            |
| 30    | 0.90  | 0.90  | 0.10  | 1.10  | 0.20  | 0.60 | 1.60   | 1.10   | 0.20  | 0.10 |      | 0.20 |         |            |
| 31    |       | 0.90  |       | 1.70  | 0.10  |      | 1.60   |        | 0.20  | 0.10 |      | 0.30 |         |            |
| Total | 27.00 | 27.90 | 13.50 | 14.10 | 10.80 | 8.80 | 556.50 | 889.10 | 24.30 | 5.00 | 3.00 | 3.60 | 1583.60 | <b>Ton</b> |
| Mean  | 0.90  | 0.90  | 0.50  | 0.50  | 0.30  | 0.30 | 18.00  | 29.60  | 0.80  | 0.20 | 0.10 | 0.10 |         |            |
| Max   | 0.90  | 0.90  | 0.90  | 7.00  | 1.50  | 1.20 | 90.40  | 347.10 | 1.30  | 0.50 | 0.30 | 0.30 | 347.10  |            |
| Min   | 0.90  | 0.90  | 0.10  | 0.10  | 0.10  | 0.00 | 0.60   | 1.10   | 0.10  | 0.10 | 0.00 | 0.10 | 0.00    |            |

**WATER YEAR : 2013****PHETCHABURI RIVER BASIN****Phetchaburi River at Ban Sarahed , Phetchaburi (B.9)**

Lat 12 - 48 - 18 N Long 99 - 46 - 27 E

**Location : on left bank at Ban Sarahed.**

|                                      | Ban Sarahed                | Amphoe Tha Yang | Changwat Phetchaburi |
|--------------------------------------|----------------------------|-----------------|----------------------|
| <b>Drainage Area</b>                 | 2,617 sq.km.               |                 |                      |
| <b>Method of sampling</b>            | Depth Integrating          |                 |                      |
| <b>Instrument Used</b>               | US.D-49                    |                 |                      |
| <b>Period of Available Records</b>   | 2008-Cont'd                |                 |                      |
| <b>Actual Measurement</b>            | 2008-Cont'd                |                 |                      |
| <b>Using Rating Curve Water Year</b> | 2008-2013                  |                 |                      |
| <b>Number of observation</b>         | 114                        |                 |                      |
| <b>R-Square</b>                      | 0.7370                     |                 |                      |
| <b>Remarks</b>                       | Continued Sediment Station |                 |                      |

$$QS = 2.8450 QW^{0.93700}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul    | Aug     | Sep     | Oct     | Nov     | Dec    | Jan     | Feb     | Mar     | Annual   |     |
|-------|---------|---------|---------|--------|---------|---------|---------|---------|--------|---------|---------|---------|----------|-----|
| 1     | 91.30   | 110.10  | 88.70   | 15.10  | 87.90   | 62.60   | 32.10   | 93.20   | 15.10  | 18.30   | 66.50   | 87.90   |          |     |
| 2     | 93.20   | 111.20  | 88.70   | 15.10  | 95.10   | 68.20   | 25.30   | 96.00   | 15.10  | 18.30   | 66.50   | 87.90   |          |     |
| 3     | 92.20   | 112.20  | 47.60   | 14.80  | 85.30   | 68.20   | 61.90   | 83.60   | 14.80  | 18.30   | 67.40   | 88.70   |          |     |
| 4     | 81.90   | 112.20  | 38.90   | 15.80  | 164.60  | 68.20   | 69.10   | 99.80   | 14.80  | 25.30   | 81.90   | 87.00   |          |     |
| 5     | 92.20   | 109.20  | 41.60   | 19.00  | 187.60  | 69.10   | 64.90   | 120.50  | 15.10  | 26.30   | 85.30   | 87.00   |          |     |
| 6     | 95.10   | 116.40  | 39.60   | 24.40  | 115.30  | 72.50   | 39.60   | 138.80  | 14.80  | 24.80   | 85.30   | 84.50   |          |     |
| 7     | 94.10   | 117.40  | 38.90   | 19.70  | 77.70   | 74.30   | 52.80   | 180.40  | 14.80  | 24.80   | 88.70   | 69.10   |          |     |
| 8     | 96.00   | 117.40  | 38.20   | 19.40  | 80.20   | 76.80   | 41.60   | 262.80  | 22.10  | 24.80   | 88.70   | 71.70   |          |     |
| 9     | 101.70  | 117.40  | 36.90   | 18.30  | 81.90   | 77.70   | 52.20   | 295.10  | 21.10  | 24.80   | 89.60   | 72.50   |          |     |
| 10    | 108.30  | 112.20  | 39.60   | 18.00  | 77.70   | 76.80   | 46.20   | 114.30  | 21.10  | 24.80   | 88.70   | 72.50   |          |     |
| 11    | 115.30  | 120.50  | 44.90   | 18.70  | 74.30   | 76.80   | 32.10   | 48.90   | 21.10  | 25.30   | 88.70   | 76.80   |          |     |
| 12    | 110.10  | 121.60  | 39.60   | 18.00  | 74.30   | 76.00   | 77.70   | 24.40   | 21.10  | 24.80   | 82.80   | 76.80   |          |     |
| 13    | 111.20  | 110.10  | 38.20   | 15.50  | 75.10   | 72.50   | 126.70  | 20.80   | 21.10  | 25.30   | 70.80   | 77.70   |          |     |
| 14    | 111.20  | 109.20  | 36.90   | 16.20  | 72.50   | 54.80   | 217.20  | 64.90   | 21.10  | 33.50   | 70.00   | 75.10   |          |     |
| 15    | 101.70  | 110.10  | 36.90   | 18.30  | 66.50   | 55.50   | 231.20  | 114.30  | 21.10  | 35.50   | 70.80   | 77.70   |          |     |
| 16    | 94.10   | 101.70  | 36.90   | 18.30  | 65.70   | 40.20   | 228.40  | 96.00   | 21.60  | 36.20   | 70.80   | 81.90   |          |     |
| 17    | 96.00   | 96.90   | 36.20   | 18.30  | 65.70   | 30.30   | 227.00  | 32.10   | 21.60  | 46.90   | 70.80   | 81.10   |          |     |
| 18    | 89.60   | 96.90   | 28.10   | 18.00  | 65.70   | 28.10   | 232.50  | 35.50   | 21.60  | 46.20   | 71.70   | 83.60   |          |     |
| 19    | 88.70   | 97.90   | 18.00   | 18.30  | 64.90   | 64.90   | 215.80  | 17.30   | 21.60  | 46.20   | 71.70   | 83.60   |          |     |
| 20    | 89.60   | 98.80   | 19.00   | 15.80  | 52.80   | 30.90   | 201.90  | 15.50   | 24.40  | 46.20   | 72.50   | 83.60   |          |     |
| 21    | 89.60   | 99.80   | 22.50   | 16.20  | 58.10   | 26.30   | 168.20  | 14.40   | 22.10  | 46.90   | 73.40   | 84.50   |          |     |
| 22    | 90.40   | 100.70  | 23.00   | 16.60  | 49.50   | 29.20   | 160.10  | 14.10   | 22.10  | 47.60   | 73.40   | 85.30   |          |     |
| 23    | 90.40   | 96.90   | 23.50   | 16.90  | 60.40   | 30.30   | 152.30  | 13.70   | 22.10  | 47.60   | 73.40   | 86.20   |          |     |
| 24    | 94.10   | 96.90   | 23.50   | 19.00  | 56.10   | 30.90   | 144.40  | 15.10   | 20.40  | 46.90   | 73.40   | 86.20   |          |     |
| 25    | 95.10   | 97.90   | 20.80   | 37.60  | 56.10   | 44.90   | 142.20  | 15.10   | 18.00  | 47.60   | 74.30   | 83.60   |          |     |
| 26    | 96.00   | 97.90   | 16.20   | 25.80  | 56.10   | 40.90   | 139.90  | 14.10   | 18.30  | 47.60   | 74.30   | 80.20   |          |     |
| 27    | 96.90   | 98.80   | 15.50   | 24.40  | 56.10   | 40.20   | 129.80  | 14.80   | 18.00  | 48.20   | 77.70   | 80.20   |          |     |
| 28    | 98.80   | 92.20   | 16.90   | 29.20  | 56.10   | 40.20   | 109.20  | 15.50   | 16.90  | 48.20   | 86.20   | 81.90   |          |     |
| 29    | 99.80   | 90.40   | 18.30   | 83.60  | 56.10   | 40.90   | 103.60  | 15.50   | 18.00  | 48.20   |         | 81.10   |          |     |
| 30    | 102.60  | 91.30   | 13.30   | 87.90  | 49.50   | 41.60   | 102.60  | 15.10   | 18.30  | 54.10   |         | 72.50   |          |     |
| 31    |         | 88.70   |         | 91.30  | 54.10   |         | 102.60  |         | 18.00  | 65.70   |         | 71.70   |          |     |
| Total | 2907.20 | 3250.90 | 1026.90 | 803.50 | 2339.00 | 1609.80 | 3731.10 | 2101.60 | 597.30 | 1145.20 | 2155.30 | 2500.10 | 24167.90 | Ton |
| Mean  | 96.90   | 104.90  | 34.20   | 25.90  | 75.50   | 53.70   | 120.40  | 70.10   | 19.30  | 36.90   | 77.00   | 80.60   |          |     |
| Max   | 115.30  | 121.60  | 88.70   | 91.30  | 187.60  | 77.70   | 232.50  | 295.10  | 24.40  | 65.70   | 89.60   | 88.70   | 295.10   |     |
| Min   | 81.90   | 88.70   | 13.30   | 14.80  | 49.50   | 26.30   | 25.30   | 13.70   | 14.80  | 18.30   | 66.50   | 69.10   | 13.30    |     |

**WATER YEAR : 2013****PHETCHABURI RIVER BASIN****Phetchaburi River at Ban Tha Yang , Phetchaburi (B.10)**

Lat 12 - 58 - 21 N Long 99 - 53 - 07 E

**Location : on left bank at the bridge of Ban Tha Yang.**

|                                      | Ban Tha Yang               | Amphoe Tha Yang | Changwat Phetchaburi |
|--------------------------------------|----------------------------|-----------------|----------------------|
| <b>Drainage Area</b>                 | 4,076 sq.km.               |                 |                      |
| <b>Method of sampling</b>            | Depth Integrating          |                 |                      |
| <b>Instrument Used</b>               | US.D-49                    |                 |                      |
| <b>Period of Available Records</b>   | 1997-Cont'd                |                 |                      |
| <b>Actual Measurement</b>            | 1997-Cont'd                |                 |                      |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |                      |
| <b>Number of observation</b>         | 27                         |                 |                      |
| <b>R-Square</b>                      | 0.8900                     |                 |                      |
| <b>Remarks</b>                       | Continued Sediment Station |                 |                      |

$$QS = 0.6050 QW^{1.34900}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct     | Nov     | Dec    | Jan    | Feb    | Mar    | Annual   |     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|----------|-----|
| 1     | 9.40   | 8.50   | 27.60  | 23.80  | 31.70  | 2.50   | 6.30    | 28.50   | 3.70   | 16.20  | 13.10  | 14.80  |          |     |
| 2     | 11.10  | 10.30  | 32.60  | 20.20  | 21.60  | 3.80   | 6.90    | 21.60   | 3.30   | 16.20  | 9.70   | 16.50  |          |     |
| 3     | 11.60  | 12.40  | 33.50  | 17.50  | 14.90  | 6.00   | 5.60    | 16.60   | 2.60   | 15.10  | 9.00   | 17.40  |          |     |
| 4     | 11.90  | 14.90  | 23.80  | 15.50  | 12.40  | 6.50   | 10.90   | 12.40   | 1.20   | 12.30  | 8.80   | 18.00  |          |     |
| 5     | 8.70   | 11.40  | 13.00  | 13.50  | 47.90  | 5.90   | 20.90   | 13.50   | 0.40   | 12.90  | 11.00  | 18.00  |          |     |
| 6     | 5.90   | 9.80   | 12.70  | 13.80  | 104.00 | 5.60   | 44.40   | 17.20   | 0.20   | 14.20  | 14.00  | 17.70  |          |     |
| 7     | 6.60   | 9.40   | 13.20  | 21.20  | 82.40  | 5.70   | 61.60   | 31.20   | 0.30   | 14.20  | 15.10  | 17.10  |          |     |
| 8     | 7.30   | 10.90  | 14.60  | 25.00  | 16.60  | 6.60   | 144.20  | 86.80   | 0.40   | 13.70  | 16.20  | 14.80  |          |     |
| 9     | 7.90   | 11.90  | 14.10  | 21.20  | 9.20   | 10.30  | 320.30  | 516.20  | 14.20  | 14.20  | 16.80  | 14.20  |          |     |
| 10    | 9.20   | 12.40  | 13.00  | 18.40  | 7.90   | 15.70  | 450.40  | 1472.40 | 15.40  | 14.80  | 17.40  | 14.50  |          |     |
| 11    | 14.30  | 12.20  | 13.00  | 15.70  | 7.90   | 16.30  | 475.40  | 1291.40 | 15.10  | 15.10  | 17.40  | 14.50  |          |     |
| 12    | 14.30  | 13.80  | 16.00  | 14.10  | 6.90   | 14.30  | 297.80  | 839.40  | 14.00  | 15.70  | 17.70  | 15.40  |          |     |
| 13    | 14.10  | 16.00  | 17.50  | 13.00  | 7.50   | 13.20  | 189.40  | 358.10  | 14.80  | 15.40  | 16.80  | 15.40  |          |     |
| 14    | 14.60  | 14.90  | 19.30  | 11.90  | 8.50   | 15.70  | 211.40  | 204.00  | 15.90  | 15.90  | 12.60  | 15.70  |          |     |
| 15    | 15.50  | 12.70  | 23.40  | 10.70  | 8.10   | 16.60  | 307.90  | 182.20  | 16.80  | 17.10  | 11.00  | 14.20  |          |     |
| 16    | 14.10  | 11.90  | 25.90  | 9.40   | 7.70   | 17.80  | 389.50  | 396.70  | 16.80  | 15.90  | 12.60  | 13.70  |          |     |
| 17    | 11.40  | 10.90  | 25.50  | 8.70   | 6.90   | 11.40  | 420.90  | 490.60  | 16.80  | 14.50  | 14.00  | 14.80  |          |     |
| 18    | 10.70  | 9.80   | 24.20  | 8.30   | 6.60   | 5.90   | 443.00  | 234.00  | 17.40  | 16.20  | 14.00  | 14.50  |          |     |
| 19    | 10.90  | 8.70   | 23.00  | 7.70   | 6.00   | 3.50   | 598.90  | 61.60   | 17.70  | 18.60  | 14.20  | 14.80  |          |     |
| 20    | 10.50  | 7.70   | 19.00  | 6.60   | 6.50   | 5.70   | 673.00  | 19.60   | 17.40  | 18.00  | 14.20  | 15.40  |          |     |
| 21    | 10.30  | 6.90   | 15.20  | 6.00   | 5.30   | 6.50   | 637.20  | 10.00   | 18.30  | 17.40  | 14.50  | 15.40  |          |     |
| 22    | 10.00  | 8.50   | 19.30  | 5.70   | 4.50   | 4.60   | 478.00  | 3.70    | 18.30  | 17.40  | 12.90  | 15.40  |          |     |
| 23    | 9.60   | 13.20  | 23.40  | 5.40   | 4.30   | 4.00   | 341.10  | 2.40    | 18.00  | 17.10  | 11.80  | 16.80  |          |     |
| 24    | 9.80   | 14.10  | 25.90  | 5.30   | 5.00   | 3.70   | 254.20  | 2.40    | 17.70  | 17.10  | 11.80  | 17.40  |          |     |
| 25    | 10.70  | 14.30  | 26.30  | 5.00   | 6.30   | 4.00   | 186.50  | 2.70    | 17.10  | 16.80  | 11.50  | 18.00  |          |     |
| 26    | 9.60   | 16.00  | 25.90  | 5.90   | 5.90   | 6.80   | 144.20  | 3.70    | 16.80  | 17.10  | 11.00  | 17.40  |          |     |
| 27    | 9.00   | 18.10  | 23.00  | 8.50   | 5.60   | 8.10   | 129.20  | 5.70    | 16.80  | 17.10  | 11.00  | 15.90  |          |     |
| 28    | 9.00   | 19.00  | 25.50  | 6.50   | 5.40   | 7.90   | 115.30  | 4.70    | 16.50  | 17.40  | 12.10  | 15.10  |          |     |
| 29    | 9.80   | 18.40  | 29.90  | 5.90   | 5.60   | 6.60   | 39.60   | 4.20    | 16.20  | 17.40  |        | 14.50  |          |     |
| 30    | 9.40   | 17.20  | 29.00  | 17.20  | 5.00   | 6.20   | 27.20   | 4.00    | 15.70  | 17.70  |        | 14.20  |          |     |
| 31    |        | 20.50  |        | 33.00  | 3.80   |        | 33.50   |         | 15.90  | 18.60  |        | 12.10  |          |     |
| Total | 317.20 | 396.70 | 648.30 | 400.60 | 477.90 | 247.40 | 7464.70 | 6337.50 | 391.70 | 497.30 | 372.20 | 483.60 | 18035.10 | Ton |
| Mean  | 10.60  | 12.80  | 21.60  | 12.90  | 15.40  | 8.20   | 240.80  | 211.30  | 12.60  | 16.00  | 13.30  | 15.60  |          |     |
| Max   | 15.50  | 20.50  | 33.50  | 33.00  | 104.00 | 17.80  | 673.00  | 1472.40 | 18.30  | 18.60  | 17.70  | 18.00  | 1472.40  |     |
| Min   | 5.90   | 6.90   | 12.70  | 5.00   | 3.80   | 2.50   | 5.60    | 2.40    | 0.20   | 12.30  | 8.80   | 12.10  | 0.20     |     |

**WATER YEAR : 2013****WEST COAST - GULF BASIN****Khlong Thap Sakae at Ban Klang , Prachuap Khiri Khan (Gt.9)**

Lat 11 - 29 - 40 N Long 99 - 36 - 20 E

**Location : on right bank at Ban Klang.**

|                                      |                            |                          |                                     |
|--------------------------------------|----------------------------|--------------------------|-------------------------------------|
|                                      | <b>Ban</b> Klang           | <b>Amphoe</b> Thap Sakae | <b>Changwat</b> Prachuap Khiri Khan |
| <b>Drainage Area</b>                 | 125 sq.km.                 |                          |                                     |
| <b>Method of sampling</b>            | Depth Integrating          |                          |                                     |
| <b>Instrument Used</b>               | US.D-49                    |                          |                                     |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                          |                                     |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                          |                                     |
| <b>Using Rating Curve Water Year</b> | 2007-2013                  |                          |                                     |
| <b>Number of observation</b>         | 86                         |                          |                                     |
| <b>R-Square</b>                      | 0.8510                     |                          |                                     |
| <b>Remarks</b>                       | Continued Sediment Station |                          |                                     |

$$QS = 5.1500 QW^{1.19600}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun  | Jul   | Aug   | Sep    | Oct    | Nov    | Dec   | Jan   | Feb  | Mar  | Annual  |            |
|-------|-------|-------|------|-------|-------|--------|--------|--------|-------|-------|------|------|---------|------------|
| 1     | 0.00  | 0.40  | 0.10 | 0.40  | 9.70  | 0.40   | 8.60   | 11.40  | 8.10  | 0.80  | 0.10 | 0.10 |         |            |
| 2     | 0.00  | 0.40  | 0.10 | 0.30  | 6.10  | 0.30   | 7.60   | 8.60   | 7.00  | 0.60  | 0.10 | 0.10 |         |            |
| 3     | 0.00  | 0.40  | 0.10 | 0.30  | 4.20  | 0.30   | 6.70   | 8.10   | 5.80  | 0.60  | 0.10 | 0.10 |         |            |
| 4     | 0.00  | 0.40  | 0.10 | 0.30  | 3.20  | 0.30   | 5.50   | 7.00   | 4.80  | 0.50  | 0.10 | 0.10 |         |            |
| 5     | 0.00  | 0.40  | 0.10 | 0.30  | 2.40  | 0.30   | 3.90   | 6.40   | 4.20  | 0.50  | 0.10 | 0.10 |         |            |
| 6     | 0.00  | 0.40  | 0.10 | 0.30  | 1.30  | 0.30   | 39.80  | 5.20   | 3.90  | 0.50  | 0.10 | 0.10 |         |            |
| 7     | 0.00  | 1.70  | 0.10 | 0.30  | 1.00  | 0.80   | 204.50 | 5.20   | 3.50  | 0.60  | 0.10 | 0.10 |         |            |
| 8     | 0.00  | 1.10  | 0.00 | 0.30  | 0.60  | 0.80   | 60.30  | 8.10   | 3.00  | 0.50  | 0.10 | 0.20 |         |            |
| 9     | 0.00  | 0.80  | 0.00 | 0.40  | 0.40  | 3.20   | 43.20  | 14.70  | 2.80  | 0.50  | 0.10 | 0.10 |         |            |
| 10    | 0.00  | 0.80  | 0.00 | 0.40  | 0.40  | 5.20   | 44.30  | 12.50  | 2.60  | 0.50  | 0.10 | 0.10 |         |            |
| 11    | 0.00  | 0.60  | 0.00 | 0.40  | 0.40  | 1.60   | 39.80  | 8.60   | 2.40  | 0.40  | 0.10 | 0.10 |         |            |
| 12    | 0.00  | 1.00  | 0.00 | 0.40  | 1.10  | 0.80   | 74.20  | 7.00   | 2.10  | 0.40  | 0.20 | 0.10 |         |            |
| 13    | 0.30  | 0.80  | 0.00 | 0.30  | 0.80  | 2.60   | 36.70  | 6.40   | 1.90  | 0.40  | 0.20 | 0.10 |         |            |
| 14    | 0.40  | 0.80  | 0.00 | 0.30  | 0.50  | 2.40   | 24.40  | 5.50   | 1.70  | 0.40  | 0.20 | 0.10 |         |            |
| 15    | 1.70  | 0.60  | 0.00 | 0.40  | 0.40  | 1.10   | 17.90  | 5.20   | 1.60  | 0.40  | 0.20 | 0.10 |         |            |
| 16    | 6.10  | 0.60  | 0.00 | 0.80  | 0.40  | 0.60   | 14.00  | 8.10   | 1.50  | 0.40  | 0.20 | 0.10 |         |            |
| 17    | 4.50  | 1.30  | 0.00 | 0.80  | 0.40  | 0.50   | 11.90  | 186.20 | 1.30  | 0.40  | 0.10 | 0.10 |         |            |
| 18    | 3.50  | 1.00  | 0.00 | 0.50  | 0.40  | 1.20   | 10.30  | 28.70  | 1.10  | 0.40  | 0.10 | 0.20 |         |            |
| 19    | 2.40  | 0.60  | 0.00 | 0.50  | 0.30  | 2.10   | 17.10  | 12.50  | 1.10  | 0.30  | 0.10 | 0.20 |         |            |
| 20    | 1.60  | 0.50  | 0.10 | 0.80  | 0.30  | 3.50   | 20.30  | 8.10   | 0.80  | 0.30  | 0.10 | 0.10 |         |            |
| 21    | 1.10  | 0.50  | 0.10 | 1.00  | 0.30  | 10.80  | 19.50  | 6.10   | 0.80  | 0.30  | 0.30 | 0.10 |         |            |
| 22    | 1.10  | 0.60  | 0.10 | 1.00  | 0.40  | 31.60  | 21.90  | 4.80   | 1.00  | 0.30  | 0.40 | 0.20 |         |            |
| 23    | 1.00  | 0.60  | 0.10 | 1.30  | 0.40  | 120.70 | 15.60  | 92.60  | 0.60  | 0.30  | 0.30 | 0.30 |         |            |
| 24    | 1.00  | 0.60  | 0.10 | 1.30  | 0.50  | 138.20 | 11.90  | 120.70 | 0.80  | 0.20  | 0.30 | 1.20 |         |            |
| 25    | 0.60  | 0.50  | 0.10 | 1.30  | 0.40  | 56.40  | 10.30  | 53.90  | 0.50  | 0.20  | 0.20 | 0.50 |         |            |
| 26    | 0.30  | 0.60  | 0.20 | 1.00  | 0.40  | 33.60  | 8.60   | 26.10  | 1.00  | 0.30  | 0.20 | 0.40 |         |            |
| 27    | 0.10  | 0.60  | 3.00 | 0.50  | 0.40  | 22.70  | 8.60   | 17.10  | 1.50  | 0.20  | 0.10 | 0.40 |         |            |
| 28    | 0.10  | 0.50  | 1.50 | 0.40  | 0.40  | 16.30  | 87.90  | 26.10  | 1.20  | 0.20  | 0.10 | 0.30 |         |            |
| 29    | 0.10  | 0.30  | 0.80 | 0.40  | 0.40  | 12.50  | 37.70  | 29.60  | 0.80  | 0.20  |      | 0.30 |         |            |
| 30    | 0.10  | 0.20  | 0.50 | 0.40  | 0.40  | 11.40  | 20.30  | 14.00  | 0.80  | 0.20  |      | 0.30 |         |            |
| 31    |       | 0.20  |      | 6.70  | 0.40  |        | 14.00  |        | 0.80  | 0.20  |      | 0.20 |         |            |
| Total | 26.00 | 19.80 | 7.30 | 23.80 | 38.70 | 482.50 | 947.30 | 754.50 | 71.00 | 12.00 | 4.40 | 6.50 | 2393.80 | <b>Ton</b> |
| Mean  | 0.90  | 0.60  | 0.20 | 0.80  | 1.20  | 16.10  | 30.60  | 25.10  | 2.30  | 0.40  | 0.20 | 0.20 |         |            |
| Max   | 6.10  | 1.70  | 3.00 | 6.70  | 9.70  | 138.20 | 204.50 | 186.20 | 8.10  | 0.80  | 0.40 | 1.20 | 204.50  |            |
| Min   | 0.00  | 0.20  | 0.00 | 0.30  | 0.30  | 0.30   | 3.90   | 4.80   | 0.50  | 0.20  | 0.10 | 0.10 | 0.00    |            |

**WATER YEAR : 2013****WEST COAST - GULF BASIN****Khlong Krut at Ban Nong Ya Plong , Prachuap Khiri Khan (Gt.10)**

Lat 11 - 24 - 08 N Long 99 - 31 - 18 E

**Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 379.**

|                                      | <b>Ban</b> Nong Ya Plong   | <b>Amphoe</b> Bang Saphan | <b>Changwat</b> Prachuap Khiri Khan |
|--------------------------------------|----------------------------|---------------------------|-------------------------------------|
| <b>Drainage Area</b>                 | 113 sq.km.                 |                           |                                     |
| <b>Method of sampling</b>            | Depth Integrating          |                           |                                     |
| <b>Instrument Used</b>               | US.D-49                    |                           |                                     |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                           |                                     |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                           |                                     |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                           |                                     |
| <b>Number of observation</b>         | 305                        |                           |                                     |
| <b>R-Square</b>                      | 0.8700                     |                           |                                     |
| <b>Remarks</b>                       | Continued Sediment Station |                           |                                     |

$$QS = 3.4630 QW^{1.50400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun  | Jul  | Aug   | Sep     | Oct     | Nov     | Dec    | Jan  | Feb  | Mar  | Annual  |            |
|-------|-------|-------|------|------|-------|---------|---------|---------|--------|------|------|------|---------|------------|
| 1     | 0.10  | 0.50  | 0.10 | 0.20 | 4.70  | 0.20    | 8.90    | 10.20   | 16.10  | 0.20 | 0.00 | 0.10 |         |            |
| 2     | 0.10  | 0.50  | 0.10 | 0.20 | 4.50  | 0.20    | 7.10    | 8.20    | 12.20  | 0.20 | 0.00 | 0.10 |         |            |
| 3     | 0.10  | 0.50  | 0.10 | 0.20 | 4.00  | 0.20    | 5.80    | 8.60    | 9.70   | 0.20 | 0.00 | 0.00 |         |            |
| 4     | 0.10  | 0.40  | 0.20 | 0.10 | 3.40  | 0.20    | 5.00    | 6.10    | 8.20   | 0.20 | 0.00 | 0.00 |         |            |
| 5     | 0.10  | 0.40  | 0.20 | 0.10 | 2.90  | 0.10    | 4.20    | 4.50    | 6.80   | 0.20 | 0.00 | 0.00 |         |            |
| 6     | 0.10  | 0.40  | 0.20 | 0.10 | 2.30  | 0.20    | 50.70   | 4.00    | 6.10   | 0.10 | 0.00 | 0.00 |         |            |
| 7     | 0.10  | 0.40  | 0.20 | 0.10 | 2.00  | 9.40    | 222.80  | 4.00    | 5.30   | 0.20 | 0.00 | 0.00 |         |            |
| 8     | 0.10  | 0.30  | 0.30 | 0.20 | 1.80  | 19.70   | 71.40   | 4.50    | 4.50   | 0.10 | 0.00 | 0.00 |         |            |
| 9     | 0.10  | 0.20  | 0.20 | 0.30 | 1.60  | 22.80   | 84.70   | 84.70   | 4.20   | 0.10 | 0.00 | 0.00 |         |            |
| 10    | 0.10  | 0.20  | 0.10 | 0.20 | 1.40  | 5.30    | 42.50   | 16.80   | 3.70   | 0.10 | 0.00 | 0.00 |         |            |
| 11    | 0.10  | 0.20  | 0.10 | 0.20 | 1.10  | 1.80    | 39.00   | 7.10    | 3.40   | 0.10 | 0.00 | 0.00 |         |            |
| 12    | 0.10  | 0.20  | 0.20 | 0.20 | 1.00  | 2.20    | 82.80   | 5.30    | 3.00   | 0.10 | 0.00 | 0.00 |         |            |
| 13    | 1.90  | 0.30  | 0.20 | 0.10 | 0.70  | 1.10    | 26.80   | 4.20    | 2.90   | 0.10 | 0.00 | 0.00 |         |            |
| 14    | 3.40  | 0.40  | 0.20 | 0.10 | 0.50  | 0.70    | 18.30   | 3.60    | 2.50   | 0.10 | 0.00 | 0.00 |         |            |
| 15    | 10.20 | 0.40  | 0.20 | 0.10 | 0.40  | 0.50    | 12.70   | 3.00    | 2.30   | 0.10 | 0.00 | 0.00 |         |            |
| 16    | 42.50 | 0.40  | 0.20 | 0.20 | 0.30  | 0.50    | 9.70    | 5.80    | 2.00   | 0.10 | 0.00 | 0.00 |         |            |
| 17    | 8.60  | 0.40  | 0.20 | 0.20 | 0.30  | 0.60    | 8.20    | 767.70  | 1.90   | 0.10 | 0.00 | 0.00 |         |            |
| 18    | 3.60  | 0.50  | 0.20 | 0.20 | 0.30  | 0.70    | 6.80    | 92.80   | 1.50   | 0.10 | 0.00 | 0.00 |         |            |
| 19    | 2.30  | 0.40  | 0.20 | 0.20 | 0.30  | 1.00    | 33.30   | 40.10   | 1.10   | 0.10 | 0.00 | 0.00 |         |            |
| 20    | 1.60  | 0.50  | 0.20 | 0.20 | 0.30  | 3.40    | 20.50   | 24.40   | 0.90   | 0.10 | 0.00 | 0.00 |         |            |
| 21    | 1.00  | 0.40  | 0.20 | 0.20 | 0.20  | 78.90   | 14.30   | 15.40   | 0.80   | 0.10 | 5.30 | 0.00 |         |            |
| 22    | 0.90  | 0.30  | 0.20 | 0.20 | 0.20  | 158.00  | 19.70   | 11.20   | 0.60   | 0.10 | 0.90 | 0.10 |         |            |
| 23    | 0.70  | 0.30  | 0.20 | 0.20 | 0.10  | 456.30  | 12.20   | 131.10  | 0.60   | 0.10 | 0.20 | 0.80 |         |            |
| 24    | 0.60  | 0.20  | 0.20 | 0.20 | 0.10  | 588.40  | 8.20    | 588.40  | 0.50   | 0.10 | 1.80 | 1.10 |         |            |
| 25    | 0.50  | 0.20  | 0.20 | 0.20 | 0.20  | 142.50  | 6.40    | 154.80  | 0.40   | 0.10 | 0.40 | 0.20 |         |            |
| 26    | 0.40  | 0.20  | 0.20 | 0.20 | 0.60  | 64.60   | 5.30    | 68.00   | 0.30   | 0.10 | 0.10 | 0.10 |         |            |
| 27    | 0.50  | 0.20  | 0.20 | 0.20 | 1.20  | 35.50   | 5.60    | 41.30   | 0.30   | 0.10 | 0.10 | 0.10 |         |            |
| 28    | 0.70  | 0.20  | 0.20 | 0.20 | 0.70  | 22.80   | 102.30  | 50.70   | 0.30   | 0.10 | 0.10 | 0.10 |         |            |
| 29    | 0.60  | 0.20  | 0.20 | 0.20 | 0.30  | 17.50   | 45.20   | 36.60   | 0.20   | 0.10 |      | 0.10 |         |            |
| 30    | 0.50  | 0.20  | 0.20 | 0.40 | 0.30  | 13.20   | 27.60   | 22.80   | 0.20   | 0.10 |      | 0.10 |         |            |
| 31    |       | 0.20  |      | 2.90 | 0.30  |         | 14.80   |         | 0.20   | 0.00 |      | 0.00 |         |            |
| Total | 81.70 | 10.10 | 5.60 | 8.50 | 38.00 | 1648.50 | 1022.80 | 2225.90 | 102.70 | 3.60 | 8.90 | 2.90 | 5159.20 | <b>Ton</b> |
| Mean  | 2.70  | 0.30  | 0.20 | 0.30 | 1.20  | 55.00   | 33.00   | 74.20   | 3.30   | 0.10 | 0.30 | 0.10 |         |            |
| Max   | 42.50 | 0.50  | 0.30 | 2.90 | 4.70  | 588.40  | 222.80  | 767.70  | 16.10  | 0.20 | 5.30 | 1.10 | 767.70  |            |
| Min   | 0.10  | 0.20  | 0.10 | 0.10 | 0.10  | 0.10    | 4.20    | 3.00    | 0.20   | 0.00 | 0.00 | 0.00 | 0.00    |            |



**WATER YEAR : 2013****WEST COAST - GULF BASIN****Khlong Yai at Ban Chang Laek , Prachuap Khiri Khan (Gt.11)**

Lat 11 - 03 - 44 N Long 99 - 22 - 30 E

**Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 423.**

|                                      |                            |                               |                                     |
|--------------------------------------|----------------------------|-------------------------------|-------------------------------------|
|                                      | <b>Ban</b> Chang Laek      | <b>Amphoe</b> Bang Saphan Noi | <b>Changwat</b> Prachuap Khiri Khan |
| <b>Drainage Area</b>                 | 61 sq.km.                  |                               |                                     |
| <b>Method of sampling</b>            | Depth Integrating          |                               |                                     |
| <b>Instrument Used</b>               | US.D-49                    |                               |                                     |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                               |                                     |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                               |                                     |
| <b>Using Rating Curve Water Year</b> | 1998-2013                  |                               |                                     |
| <b>Number of observation</b>         | 286                        |                               |                                     |
| <b>R-Square</b>                      | 0.8860                     |                               |                                     |
| <b>Remarks</b>                       | Continued Sediment Station |                               |                                     |

$$QS = 3.3560 QW^{1.58300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr   | May   | Jun   | Jul   | Aug   | Sep    | Oct    | Nov     | Dec   | Jan  | Feb  | Mar  | Annual  |            |
|-------|-------|-------|-------|-------|-------|--------|--------|---------|-------|------|------|------|---------|------------|
| 1     | 0.20  | 0.90  | 0.30  | 0.40  | 1.40  | 0.50   | 2.80   | 1.90    | 6.10  | 0.20 | 0.10 | 0.00 |         |            |
| 2     | 0.20  | 0.70  | 0.50  | 0.40  | 1.30  | 0.50   | 2.50   | 1.70    | 4.80  | 0.20 | 0.10 | 0.00 |         |            |
| 3     | 0.20  | 0.60  | 0.40  | 0.40  | 1.30  | 0.50   | 2.50   | 1.60    | 4.00  | 0.20 | 0.10 | 0.00 |         |            |
| 4     | 0.20  | 0.60  | 0.30  | 0.40  | 1.10  | 0.40   | 2.10   | 1.60    | 3.60  | 0.20 | 0.10 | 0.00 |         |            |
| 5     | 0.20  | 0.50  | 0.30  | 0.40  | 1.10  | 0.40   | 1.90   | 1.40    | 3.20  | 0.20 | 0.10 | 0.00 |         |            |
| 6     | 0.20  | 0.50  | 0.50  | 0.40  | 1.40  | 0.50   | 7.10   | 1.30    | 2.80  | 0.20 | 0.10 | 0.00 |         |            |
| 7     | 0.20  | 0.50  | 0.60  | 0.40  | 1.30  | 1.90   | 33.80  | 1.30    | 2.80  | 0.10 | 0.10 | 0.00 |         |            |
| 8     | 0.20  | 0.50  | 0.50  | 0.50  | 1.10  | 1.70   | 5.70   | 1.70    | 2.50  | 0.10 | 0.10 | 0.00 |         |            |
| 9     | 0.20  | 0.50  | 0.30  | 0.60  | 1.10  | 1.60   | 5.70   | 1.70    | 2.50  | 0.20 | 0.10 | 0.00 |         |            |
| 10    | 0.20  | 0.50  | 0.30  | 0.60  | 1.10  | 1.60   | 5.70   | 1.70    | 2.30  | 0.20 | 0.10 | 0.00 |         |            |
| 11    | 0.20  | 0.40  | 0.30  | 0.60  | 2.10  | 1.00   | 5.70   | 1.40    | 2.10  | 0.20 | 0.10 | 0.00 |         |            |
| 12    | 0.20  | 0.50  | 0.40  | 0.60  | 1.90  | 1.10   | 4.40   | 1.10    | 1.70  | 0.20 | 0.00 | 0.00 |         |            |
| 13    | 0.90  | 0.50  | 0.50  | 0.60  | 1.70  | 1.60   | 4.00   | 1.00    | 1.60  | 0.20 | 0.00 | 0.00 |         |            |
| 14    | 4.00  | 0.50  | 0.60  | 0.50  | 1.60  | 1.40   | 4.00   | 0.90    | 1.60  | 0.10 | 0.00 | 0.00 |         |            |
| 15    | 10.50 | 0.70  | 0.60  | 0.50  | 1.40  | 1.40   | 3.60   | 0.90    | 1.40  | 0.10 | 0.00 | 0.00 |         |            |
| 16    | 4.00  | 0.80  | 0.60  | 0.50  | 1.10  | 1.30   | 3.60   | 2.10    | 1.10  | 0.10 | 0.00 | 0.00 |         |            |
| 17    | 1.70  | 1.10  | 0.60  | 0.40  | 0.90  | 1.10   | 3.20   | 59.70   | 0.90  | 0.10 | 0.00 | 0.00 |         |            |
| 18    | 0.70  | 0.80  | 0.60  | 0.40  | 0.90  | 0.90   | 3.20   | 29.40   | 0.80  | 0.10 | 0.00 | 0.00 |         |            |
| 19    | 0.30  | 1.10  | 0.60  | 0.50  | 0.80  | 1.70   | 3.20   | 5.70    | 0.70  | 0.10 | 0.00 | 0.00 |         |            |
| 20    | 0.20  | 0.80  | 0.60  | 0.60  | 0.70  | 10.50  | 3.20   | 4.40    | 0.50  | 0.10 | 0.00 | 0.00 |         |            |
| 21    | 0.20  | 0.60  | 0.60  | 0.60  | 0.60  | 16.50  | 2.50   | 4.00    | 0.30  | 0.10 | 0.00 | 0.00 |         |            |
| 22    | 0.20  | 0.60  | 0.70  | 0.80  | 0.60  | 61.80  | 2.50   | 6.10    | 0.30  | 0.10 | 0.00 | 0.00 |         |            |
| 23    | 0.20  | 0.60  | 0.70  | 1.00  | 0.60  | 35.30  | 2.30   | 393.50  | 0.30  | 0.10 | 0.00 | 0.00 |         |            |
| 24    | 0.20  | 0.60  | 0.70  | 1.60  | 0.60  | 39.90  | 2.10   | 495.20  | 0.30  | 0.10 | 0.00 | 0.30 |         |            |
| 25    | 0.20  | 0.60  | 0.70  | 2.10  | 0.50  | 35.30  | 2.10   | 255.50  | 0.20  | 0.10 | 0.00 | 0.40 |         |            |
| 26    | 0.20  | 0.60  | 0.60  | 2.10  | 0.50  | 25.30  | 1.90   | 109.10  | 0.20  | 0.10 | 0.00 | 0.20 |         |            |
| 27    | 0.20  | 0.60  | 0.60  | 1.70  | 0.50  | 16.50  | 1.90   | 21.40   | 0.20  | 0.10 | 0.00 | 0.20 |         |            |
| 28    | 0.60  | 0.50  | 0.50  | 1.40  | 0.50  | 9.00   | 1.90   | 14.30   | 0.20  | 0.10 | 0.00 | 0.20 |         |            |
| 29    | 0.60  | 0.40  | 0.50  | 1.00  | 0.60  | 4.80   | 2.10   | 11.90   | 0.20  | 0.10 |      | 0.10 |         |            |
| 30    | 0.50  | 0.40  | 0.40  | 1.10  | 0.60  | 4.00   | 2.10   | 7.70    | 0.20  | 0.10 |      | 0.10 |         |            |
| 31    |       | 0.30  |       | 1.40  | 0.50  |        | 1.90   |         | 0.20  | 0.10 |      | 0.10 |         |            |
| Total | 27.80 | 18.80 | 15.40 | 24.50 | 31.40 | 280.00 | 131.20 | 1441.20 | 49.60 | 4.20 | 1.10 | 1.60 | 2026.80 | <b>Ton</b> |
| Mean  | 0.90  | 0.60  | 0.50  | 0.80  | 1.00  | 9.30   | 4.20   | 48.00   | 1.60  | 0.10 | 0.00 | 0.10 |         |            |
| Max   | 10.50 | 1.10  | 0.70  | 2.10  | 2.10  | 61.80  | 33.80  | 495.20  | 6.10  | 0.20 | 0.10 | 0.40 | 495.20  |            |
| Min   | 0.20  | 0.30  | 0.30  | 0.40  | 0.50  | 0.40   | 1.90   | 0.90    | 0.20  | 0.10 | 0.00 | 0.00 | 0.00    |            |

**WATER YEAR : 2013****WEST COAST - GULF BASIN****Huai Sai at Ban Suan Son Huai Sai , Prachuap Khiri Khan (Gt.15)**

Lat 11 - 40 - 33 N Long 99 - 41 - 44 E

**Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 342, Huai Sai.**

|                                      |                            |                   |               |        |                 |                     |
|--------------------------------------|----------------------------|-------------------|---------------|--------|-----------------|---------------------|
|                                      | <b>Ban</b>                 | Suan Son Huai Sai | <b>Amphoe</b> | Mueang | <b>Changwat</b> | Prachuap Khiri Khan |
| <b>Drainage Area</b>                 | 25                         | sq.km.            |               |        |                 |                     |
| <b>Method of sampling</b>            | Depth                      | Integrating       |               |        |                 |                     |
| <b>Instrument Used</b>               | US.D-49                    |                   |               |        |                 |                     |
| <b>Period of Available Records</b>   | 2002-Cont'd                |                   |               |        |                 |                     |
| <b>Actual Measurement</b>            | 2002-Cont'd                |                   |               |        |                 |                     |
| <b>Using Rating Curve Water Year</b> | 2002-2013                  |                   |               |        |                 |                     |
| <b>Number of observation</b>         | 78                         |                   |               |        |                 |                     |
| <b>R-Square</b>                      | 0.8100                     |                   |               |        |                 |                     |
| <b>Remarks</b>                       | Continued Sediment Station |                   |               |        |                 |                     |

$$QS = 6.7680 QW^{1.26300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr  | May  | Jun  | Jul  | Aug  | Sep   | Oct    | Nov    | Dec    | Jan   | Feb  | Mar  | Annual |            |
|-------|------|------|------|------|------|-------|--------|--------|--------|-------|------|------|--------|------------|
| 1     | 0.10 | 0.30 | 0.10 | 0.10 | 0.20 | 0.00  | 0.70   | 1.90   | 9.30   | 1.20  | 0.00 | 0.00 |        |            |
| 2     | 0.10 | 0.30 | 0.10 | 0.10 | 0.20 | 0.00  | 0.90   | 1.80   | 9.30   | 1.10  | 0.00 | 0.00 |        |            |
| 3     | 0.10 | 0.30 | 0.10 | 0.10 | 0.20 | 0.00  | 1.40   | 1.60   | 8.30   | 1.10  | 0.00 | 0.00 |        |            |
| 4     | 0.10 | 0.30 | 0.10 | 0.10 | 0.20 | 0.00  | 1.90   | 1.50   | 7.70   | 0.90  | 0.00 | 0.00 |        |            |
| 5     | 0.00 | 0.20 | 0.10 | 0.10 | 0.20 | 0.00  | 4.70   | 1.40   | 7.10   | 0.90  | 0.00 | 0.00 |        |            |
| 6     | 0.00 | 0.20 | 0.10 | 0.10 | 0.20 | 0.00  | 15.30  | 1.60   | 6.60   | 0.90  | 0.00 | 0.00 |        |            |
| 7     | 0.00 | 0.20 | 0.10 | 0.10 | 0.20 | 0.00  | 8.30   | 2.20   | 6.00   | 0.90  | 0.00 | 0.00 |        |            |
| 8     | 0.00 | 0.30 | 0.10 | 0.10 | 0.20 | 0.00  | 3.30   | 7.70   | 5.50   | 0.80  | 0.00 | 0.00 |        |            |
| 9     | 0.00 | 0.30 | 0.10 | 0.10 | 0.10 | 0.00  | 2.90   | 7.50   | 4.90   | 0.80  | 0.00 | 0.00 |        |            |
| 10    | 0.00 | 0.30 | 0.10 | 0.10 | 0.10 | 0.00  | 2.50   | 3.90   | 4.50   | 0.70  | 0.00 | 0.00 |        |            |
| 11    | 0.00 | 0.20 | 0.10 | 0.10 | 0.10 | 0.00  | 2.40   | 2.20   | 4.20   | 0.70  | 0.00 | 0.00 |        |            |
| 12    | 0.00 | 0.20 | 0.10 | 0.10 | 0.10 | 0.20  | 2.20   | 1.90   | 4.10   | 0.60  | 0.00 | 0.00 |        |            |
| 13    | 0.00 | 0.20 | 0.20 | 0.10 | 0.00 | 0.30  | 3.10   | 1.80   | 3.90   | 0.60  | 0.00 | 0.00 |        |            |
| 14    | 0.00 | 0.20 | 0.20 | 0.10 | 0.00 | 0.40  | 3.90   | 1.60   | 3.70   | 0.50  | 0.00 | 0.00 |        |            |
| 15    | 0.00 | 0.10 | 0.20 | 0.20 | 0.00 | 0.60  | 3.50   | 2.40   | 3.70   | 0.50  | 0.00 | 0.00 |        |            |
| 16    | 0.10 | 0.10 | 0.20 | 0.20 | 0.00 | 0.50  | 3.50   | 4.50   | 3.50   | 0.40  | 0.00 | 0.00 |        |            |
| 17    | 0.10 | 0.00 | 0.20 | 0.20 | 0.00 | 0.30  | 3.30   | 6.00   | 3.30   | 0.30  | 0.00 | 0.00 |        |            |
| 18    | 0.10 | 0.00 | 0.20 | 0.20 | 0.00 | 0.30  | 3.30   | 4.70   | 3.30   | 0.30  | 0.00 | 0.00 |        |            |
| 19    | 0.10 | 0.00 | 0.20 | 0.20 | 0.00 | 0.30  | 3.10   | 2.90   | 3.10   | 0.30  | 0.00 | 0.00 |        |            |
| 20    | 0.10 | 0.00 | 0.20 | 0.20 | 0.00 | 0.40  | 3.10   | 2.40   | 2.90   | 0.30  | 0.00 | 0.00 |        |            |
| 21    | 0.00 | 0.00 | 0.20 | 0.20 | 0.00 | 0.60  | 2.90   | 3.10   | 2.70   | 0.20  | 0.00 | 0.00 |        |            |
| 22    | 0.00 | 0.00 | 0.10 | 0.20 | 0.00 | 0.90  | 2.90   | 6.00   | 2.50   | 0.20  | 0.00 | 0.10 |        |            |
| 23    | 0.10 | 0.00 | 0.10 | 0.20 | 0.00 | 2.50  | 2.70   | 50.40  | 2.40   | 0.20  | 0.00 | 0.10 |        |            |
| 24    | 0.40 | 0.00 | 0.10 | 0.20 | 0.00 | 1.90  | 2.70   | 25.90  | 2.20   | 0.10  | 0.00 | 0.10 |        |            |
| 25    | 0.40 | 0.00 | 0.10 | 0.20 | 0.00 | 1.40  | 2.50   | 9.10   | 2.10   | 0.10  | 0.00 | 0.00 |        |            |
| 26    | 0.30 | 0.00 | 0.10 | 0.20 | 0.00 | 1.10  | 2.50   | 5.50   | 1.90   | 0.10  | 0.00 | 0.00 |        |            |
| 27    | 0.30 | 0.00 | 0.20 | 0.20 | 0.00 | 0.90  | 2.40   | 4.90   | 1.80   | 0.00  | 0.00 | 0.00 |        |            |
| 28    | 0.30 | 0.00 | 0.20 | 0.20 | 0.00 | 0.90  | 2.40   | 4.10   | 1.80   | 0.00  | 0.00 | 0.00 |        |            |
| 29    | 0.30 | 0.00 | 0.20 | 0.20 | 0.00 | 0.80  | 2.20   | 5.50   | 1.50   | 0.00  |      | 0.00 |        |            |
| 30    | 0.30 | 0.00 | 0.20 | 0.20 | 0.00 | 0.80  | 2.10   | 8.70   | 1.40   | 0.00  |      | 0.00 |        |            |
| 31    |      | 0.00 |      | 0.20 | 0.00 |       | 1.90   |        | 1.20   | 0.00  |      | 0.00 |        |            |
| Total | 3.30 | 3.70 | 4.30 | 4.80 | 2.00 | 15.10 | 100.50 | 184.70 | 126.40 | 14.70 | 0.00 | 0.30 | 459.80 | <b>Ton</b> |
| Mean  | 0.10 | 0.10 | 0.10 | 0.20 | 0.10 | 0.50  | 3.20   | 6.20   | 4.10   | 0.50  | 0.00 | 0.00 |        |            |
| Max   | 0.40 | 0.30 | 0.20 | 0.20 | 0.20 | 2.50  | 15.30  | 50.40  | 9.30   | 1.20  | 0.00 | 0.10 | 50.40  |            |
| Min   | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.00  | 0.70   | 1.40   | 1.20   | 0.00  | 0.00 | 0.00 | 0.00   |            |

**WATER YEAR : 2013****SOUTHERN PENINSULA EAST COAST****Khlong Chumphon at Ban Wang Phai , Chumphon (X.53A)**

Lat 10 - 30 - 20 N Long 99 - 07 - 15 E

**Location : on left bank about 9.50 kilometers downstream from X.53 station.**

|                                      | Ban Wang Phai              | Amphoe Mueang | Changwat Chumphon |
|--------------------------------------|----------------------------|---------------|-------------------|
| <b>Drainage Area</b>                 | 296 sq.km.                 |               |                   |
| <b>Method of sampling</b>            | Depth Integrating          |               |                   |
| <b>Instrument Used</b>               | US.D-49                    |               |                   |
| <b>Period of Available Records</b>   | 1996-Cont'd                |               |                   |
| <b>Actual Measurement</b>            | 1996-Cont'd                |               |                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |               |                   |
| <b>Number of observation</b>         | 22                         |               |                   |
| <b>R-Square</b>                      | 0.8460                     |               |                   |
| <b>Remarks</b>                       | Continued Sediment Station |               |                   |

$$QS = 7.4312 QW^{1.15610}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul     | Aug     | Sep      | Oct     | Nov      | Dec     | Jan     | Feb    | Mar    | Annual   |     |
|-------|--------|--------|---------|---------|---------|----------|---------|----------|---------|---------|--------|--------|----------|-----|
| 1     | 8.60   | 11.20  | 13.30   | 26.50   | 831.50  | 174.10   | 164.20  | 54.80    | 286.60  | 46.40   | 26.50  | 17.50  |          |     |
| 2     | 8.60   | 10.50  | 12.60   | 28.80   | 623.40  | 294.00   | 108.10  | 48.10    | 232.40  | 45.60   | 25.80  | 17.50  |          |     |
| 3     | 7.90   | 9.90   | 19.00   | 25.80   | 346.40  | 118.90   | 86.80   | 43.10    | 195.90  | 44.80   | 24.90  | 16.80  |          |     |
| 4     | 9.20   | 9.20   | 15.40   | 35.80   | 253.10  | 172.10   | 91.20   | 40.70    | 170.10  | 43.10   | 24.10  | 16.80  |          |     |
| 5     | 8.60   | 8.60   | 14.00   | 28.80   | 174.10  | 86.80    | 88.20   | 37.40    | 149.10  | 42.30   | 23.40  | 16.10  |          |     |
| 6     | 7.30   | 13.30  | 11.90   | 26.50   | 104.90  | 59.00    | 101.80  | 35.10    | 136.10  | 42.30   | 23.40  | 15.40  |          |     |
| 7     | 6.60   | 24.10  | 11.90   | 24.90   | 50.50   | 48.90    | 306.30  | 33.50    | 126.80  | 44.80   | 22.60  | 15.40  |          |     |
| 8     | 6.60   | 16.80  | 11.90   | 23.40   | 22.60   | 43.10    | 441.10  | 35.10    | 118.90  | 42.30   | 22.60  | 16.10  |          |     |
| 9     | 6.60   | 20.40  | 10.50   | 25.80   | 5.90    | 39.00    | 303.90  | 41.40    | 109.50  | 40.70   | 22.60  | 16.10  |          |     |
| 10    | 6.60   | 18.30  | 9.90    | 35.10   | 7.90    | 36.70    | 294.00  | 34.30    | 103.40  | 39.00   | 21.90  | 16.10  |          |     |
| 11    | 6.60   | 15.40  | 9.90    | 39.00   | 30.40   | 35.10    | 193.90  | 31.10    | 97.30   | 39.80   | 21.10  | 15.40  |          |     |
| 12    | 6.60   | 16.10  | 11.90   | 28.00   | 54.80   | 43.90    | 156.40  | 29.50    | 94.20   | 38.30   | 21.10  | 15.40  |          |     |
| 13    | 29.50  | 18.30  | 16.80   | 26.50   | 77.90   | 46.40    | 117.40  | 28.80    | 95.70   | 36.70   | 21.10  | 15.40  |          |     |
| 14    | 82.20  | 14.00  | 50.50   | 294.00  | 120.50  | 42.30    | 95.70   | 28.00    | 86.80   | 35.80   | 21.10  | 15.40  |          |     |
| 15    | 41.40  | 11.90  | 100.30  | 144.20  | 111.10  | 39.00    | 79.30   | 27.30    | 82.20   | 35.10   | 21.10  | 14.70  |          |     |
| 16    | 53.10  | 11.20  | 125.10  | 101.80  | 83.80   | 35.80    | 76.30   | 67.60    | 77.90   | 34.30   | 19.70  | 14.70  |          |     |
| 17    | 27.30  | 9.90   | 76.30   | 72.00   | 48.90   | 37.40    | 73.40   | 423.30   | 72.00   | 33.50   | 19.70  | 14.70  |          |     |
| 18    | 19.00  | 9.90   | 58.20   | 104.90  | 41.40   | 38.30    | 61.80   | 236.60   | 70.50   | 33.50   | 19.70  | 15.40  |          |     |
| 19    | 14.70  | 10.50  | 39.80   | 1356.70 | 39.00   | 230.40   | 128.30  | 230.40   | 66.10   | 32.70   | 19.00  | 14.70  |          |     |
| 20    | 11.90  | 10.50  | 69.00   | 1520.00 | 36.70   | 1289.90  | 66.10   | 128.30   | 63.20   | 31.90   | 19.00  | 14.70  |          |     |
| 21    | 10.50  | 15.40  | 182.00  | 882.70  | 35.10   | 2597.20  | 56.50   | 73.40    | 60.50   | 31.10   | 19.00  | 14.00  |          |     |
| 22    | 15.40  | 19.00  | 73.40   | 751.60  | 34.30   | 1642.80  | 73.40   | 53.90    | 58.20   | 31.10   | 18.30  | 14.00  |          |     |
| 23    | 12.60  | 15.40  | 168.10  | 769.60  | 60.50   | 1118.80  | 185.90  | 1394.90  | 56.50   | 30.40   | 18.30  | 14.70  |          |     |
| 24    | 9.20   | 12.60  | 286.60  | 798.60  | 267.70  | 584.10   | 86.80   | 3627.30  | 55.60   | 29.50   | 18.30  | 14.70  |          |     |
| 25    | 8.60   | 10.50  | 101.80  | 453.10  | 212.10  | 359.00   | 59.00   | 1759.10  | 53.90   | 28.80   | 18.30  | 16.10  |          |     |
| 26    | 9.90   | 9.90   | 49.80   | 255.20  | 168.10  | 238.60   | 52.20   | 842.40   | 52.20   | 28.80   | 18.30  | 16.80  |          |     |
| 27    | 19.70  | 9.90   | 38.30   | 170.10  | 89.80   | 191.90   | 54.80   | 501.30   | 51.40   | 28.80   | 17.50  | 16.10  |          |     |
| 28    | 21.10  | 8.60   | 31.10   | 118.90  | 61.80   | 144.20   | 257.20  | 366.70   | 50.50   | 28.00   | 17.50  | 15.40  |          |     |
| 29    | 14.70  | 9.20   | 31.90   | 89.80   | 53.90   | 134.60   | 214.10  | 456.10   | 48.90   | 28.00   |        | 14.70  |          |     |
| 30    | 11.20  | 9.20   | 27.30   | 77.90   | 52.20   | 115.70   | 104.90  | 480.10   | 48.10   | 27.30   |        | 13.30  |          |     |
| 31    |        | 9.90   |         | 136.10  | 109.50  |          | 70.50   |          | 48.10   | 26.50   |        | 13.30  |          |     |
| Total | 501.80 | 399.60 | 1678.50 | 8472.10 | 4209.80 | 10038.00 | 4249.50 | 11189.60 | 3018.60 | 1101.20 | 585.90 | 477.40 | 45922.00 | Ton |
| Mean  | 16.70  | 12.90  | 56.00   | 273.30  | 135.80  | 334.60   | 137.10  | 373.00   | 97.40   | 35.50   | 20.90  | 15.40  |          |     |
| Max   | 82.20  | 24.10  | 286.60  | 1520.00 | 831.50  | 2597.20  | 441.10  | 3627.30  | 286.60  | 46.40   | 26.50  | 17.50  | 3627.30  |     |
| Min   | 6.60   | 8.60   | 9.90    | 23.40   | 5.90    | 35.10    | 52.20   | 27.30    | 48.10   | 26.50   | 17.50  | 13.30  | 5.90     |     |

**WATER YEAR : 2013****SOUTHERN PENINSULA EAST COAST****Khlong Tha Di at Ban Tha Yai , Nakhon Si Thammarat (X.55)**

Lat 08 - 23 - 52 N Long 99 - 50 - 14 E

Location : on left bank at the bridge.

|                                      |                            |                        |                                     |
|--------------------------------------|----------------------------|------------------------|-------------------------------------|
|                                      | <b>Ban</b> Tha Yai         | <b>Amphoe</b> Lan Saka | <b>Changwat</b> Nakhon Si Thammarat |
| <b>Drainage Area</b>                 | 105 sq.km.                 |                        |                                     |
| <b>Method of sampling</b>            | Depth Integrating          |                        |                                     |
| <b>Instrument Used</b>               | US.D-49                    |                        |                                     |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                        |                                     |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                        |                                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                        |                                     |
| <b>Number of observation</b>         | 23                         |                        |                                     |
| <b>R-Square</b>                      | 0.9137                     |                        |                                     |
| <b>Remarks</b>                       | Continued Sediment Station |                        |                                     |

$$QS = 6.2007 QW^{1.34010}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun    | Jul    | Aug    | Sep    | Oct     | Nov      | Dec     | Jan    | Feb    | Mar    | Annual   |            |
|-------|---------|---------|--------|--------|--------|--------|---------|----------|---------|--------|--------|--------|----------|------------|
| 1     | 49.30   | 33.20   | 20.60  | 5.40   | 15.70  | 8.80   | 24.10   | 27.60    | 468.20  | 20.60  | 11.60  | 17.30  |          |            |
| 2     | 49.30   | 37.10   | 24.10  | 3.80   | 15.70  | 8.80   | 24.10   | 27.60    | 104.90  | 20.60  | 10.70  | 17.30  |          |            |
| 3     | 49.30   | 49.30   | 22.30  | 4.60   | 14.70  | 7.90   | 22.30   | 27.60    | 80.10   | 20.60  | 10.70  | 17.30  |          |            |
| 4     | 49.30   | 49.30   | 22.30  | 3.80   | 14.70  | 7.00   | 24.10   | 27.60    | 1220.20 | 17.30  | 10.70  | 17.30  |          |            |
| 5     | 41.10   | 45.20   | 20.60  | 3.10   | 13.60  | 7.00   | 29.50   | 25.80    | 1220.20 | 15.70  | 10.70  | 17.30  |          |            |
| 6     | 43.10   | 45.20   | 20.60  | 1.80   | 12.60  | 8.80   | 27.60   | 24.10    | 1805.90 | 15.70  | 10.70  | 17.30  |          |            |
| 7     | 43.10   | 43.10   | 20.60  | 0.30   | 12.60  | 10.70  | 22.30   | 24.10    | 1449.10 | 15.70  | 10.70  | 17.30  |          |            |
| 8     | 45.20   | 43.10   | 17.30  | 0.00   | 11.60  | 9.70   | 25.80   | 24.10    | 365.60  | 15.70  | 10.70  | 17.30  |          |            |
| 9     | 43.10   | 39.10   | 15.70  | 7.90   | 15.70  | 10.70  | 29.50   | 22.30    | 100.60  | 15.70  | 9.70   | 17.30  |          |            |
| 10    | 43.10   | 35.20   | 15.70  | 12.60  | 13.60  | 9.70   | 25.80   | 22.30    | 76.20   | 18.90  | 9.70   | 17.30  |          |            |
| 11    | 37.10   | 45.20   | 15.70  | 15.70  | 12.60  | 9.70   | 31.30   | 20.60    | 72.30   | 18.90  | 9.70   | 17.30  |          |            |
| 12    | 37.10   | 39.10   | 15.70  | 15.70  | 9.70   | 10.70  | 43.10   | 20.60    | 64.60   | 18.90  | 22.30  | 17.30  |          |            |
| 13    | 37.10   | 37.10   | 18.90  | 14.70  | 12.60  | 31.30  | 35.20   | 20.60    | 53.60   | 20.60  | 25.80  | 17.30  |          |            |
| 14    | 458.30  | 37.10   | 29.50  | 15.70  | 11.60  | 29.50  | 29.50   | 18.90    | 51.50   | 22.30  | 25.80  | 17.30  |          |            |
| 15    | 140.30  | 37.10   | 24.10  | 15.70  | 11.60  | 27.60  | 29.50   | 15.70    | 49.30   | 22.30  | 24.10  | 17.30  |          |            |
| 16    | 47.20   | 41.10   | 24.10  | 14.70  | 10.70  | 27.60  | 31.30   | 15.70    | 45.20   | 22.30  | 24.10  | 18.90  |          |            |
| 17    | 37.10   | 35.20   | 25.80  | 14.70  | 10.70  | 27.60  | 37.10   | 18.90    | 57.20   | 20.60  | 24.10  | 18.90  |          |            |
| 18    | 35.20   | 39.10   | 22.30  | 14.70  | 9.70   | 27.60  | 39.10   | 39.10    | 53.60   | 18.90  | 24.10  | 18.90  |          |            |
| 19    | 35.20   | 33.20   | 22.30  | 20.60  | 8.80   | 25.80  | 43.10   | 286.10   | 47.20   | 18.90  | 22.30  | 17.30  |          |            |
| 20    | 35.20   | 29.50   | 29.50  | 15.70  | 8.80   | 131.20 | 57.20   | 154.20   | 39.10   | 17.30  | 22.30  | 17.30  |          |            |
| 21    | 37.10   | 29.50   | 27.60  | 15.70  | 8.80   | 68.40  | 57.20   | 570.40   | 37.10   | 15.70  | 20.60  | 15.70  |          |            |
| 22    | 47.20   | 29.50   | 27.60  | 15.70  | 8.80   | 37.10  | 47.20   | 9557.40  | 37.10   | 15.70  | 18.90  | 15.70  |          |            |
| 23    | 37.10   | 27.60   | 25.80  | 18.90  | 8.80   | 31.30  | 43.10   | 4333.70  | 37.10   | 15.70  | 18.90  | 15.70  |          |            |
| 24    | 37.10   | 27.60   | 25.80  | 20.60  | 7.90   | 24.10  | 37.10   | 801.90   | 37.10   | 15.70  | 18.90  | 15.70  |          |            |
| 25    | 37.10   | 25.80   | 25.80  | 18.90  | 7.90   | 24.10  | 31.30   | 301.60   | 33.20   | 15.70  | 18.90  | 14.70  |          |            |
| 26    | 35.20   | 24.10   | 25.80  | 17.30  | 7.90   | 24.10  | 33.20   | 144.90   | 25.80   | 15.70  | 18.90  | 14.70  |          |            |
| 27    | 33.20   | 22.30   | 20.60  | 15.70  | 9.70   | 22.30  | 41.10   | 104.90   | 24.10   | 14.70  | 17.30  | 14.70  |          |            |
| 28    | 37.10   | 22.30   | 7.00   | 15.70  | 8.80   | 24.10  | 37.10   | 113.50   | 22.30   | 13.60  | 17.30  | 14.70  |          |            |
| 29    | 35.20   | 22.30   | 6.20   | 15.70  | 14.70  | 27.60  | 35.20   | 158.90   | 20.60   | 12.60  |        | 13.60  |          |            |
| 30    | 33.20   | 24.10   | 6.20   | 15.70  | 7.90   | 27.60  | 33.20   | 1204.40  | 20.60   | 13.60  |        | 14.70  |          |            |
| 31    |         | 27.60   |        | 17.30  | 7.90   |        | 29.50   |          | 20.60   | 11.60  |        | 13.60  |          |            |
| Total | 1725.20 | 1076.20 | 626.10 | 388.40 | 346.40 | 748.40 | 1056.70 | 18155.10 | 7740.20 | 537.80 | 480.20 | 514.30 | 33395.00 | <b>Ton</b> |
| Mean  | 57.50   | 34.70   | 20.90  | 12.50  | 11.20  | 24.90  | 34.10   | 605.20   | 249.70  | 17.30  | 17.10  | 16.60  |          |            |
| Max   | 458.30  | 49.30   | 29.50  | 20.60  | 15.70  | 131.20 | 57.20   | 9557.40  | 1805.90 | 22.30  | 25.80  | 18.90  | 9557.40  |            |
| Min   | 33.20   | 22.30   | 6.20   | 0.00   | 7.90   | 7.00   | 22.30   | 15.70    | 20.60   | 11.60  | 9.70   | 13.60  | 0.00     |            |

**WATER YEAR : 2013****SOUTHERN PENINSULA EAST COAST****Khlong Klai at Ban Hua Na , Nakhon Si Thammarat (X.149)**

Lat 08 - 43 - 46 N Long 99 - 44 - 53 E

**Location : on left bank at Ban Hua Na.**

|                                      | Ban Hua Na                 | Amphoe Nopphitam | Changwat Nakhon Si Thammarat |
|--------------------------------------|----------------------------|------------------|------------------------------|
| <b>Drainage Area</b>                 | 475 sq.km.                 |                  |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                  |                              |
| <b>Instrument Used</b>               | US.D-49                    |                  |                              |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                  |                              |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                  |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                  |                              |
| <b>Number of observation</b>         | 21                         |                  |                              |
| <b>R-Square</b>                      | 0.9195                     |                  |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                  |                              |

$$QS = 2.5388 QW^{1.50350}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul     | Aug     | Sep     | Oct     | Nov       | Dec      | Jan     | Feb     | Mar     | Annual    |     |
|-------|---------|---------|---------|---------|---------|---------|---------|-----------|----------|---------|---------|---------|-----------|-----|
| 1     | 9.50    | 96.00   | 76.10   | 90.90   | 348.30  | 71.40   | 49.40   | 101.20    | 6321.90  | 122.90  | 71.40   | 30.30   |           |     |
| 2     | 8.30    | 279.40  | 730.40  | 90.90   | 101.20  | 57.90   | 37.50   | 76.10     | 3059.30  | 148.90  | 71.40   | 26.80   |           |     |
| 3     | 8.30    | 140.00  | 157.90  | 96.00   | 90.90   | 45.30   | 37.50   | 76.10     | 2071.00  | 148.90  | 66.80   | 26.80   |           |     |
| 4     | 7.20    | 122.90  | 106.50  | 96.00   | 80.90   | 41.40   | 49.40   | 57.90     | 1419.30  | 122.90  | 66.80   | 23.60   |           |     |
| 5     | 7.20    | 80.90   | 101.20  | 114.60  | 80.90   | 157.90  | 37.50   | 49.40     | 1368.80  | 114.60  | 62.30   | 23.60   |           |     |
| 6     | 9.50    | 114.60  | 80.90   | 167.20  | 80.90   | 140.00  | 41.40   | 57.90     | 1627.30  | 114.60  | 62.30   | 41.40   |           |     |
| 7     | 8.30    | 301.80  | 66.80   | 101.20  | 76.10   | 131.40  | 45.30   | 62.30     | 2013.60  | 106.50  | 57.90   | 37.50   |           |     |
| 8     | 7.20    | 101.20  | 62.30   | 80.90   | 76.10   | 140.00  | 71.40   | 62.30     | 1269.70  | 85.80   | 53.60   | 37.50   |           |     |
| 9     | 7.20    | 157.90  | 57.90   | 66.80   | 76.10   | 114.60  | 57.90   | 186.10    | 987.70   | 90.90   | 53.60   | 37.50   |           |     |
| 10    | 6.10    | 80.90   | 53.60   | 57.90   | 71.40   | 148.90  | 62.30   | 157.90    | 792.30   | 106.50  | 49.40   | 33.80   |           |     |
| 11    | 8.30    | 76.10   | 49.40   | 53.60   | 66.80   | 80.90   | 49.40   | 226.00    | 611.90   | 148.90  | 49.40   | 33.80   |           |     |
| 12    | 90.90   | 71.40   | 62.30   | 49.40   | 76.10   | 85.80   | 62.30   | 122.90    | 670.30   | 122.90  | 45.30   | 33.80   |           |     |
| 13    | 2736.80 | 53.60   | 114.60  | 236.40  | 157.90  | 114.60  | 80.90   | 71.40     | 555.30   | 96.00   | 45.30   | 33.80   |           |     |
| 14    | 555.30  | 45.30   | 176.60  | 301.80  | 96.00   | 71.40   | 49.40   | 57.90     | 397.00   | 226.00  | 41.40   | 30.30   |           |     |
| 15    | 186.10  | 37.50   | 583.40  | 106.50  | 80.90   | 57.90   | 53.60   | 301.80    | 2071.00  | 41.40   | 30.30   |         |           |     |
| 16    | 101.20  | 53.60   | 279.40  | 85.80   | 66.80   | 57.90   | 49.40   | 53.60     | 290.60   | 348.30  | 41.40   | 37.50   |           |     |
| 17    | 148.90  | 49.40   | 226.00  | 80.90   | 57.90   | 49.40   | 45.30   | 195.90    | 372.40   | 236.40  | 41.40   | 49.40   |           |     |
| 18    | 106.50  | 268.50  | 236.40  | 101.20  | 66.80   | 45.30   | 246.90  | 186.10    | 290.60   | 167.20  | 37.50   | 45.30   |           |     |
| 19    | 66.80   | 148.90  | 176.60  | 90.90   | 53.60   | 37.50   | 186.10  | 268.50    | 246.90   | 148.90  | 37.50   | 41.40   |           |     |
| 20    | 41.40   | 71.40   | 186.10  | 66.80   | 45.30   | 49.40   | 157.90  | 500.60    | 215.80   | 131.40  | 37.50   | 37.50   |           |     |
| 21    | 76.10   | 53.60   | 122.90  | 57.90   | 41.40   | 57.90   | 290.60  | 2673.70   | 195.90   | 122.90  | 37.50   | 37.50   |           |     |
| 22    | 157.90  | 96.00   | 122.90  | 71.40   | 37.50   | 49.40   | 215.80  | 16750.00  | 176.60   | 106.50  | 37.50   | 33.80   |           |     |
| 23    | 71.40   | 122.90  | 96.00   | 114.60  | 37.50   | 49.40   | 114.60  | 41140.10  | 167.20   | 96.00   | 37.50   | 33.80   |           |     |
| 24    | 62.30   | 246.90  | 80.90   | 85.80   | 33.80   | 45.30   | 80.90   | 7917.10   | 167.20   | 90.90   | 33.80   | 33.80   |           |     |
| 25    | 41.40   | 122.90  | 71.40   | 90.90   | 49.40   | 37.50   | 101.20  | 3462.00   | 157.90   | 96.00   | 33.80   | 30.30   |           |     |
| 26    | 57.90   | 205.80  | 66.80   | 66.80   | 37.50   | 33.80   | 148.90  | 1734.90   | 148.90   | 96.00   | 33.80   | 16.00   |           |     |
| 27    | 49.40   | 101.20  | 101.20  | 57.90   | 37.50   | 26.80   | 186.10  | 1033.00   | 140.00   | 90.90   | 30.30   | 26.80   |           |     |
| 28    | 114.60  | 96.00   | 71.40   | 49.40   | 37.50   | 26.80   | 348.30  | 1318.90   | 140.00   | 90.90   | 30.30   | 26.80   |           |     |
| 29    | 62.30   | 85.80   | 62.30   | 49.40   | 41.40   | 37.50   | 500.60  | 9888.70   | 122.90   | 85.80   |         | 26.80   |           |     |
| 30    | 45.30   | 80.90   | 57.90   | 45.30   | 85.80   | 114.60  | 176.60  | 14001.20  | 122.90   | 80.90   |         | 23.60   |           |     |
| 31    |         | 85.80   |         | 49.40   | 53.60   |         | 106.50  |           | 140.00   | 76.10   |         | 23.60   |           |     |
| Total | 4859.60 | 3649.10 | 4438.10 | 2874.50 | 2343.80 | 2177.90 | 3740.90 | 102543.30 | 26563.00 | 5892.40 | 1308.10 | 1004.70 | 161395.40 | Ton |
| Mean  | 162.00  | 117.70  | 147.90  | 92.70   | 75.60   | 72.60   | 120.70  | 3418.10   | 856.90   | 190.10  | 46.70   | 32.40   |           |     |
| Max   | 2736.80 | 301.80  | 730.40  | 301.80  | 348.30  | 157.90  | 500.60  | 41140.10  | 6321.90  | 2071.00 | 71.40   | 49.40   | 41140.10  |     |
| Min   | 6.10    | 37.50   | 49.40   | 45.30   | 33.80   | 26.80   | 37.50   | 49.40     | 122.90   | 76.10   | 30.30   | 16.00   | 6.10      |     |

**WATER YEAR : 2013****SOUTHERN PENINSULA EAST COAST****Khlong Tha Taphao at Ban Wang Khrok , Chumphon (X.158)**

Lat 10 - 35 - 34 N Long 99 - 08 - 43 E

**Location : on right bank at the bridge on Chumphon - Prachuap Khiri Khan Highway.**

|                                      | <b>Ban</b> Wang Khrok      | <b>Amphoe</b> Tha Sae | <b>Changwat</b> Chumphon |
|--------------------------------------|----------------------------|-----------------------|--------------------------|
| <b>Drainage Area</b>                 | 1,814 sq.km.               |                       |                          |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                          |
| <b>Instrument Used</b>               | US.DH-59                   |                       |                          |
| <b>Period of Available Records</b>   | 1996-Cont'd                |                       |                          |
| <b>Actual Measurement</b>            | 1996-Cont'd                |                       |                          |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |                          |
| <b>Number of observation</b>         | 22                         |                       |                          |
| <b>R-Square</b>                      | 0.8642                     |                       |                          |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                          |

$$QS = 8.4696 QW^{1.21860}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep      | Oct      | Nov       | Dec      | Jan     | Feb     | Mar     | Annual    |            |
|-------|---------|---------|----------|----------|----------|----------|----------|-----------|----------|---------|---------|---------|-----------|------------|
| 1     | 66.10   | 237.10  | 108.40   | 701.40   | 3392.40  | 452.10   | 1433.10  | 828.70    | 2010.90  | 290.70  | 159.10  | 57.30   |           |            |
| 2     | 57.30   | 244.70  | 103.50   | 529.00   | 6108.50  | 920.00   | 1342.90  | 726.60    | 1511.20  | 290.70  | 159.10  | 57.30   |           |            |
| 3     | 93.90   | 244.70  | 103.50   | 480.70   | 2812.30  | 1026.40  | 986.20   | 626.90    | 1203.40  | 275.20  | 148.70  | 48.70   |           |            |
| 4     | 113.30  | 218.50  | 133.30   | 433.20   | 1814.40  | 590.30   | 986.20   | 529.00    | 972.90   | 252.20  | 143.50  | 44.50   |           |            |
| 5     | 153.90  | 218.50  | 159.10   | 442.60   | 1245.00  | 664.00   | 933.20   | 519.30    | 893.70   | 237.10  | 138.40  | 61.70   |           |            |
| 6     | 98.70   | 213.00  | 159.10   | 370.30   | 999.60   | 538.80   | 1798.20  | 480.70    | 854.60   | 237.10  | 138.40  | 79.80   |           |            |
| 7     | 89.10   | 803.00  | 153.90   | 338.00   | 906.90   | 519.30   | 2672.60  | 471.10    | 777.30   | 259.80  | 138.40  | 48.70   |           |            |
| 8     | 75.20   | 354.10  | 143.50   | 338.00   | 841.70   | 509.60   | 6133.70  | 461.60    | 639.20   | 267.50  | 138.40  | 44.50   |           |            |
| 9     | 79.80   | 244.70  | 138.40   | 314.20   | 854.60   | 499.90   | 4012.80  | 854.60    | 614.70   | 267.50  | 133.30  | 44.50   |           |            |
| 10    | 40.30   | 218.50  | 148.70   | 701.40   | 1134.70  | 452.10   | 2865.00  | 1203.40   | 614.70   | 252.20  | 123.20  | 44.50   |           |            |
| 11    | 48.70   | 191.10  | 118.20   | 1162.10  | 854.60   | 378.40   | 2227.70  | 626.90    | 590.30   | 229.60  | 123.20  | 44.50   |           |            |
| 12    | 103.50  | 244.70  | 118.20   | 664.00   | 828.70   | 664.00   | 1685.50  | 370.30    | 568.30   | 218.50  | 118.20  | 32.30   |           |            |
| 13    | 275.20  | 290.70  | 143.50   | 651.60   | 1066.80  | 854.60   | 1479.80  | 354.10    | 499.90   | 213.00  | 123.20  | 24.60   |           |            |
| 14    | 1093.90 | 252.20  | 244.70   | 1863.20  | 1231.10  | 639.20   | 1258.90  | 346.00    | 480.70   | 213.00  | 123.20  | 24.60   |           |            |
| 15    | 777.30  | 175.00  | 548.60   | 1653.60  | 986.20   | 558.40   | 1203.40  | 338.00    | 480.70   | 213.00  | 118.20  | 20.90   |           |            |
| 16    | 803.00  | 153.90  | 841.70   | 2143.80  | 828.70   | 414.40   | 1134.70  | 395.80    | 461.60   | 213.00  | 118.20  | 20.90   |           |            |
| 17    | 639.20  | 148.70  | 538.80   | 1733.70  | 602.50   | 461.60   | 920.00   | 1717.60   | 471.10   | 207.50  | 108.40  | 17.30   |           |            |
| 18    | 405.10  | 143.50  | 509.60   | 1717.60  | 558.40   | 405.10   | 803.00   | 3274.90   | 471.10   | 202.00  | 123.20  | 17.30   |           |            |
| 19    | 314.20  | 128.20  | 423.80   | 7072.40  | 519.30   | 906.90   | 893.70   | 2380.00   | 461.60   | 185.70  | 93.90   | 17.30   |           |            |
| 20    | 224.10  | 148.70  | 548.60   | 8212.70  | 519.30   | 3516.80  | 1026.40  | 1371.10   | 423.80   | 185.70  | 89.10   | 17.30   |           |            |
| 21    | 213.00  | 207.50  | 2027.40  | 8244.60  | 499.90   | 10297.30 | 777.30   | 777.30    | 395.80   | 185.70  | 89.10   | 17.30   |           |            |
| 22    | 252.20  | 202.00  | 2077.20  | 8372.50  | 480.70   | 13039.90 | 828.70   | 676.40    | 386.60   | 185.70  | 84.40   | 20.90   |           |            |
| 23    | 196.50  | 180.30  | 1314.80  | 10186.70 | 480.70   | 12449.40 | 1217.20  | 10519.20  | 362.20   | 180.30  | 84.40   | 24.60   |           |            |
| 24    | 159.10  | 159.10  | 1685.50  | 5982.70  | 1093.90  | 12617.60 | 880.70   | 33958.80  | 338.00   | 180.30  | 79.80   | 28.40   |           |            |
| 25    | 180.30  | 138.40  | 1053.30  | 4034.60  | 1080.30  | 10113.10 | 676.40   | 24793.20  | 330.00   | 180.30  | 75.20   | 36.30   |           |            |
| 26    | 207.50  | 128.20  | 664.00   | 2551.40  | 790.10   | 5982.70  | 828.70   | 13678.00  | 338.00   | 175.00  | 70.60   | 133.30  |           |            |
| 27    | 196.50  | 118.20  | 499.90   | 1558.40  | 590.30   | 3495.50  | 880.70   | 4872.70   | 330.00   | 175.00  | 66.10   | 133.30  |           |            |
| 28    | 777.30  | 153.90  | 386.60   | 1272.80  | 529.00   | 2210.90  | 1479.80  | 2742.30   | 306.30   | 169.70  | 61.70   | 66.10   |           |            |
| 29    | 405.10  | 133.30  | 378.40   | 1134.70  | 490.30   | 1830.70  | 1765.90  | 2312.10   | 275.20   | 169.70  |         | 61.70   |           |            |
| 30    | 290.70  | 103.50  | 519.30   | 906.90   | 423.80   | 1605.90  | 1830.70  | 3372.80   | 252.20   | 164.40  |         | 66.10   |           |            |
| 31    |         | 93.90   |          | 1093.90  | 423.80   |          | 986.20   |           | 290.70   | 164.40  |         | 66.10   |           |            |
| Total | 8430.00 | 6491.80 | 15993.50 | 76862.70 | 34988.50 | 88614.90 | 47949.30 | 115579.40 | 18606.70 | 6641.50 | 3170.60 | 1422.60 | 424751.50 | <b>Ton</b> |
| Mean  | 281.00  | 209.40  | 533.10   | 2479.40  | 1128.70  | 2953.80  | 1546.80  | 3852.60   | 600.20   | 214.20  | 113.20  | 45.90   |           |            |
| Max   | 1093.90 | 803.00  | 2077.20  | 10186.70 | 6108.50  | 13039.90 | 6133.70  | 33958.80  | 2010.90  | 290.70  | 159.10  | 133.30  | 33958.80  |            |
| Min   | 40.30   | 93.90   | 103.50   | 314.20   | 423.80   | 378.40   | 676.40   | 338.00    | 252.20   | 164.40  | 61.70   | 17.30   | 17.30     |            |

**WATER YEAR : 2013****SOUTHERN PENINSULA EAST COAST****Khlong Sao Thong at Ban Sao Thong , Nakhon Si Thammarat (X.167)**

Lat 08 - 16 - 44 N Long 99 - 54 - 30 E

Location : on right bank at the bridge.

|                                      |                            |                          |                                     |
|--------------------------------------|----------------------------|--------------------------|-------------------------------------|
|                                      | <b>Ban</b> Sao Thong       | <b>Amphoe</b> Ron Phibun | <b>Changwat</b> Nakhon Si Thammarat |
| <b>Drainage Area</b>                 | 252 sq.km.                 |                          |                                     |
| <b>Method of sampling</b>            | Depth Integrating          |                          |                                     |
| <b>Instrument Used</b>               | US.D-49                    |                          |                                     |
| <b>Period of Available Records</b>   | 2005-Cont'd                |                          |                                     |
| <b>Actual Measurement</b>            | 2005-Cont'd                |                          |                                     |
| <b>Using Rating Curve Water Year</b> | 2013                       |                          |                                     |
| <b>Number of observation</b>         | 23                         |                          |                                     |
| <b>R-Square</b>                      | 0.8893                     |                          |                                     |
| <b>Remarks</b>                       | Continued Sediment Station |                          |                                     |

$$QS = 10.0640 QW^{1.14790}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul     | Aug    | Sep     | Oct     | Nov      | Dec      | Jan     | Feb    | Mar    | Annual   |     |
|-------|---------|---------|---------|---------|--------|---------|---------|----------|----------|---------|--------|--------|----------|-----|
| 1     | 45.90   | 86.30   | 48.60   | 25.50   | 74.20  | 40.70   | 56.60   | 117.40   | 1988.70  | 149.60  | 45.90  | 23.10  |          |     |
| 2     | 45.90   | 92.40   | 48.60   | 35.50   | 80.20  | 53.80   | 48.60   | 86.30    | 1020.70  | 117.40  | 43.20  | 6.40   |          |     |
| 3     | 48.60   | 104.80  | 48.60   | 45.90   | 51.30  | 40.70   | 38.10   | 56.60    | 658.90   | 80.20   | 43.20  | 4.00   |          |     |
| 4     | 48.60   | 86.30   | 48.60   | 48.60   | 51.30  | 16.00   | 38.10   | 43.20    | 541.50   | 111.10  | 43.20  | 4.00   |          |     |
| 5     | 45.90   | 92.40   | 48.60   | 48.60   | 40.70  | 123.80  | 43.20   | 40.70    | 1634.70  | 56.60   | 43.20  | 4.00   |          |     |
| 6     | 43.20   | 74.20   | 48.60   | 48.60   | 40.70  | 53.80   | 48.60   | 38.10    | 2011.60  | 62.40   | 43.20  | 4.00   |          |     |
| 7     | 38.10   | 217.80  | 48.60   | 48.60   | 35.50  | 38.10   | 51.30   | 38.10    | 2174.00  | 56.60   | 43.20  | 4.00   |          |     |
| 8     | 32.90   | 111.10  | 48.60   | 48.60   | 28.00  | 48.60   | 16.00   | 38.10    | 1098.60  | 51.30   | 43.20  | 3.30   |          |     |
| 9     | 30.50   | 339.70  | 45.90   | 45.90   | 28.00  | 53.80   | 16.00   | 38.10    | 733.70   | 51.30   | 40.70  | 3.30   |          |     |
| 10    | 28.00   | 117.40  | 45.90   | 45.90   | 25.50  | 43.20   | 13.70   | 38.10    | 563.60   | 136.60  | 38.10  | 3.30   |          |     |
| 11    | 28.00   | 156.20  | 45.90   | 45.90   | 18.40  | 45.90   | 9.40    | 40.70    | 489.80   | 92.40   | 38.10  | 3.30   |          |     |
| 12    | 28.00   | 111.10  | 51.30   | 48.60   | 16.00  | 48.60   | 7.20    | 51.30    | 461.30   | 92.40   | 38.10  | 3.30   |          |     |
| 13    | 189.70  | 92.40   | 48.60   | 30.50   | 16.00  | 48.60   | 7.20    | 48.60    | 450.00   | 92.40   | 25.50  | 3.30   |          |     |
| 14    | 334.30  | 92.40   | 51.30   | 53.80   | 16.00  | 45.90   | 7.20    | 43.20    | 423.80   | 123.80  | 20.80  | 1.10   |          |     |
| 15    | 92.40   | 86.30   | 341.50  | 348.80  | 16.00  | 51.30   | 7.20    | 43.20    | 386.30   | 143.10  | 20.80  | 3.30   |          |     |
| 16    | 80.20   | 74.20   | 111.10  | 111.10  | 13.70  | 23.10   | 9.40    | 38.10    | 398.70   | 169.40  | 20.80  | 1.90   |          |     |
| 17    | 53.80   | 68.30   | 98.60   | 111.10  | 13.70  | 11.60   | 16.00   | 56.60    | 378.00   | 182.80  | 20.80  | 2.50   |          |     |
| 18    | 53.80   | 104.80  | 86.30   | 92.40   | 13.70  | 9.40    | 411.30  | 74.20    | 373.70   | 182.80  | 20.80  | 2.50   |          |     |
| 19    | 51.30   | 156.20  | 74.20   | 74.20   | 11.60  | 18.40   | 176.10  | 68.30    | 359.80   | 182.80  | 20.80  | 3.30   |          |     |
| 20    | 48.60   | 92.40   | 62.40   | 62.40   | 11.60  | 23.10   | 123.80  | 350.60   | 336.10   | 149.60  | 20.80  | 4.00   |          |     |
| 21    | 62.40   | 68.30   | 53.80   | 56.60   | 9.40   | 68.30   | 143.10  | 686.70   | 253.60   | 117.40  | 20.80  | 5.60   |          |     |
| 22    | 347.00  | 62.40   | 48.60   | 56.60   | 9.40   | 53.80   | 297.40  | 2068.80  | 232.10   | 104.80  | 20.80  | 5.60   |          |     |
| 23    | 92.40   | 62.40   | 43.20   | 56.60   | 9.40   | 48.60   | 117.40  | 2328.70  | 217.80   | 86.30   | 20.80  | 5.60   |          |     |
| 24    | 53.80   | 56.60   | 35.50   | 56.60   | 9.40   | 45.90   | 225.00  | 1864.80  | 203.70   | 80.20   | 20.80  | 5.60   |          |     |
| 25    | 53.80   | 56.60   | 28.00   | 56.60   | 9.40   | 38.10   | 117.40  | 924.90   | 182.80   | 68.30   | 20.80  | 6.40   |          |     |
| 26    | 53.80   | 56.60   | 23.10   | 43.20   | 9.40   | 7.20    | 117.40  | 587.20   | 169.40   | 56.60   | 23.10  | 6.40   |          |     |
| 27    | 53.80   | 53.80   | 20.80   | 32.90   | 7.20   | 7.20    | 196.80  | 467.00   | 156.20   | 51.30   | 30.50  | 7.20   |          |     |
| 28    | 51.30   | 53.80   | 20.80   | 30.50   | 7.20   | 7.20    | 486.90  | 432.30   | 143.10   | 48.60   | 25.50  | 7.20   |          |     |
| 29    | 48.60   | 53.80   | 20.80   | 30.50   | 7.20   | 20.80   | 484.00  | 1262.30  | 149.60   | 48.60   |        | 7.20   |          |     |
| 30    | 48.60   | 51.30   | 20.80   | 30.50   | 7.20   | 86.30   | 297.40  | 2162.20  | 143.10   | 48.60   |        | 7.20   |          |     |
| 31    |         | 51.30   |         | 40.70   | 7.20   |         | 176.10  |          | 92.40    | 48.60   |        | 13.70  |          |     |
| Total | 2233.20 | 2983.60 | 1767.20 | 1911.80 | 694.50 | 1221.80 | 3803.90 | 14134.40 | 18427.30 | 3043.90 | 857.50 | 165.60 | 51244.70 | Ton |
| Mean  | 74.40   | 96.20   | 58.90   | 61.70   | 22.40  | 40.70   | 122.70  | 471.10   | 594.40   | 98.20   | 30.60  | 5.30   |          |     |
| Max   | 347.00  | 339.70  | 341.50  | 348.80  | 80.20  | 123.80  | 486.90  | 2328.70  | 2174.00  | 182.80  | 45.90  | 23.10  | 2328.70  |     |
| Min   | 28.00   | 51.30   | 20.80   | 25.50   | 7.20   | 7.20    | 7.20    | 38.10    | 92.40    | 48.60   | 20.80  | 1.10   | 1.10     |     |

**WATER YEAR : 2013****SOUTHERN PENINSULA EAST COAST****Khlong Tha Sae at Ban Wang Maprang , Chumphon (X.247)**

Lat 10 - 43 - 58 N Long 99 - 10 - 42 E

**Location : on left bank at Ban Wang Maprang.**

|                                      | <b>Ban</b> Wang Maprang    | <b>Amphoe</b> Tha Sae | <b>Changwat</b> Chumphon |
|--------------------------------------|----------------------------|-----------------------|--------------------------|
| <b>Drainage Area</b>                 | 656 sq.km.                 |                       |                          |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                          |
| <b>Instrument Used</b>               | US.D-49                    |                       |                          |
| <b>Period of Available Records</b>   | 2007-Cont'd                |                       |                          |
| <b>Actual Measurement</b>            | 2007-Cont'd                |                       |                          |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |                          |
| <b>Number of observation</b>         | 21                         |                       |                          |
| <b>R-Square</b>                      | 0.8287                     |                       |                          |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                          |

$$QS = 10.8610 QW^{1.13400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May     | Jun    | Jul     | Aug      | Sep      | Oct     | Nov      | Dec     | Jan     | Feb     | Mar     | Annual    |            |
|-------|----------|---------|--------|---------|----------|----------|---------|----------|---------|---------|---------|---------|-----------|------------|
| 1     | 181.80   | 533.40  | 35.60  | 27.90   | 202.60   | 225.40   | 309.80  | 225.40   | 166.40  | 164.70  | 195.60  | 171.60  |           |            |
| 2     | 185.30   | 206.10  | 34.20  | 25.90   | 207.80   | 204.30   | 309.80  | 227.10   | 168.10  | 164.70  | 195.60  | 171.60  |           |            |
| 3     | 190.40   | 139.50  | 33.50  | 21.80   | 211.30   | 195.60   | 64.30   | 227.10   | 169.80  | 164.70  | 193.90  | 169.80  |           |            |
| 4     | 193.90   | 92.30   | 32.80  | 17.90   | 214.80   | 183.50   | 65.80   | 228.90   | 171.60  | 164.70  | 193.90  | 169.80  |           |            |
| 5     | 199.10   | 78.20   | 32.10  | 12.70   | 221.80   | 176.70   | 68.10   | 230.60   | 173.30  | 166.40  | 193.90  | 168.10  |           |            |
| 6     | 207.80   | 71.20   | 32.10  | 10.90   | 230.60   | 173.30   | 72.00   | 232.40   | 175.00  | 168.10  | 192.20  | 168.10  |           |            |
| 7     | 216.60   | 69.70   | 31.40  | 10.20   | 259.10   | 168.10   | 76.60   | 234.20   | 176.70  | 168.10  | 192.20  | 166.40  |           |            |
| 8     | 234.20   | 66.60   | 30.70  | 9.40    | 284.30   | 159.70   | 82.10   | 240.40   | 178.40  | 169.80  | 190.40  | 166.40  |           |            |
| 9     | 252.90   | 63.60   | 28.60  | 7.80    | 316.20   | 149.50   | 86.80   | 246.60   | 180.10  | 171.60  | 188.70  | 164.70  |           |            |
| 10    | 290.70   | 60.50   | 26.60  | 6.10    | 355.00   | 137.80   | 92.30   | 252.90   | 183.50  | 171.60  | 188.70  | 164.70  |           |            |
| 11    | 329.10   | 57.50   | 24.50  | 5.50    | 399.10   | 131.20   | 97.10   | 259.10   | 185.30  | 173.30  | 187.00  | 163.00  |           |            |
| 12    | 348.50   | 55.30   | 24.50  | 5.20    | 475.30   | 132.90   | 98.70   | 265.40   | 183.50  | 173.30  | 187.00  | 163.00  |           |            |
| 13    | 408.50   | 53.80   | 38.50  | 5.20    | 553.00   | 72.00    | 101.90  | 271.70   | 181.80  | 175.00  | 185.30  | 161.40  |           |            |
| 14    | 456.10   | 52.30   | 42.80  | 15.30   | 647.90   | 48.60    | 106.70  | 278.00   | 181.80  | 175.00  | 185.30  | 161.40  |           |            |
| 15    | 523.70   | 50.80   | 41.30  | 32.80   | 456.10   | 33.50    | 111.60  | 284.30   | 180.10  | 176.70  | 183.50  | 159.70  |           |            |
| 16    | 647.90   | 46.40   | 39.90  | 42.10   | 437.00   | 23.80    | 114.80  | 303.40   | 178.40  | 176.70  | 183.50  | 159.70  |           |            |
| 17    | 793.50   | 43.50   | 39.20  | 53.10   | 408.50   | 23.80    | 116.40  | 348.50   | 178.40  | 178.40  | 181.80  | 158.00  |           |            |
| 18    | 917.30   | 42.80   | 37.80  | 93.90   | 389.60   | 295.20   | 119.70  | 484.90   | 176.70  | 180.10  | 181.80  | 158.00  |           |            |
| 19    | 917.30   | 42.10   | 36.30  | 200.80  | 370.90   | 620.10   | 121.30  | 917.30   | 176.70  | 181.80  | 180.10  | 156.30  |           |            |
| 20    | 917.30   | 40.60   | 35.60  | 220.10  | 361.60   | 1867.70  | 123.00  | 1777.40  | 175.00  | 183.50  | 180.10  | 156.30  |           |            |
| 21    | 917.30   | 39.90   | 34.90  | 156.30  | 348.50   | 3352.70  | 124.60  | 4258.10  | 173.30  | 185.30  | 178.40  | 154.60  |           |            |
| 22    | 917.30   | 39.20   | 34.20  | 93.90   | 342.10   | 3792.40  | 126.30  | 7379.30  | 173.30  | 187.00  | 178.40  | 152.90  |           |            |
| 23    | 942.30   | 37.80   | 32.80  | 70.40   | 329.10   | 3703.90  | 129.60  | 21506.50 | 171.60  | 188.70  | 176.70  | 151.20  |           |            |
| 24    | 942.30   | 37.80   | 32.10  | 59.00   | 329.10   | 3381.80  | 132.90  | 21642.40 | 169.80  | 190.40  | 175.00  | 149.50  |           |            |
| 25    | 942.30   | 37.80   | 31.40  | 54.50   | 322.70   | 2867.30  | 136.20  | 8712.80  | 169.80  | 192.20  | 173.30  | 147.90  |           |            |
| 26    | 942.30   | 37.80   | 30.70  | 56.80   | 322.70   | 1406.70  | 139.50  | 3625.50  | 169.80  | 193.90  | 173.30  | 147.90  |           |            |
| 27    | 942.30   | 37.00   | 30.70  | 72.70   | 316.20   | 824.20   | 173.30  | 504.30   | 168.10  | 195.60  | 171.60  | 146.20  |           |            |
| 28    | 942.30   | 37.00   | 30.00  | 82.90   | 309.80   | 576.60   | 284.30  | 265.40   | 168.10  | 197.40  | 169.80  | 144.50  |           |            |
| 29    | 942.30   | 37.00   | 29.30  | 119.70  | 303.40   | 463.70   | 696.10  | 206.10   | 166.40  | 197.40  |         | 142.80  |           |            |
| 30    | 942.30   | 37.00   | 28.60  | 181.80  | 297.10   | 346.70   | 389.60  | 169.80   | 166.40  | 197.40  |         | 141.20  |           |            |
| 31    |          | 36.30   |        | 192.20  | 290.70   |          | 259.10  |          | 164.70  | 197.40  |         | 139.50  |           |            |
| Total | 17784.90 | 2280.80 | 992.70 | 1964.80 | 10513.90 | 25738.70 | 4930.30 | 75805.80 | 5401.90 | 5570.90 | 5157.00 | 4896.20 | 161037.90 | <b>Ton</b> |
| Mean  | 592.80   | 73.60   | 33.10  | 63.40   | 339.20   | 858.00   | 159.00  | 2526.90  | 174.30  | 179.70  | 184.20  | 157.90  |           |            |
| Max   | 942.30   | 533.40  | 42.80  | 220.10  | 647.90   | 3792.40  | 696.10  | 21642.40 | 185.30  | 197.40  | 195.60  | 171.60  | 21642.40  |            |
| Min   | 181.80   | 36.30   | 24.50  | 5.20    | 202.60   | 23.80    | 64.30   | 169.80   | 164.70  | 164.70  | 169.80  | 139.50  | 5.20      |            |



**WATER YEAR : 2013****SOUTHERN PENINSULA EAST COAST****Khlong Rap Ro at Ban Hat Nai , Chumphon (X.248)**

Lat 10 - 38 - 16 N Long 99 - 03 - 01 E

**Location : on left bank at Ban Hat Nai.**

|                                      | Ban Hat Nai                | Amphoe Tha Sae | Changwat Chumphon |
|--------------------------------------|----------------------------|----------------|-------------------|
| <b>Drainage Area</b>                 | 691 sq.km.                 |                |                   |
| <b>Method of sampling</b>            | Depth Integrating          |                |                   |
| <b>Instrument Used</b>               | US.D-49                    |                |                   |
| <b>Period of Available Records</b>   | 2006-Cont'd                |                |                   |
| <b>Actual Measurement</b>            | 2006-Cont'd                |                |                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |                   |
| <b>Number of observation</b>         | 21                         |                |                   |
| <b>R-Square</b>                      | 0.7956                     |                |                   |
| <b>Remarks</b>                       | Continued Sediment Station |                |                   |

$$QS = 4.4890 QW^{1.46680}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep      | Oct      | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |     |
|-------|---------|---------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|-----------|-----|
| 1     | 109.90  | 199.10  | 122.90   | 727.60   | 5169.70  | 376.90   | 834.70   | 469.70   | 643.50   | 268.10  | 157.30  | 97.40   |           |     |
| 2     | 79.60   | 180.70  | 122.90   | 643.50   | 2811.90  | 343.20   | 745.00   | 456.20   | 583.60   | 268.10  | 150.20  | 91.30   |           |     |
| 3     | 85.40   | 171.80  | 116.40   | 583.60   | 1312.00  | 332.00   | 658.90   | 429.20   | 540.10   | 258.00  | 150.20  | 85.40   |           |     |
| 4     | 190.00  | 171.80  | 116.40   | 526.00   | 1023.20  | 299.30   | 658.90   | 416.10   | 526.00   | 258.00  | 150.20  | 79.60   |           |     |
| 5     | 129.60  | 171.80  | 122.90   | 469.70   | 927.60   | 354.20   | 628.50   | 402.80   | 483.70   | 247.70  | 143.20  | 79.60   |           |     |
| 6     | 85.40   | 171.80  | 122.90   | 442.80   | 816.70   | 469.70   | 727.60   | 365.40   | 469.70   | 247.70  | 143.20  | 73.90   |           |     |
| 7     | 85.40   | 511.70  | 157.30   | 416.10   | 745.00   | 442.80   | 1502.60  | 343.20   | 469.70   | 247.70  | 143.20  | 73.90   |           |     |
| 8     | 85.40   | 237.90  | 150.20   | 402.80   | 693.00   | 402.80   | 3074.80  | 429.20   | 456.20   | 237.90  | 136.40  | 68.30   |           |     |
| 9     | 79.60   | 143.20  | 143.20   | 389.90   | 613.30   | 389.90   | 2024.90  | 676.00   | 442.80   | 237.90  | 136.40  | 68.30   |           |     |
| 10    | 79.60   | 199.10  | 136.40   | 365.40   | 643.50   | 416.10   | 1334.90  | 676.00   | 429.20   | 237.90  | 136.40  | 62.90   |           |     |
| 11    | 73.90   | 190.00  | 116.40   | 469.70   | 569.10   | 483.70   | 1023.20  | 469.70   | 416.10   | 237.90  | 136.40  | 62.90   |           |     |
| 12    | 456.20  | 190.00  | 143.20   | 554.70   | 798.50   | 540.10   | 908.60   | 354.20   | 402.80   | 227.90  | 136.40  | 62.90   |           |     |
| 13    | 927.60  | 299.30  | 628.50   | 483.70   | 946.30   | 469.70   | 816.70   | 365.40   | 389.90   | 227.90  | 129.60  | 57.70   |           |     |
| 14    | 1109.60 | 247.70  | 1004.00  | 1066.10  | 816.70   | 456.20   | 780.70   | 321.10   | 376.90   | 227.90  | 129.60  | 57.70   |           |     |
| 15    | 1176.00 | 190.00  | 497.50   | 1581.60  | 693.00   | 442.80   | 693.00   | 310.20   | 365.40   | 227.90  | 122.90  | 57.70   |           |     |
| 16    | 469.70  | 157.30  | 456.20   | 1798.90  | 613.30   | 402.80   | 658.90   | 321.10   | 365.40   | 227.90  | 116.40  | 52.50   |           |     |
| 17    | 237.90  | 143.20  | 416.10   | 1266.10  | 526.00   | 852.80   | 613.30   | 583.60   | 354.20   | 218.10  | 116.40  | 52.50   |           |     |
| 18    | 157.30  | 136.40  | 310.20   | 2665.90  | 442.80   | 1826.50  | 583.60   | 540.10   | 354.20   | 218.10  | 116.40  | 52.50   |           |     |
| 19    | 157.30  | 136.40  | 354.20   | 12291.50 | 402.80   | 2321.60  | 583.60   | 469.70   | 354.20   | 208.70  | 109.90  | 52.50   |           |     |
| 20    | 164.50  | 164.50  | 497.50   | 9873.20  | 402.80   | 3463.50  | 583.60   | 376.90   | 354.20   | 208.70  | 109.90  | 47.60   |           |     |
| 21    | 157.30  | 237.90  | 643.50   | 11002.10 | 389.90   | 5375.80  | 569.10   | 343.20   | 354.20   | 199.10  | 109.90  | 47.60   |           |     |
| 22    | 150.20  | 218.10  | 780.70   | 10844.60 | 389.90   | 7620.10  | 540.10   | 354.20   | 354.20   | 199.10  | 109.90  | 47.60   |           |     |
| 23    | 150.20  | 199.10  | 1023.20  | 12543.30 | 658.90   | 10458.00 | 483.70   | 11719.50 | 343.20   | 190.00  | 109.90  | 47.60   |           |     |
| 24    | 143.20  | 136.40  | 834.70   | 9370.40  | 871.40   | 9584.80  | 456.20   | 12882.90 | 321.10   | 180.70  | 109.90  | 47.60   |           |     |
| 25    | 143.20  | 129.60  | 727.60   | 5118.90  | 598.60   | 5272.40  | 416.10   | 2811.90  | 321.10   | 180.70  | 103.60  | 103.60  |           |     |
| 26    | 136.40  | 136.40  | 693.00   | 2024.90  | 540.10   | 2288.00  | 483.70   | 1743.80  | 310.20   | 180.70  | 103.60  | 129.60  |           |     |
| 27    | 268.10  | 136.40  | 727.60   | 1004.00  | 497.50   | 1404.80  | 526.00   | 1220.40  | 310.20   | 180.70  | 103.60  | 122.90  |           |     |
| 28    | 554.70  | 136.40  | 889.80   | 834.70   | 456.20   | 1266.10  | 526.00   | 852.80   | 299.30   | 171.80  | 97.40   | 122.90  |           |     |
| 29    | 288.90  | 129.60  | 871.40   | 816.70   | 429.20   | 1198.10  | 526.00   | 727.60   | 299.30   | 171.80  |         | 116.40  |           |     |
| 30    | 247.70  | 129.60  | 852.80   | 780.70   | 389.90   | 1109.60  | 511.70   | 676.00   | 288.90   | 171.80  |         | 116.40  |           |     |
| 31    |         | 122.90  |          | 816.70   | 354.20   |          | 511.70   |          | 288.90   | 171.80  |         | 109.90  |           |     |
| Total | 8179.80 | 5726.10 | 13779.60 | 92175.80 | 26543.00 | 60664.30 | 24986.30 | 42108.10 | 12268.40 | 6738.20 | 3518.40 | 2349.20 | 299037.20 | Ton |
| Mean  | 272.70  | 184.70  | 459.30   | 2973.40  | 856.20   | 2022.10  | 806.00   | 1403.60  | 395.80   | 217.40  | 125.70  | 75.80   |           |     |
| Max   | 1176.00 | 511.70  | 1023.20  | 12543.30 | 5169.70  | 10458.00 | 3074.80  | 12882.90 | 643.50   | 268.10  | 157.30  | 129.60  | 12882.90  |     |
| Min   | 73.90   | 122.90  | 116.40   | 365.40   | 354.20   | 299.30   | 416.10   | 310.20   | 288.90   | 171.80  | 97.40   | 47.60   | 47.60     |     |

**WATER YEAR : 2013****TAPI RIVER BASIN****Khlong Phum Duang at Ban Tha Khanon , Surat Thani (X.36)**

Lat 09 - 01 - 44 N Long 98 - 58 - 00 E

**Location : on left bank at Ban Tha Khanon.**

|                                      |                            |                               |                             |
|--------------------------------------|----------------------------|-------------------------------|-----------------------------|
|                                      | <b>Ban</b> Tha Khanon      | <b>Amphoe</b> Khiri Ratnikhom | <b>Changwat</b> Surat Thani |
| <b>Drainge Area</b>                  | 2,968 sq.km.               |                               |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                               |                             |
| <b>Instrument Used</b>               | US.D-49                    |                               |                             |
| <b>Period of Available Records</b>   | 1989-Cont'd                |                               |                             |
| <b>Actual Measurement</b>            | 1989-Cont'd                |                               |                             |
| <b>Using Rating Curve Water Year</b> | 2013                       |                               |                             |
| <b>Number of observation</b>         | 18                         |                               |                             |
| <b>R-Square</b>                      | 0.7011                     |                               |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                               |                             |

$$QS = 29.2840 QW^{0.98030}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May      | Jun       | Jul      | Aug       | Sep       | Oct       | Nov       | Dec      | Jan      | Feb     | Mar     | Annual   |            |     |
|-------|----------|----------|-----------|----------|-----------|-----------|-----------|-----------|----------|----------|---------|---------|----------|------------|-----|
| 1     | 1456.50  | 1376.90  | 564.30    | 6868.90  | 5782.70   | 2822.50   | 3466.70   | 2622.00   | 3422.30  | 526.40   | 1663.20 | 2800.20 |          |            |     |
| 2     | 3133.80  | 1504.30  | 0.00      | 1790.20  | 12820.20  | 4187.70   | 3862.60   | 2391.00   | 2412.00  | 1408.70  | 1472.40 | 1726.70 |          |            |     |
| 3     | 2433.00  | 1695.00  | 827.00    | 2004.00  | 21449.70  | 5664.00   | 3979.70   | 4898.40   | 2433.00  | 2142.40  | 1536.10 | 3022.70 |          |            |     |
| 4     | 1249.20  | 1424.70  | 326.40    | 1790.20  | 18269.20  | 3651.70   | 4473.30   | 3444.50   | 2475.00  | 2142.40  | 1647.40 | 1156.00 |          |            |     |
| 5     | 2933.70  | 1695.00  | 0.00      | 2454.00  | 10899.10  | 2911.50   | 6579.30   | 3792.40   | 1885.30  | 2711.10  | 1865.50 | 1520.20 |          |            |     |
| 6     | 1885.30  | 1408.70  | 0.00      | 1806.10  | 7158.10   | 3022.70   | 8097.70   | 2538.00   | 1984.30  | 3400.10  | 2306.80 | 1360.90 |          |            |     |
| 7     | 2559.00  | 1845.70  | 0.00      | 1583.80  | 5307.30   | 2622.00   | 13465.10  | 2102.90   | 1758.50  | 1392.80  | 2889.20 | 1964.50 |          |            |     |
| 8     | 1520.20  | 3722.10  | 17.70     | 1265.20  | 3675.20   | 5128.90   | 16425.90  | 2348.90   | 1679.10  | 1567.90  | 1885.30 | 1504.30 |          |            |     |
| 9     | 2201.60  | 4291.60  | 77.50     | 1249.20  | 3422.30   | 4395.40   | 16293.10  | 2162.10   | 2063.30  | 592.70   | 1392.80 | 1313.10 |          |            |     |
| 10    | 2063.30  | 5040.90  | 1009.10   | 1115.90  | 3909.50   | 3886.10   | 16516.90  | 2023.80   | 1984.30  | 573.80   | 982.40  | 1424.70 |          |            |     |
| 11    | 784.00   | 2688.80  | 1583.80   | 1520.20  | 3067.10   | 2800.20   | 12820.20  | 2327.90   | 1774.30  | 592.70   | 794.70  | 859.20  |          |            |     |
| 12    | 794.70   | 1249.20  | 3089.40   | 1297.10  | 3581.40   | 3956.30   | 8754.90   | 2243.70   | 1631.50  | 535.90   | 1249.20 | 1142.60 |          |            |     |
| 13    | 730.20   | 1156.00  | 11351.30  | 1201.30  | 3067.10   | 2688.80   | 6675.90   | 2285.80   | 2063.30  | 816.20   | 1695.00 | 1049.20 |          |            |     |
| 14    | 827.00   | 2004.00  | 14610.10  | 1249.20  | 3604.80   | 3089.40   | 4670.40   | 2496.00   | 1742.60  | 805.50   | 1790.20 | 827.00  |          |            |     |
| 15    | 741.00   | 3511.00  | 12191.10  | 3022.70  | 6418.40   | 2777.90   | 4317.60   | 3355.80   | 2433.00  | 837.70   | 1964.50 | 639.90  |          |            |     |
| 16    | 649.40   | 3557.90  | 14122.10  | 4584.80  | 4265.60   | 3909.50   | 3675.20   | 3022.70   | 1865.50  | 687.10   | 2559.00 | 573.80  |          |            |     |
| 17    | 583.20   | 3067.10  | 12694.40  | 4421.40  | 3534.50   | 5099.10   | 3511.00   | 3022.70   | 1865.50  | 773.20   | 2733.40 | 440.90  |          |            |     |
| 18    | 773.20   | 1679.10  | 7993.90   | 3488.80  | 3289.20   | 7751.40   | 3839.20   | 1984.30   | 1825.90  | 658.80   | 2243.70 | 359.20  |          |            |     |
| 19    | 2004.00  | 1663.20  | 5634.30   | 3355.80  | 3111.60   | 6965.30   | 4291.60   | 2102.90   | 1984.30  | 611.60   | 1185.30 | 252.40  |          |            |     |
| 20    | 2433.00  | 1615.60  | 5396.50   | 3333.60  | 2978.20   | 4317.60   | 7350.90   | 3244.80   | 1710.90  | 602.10   | 805.50  | 4005.70 |          |            |     |
| 21    | 3000.40  | 1472.40  | 4898.40   | 2142.40  | 3022.70   | 4898.40   | 5188.40   | 4187.70   | 1599.70  | 687.10   | 928.80  | 4083.70 |          |            |     |
| 22    | 2348.90  | 1488.40  | 7126.00   | 4005.70  | 2800.20   | 6418.40   | 4641.90   | 6168.40   | 955.60   | 516.90   | 1758.50 | 5396.50 |          |            |     |
| 23    | 3839.20  | 1360.90  | 7716.80   | 9285.70  | 2933.70   | 6836.70   | 4473.30   | 8685.70   | 602.10   | 592.70   | 1536.10 | 2559.00 |          |            |     |
| 24    | 2911.50  | 1408.70  | 5842.10   | 8963.50  | 2644.30   | 5158.60   | 5664.00   | 10613.50  | 564.30   | 784.00   | 1156.00 | 1185.30 |          |            |     |
| 25    | 2559.00  | 1265.20  | 6049.80   | 5012.40  | 2755.70   | 5396.50   | 4926.90   | 6049.80   | 554.80   | 891.30   | 1089.30 | 1062.60 |          |            |     |
| 26    | 2711.10  | 1615.60  | 5842.10   | 4784.50  | 2688.80   | 6198.00   | 2933.70   | 3768.90   | 554.80   | 773.20   | 481.70  | 848.40  |          |            |     |
| 27    | 2844.70  | 1552.00  | 2800.20   | 4005.70  | 2622.00   | 5485.70   | 2601.00   | 3267.00   | 554.80   | 1035.80  | 334.60  | 1865.50 |          |            |     |
| 28    | 2644.30  | 1360.90  | 2023.80   | 2454.00  | 2867.00   | 3651.70   | 2644.30   | 2956.00   | 545.30   | 982.40   | 334.60  | 6168.40 |          |            |     |
| 29    | 2559.00  | 995.70   | 2369.90   | 2538.00  | 2844.70   | 3200.40   | 2711.10   | 2956.00   | 554.80   | 969.00   |         | 5128.90 |          |            |     |
| 30    | 2978.20  | 1049.20  | 2181.90   | 1944.70  | 2023.80   | 3534.50   | 2777.90   | 3768.90   | 554.80   | 465.40   |         | 4239.60 |          |            |     |
| 31    |          | 1345.00  |           | 1758.50  | 1825.90   |           | 1984.30   |           | 554.80   | 497.90   |         | 3244.80 |          |            |     |
| Total | 60151.60 | 61110.80 | 138339.90 | 96297.50 | 158640.00 | 132426.90 | 193614.00 | 106832.50 | 48589.70 | 31574.80 | 42281.2 | 6       | 3725.90  | 1133584.90 | Ton |
| Mean  | 2005.10  | 1971.30  | 4611.30   | 3106.40  | 5117.40   | 4414.20   | 6245.60   | 3561.10   | 1567.40  | 1018.50  | 1510.00 | 2055.70 |          |            |     |
| Max   | 3839.20  | 5040.90  | 14610.10  | 9285.70  | 21449.70  | 7751.40   | 16516.90  | 10613.50  | 3422.30  | 3400.10  | 2889.20 | 6168.40 | 21449.70 |            |     |
| Min   | 583.20   | 995.70   | 0.00      | 1115.90  | 1825.90   | 2622.00   | 1984.30   | 1984.30   | 545.30   | 465.40   | 334.60  | 252.40  | 0.00     |            |     |

**WATER YEAR : 2013****TAPI RIVER BASIN****Tapi River at Ban Yan Din Daeng , Surat Thani (X.37A)**

Lat 08 - 34 - 03 N Long 99 - 15 - 15 E

**Location : on left bank at Tambon Yan Din Daeng.**

|                                      |                            |                      |               |                  |                 |                    |
|--------------------------------------|----------------------------|----------------------|---------------|------------------|-----------------|--------------------|
|                                      | <b>Ban</b>                 | <b>Yan Din Daeng</b> | <b>Amphoe</b> | <b>Phrasaeng</b> | <b>Changwat</b> | <b>Surat Thani</b> |
| <b>Drainage Area</b>                 | 5,383                      | sq.km.               |               |                  |                 |                    |
| <b>Method of sampling</b>            | Depth Integrating          |                      |               |                  |                 |                    |
| <b>Instrument Used</b>               | US.D-49                    |                      |               |                  |                 |                    |
| <b>Period of Available Records</b>   | 1996-Cont'd                |                      |               |                  |                 |                    |
| <b>Actual Measurement</b>            | 1996-Cont'd                |                      |               |                  |                 |                    |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |               |                  |                 |                    |
| <b>Number of observation</b>         | 18                         |                      |               |                  |                 |                    |
| <b>R-Square</b>                      | 0.7111                     |                      |               |                  |                 |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                      |               |                  |                 |                    |

$$QS = 16.7950 QW^{1.01600}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date         | Apr            | May             | Jun             | Jul             | Aug              | Sep             | Oct              | Nov              | Dec              | Jan             | Feb            | Mar            | Annual           |            |
|--------------|----------------|-----------------|-----------------|-----------------|------------------|-----------------|------------------|------------------|------------------|-----------------|----------------|----------------|------------------|------------|
| 1            | 195.50         | 560.90          | 345.20          | 921.20          | 2513.40          | 1413.70         | 2513.40          | 3708.20          | 7645.60          | 1066.80         | 309.50         | 181.30         |                  |            |
| 2            | 199.10         | 669.20          | 388.20          | 903.10          | 2422.90          | 1999.10         | 2422.90          | 3426.00          | 7472.80          | 1021.30         | 298.80         | 181.30         |                  |            |
| 3            | 195.50         | 532.00          | 524.80          | 1030.40         | 2297.50          | 2907.10         | 2297.50          | 3247.90          | 7277.50          | 984.90          | 291.60         | 177.80         |                  |            |
| 4            | 192.00         | 402.60          | 611.40          | 1596.90         | 2209.00          | 3515.10         | 2209.00          | 2833.10          | 7033.40          | 957.60          | 288.00         | 174.30         |                  |            |
| 5            | 192.00         | 402.60          | 712.60          | 2341.70         | 2386.00          | 3860.60         | 2386.00          | 2297.50          | 6765.20          | 939.40          | 280.90         | 170.70         |                  |            |
| 6            | 188.40         | 424.10          | 806.90          | 3188.60         | 2847.90          | 4065.10         | 2847.90          | 1877.70          | 6448.40          | 975.80          | 270.20         | 170.70         |                  |            |
| 7            | 192.00         | 402.60          | 912.20          | 3188.60         | 2892.30          | 4027.90         | 2892.30          | 1596.90          | 6521.40          | 939.40          | 266.60         | 167.20         |                  |            |
| 8            | 192.00         | 553.70          | 1003.10         | 3025.60         | 3055.20          | 4083.70         | 3055.20          | 1432.00          | 6813.90          | 903.10          | 259.50         | 167.20         |                  |            |
| 9            | 184.90         | 524.80          | 1094.10         | 2818.30         | 3307.30          | 4102.30         | 3307.30          | 1313.20          | 6935.90          | 777.90          | 256.00         | 163.60         |                  |            |
| 10           | 184.90         | 884.90          | 1148.80         | 2578.00         | 3708.20          | 3797.40         | 3708.20          | 1276.60          | 6862.70          | 683.70          | 248.80         | 163.60         |                  |            |
| 11           | 181.30         | 1048.60         | 1285.70         | 2253.20         | 3797.40          | 3544.80         | 3797.40          | 1679.40          | 6667.70          | 640.30          | 245.30         | 160.10         |                  |            |
| 12           | 181.30         | 884.90          | 1532.70         | 1888.80         | 3574.50          | 3396.30         | 3574.50          | 2803.50          | 6350.90          | 633.10          | 241.70         | 160.10         |                  |            |
| 13           | 181.30         | 597.00          | 1910.80         | 1606.10         | 3440.80          | 3633.90         | 3440.80          | 3589.30          | 5931.50          | 611.40          | 234.60         | 156.60         |                  |            |
| 14           | 199.10         | 467.20          | 2526.30         | 1441.20         | 3366.60          | 3708.20         | 3366.60          | 3663.60          | 5501.30          | 575.30          | 231.00         | 156.60         |                  |            |
| 15           | 309.50         | 338.10          | 3426.00         | 1615.20         | 3188.60          | 3633.90         | 3188.60          | 3277.60          | 4866.30          | 553.70          | 227.50         | 156.60         |                  |            |
| 16           | 348.80         | 330.90          | 4251.20         | 1932.90         | 2951.50          | 3381.50         | 2951.50          | 2877.50          | 4232.60          | 589.70          | 223.90         | 153.00         |                  |            |
| 17           | 316.60         | 384.60          | 4754.40         | 1932.90         | 2877.50          | 3114.50         | 2877.50          | 2363.90          | 4083.70          | 625.80          | 216.80         | 153.00         |                  |            |
| 18           | 320.20         | 553.70          | 5090.30         | 1955.00         | 2818.30          | 2729.50         | 2818.30          | 2552.10          | 3619.00          | 597.00          | 213.30         | 156.60         |                  |            |
| 19           | 345.20         | 763.40          | 5258.30         | 1756.50         | 3159.00          | 2209.00         | 3159.00          | 2951.50          | 3381.50          | 539.20          | 213.30         | 156.60         |                  |            |
| 20           | 298.80         | 1048.60         | 5277.00         | 1514.40         | 3723.00          | 1966.00         | 3723.00          | 2966.30          | 3099.70          | 496.00          | 206.20         | 153.00         |                  |            |
| 21           | 256.00         | 1240.10         | 5034.20         | 1285.70         | 4363.00          | 2818.30         | 4363.00          | 2461.70          | 2685.20          | 460.00          | 206.20         | 149.50         |                  |            |
| 22           | 234.60         | 1331.40         | 4344.30         | 1158.00         | 4847.60          | 3782.50         | 4847.60          | 2877.50          | 2275.40          | 438.50          | 202.60         | 153.00         |                  |            |
| 23           | 241.70         | 1358.90         | 3322.10         | 1432.00         | 5127.60          | 3879.20         | 5127.60          | 4847.60          | 2032.20          | 416.90          | 195.50         | 149.50         |                  |            |
| 24           | 248.80         | 1377.10         | 2386.00         | 1811.60         | 5277.00          | 3173.80         | 5277.00          | 5998.80          | 1833.60          | 395.40          | 195.50         | 149.50         |                  |            |
| 25           | 266.60         | 1386.30         | 1833.60         | 1910.80         | 5295.70          | 2374.90         | 5295.70          | 6813.90          | 1651.90          | 384.60          | 192.00         | 146.00         |                  |            |
| 26           | 388.20         | 1322.30         | 1487.00         | 2109.50         | 5108.90          | 1943.90         | 5108.90          | 7698.20          | 1514.40          | 373.90          | 188.40         | 142.40         |                  |            |
| 27           | 373.90         | 1176.20         | 1249.20         | 1910.80         | 4810.30          | 1661.10         | 4810.30          | 8484.40          | 1404.60          | 366.70          | 184.90         | 138.90         |                  |            |
| 28           | 370.30         | 1030.40         | 1139.70         | 1496.10         | 4642.50          | 1496.10         | 4642.50          | 8597.30          | 1322.30          | 359.60          | 184.90         | 138.90         |                  |            |
| 29           | 611.40         | 799.60          | 1085.00         | 1148.80         | 4363.00          | 1514.40         | 4363.00          | 8315.00          | 1249.20          | 345.20          |                | 135.40         |                  |            |
| 30           | 597.00         | 575.30          | 984.90          | 939.40          | 4176.80          | 1899.80         | 4176.80          | 7961.40          | 1176.20          | 323.80          |                | 138.90         |                  |            |
| 31           |                | 395.40          |                 | 857.70          | 3990.70          |                 | 3990.70          |                  | 1112.40          | 316.60          |                | 138.90         |                  |            |
| <b>Total</b> | <b>8186.90</b> | <b>23767.40</b> | <b>65726.00</b> | <b>55549.00</b> | <b>112540.00</b> | <b>89633.60</b> | <b>112540.00</b> | <b>115789.60</b> | <b>135768.40</b> | <b>19292.60</b> | <b>6573.50</b> | <b>4860.80</b> | <b>750227.90</b> | <b>Ton</b> |
| <b>Mean</b>  | <b>272.90</b>  | <b>766.70</b>   | <b>2190.90</b>  | <b>1791.90</b>  | <b>3630.30</b>   | <b>2987.80</b>  | <b>3630.30</b>   | <b>3859.70</b>   | <b>4379.60</b>   | <b>622.30</b>   | <b>234.80</b>  | <b>156.80</b>  |                  |            |
| <b>Max</b>   | <b>611.40</b>  | <b>1386.30</b>  | <b>5277.00</b>  | <b>3188.60</b>  | <b>5295.70</b>   | <b>4102.30</b>  | <b>5295.70</b>   | <b>8597.30</b>   | <b>7645.60</b>   | <b>1066.80</b>  | <b>309.50</b>  | <b>181.30</b>  | <b>8597.30</b>   |            |
| <b>Min</b>   | <b>181.30</b>  | <b>330.90</b>   | <b>345.20</b>   | <b>857.70</b>   | <b>2209.00</b>   | <b>1413.70</b>  | <b>2209.00</b>   | <b>1276.60</b>   | <b>1112.40</b>   | <b>316.60</b>   | <b>184.90</b>  | <b>135.40</b>  | <b>135.40</b>    |            |

**WATER YEAR : 2013****TAPI RIVER BASIN****Tapi River at Ban Tha Pho , Nakhon Si Thammarat (X.195)**

Lat 08 - 30 - 24 N Long 99 - 30 - 39 E

**Location : on left bank at Ban Tha Pho.**

|                                      | Ban Tha Pho                | Amphoe Chawang | Changwat Nakhon Si Thammarat |
|--------------------------------------|----------------------------|----------------|------------------------------|
| <b>Drainage Area</b>                 | 488 sq.km.                 |                |                              |
| <b>Method of sampling</b>            | Depth Integrating          |                |                              |
| <b>Instrument Used</b>               | US.D-49                    |                |                              |
| <b>Period of Available Records</b>   | 1998-Cont'd                |                |                              |
| <b>Actual Measurement</b>            | 1998-Cont'd                |                |                              |
| <b>Using Rating Curve Water Year</b> | 2013                       |                |                              |
| <b>Number of observation</b>         | 18                         |                |                              |
| <b>R-Square</b>                      | 0.7477                     |                |                              |
| <b>Remarks</b>                       | Continued Sediment Station |                |                              |

$$QS = 37.7260 QW^{0.89120}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep      | Oct      | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |
|-------|---------|---------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|-----------|
| 1     | 114.00  | 195.90  | 218.90   | 462.60   | 777.10   | 619.30   | 760.80   | 435.20   | 2069.60  | 365.90  | 137.80  | 64.30   |           |
| 2     | 119.90  | 178.50  | 252.70   | 503.20   | 736.30   | 657.80   | 728.10   | 400.60   | 1642.80  | 365.90  | 137.80  | 57.70   |           |
| 3     | 119.90  | 201.70  | 224.50   | 603.70   | 704.10   | 673.20   | 719.90   | 373.00   | 1581.00  | 365.90  | 131.80  | 57.70   |           |
| 4     | 119.90  | 207.40  | 218.90   | 681.00   | 825.70   | 634.80   | 719.90   | 351.90   | 1389.40  | 359.00  | 119.90  | 64.30   |           |
| 5     | 119.90  | 184.30  | 275.00   | 760.80   | 809.50   | 673.20   | 785.20   | 330.50   | 2316.30  | 275.00  | 114.00  | 64.30   |           |
| 6     | 119.90  | 213.10  | 247.10   | 696.40   | 925.30   | 688.80   | 736.30   | 316.30   | 2069.60  | 230.20  | 107.90  | 64.30   |           |
| 7     | 119.90  | 269.50  | 224.50   | 688.80   | 1035.60  | 657.80   | 736.30   | 309.30   | 2316.30  | 213.10  | 114.00  | 64.30   |           |
| 8     | 119.90  | 224.50  | 213.10   | 627.20   | 968.00   | 627.20   | 704.10   | 280.50   | 1591.20  | 213.10  | 114.00  | 64.30   |           |
| 9     | 119.90  | 224.50  | 207.40   | 588.10   | 865.90   | 627.20   | 564.50   | 263.90   | 1330.80  | 213.10  | 101.60  | 64.30   |           |
| 10    | 119.90  | 195.90  | 252.70   | 543.40   | 688.80   | 657.80   | 536.60   | 269.50   | 1185.80  | 213.10  | 101.60  | 57.70   |           |
| 11    | 119.90  | 190.10  | 263.90   | 523.20   | 688.80   | 627.20   | 510.10   | 280.50   | 1035.60  | 213.10  | 101.60  | 57.70   |           |
| 12    | 149.60  | 184.30  | 295.00   | 482.80   | 696.40   | 711.70   | 543.40   | 482.80   | 825.70   | 213.10  | 95.60   | 51.20   |           |
| 13    | 337.80  | 172.60  | 442.00   | 337.80   | 933.70   | 825.70   | 611.60   | 344.70   | 768.90   | 213.10  | 101.60  | 51.20   |           |
| 14    | 442.00  | 166.80  | 536.60   | 316.30   | 833.80   | 793.30   | 696.40   | 302.00   | 704.10   | 207.40  | 95.60   | 51.20   |           |
| 15    | 235.90  | 155.20  | 595.80   | 309.30   | 777.10   | 744.50   | 849.90   | 280.50   | 673.20   | 235.90  | 89.30   | 51.20   |           |
| 16    | 201.70  | 149.60  | 665.70   | 309.30   | 728.10   | 711.70   | 760.80   | 275.00   | 642.40   | 241.50  | 83.20   | 57.70   |           |
| 17    | 213.10  | 161.10  | 681.00   | 330.50   | 673.20   | 696.40   | 728.10   | 373.00   | 595.80   | 235.90  | 83.20   | 42.40   |           |
| 18    | 201.70  | 241.50  | 657.80   | 316.30   | 627.20   | 704.10   | 899.80   | 351.90   | 588.10   | 224.50  | 83.20   | 38.40   |           |
| 19    | 172.60  | 184.30  | 704.10   | 309.30   | 588.10   | 696.40   | 908.20   | 407.70   | 543.40   | 213.10  | 77.10   | 40.40   |           |
| 20    | 161.10  | 166.80  | 711.70   | 287.60   | 556.80   | 857.90   | 916.70   | 874.00   | 523.20   | 207.40  | 77.10   | 44.40   |           |
| 21    | 149.60  | 166.80  | 627.20   | 269.50   | 536.60   | 968.00   | 1018.70  | 1043.90  | 503.20   | 184.30  | 70.60   | 44.40   |           |
| 22    | 195.90  | 178.50  | 580.20   | 269.50   | 543.40   | 882.70   | 959.40   | 2092.70  | 489.70   | 178.50  | 70.60   | 40.40   |           |
| 23    | 166.80  | 230.20  | 543.40   | 407.70   | 516.70   | 865.90   | 793.30   | 4333.90  | 469.20   | 178.50  | 70.60   | 40.40   |           |
| 24    | 155.20  | 302.00  | 516.70   | 373.00   | 523.20   | 825.70   | 503.20   | 2739.00  | 455.60   | 178.50  | 70.60   | 38.40   |           |
| 25    | 161.10  | 295.00  | 503.20   | 379.90   | 543.40   | 793.30   | 442.00   | 1687.30  | 442.00   | 178.50  | 70.60   | 36.40   |           |
| 26    | 161.10  | 263.90  | 482.80   | 344.70   | 543.40   | 768.90   | 442.00   | 1350.40  | 428.20   | 178.50  | 64.30   | 38.40   |           |
| 27    | 184.30  | 230.20  | 556.80   | 309.30   | 516.70   | 752.60   | 421.50   | 1252.20  | 421.50   | 178.50  | 64.30   | 36.40   |           |
| 28    | 184.30  | 235.90  | 510.10   | 287.60   | 489.70   | 752.60   | 523.20   | 1167.00  | 407.70   | 178.50  | 64.30   | 36.40   |           |
| 29    | 172.60  | 224.50  | 489.70   | 269.50   | 556.80   | 760.80   | 793.30   | 1499.90  | 400.60   | 172.60  |         | 36.40   |           |
| 30    | 178.50  | 224.50  | 469.20   | 263.90   | 634.80   | 841.80   | 556.80   | 2292.90  | 393.80   | 166.80  |         | 36.40   |           |
| 31    |         | 247.10  |          | 309.30   | 657.80   |          | 476.10   |          | 387.00   | 166.80  |         | 36.40   |           |
| Total | 5137.90 | 6466.20 | 13167.70 | 13161.50 | 21502.00 | 22098.30 | 21346.20 | 26762.00 | 29191.70 | 6959.30 | 2613.80 | 1529.40 | 169936.00 |
| Mean  | 171.30  | 208.60  | 438.90   | 424.60   | 693.60   | 736.60   | 688.60   | 892.10   | 941.70   | 224.50  | 93.40   | 49.30   |           |
| Max   | 442.00  | 302.00  | 711.70   | 760.80   | 1035.60  | 968.00   | 1018.70  | 4333.90  | 2316.30  | 365.90  | 137.80  | 64.30   | 4333.90   |
| Min   | 114.00  | 149.60  | 207.40   | 263.90   | 489.70   | 619.30   | 421.50   | 263.90   | 387.00   | 166.80  | 64.30   | 36.40   | 36.40     |

**WATER YEAR : 2013****TAPI RIVER BASIN****Khlong Sin Pun at Ban Bang Rup , Surat Thani (X.198)**

Lat 08 - 24 - 24 N Long 99 - 15 - 05 E

**Location : on right bank at Ban Bang Rup.**

|                                      |                            |                 |               |                  |                 |                    |
|--------------------------------------|----------------------------|-----------------|---------------|------------------|-----------------|--------------------|
|                                      | <b>Ban</b>                 | <b>Bang Rup</b> | <b>Amphoe</b> | <b>Phrasaeng</b> | <b>Changwat</b> | <b>Surat Thani</b> |
| <b>Drainage Area</b>                 | 866                        | sq.km.          |               |                  |                 |                    |
| <b>Method of sampling</b>            | Depth                      | Integrating     |               |                  |                 |                    |
| <b>Instrument Used</b>               | US.D-49                    |                 |               |                  |                 |                    |
| <b>Period of Available Records</b>   | 2007-Cont'd                |                 |               |                  |                 |                    |
| <b>Actual Measurement</b>            | 2007-Cont'd                |                 |               |                  |                 |                    |
| <b>Using Rating Curve Water Year</b> | 2013                       |                 |               |                  |                 |                    |
| <b>Number of observation</b>         | 18                         |                 |               |                  |                 |                    |
| <b>R-Square</b>                      | 0.7661                     |                 |               |                  |                 |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                 |               |                  |                 |                    |

$$QS = 18.7870 QW^{0.98090}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul     | Aug     | Sep     | Oct      | Nov      | Dec      | Jan     | Feb    | Mar    | Annual   |            |
|-------|---------|---------|---------|---------|---------|---------|----------|----------|----------|---------|--------|--------|----------|------------|
| 1     | 22.50   | 124.80  | 33.40   | 62.40   | 191.40  | 65.10   | 107.30   | 462.50   | 1329.40  | 85.00   | 37.10  | 20.60  |          |            |
| 2     | 22.50   | 113.20  | 55.20   | 102.70  | 266.50  | 154.20  | 225.70   | 446.50   | 1191.30  | 76.40   | 36.20  | 21.50  |          |            |
| 3     | 21.50   | 101.60  | 67.80   | 145.00  | 316.00  | 458.00  | 337.30   | 410.50   | 989.60   | 69.60   | 35.30  | 18.80  |          |            |
| 4     | 21.50   | 88.20   | 58.80   | 206.40  | 351.20  | 656.20  | 345.30   | 345.30   | 719.60   | 62.40   | 33.40  | 16.90  |          |            |
| 5     | 20.60   | 67.80   | 48.00   | 288.60  | 381.10  | 647.80  | 230.30   | 255.50   | 534.90   | 58.80   | 33.40  | 15.10  |          |            |
| 6     | 20.60   | 52.50   | 43.40   | 428.50  | 394.70  | 556.10  | 188.40   | 171.80   | 490.70   | 54.30   | 32.50  | 13.20  |          |            |
| 7     | 19.70   | 69.60   | 38.00   | 462.50  | 403.70  | 355.20  | 173.40   | 142.30   | 537.10   | 49.80   | 36.20  | 13.20  |          |            |
| 8     | 18.80   | 119.10  | 48.90   | 417.20  | 401.40  | 353.30  | 222.90   | 128.30   | 799.80   | 61.50   | 41.60  | 11.40  |          |            |
| 9     | 17.90   | 183.80  | 61.50   | 367.50  | 367.50  | 372.10  | 310.60   | 126.00   | 775.80   | 76.40   | 38.90  | 10.50  |          |            |
| 10    | 16.90   | 274.40  | 85.00   | 329.20  | 292.30  | 378.80  | 367.50   | 158.10   | 599.90   | 66.00   | 37.10  | 9.50   |          |            |
| 11    | 16.90   | 349.30  | 116.60  | 319.70  | 243.60  | 408.20  | 527.80   | 254.10   | 469.60   | 59.70   | 37.10  | 9.50   |          |            |
| 12    | 18.80   | 242.20  | 199.00  | 294.20  | 222.90  | 490.70  | 594.70   | 415.00   | 359.40   | 58.80   | 34.30  | 9.50   |          |            |
| 13    | 30.70   | 191.40  | 288.60  | 282.30  | 265.00  | 532.50  | 607.80   | 469.60   | 310.60   | 57.00   | 29.80  | 9.50   |          |            |
| 14    | 32.50   | 167.40  | 317.90  | 277.60  | 410.50  | 577.90  | 589.90   | 367.50   | 240.80   | 55.20   | 28.90  | 9.50   |          |            |
| 15    | 34.30   | 130.60  | 387.90  | 271.30  | 492.90  | 483.60  | 546.50   | 294.20   | 203.40   | 61.50   | 28.00  | 9.50   |          |            |
| 16    | 37.10   | 86.10   | 511.60  | 263.40  | 417.20  | 317.90  | 442.00   | 297.70   | 182.40   | 66.00   | 26.10  | 9.50   |          |            |
| 17    | 44.30   | 69.60   | 607.80  | 248.20  | 277.60  | 254.10  | 385.60   | 207.80   | 191.40   | 70.50   | 25.20  | 9.50   |          |            |
| 18    | 51.60   | 58.80   | 615.80  | 230.30  | 156.80  | 180.80  | 333.30   | 231.70   | 285.40   | 76.40   | 23.40  | 9.50   |          |            |
| 19    | 54.30   | 42.50   | 544.20  | 206.40  | 122.40  | 135.20  | 260.20   | 341.30   | 369.80   | 76.40   | 23.40  | 9.50   |          |            |
| 20    | 55.20   | 43.40   | 437.50  | 179.40  | 100.60  | 128.30  | 265.00   | 359.40   | 394.70   | 70.50   | 22.50  | 9.50   |          |            |
| 21    | 48.00   | 46.20   | 295.90  | 156.80  | 87.20   | 124.80  | 481.30   | 442.00   | 266.50   | 66.00   | 22.50  | 8.60   |          |            |
| 22    | 40.70   | 48.00   | 164.80  | 137.50  | 73.20   | 138.60  | 687.50   | 546.50   | 203.40   | 61.50   | 22.50  | 8.60   |          |            |
| 23    | 33.40   | 48.00   | 90.40   | 124.80  | 63.30   | 164.80  | 823.80   | 728.90   | 177.80   | 55.20   | 21.50  | 8.60   |          |            |
| 24    | 28.00   | 48.00   | 67.80   | 122.40  | 61.50   | 185.40  | 895.70   | 1031.70  | 145.00   | 49.80   | 21.50  | 7.60   |          |            |
| 25    | 28.00   | 48.00   | 63.30   | 122.40  | 59.70   | 135.20  | 905.90   | 1165.80  | 137.50   | 43.40   | 19.70  | 7.60   |          |            |
| 26    | 28.00   | 48.90   | 60.60   | 121.20  | 57.90   | 95.90   | 885.40   | 1348.00  | 120.10   | 40.70   | 18.80  | 6.70   |          |            |
| 27    | 23.40   | 57.90   | 57.00   | 120.10  | 56.10   | 91.40   | 707.20   | 1475.40  | 109.80   | 39.80   | 17.90  | 5.80   |          |            |
| 28    | 30.70   | 61.50   | 56.10   | 119.10  | 56.10   | 86.10   | 485.80   | 1516.10  | 99.30    | 37.10   | 17.90  | 5.80   |          |            |
| 29    | 120.10  | 45.20   | 53.40   | 117.80  | 59.70   | 77.50   | 399.20   | 1490.70  | 94.70    | 37.10   |        | 5.80   |          |            |
| 30    | 167.40  | 32.50   | 50.70   | 116.60  | 62.40   | 72.30   | 460.20   | 1389.90  | 92.50    | 37.10   |        | 5.80   |          |            |
| 31    |         | 31.60   |         | 114.40  | 64.20   |         | 472.00   |          | 90.40    | 37.10   |        | 4.80   |          |            |
| Total | 1125.90 | 3092.10 | 5526.90 | 6755.90 | 6776.60 | 8678.00 | 14265.50 | 17020.10 | 12512.60 | 1817.00 | 802.70 | 321.40 | 78694.70 | <b>Ton</b> |
| Mean  | 37.50   | 99.70   | 184.20  | 217.90  | 218.60  | 289.30  | 460.20   | 567.30   | 403.60   | 58.60   | 28.70  | 10.40  |          |            |
| Max   | 167.40  | 349.30  | 615.80  | 462.50  | 492.90  | 656.20  | 905.90   | 1516.10  | 1329.40  | 85.00   | 41.60  | 21.50  | 1516.10  |            |
| Min   | 16.90   | 31.60   | 33.40   | 62.40   | 56.10   | 65.10   | 107.30   | 126.00   | 90.40    | 37.10   | 17.90  | 4.80   | 4.80     |            |

**WATER YEAR : 2013****TAPI RIVER BASIN****Lower Khlong I - Pan at Ban Arpart , Surat Thani (X.260)**

Lat 08 - 32 - 28 N Long 99 - 13 - 25 E

**Location : on left bank at Ban Arpart.**

|                                      |                            |                         |                             |
|--------------------------------------|----------------------------|-------------------------|-----------------------------|
|                                      | <b>Ban</b> Arpart          | <b>Amphoe</b> Phrasaeng | <b>Changwat</b> Surat Thani |
| <b>Drainage Area</b>                 | 2,076 sq.km.               |                         |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                             |
| <b>Instrument Used</b>               | US.D-49                    |                         |                             |
| <b>Period of Available Records</b>   | 2009-Cont'd                |                         |                             |
| <b>Actual Measurement</b>            | 2009-Cont'd                |                         |                             |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                             |
| <b>Number of observation</b>         | 18                         |                         |                             |
| <b>R-Square</b>                      | 0.8136                     |                         |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                             |

$$QS = 17.2330 QW^{1.02000}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May      | Jun      | Jul      | Aug      | Sep      | Oct      | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |            |
|-------|---------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|-----------|------------|
| 1     | 48.90   | 272.00   | 196.70   | 272.00   | 579.20   | 558.10   | 647.40   | 1267.40  | 2236.10  | 293.90  | 85.40   | 85.40   |           |            |
| 2     | 48.90   | 246.90   | 188.90   | 313.20   | 1179.90  | 939.00   | 660.80   | 1106.40  | 2188.70  | 263.60  | 81.70   | 70.90   |           |            |
| 3     | 47.50   | 219.40   | 181.40   | 374.20   | 1824.10  | 1370.70  | 600.50   | 863.20   | 2154.90  | 241.40  | 79.90   | 52.80   |           |            |
| 4     | 47.50   | 204.20   | 166.70   | 486.70   | 2080.60  | 1138.00  | 570.70   | 759.70   | 2053.50  | 233.00  | 78.10   | 46.20   |           |            |
| 5     | 46.20   | 191.50   | 157.50   | 710.10   | 2006.20  | 1185.20  | 596.10   | 630.20   | 1911.70  | 222.00  | 78.10   | 44.80   |           |            |
| 6     | 44.80   | 178.80   | 132.40   | 912.80   | 1756.70  | 1244.40  | 732.60   | 513.00   | 1817.30  | 222.00  | 74.50   | 42.10   |           |            |
| 7     | 44.80   | 219.40   | 121.80   | 705.60   | 1547.70  | 1250.20  | 1017.40  | 472.40   | 1891.50  | 211.80  | 74.50   | 42.10   |           |            |
| 8     | 43.50   | 384.60   | 110.80   | 701.20   | 1411.00  | 1179.90  | 1278.90  | 423.10   | 2060.30  | 191.50  | 74.50   | 42.10   |           |            |
| 9     | 43.50   | 461.70   | 105.30   | 777.70   | 1370.70  | 1122.20  | 1382.20  | 398.60   | 1992.70  | 173.80  | 70.90   | 42.10   |           |            |
| 10    | 42.10   | 604.80   | 94.40    | 732.60   | 1342.00  | 1080.30  | 1560.60  | 423.10   | 1965.70  | 164.50  | 69.10   | 47.50   |           |            |
| 11    | 42.10   | 505.40   | 263.60   | 678.80   | 1393.70  | 1048.80  | 1439.70  | 634.40   | 1871.30  | 157.50  | 65.50   | 47.50   |           |            |
| 12    | 42.10   | 353.10   | 791.10   | 535.50   | 1445.50  | 1101.20  | 1153.70  | 899.30   | 1716.30  | 152.90  | 65.50   | 47.50   |           |            |
| 13    | 40.80   | 222.00   | 1324.80  | 516.70   | 1463.50  | 1138.00  | 1117.10  | 1296.10  | 1638.40  | 146.10  | 63.60   | 47.50   |           |            |
| 14    | 63.60   | 176.20   | 1677.20  | 524.20   | 1534.70  | 1096.10  | 1027.90  | 1605.90  | 1470.00  | 141.50  | 61.80   | 47.50   |           |            |
| 15    | 101.70  | 206.80   | 1938.70  | 562.20   | 1319.00  | 1027.90  | 923.20   | 1451.20  | 1319.00  | 139.10  | 60.00   | 47.50   |           |            |
| 16    | 99.90   | 363.50   | 2134.60  | 570.70   | 986.00   | 831.70   | 849.70   | 1382.20  | 1250.20  | 136.90  | 60.00   | 47.50   |           |            |
| 17    | 76.30   | 566.60   | 2314.50  | 550.60   | 764.10   | 750.60   | 822.60   | 1324.80  | 1216.70  | 127.80  | 56.40   | 47.50   |           |            |
| 18    | 103.50  | 546.80   | 2479.00  | 535.50   | 692.20   | 651.80   | 818.10   | 1200.90  | 1127.40  | 123.60  | 54.60   | 47.50   |           |            |
| 19    | 96.30   | 381.10   | 2603.10  | 558.10   | 583.50   | 539.30   | 959.90   | 991.30   | 928.40   | 118.10  | 52.80   | 47.50   |           |            |
| 20    | 74.50   | 238.60   | 2548.80  | 596.10   | 490.40   | 642.90   | 1143.20  | 912.80   | 773.10   | 114.50  | 52.80   | 47.50   |           |            |
| 21    | 60.00   | 293.90   | 2195.50  | 621.80   | 531.80   | 1233.00  | 1330.50  | 949.50   | 687.80   | 114.50  | 52.80   | 47.50   |           |            |
| 22    | 51.60   | 426.70   | 1709.70  | 656.30   | 475.80   | 1664.30  | 1776.90  | 1324.80  | 570.70   | 110.80  | 52.80   | 47.50   |           |            |
| 23    | 48.90   | 528.00   | 1211.60  | 705.60   | 374.20   | 1502.20  | 1824.10  | 1864.50  | 447.70   | 110.80  | 52.80   | 46.20   |           |            |
| 24    | 48.90   | 596.10   | 872.10   | 845.20   | 349.50   | 975.50   | 1878.00  | 2229.30  | 412.70   | 105.30  | 52.80   | 46.20   |           |            |
| 25    | 125.40  | 468.80   | 647.40   | 750.60   | 339.30   | 660.80   | 1911.70  | 2587.60  | 384.60   | 99.90   | 52.80   | 43.50   |           |            |
| 26    | 230.30  | 332.80   | 468.80   | 613.30   | 329.60   | 490.40   | 1790.40  | 2805.00  | 363.50   | 96.30   | 70.90   | 39.40   |           |            |
| 27    | 274.70  | 316.60   | 353.10   | 535.50   | 326.20   | 405.50   | 1743.20  | 2836.00  | 353.10   | 96.30   | 89.00   | 36.70   |           |            |
| 28    | 241.40  | 290.50   | 293.90   | 444.30   | 398.60   | 381.10   | 1723.00  | 2696.20  | 342.60   | 96.30   | 87.20   | 36.70   |           |            |
| 29    | 274.70  | 244.20   | 269.20   | 405.50   | 531.80   | 388.20   | 1547.70  | 2510.00  | 329.60   | 94.40   |         | 36.70   |           |            |
| 30    | 306.70  | 211.80   | 255.30   | 391.50   | 583.50   | 458.30   | 1347.70  | 2365.20  | 316.60   | 94.40   |         | 36.70   |           |            |
| 31    |         | 196.70   |          | 374.20   | 562.20   |          | 1324.80  |          | 306.70   | 92.60   |         | 38.00   |           |            |
| Total | 2861.10 | 10449.50 | 27807.90 | 17958.30 | 30573.20 | 28055.60 | 37500.30 | 40724.10 | 38098.80 | 4687.10 | 1870.80 | 1446.10 | 242032.80 | <b>Ton</b> |
| Mean  | 95.40   | 337.10   | 926.90   | 579.30   | 986.20   | 935.20   | 1209.70  | 1357.50  | 1229.00  | 151.20  | 66.80   | 46.60   |           |            |
| Max   | 306.70  | 604.80   | 2603.10  | 912.80   | 2080.60  | 1664.30  | 1911.70  | 2836.00  | 2236.10  | 293.90  | 89.00   | 85.40   | 2836.00   |            |
| Min   | 40.80   | 176.20   | 94.40    | 272.00   | 326.20   | 381.10   | 570.70   | 398.60   | 306.70   | 92.60   | 52.80   | 36.70   | 36.70     |            |

**WATER YEAR : 2013****THALE SAP SONGKHLA****Khlong Ratthaphum at Ban Nasithong , Songkhla (X.67A)**

Lat 07 - 06 - 50 N Long 100 - 12 - 15 E

**Location : on right bank at Ban Nasithong.**

|                                      |                            |                  |               |                   |                 |                 |
|--------------------------------------|----------------------------|------------------|---------------|-------------------|-----------------|-----------------|
|                                      | <b>Ban</b>                 | <b>Nasithong</b> | <b>Amphoe</b> | <b>Ratthaphum</b> | <b>Changwat</b> | <b>Songkhla</b> |
| <b>Drainage Area</b>                 | 248                        | sq.km.           |               |                   |                 |                 |
| <b>Method of sampling</b>            | Depth                      | Integrating      |               |                   |                 |                 |
| <b>Instrument Used</b>               | US.D-49                    |                  |               |                   |                 |                 |
| <b>Period of Available Records</b>   | 2006-Cont'd                |                  |               |                   |                 |                 |
| <b>Actual Measurement</b>            | 2006-Cont'd                |                  |               |                   |                 |                 |
| <b>Using Rating Curve Water Year</b> | 2013                       |                  |               |                   |                 |                 |
| <b>Number of observation</b>         | 20                         |                  |               |                   |                 |                 |
| <b>R-Square</b>                      | 0.8368                     |                  |               |                   |                 |                 |
| <b>Remarks</b>                       | Continued Sediment Station |                  |               |                   |                 |                 |

$$QS = 3.8844 QW^{1.47830}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul    | Aug     | Sep    | Oct     | Nov      | Dec      | Jan     | Feb    | Mar    | Annual   |            |
|-------|---------|---------|---------|--------|---------|--------|---------|----------|----------|---------|--------|--------|----------|------------|
| 1     | 22.10   | 59.00   | 19.70   | 37.30  | 24.50   | 31.10  | 37.30   | 125.60   | 1064.80  | 95.90   | 34.00  | 14.20  |          |            |
| 2     | 20.90   | 64.90   | 18.60   | 39.00  | 34.00   | 29.70  | 35.70   | 110.50   | 2001.80  | 93.00   | 35.70  | 13.10  |          |            |
| 3     | 19.70   | 69.00   | 17.40   | 40.70  | 40.70   | 29.70  | 35.70   | 95.90    | 3085.90  | 90.30   | 37.30  | 12.10  |          |            |
| 4     | 19.70   | 82.20   | 16.30   | 42.40  | 42.40   | 27.10  | 37.30   | 69.00    | 1742.10  | 90.30   | 40.70  | 11.10  |          |            |
| 5     | 19.70   | 84.80   | 34.00   | 39.00  | 46.00   | 25.80  | 39.00   | 64.90    | 2723.00  | 87.60   | 42.40  | 10.20  |          |            |
| 6     | 24.50   | 95.90   | 35.70   | 37.30  | 40.70   | 24.50  | 147.40  | 140.00   | 3549.30  | 84.80   | 42.40  | 9.30   |          |            |
| 7     | 27.10   | 125.60  | 37.30   | 35.70  | 35.70   | 34.00  | 154.90  | 101.60   | 2486.30  | 82.20   | 44.20  | 8.60   |          |            |
| 8     | 22.10   | 162.50  | 40.70   | 35.70  | 32.40   | 35.70  | 104.60  | 282.00   | 1579.10  | 76.80   | 46.00  | 7.90   |          |            |
| 9     | 20.90   | 95.90   | 47.80   | 34.00  | 34.00   | 39.00  | 79.40   | 243.40   | 897.00   | 69.00   | 47.80  | 7.30   |          |            |
| 10    | 19.70   | 71.50   | 61.00   | 31.10  | 35.70   | 42.40  | 64.90   | 147.40   | 528.00   | 69.00   | 49.60  | 6.70   |          |            |
| 11    | 31.10   | 59.00   | 82.20   | 29.70  | 37.30   | 69.00  | 62.90   | 76.80    | 407.20   | 66.90   | 46.00  | 6.10   |          |            |
| 12    | 29.70   | 49.60   | 962.90  | 29.70  | 34.00   | 79.40  | 59.00   | 158.70   | 365.30   | 59.00   | 42.40  | 6.10   |          |            |
| 13    | 27.10   | 46.00   | 407.20  | 28.40  | 32.40   | 76.80  | 53.30   | 330.60   | 347.70   | 55.20   | 39.00  | 5.50   |          |            |
| 14    | 27.10   | 42.40   | 238.90  | 27.10  | 37.30   | 37.30  | 40.70   | 535.40   | 330.60   | 53.30   | 35.70  | 4.90   |          |            |
| 15    | 47.80   | 40.70   | 272.20  | 25.80  | 37.30   | 29.70  | 39.00   | 229.60   | 297.10   | 51.40   | 32.40  | 6.10   |          |            |
| 16    | 282.00  | 37.30   | 297.10  | 25.80  | 39.00   | 25.80  | 35.70   | 119.40   | 248.30   | 49.60   | 29.70  | 7.30   |          |            |
| 17    | 693.60  | 32.40   | 433.90  | 27.10  | 40.70   | 24.50  | 34.00   | 113.40   | 238.90   | 49.60   | 25.80  | 19.70  |          |            |
| 18    | 650.10  | 35.70   | 267.50  | 25.80  | 42.40   | 24.50  | 34.00   | 129.10   | 202.40   | 47.80   | 24.50  | 20.90  |          |            |
| 19    | 267.50  | 40.70   | 154.90  | 24.50  | 42.40   | 24.50  | 74.10   | 234.10   | 248.30   | 46.00   | 23.30  | 19.70  |          |            |
| 20    | 122.40  | 35.70   | 98.80   | 23.30  | 44.20   | 24.50  | 353.60  | 1322.80  | 202.40   | 44.20   | 22.10  | 18.60  |          |            |
| 21    | 59.00   | 32.40   | 69.00   | 22.10  | 46.00   | 23.30  | 336.20  | 2405.00  | 202.40   | 42.40   | 20.90  | 17.40  |          |            |
| 22    | 47.80   | 32.40   | 61.00   | 20.90  | 47.80   | 22.10  | 220.40  | 5216.40  | 182.10   | 40.70   | 19.70  | 16.30  |          |            |
| 23    | 44.20   | 31.10   | 51.40   | 19.70  | 49.60   | 20.90  | 95.90   | 4471.40  | 170.30   | 39.00   | 18.60  | 15.20  |          |            |
| 24    | 71.50   | 29.70   | 47.80   | 18.60  | 51.40   | 19.70  | 113.40  | 1531.20  | 162.50   | 37.30   | 18.60  | 12.10  |          |            |
| 25    | 119.40  | 28.40   | 46.00   | 19.70  | 53.30   | 19.70  | 129.10  | 843.50   | 151.10   | 35.70   | 17.40  | 7.90   |          |            |
| 26    | 93.00   | 27.10   | 44.20   | 18.60  | 53.30   | 19.70  | 151.10  | 491.00   | 143.70   | 32.40   | 17.40  | 6.10   |          |            |
| 27    | 61.00   | 25.80   | 39.00   | 17.40  | 55.20   | 17.40  | 158.70  | 407.20   | 125.60   | 32.40   | 16.30  | 6.10   |          |            |
| 28    | 55.20   | 24.50   | 34.00   | 16.30  | 49.60   | 28.40  | 174.20  | 574.50   | 113.40   | 29.70   | 14.20  | 6.10   |          |            |
| 29    | 53.30   | 23.30   | 39.00   | 16.30  | 40.70   | 37.30  | 324.80  | 996.60   | 101.60   | 29.70   |        | 6.10   |          |            |
| 30    | 49.60   | 22.10   | 37.30   | 15.20  | 29.70   | 40.70  | 182.10  | 780.40   | 95.90    | 29.70   |        | 5.50   |          |            |
| 31    |         | 19.70   |         | 15.20  | 29.70   |        | 129.10  |          | 93.00    | 28.40   |        | 5.50   |          |            |
| Total | 3048.80 | 1627.30 | 4012.80 | 839.40 | 1259.40 | 984.20 | 3537.50 | 22347.40 | 24087.10 | 1739.30 | 884.10 | 319.70 | 64687.00 | <b>Ton</b> |
| Mean  | 101.60  | 52.50   | 133.80  | 27.10  | 40.60   | 32.80  | 114.10  | 744.90   | 777.00   | 56.10   | 31.60  | 10.30  |          |            |
| Max   | 693.60  | 162.50  | 962.90  | 42.40  | 55.20   | 79.40  | 353.60  | 5216.40  | 3549.30  | 95.90   | 49.60  | 20.90  | 5216.40  |            |
| Min   | 19.70   | 19.70   | 16.30   | 15.20  | 24.50   | 17.40  | 34.00   | 64.90    | 93.00    | 28.40   | 14.20  | 4.90   | 4.90     |            |

**WATER YEAR : 2013****THALE SAP SONGKHLA****Khlong Tam at Ban Khuan Lang , Songkhla (X.71B)**

Lat 06 - 59 - 15 N Long 100 - 25 - 27 E

Location : on left bank at the bridge.

|                                      |                            |                       |                          |
|--------------------------------------|----------------------------|-----------------------|--------------------------|
|                                      | <b>Ban</b> Khuan Lang      | <b>Amphoe</b> Hat Yai | <b>Changwat</b> Songkhla |
| <b>Drainage Area</b>                 | 148 sq.km.                 |                       |                          |
| <b>Method of sampling</b>            | Depth Integrating          |                       |                          |
| <b>Instrument Used</b>               | US.D-49                    |                       |                          |
| <b>Period of Available Records</b>   | 2004-Cont'd                |                       |                          |
| <b>Actual Measurement</b>            | 2004-Cont'd                |                       |                          |
| <b>Using Rating Curve Water Year</b> | 2013                       |                       |                          |
| <b>Number of observation</b>         | 22                         |                       |                          |
| <b>R-Square</b>                      | 0.9318                     |                       |                          |
| <b>Remarks</b>                       | Continued Sediment Station |                       |                          |

$$QS = 11.4050 QW^{1.01070}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun     | Jul    | Aug    | Sep    | Oct    | Nov     | Dec     | Jan   | Feb   | Mar  | Annual   |            |
|-------|--------|--------|---------|--------|--------|--------|--------|---------|---------|-------|-------|------|----------|------------|
| 1     | 8.80   | 10.70  | 9.00    | 11.90  | 8.80   | 11.20  | 9.00   | 6.80    | 239.70  | 1.90  | 0.60  | 0.20 |          |            |
| 2     | 8.60   | 10.40  | 9.00    | 12.70  | 10.90  | 176.10 | 9.00   | 4.40    | 362.00  | 1.80  | 0.40  | 0.20 |          |            |
| 3     | 8.80   | 10.70  | 9.00    | 13.10  | 37.00  | 152.40 | 8.80   | 4.90    | 375.50  | 1.80  | 0.40  | 0.20 |          |            |
| 4     | 8.80   | 10.10  | 8.80    | 38.70  | 13.60  | 10.40  | 9.00   | 5.00    | 386.30  | 1.80  | 0.40  | 0.20 |          |            |
| 5     | 8.80   | 9.80   | 8.80    | 37.00  | 65.10  | 8.60   | 9.20   | 5.00    | 502.20  | 1.70  | 0.40  | 0.20 |          |            |
| 6     | 8.80   | 9.60   | 8.60    | 20.10  | 188.00 | 7.40   | 9.90   | 6.80    | 734.80  | 1.10  | 0.40  | 0.20 |          |            |
| 7     | 8.80   | 69.20  | 8.60    | 20.80  | 20.80  | 7.00   | 9.00   | 6.30    | 625.50  | 1.20  | 0.40  | 0.20 |          |            |
| 8     | 8.80   | 10.40  | 9.00    | 105.10 | 12.70  | 6.10   | 5.90   | 4.90    | 296.20  | 1.10  | 0.40  | 0.20 |          |            |
| 9     | 8.80   | 8.20   | 9.00    | 77.40  | 18.70  | 5.90   | 5.40   | 4.40    | 20.10   | 0.80  | 0.40  | 0.20 |          |            |
| 10    | 8.80   | 6.30   | 8.60    | 56.80  | 15.80  | 6.70   | 5.40   | 3.80    | 10.30   | 0.70  | 0.40  | 0.20 |          |            |
| 11    | 9.00   | 5.90   | 8.60    | 20.80  | 10.30  | 6.90   | 4.30   | 8.00    | 9.00    | 1.00  | 0.40  | 0.20 |          |            |
| 12    | 9.10   | 5.40   | 11.20   | 20.80  | 9.60   | 10.10  | 4.50   | 16.50   | 7.30    | 0.70  | 0.30  | 0.10 |          |            |
| 13    | 9.90   | 4.90   | 20.80   | 17.20  | 8.80   | 10.10  | 4.30   | 10.70   | 5.90    | 0.60  | 3.40  | 0.10 |          |            |
| 14    | 11.30  | 3.90   | 11.30   | 13.60  | 8.40   | 7.80   | 4.30   | 10.80   | 4.90    | 1.00  | 3.40  | 0.10 |          |            |
| 15    | 10.40  | 4.40   | 20.80   | 11.90  | 7.50   | 6.90   | 3.90   | 8.60    | 4.50    | 0.60  | 0.30  | 0.10 |          |            |
| 16    | 10.30  | 9.20   | 52.70   | 11.40  | 6.90   | 6.70   | 3.90   | 5.50    | 4.30    | 0.60  | 0.30  | 0.10 |          |            |
| 17    | 9.90   | 10.80  | 35.20   | 10.90  | 6.50   | 6.20   | 3.50   | 5.40    | 5.80    | 0.80  | 0.30  | 0.10 |          |            |
| 18    | 30.00  | 9.80   | 10.80   | 10.80  | 9.80   | 5.40   | 4.60   | 5.50    | 9.70    | 0.70  | 0.30  | 0.10 |          |            |
| 19    | 4.90   | 10.70  | 10.30   | 11.30  | 9.60   | 5.20   | 4.10   | 5.70    | 7.30    | 0.70  | 0.30  | 0.10 |          |            |
| 20    | 12.70  | 33.50  | 10.80   | 11.30  | 9.60   | 5.70   | 5.70   | 201.90  | 5.20    | 0.60  | 0.30  | 0.10 |          |            |
| 21    | 10.80  | 15.80  | 10.90   | 12.30  | 9.30   | 5.50   | 5.70   | 461.30  | 4.40    | 0.60  | 0.30  | 0.10 |          |            |
| 22    | 10.30  | 11.20  | 8.10    | 12.30  | 9.20   | 8.10   | 5.70   | 668.60  | 4.10    | 1.00  | 0.20  | 0.10 |          |            |
| 23    | 9.90   | 10.30  | 5.70    | 14.10  | 9.10   | 9.10   | 5.90   | 891.00  | 3.30    | 0.70  | 0.20  | 0.10 |          |            |
| 24    | 9.30   | 10.30  | 343.10  | 12.30  | 9.10   | 9.10   | 6.20   | 887.40  | 2.90    | 0.70  | 0.20  | 0.10 |          |            |
| 25    | 9.60   | 9.60   | 399.70  | 10.10  | 9.00   | 8.80   | 6.80   | 426.60  | 4.10    | 0.70  | 0.20  | 0.10 |          |            |
| 26    | 10.30  | 9.60   | 508.50  | 9.90   | 8.80   | 8.80   | 9.10   | 52.70   | 3.50    | 0.60  | 0.20  | 0.10 |          |            |
| 27    | 15.80  | 9.20   | 10.50   | 9.10   | 9.00   | 8.80   | 10.70  | 9.00    | 3.70    | 0.60  | 0.20  | 0.10 |          |            |
| 28    | 14.50  | 9.30   | 10.40   | 9.00   | 9.20   | 8.80   | 9.60   | 8.00    | 2.70    | 0.60  | 0.20  | 0.10 |          |            |
| 29    | 12.30  | 9.10   | 10.30   | 8.80   | 9.60   | 9.00   | 10.70  | 11.40   | 2.50    | 0.60  |       | 0.10 |          |            |
| 30    | 10.40  | 9.00   | 10.10   | 8.60   | 9.70   | 8.80   | 12.70  | 30.00   | 2.10    | 0.60  |       | 0.10 |          |            |
| 31    |        | 9.00   |         | 8.50   | 10.40  |        | 10.30  |         | 2.50    | 0.60  |       | 0.10 |          |            |
| Total | 318.50 | 366.30 | 1598.20 | 648.60 | 580.80 | 547.60 | 217.10 | 3776.90 | 3652.30 | 28.50 | 15.20 | 4.20 | 11754.20 | <b>Ton</b> |
| Mean  | 10.60  | 11.80  | 53.30   | 20.90  | 18.70  | 18.30  | 7.00   | 125.90  | 117.80  | 0.90  | 0.50  | 0.10 |          |            |
| Max   | 30.00  | 69.20  | 508.50  | 105.10 | 188.00 | 176.10 | 12.70  | 891.00  | 734.80  | 1.90  | 3.40  | 0.20 | 891.00   |            |
| Min   | 4.90   | 3.90   | 5.70    | 8.50   | 6.50   | 5.20   | 3.50   | 3.80    | 2.10    | 0.60  | 0.20  | 0.10 | 0.10     |            |



**WATER YEAR : 2013****THALE SAP SONGKHLA****Khlong U - Taphao at Ban Bang Sala , Songkhla (X.90)**

Lat 06 - 55 - 39 N Long 100 - 26 - 37 E

**Location : on left bank at the bridge near Wat Bang Sala, Tambon Thung Lan.**

|                                      |                            |                                |                          |
|--------------------------------------|----------------------------|--------------------------------|--------------------------|
|                                      | <b>Ban</b> Bang Sala       | <b>Amphoe</b> Khlong Hoi Khong | <b>Changwat</b> Songkhla |
| <b>Drainage Area</b>                 | 1,547 sq.km.               |                                |                          |
| <b>Method of sampling</b>            | Depth Integrating          |                                |                          |
| <b>Instrument Used</b>               | US.D-49                    |                                |                          |
| <b>Period of Available Records</b>   | 2005-Cont'd                |                                |                          |
| <b>Actual Measurement</b>            | 2005-Cont'd                |                                |                          |
| <b>Using Rating Curve Water Year</b> | 2013                       |                                |                          |
| <b>Number of observation</b>         | 22                         |                                |                          |
| <b>R-Square</b>                      | 0.9052                     |                                |                          |
| <b>Remarks</b>                       | Continued Sediment Station |                                |                          |

$$QS = 11.1180 QW^{1.05300}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun     | Jul     | Aug     | Sep    | Oct     | Nov      | Dec      | Jan     | Feb    | Mar    | Annual   |            |
|-------|---------|---------|---------|---------|---------|--------|---------|----------|----------|---------|--------|--------|----------|------------|
| 1     | 26.50   | 547.90  | 18.20   | 26.50   | 11.10   | 24.60  | 26.50   | 158.90   | 378.40   | 14.70   | 14.70  | 0.00   |          |            |
| 2     | 42.20   | 241.40  | 13.70   | 21.90   | 21.90   | 26.50  | 10.00   | 86.30    | 762.00   | 38.50   | 11.10  | 0.00   |          |            |
| 3     | 51.00   | 216.90  | 24.60   | 20.90   | 168.30  | 216.90 | 9.40    | 40.30    | 840.40   | 23.70   | 11.10  | 0.00   |          |            |
| 4     | 23.70   | 64.40   | 24.60   | 33.50   | 322.70  | 24.60  | 18.20   | 20.00    | 936.70   | 14.70   | 10.00  | 0.00   |          |            |
| 5     | 33.50   | 33.50   | 21.90   | 357.50  | 144.20  | 27.30  | 46.60   | 96.00    | 2086.50  | 14.70   | 8.80   | 0.00   |          |            |
| 6     | 192.50  | 26.50   | 16.40   | 144.20  | 406.40  | 29.20  | 350.50  | 29.20    | 3580.20  | 63.70   | 7.60   | 0.00   |          |            |
| 7     | 21.90   | 476.90  | 13.70   | 96.70   | 96.70   | 29.20  | 727.30  | 27.30    | 2693.90  | 109.10  | 7.60   | 0.00   |          |            |
| 8     | 16.40   | 266.10  | 11.10   | 120.30  | 357.50  | 20.90  | 216.90  | 27.30    | 1255.30  | 89.50   | 7.60   | 0.00   |          |            |
| 9     | 26.50   | 364.50  | 11.10   | 55.50   | 350.50  | 8.20   | 196.60  | 23.70    | 540.70   | 31.00   | 7.60   | 0.00   |          |            |
| 10    | 55.50   | 46.60   | 11.10   | 28.30   | 18.20   | 216.90 | 130.90  | 140.20   | 249.70   | 34.70   | 6.50   | 0.00   |          |            |
| 11    | 192.50  | 144.20  | 8.80    | 64.40   | 59.90   | 11.10  | 89.50   | 44.10    | 238.70   | 38.50   | 6.50   | 0.00   |          |            |
| 12    | 350.50  | 24.60   | 14.70   | 168.30  | 16.40   | 20.90  | 99.30   | 255.10   | 249.70   | 38.50   | 0.00   | 0.00   |          |            |
| 13    | 406.40  | 51.00   | 33.50   | 33.50   | 11.10   | 33.50  | 163.60  | 79.80    | 144.90   | 23.70   | 2.60   | 0.00   |          |            |
| 14    | 350.50  | 9.40    | 20.00   | 24.60   | 20.90   | 12.90  | 102.60  | 540.70   | 102.60   | 16.40   | 3.10   | 0.00   |          |            |
| 15    | 315.80  | 11.10   | 336.60  | 59.90   | 51.00   | 26.50  | 86.30   | 343.60   | 73.40    | 38.50   | 3.10   | 0.00   |          |            |
| 16    | 290.90  | 7.60    | 96.70   | 59.90   | 46.60   | 12.90  | 109.10  | 140.20   | 92.80    | 51.00   | 3.10   | 0.00   |          |            |
| 17    | 241.40  | 23.70   | 42.20   | 51.00   | 37.80   | 10.00  | 70.10   | 484.00   | 89.50    | 54.20   | 3.10   | 0.00   |          |            |
| 18    | 120.30  | 20.00   | 51.00   | 46.60   | 25.50   | 0.00   | 177.70  | 177.70   | 413.50   | 47.90   | 2.60   | 4.80   |          |            |
| 19    | 378.40  | 168.30  | 22.80   | 46.60   | 17.30   | 19.10  | 238.70  | 60.50    | 576.40   | 44.10   | 2.00   | 12.90  |          |            |
| 20    | 96.70   | 42.20   | 441.60  | 33.50   | 21.90   | 24.60  | 562.10  | 191.80   | 191.80   | 34.70   | 1.50   | 20.00  |          |            |
| 21    | 144.20  | 15.50   | 413.50  | 20.00   | 22.80   | 15.50  | 406.40  | 1816.20  | 89.50    | 23.70   | 0.00   | 26.50  |          |            |
| 22    | 59.90   | 12.90   | 192.50  | 22.80   | 23.70   | 9.40   | 350.50  | 2791.20  | 60.50    | 34.70   | 0.00   | 29.20  |          |            |
| 23    | 64.40   | 9.40    | 27.30   | 25.50   | 22.80   | 10.00  | 420.50  | 3313.00  | 34.70    | 51.00   | 0.00   | 29.20  |          |            |
| 24    | 59.90   | 11.10   | 25.50   | 24.60   | 20.00   | 11.10  | 233.30  | 2072.80  | 36.60    | 73.40   | 0.00   | 37.80  |          |            |
| 25    | 241.40  | 11.90   | 120.30  | 23.70   | 18.20   | 12.90  | 109.10  | 840.40   | 29.20    | 79.80   | 0.00   | 42.20  |          |            |
| 26    | 569.30  | 11.10   | 12.90   | 25.50   | 16.40   | 18.20  | 540.70  | 512.30   | 42.20    | 57.40   | 0.00   | 33.50  |          |            |
| 27    | 241.40  | 10.50   | 9.40    | 26.50   | 14.70   | 20.00  | 364.50  | 244.20   | 23.70    | 29.20   | 0.00   | 51.00  |          |            |
| 28    | 216.90  | 14.70   | 42.20   | 20.90   | 14.70   | 21.90  | 158.90  | 163.60   | 27.30    | 23.70   | 0.00   | 55.50  |          |            |
| 29    | 168.30  | 18.20   | 51.00   | 16.40   | 14.70   | 26.50  | 112.40  | 201.30   | 16.40    | 25.50   |        | 59.90  |          |            |
| 30    | 144.20  | 20.00   | 59.90   | 12.90   | 13.70   | 33.50  | 191.80  | 260.60   | 25.50    | 23.70   |        | 59.90  |          |            |
| 31    |         | 24.60   |         | 11.10   | 17.30   |        | 249.70  |          | 34.70    | 23.70   |        | 59.90  |          |            |
| Total | 5143.00 | 2946.70 | 2188.80 | 1723.50 | 2404.90 | 974.80 | 6569.70 | 15182.30 | 15917.40 | 1267.60 | 120.20 | 522.30 | 54961.20 | <b>Ton</b> |
| Mean  | 171.40  | 95.10   | 73.00   | 55.60   | 77.60   | 32.50  | 211.90  | 506.10   | 513.50   | 40.90   | 4.30   | 16.80  |          |            |
| Max   | 569.30  | 547.90  | 441.60  | 357.50  | 406.40  | 216.90 | 727.30  | 3313.00  | 3580.20  | 109.10  | 14.70  | 59.90  | 3580.20  |            |
| Min   | 16.40   | 7.60    | 8.80    | 11.10   | 11.10   | 0.00   | 9.40    | 20.00    | 16.40    | 14.70   | 0.00   | 0.00   | 0.00     |            |

**WATER YEAR : 2013****THALE SAP SONGKHLA****Khlong La Pang at Ban Thung Prap , Songkhla (X.113)**

Lat 06 - 37 - 59 N Long 100 - 23 - 46 E

**Location : on right bank at Ban Thung Prap.**

|                                      |                            |                   |               |              |                 |                 |
|--------------------------------------|----------------------------|-------------------|---------------|--------------|-----------------|-----------------|
|                                      | <b>Ban</b>                 | <b>Thung Prap</b> | <b>Amphoe</b> | <b>Sadao</b> | <b>Changwat</b> | <b>Songkhla</b> |
| <b>Drainage Area</b>                 | 118                        | sq.km.            |               |              |                 |                 |
| <b>Method of sampling</b>            | Depth                      | Integrating       |               |              |                 |                 |
| <b>Instrument Used</b>               | US.DH-59                   |                   |               |              |                 |                 |
| <b>Period of Available Records</b>   | 1979-Cont'd                |                   |               |              |                 |                 |
| <b>Actual Measurement</b>            | 1981-Cont'd                |                   |               |              |                 |                 |
| <b>Using Rating Curve Water Year</b> | 2013                       |                   |               |              |                 |                 |
| <b>Number of observation</b>         | 24                         |                   |               |              |                 |                 |
| <b>R-Square</b>                      | 0.9240                     |                   |               |              |                 |                 |
| <b>Remarks</b>                       | Continued Sediment Station |                   |               |              |                 |                 |

$$QS = 13.6990 QW^{1.15110}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep     | Oct     | Nov     | Dec     | Jan    | Feb    | Mar    | Annual  |            |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|--------|--------|---------|------------|
| 1     | 5.90   | 73.80  | 6.50   | 8.50   | 8.50   | 6.50    | 9.40    | 21.00   | 14.00   | 8.50   | 5.30   | 4.80   |         |            |
| 2     | 5.90   | 13.10  | 6.50   | 10.90  | 62.90  | 494.40  | 12.40   | 11.20   | 19.70   | 8.20   | 5.30   | 4.80   |         |            |
| 3     | 5.90   | 11.50  | 6.50   | 98.50  | 13.70  | 79.40   | 8.50    | 10.60   | 56.60   | 8.20   | 5.30   | 4.80   |         |            |
| 4     | 10.00  | 60.60  | 9.10   | 16.60  | 8.20   | 787.10  | 9.40    | 10.90   | 95.40   | 7.90   | 5.30   | 4.80   |         |            |
| 5     | 6.70   | 12.40  | 6.70   | 12.40  | 7.90   | 43.90   | 14.00   | 9.70    | 105.70  | 7.90   | 5.30   | 4.50   |         |            |
| 6     | 6.50   | 109.80 | 7.30   | 10.30  | 7.30   | 11.20   | 33.60   | 9.70    | 61.40   | 7.60   | 5.30   | 4.50   |         |            |
| 7     | 6.50   | 89.00  | 16.30  | 10.00  | 7.00   | 9.70    | 32.00   | 11.80   | 19.70   | 7.60   | 5.30   | 4.50   |         |            |
| 8     | 6.20   | 32.50  | 7.00   | 15.30  | 6.70   | 8.80    | 12.40   | 34.10   | 15.30   | 7.00   | 5.00   | 4.50   |         |            |
| 9     | 6.20   | 11.80  | 6.50   | 10.30  | 7.30   | 8.20    | 9.40    | 9.70    | 13.70   | 7.00   | 5.00   | 4.50   |         |            |
| 10    | 6.20   | 153.30 | 6.50   | 9.70   | 6.50   | 10.00   | 8.50    | 40.60   | 73.80   | 7.30   | 5.00   | 4.50   |         |            |
| 11    | 6.20   | 21.50  | 6.70   | 9.10   | 6.20   | 14.60   | 8.20    | 214.20  | 34.10   | 7.00   | 5.00   | 4.50   |         |            |
| 12    | 6.50   | 9.40   | 40.10  | 111.90 | 6.50   | 160.20  | 7.30    | 40.10   | 14.00   | 7.30   | 5.00   | 4.50   |         |            |
| 13    | 6.20   | 9.10   | 72.30  | 9.10   | 7.00   | 23.90   | 7.00    | 37.90   | 11.80   | 7.00   | 5.60   | 4.50   |         |            |
| 14    | 6.20   | 8.20   | 156.10 | 8.80   | 6.70   | 11.50   | 7.00    | 21.50   | 10.90   | 7.00   | 5.60   | 4.50   |         |            |
| 15    | 6.50   | 8.50   | 72.30  | 8.50   | 6.50   | 9.70    | 7.00    | 11.50   | 10.00   | 7.00   | 5.60   | 4.50   |         |            |
| 16    | 21.50  | 7.90   | 39.50  | 8.50   | 6.50   | 8.50    | 46.70   | 10.00   | 9.70    | 7.00   | 5.60   | 4.50   |         |            |
| 17    | 10.30  | 18.00  | 86.50  | 9.40   | 6.50   | 8.20    | 39.00   | 10.30   | 541.60  | 7.00   | 5.60   | 6.50   |         |            |
| 18    | 10.00  | 95.40  | 27.80  | 8.50   | 6.50   | 8.20    | 659.70  | 10.00   | 68.30   | 7.00   | 5.60   | 5.90   |         |            |
| 19    | 6.70   | 36.80  | 23.50  | 7.90   | 6.20   | 7.90    | 298.00  | 9.10    | 15.30   | 7.00   | 5.60   | 5.30   |         |            |
| 20    | 6.20   | 56.60  | 38.40  | 7.60   | 6.20   | 7.60    | 214.20  | 14.00   | 11.20   | 6.50   | 5.60   | 4.80   |         |            |
| 21    | 6.20   | 10.90  | 13.10  | 7.30   | 6.20   | 7.90    | 36.80   | 74.60   | 10.90   | 6.50   | 5.60   | 4.20   |         |            |
| 22    | 6.20   | 8.80   | 10.90  | 7.00   | 6.20   | 7.30    | 107.80  | 125.70  | 10.60   | 6.50   | 5.30   | 4.20   |         |            |
| 23    | 6.20   | 8.20   | 10.60  | 6.70   | 6.20   | 7.00    | 40.10   | 65.20   | 10.30   | 6.20   | 5.30   | 4.20   |         |            |
| 24    | 11.80  | 7.90   | 10.30  | 6.70   | 6.20   | 7.00    | 62.10   | 62.10   | 11.80   | 6.20   | 5.30   | 4.20   |         |            |
| 25    | 18.90  | 8.20   | 9.70   | 6.70   | 6.20   | 6.70    | 135.00  | 21.00   | 17.70   | 5.90   | 5.00   | 4.20   |         |            |
| 26    | 8.50   | 7.60   | 9.40   | 6.70   | 5.90   | 6.70    | 22.70   | 13.70   | 10.30   | 5.90   | 5.00   | 4.20   |         |            |
| 27    | 14.30  | 7.30   | 13.40  | 6.70   | 5.60   | 6.50    | 14.60   | 11.80   | 9.10    | 5.90   | 5.00   | 4.20   |         |            |
| 28    | 17.20  | 7.00   | 10.30  | 6.70   | 5.60   | 9.70    | 20.20   | 27.80   | 9.10    | 5.60   | 4.80   | 4.20   |         |            |
| 29    | 7.90   | 6.70   | 9.70   | 6.50   | 6.50   | 7.30    | 146.20  | 127.00  | 8.80    | 5.60   |        | 4.00   |         |            |
| 30    | 10.60  | 6.70   | 8.80   | 6.50   | 5.90   | 22.40   | 48.70   | 24.40   | 8.80    | 5.60   |        | 4.00   |         |            |
| 31    |        | 6.70   |        | 6.50   | 5.90   |         | 13.70   |         | 8.50    | 5.60   |        | 17.70  |         |            |
| Total | 260.10 | 925.20 | 748.30 | 465.80 | 267.20 | 1808.00 | 2091.60 | 1101.20 | 1318.10 | 212.50 | 148.20 | 155.00 | 9501.20 | <b>Ton</b> |
| Mean  | 8.70   | 29.80  | 24.90  | 15.00  | 8.60   | 60.30   | 67.50   | 36.70   | 42.50   | 6.90   | 5.30   | 5.00   |         |            |
| Max   | 21.50  | 153.30 | 156.10 | 111.90 | 62.90  | 787.10  | 659.70  | 214.20  | 541.60  | 8.50   | 5.60   | 17.70  | 787.10  |            |
| Min   | 5.90   | 6.70   | 6.50   | 6.50   | 5.60   | 6.50    | 7.00    | 9.10    | 8.50    | 5.60   | 4.80   | 4.00   | 4.00    |            |

**WATER YEAR : 2013****THALE SAP SONGKHLA****Khlong Lam at Ban Khlong Lam , Phatthalung (X.170)**

Lat 07 - 33 - 22 N Long 99 - 59 - 31 E

**Location : on left bank at the bridge.**

|                                      |                            |                             |                             |
|--------------------------------------|----------------------------|-----------------------------|-----------------------------|
|                                      | <b>Ban</b> Khlong Lam      | <b>Amphoe</b> Srinagarindra | <b>Changwat</b> Phatthalung |
| <b>Drainage Area</b>                 | 258 sq.km.                 |                             |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                             |                             |
| <b>Instrument Used</b>               | US.D-49                    |                             |                             |
| <b>Period of Available Records</b>   | 2005-Cont'd                |                             |                             |
| <b>Actual Measurement</b>            | 2005-Cont'd                |                             |                             |
| <b>Using Rating Curve Water Year</b> | 2013                       |                             |                             |
| <b>Number of observation</b>         | 19                         |                             |                             |
| <b>R-Square</b>                      | 0.8471                     |                             |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                             |                             |

**QS = 2.6029 QW<sup>1.53530</sup>****Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May    | Jun     | Jul    | Aug    | Sep    | Oct     | Nov      | Dec      | Jan     | Feb    | Mar    | Annual   |            |
|-------|---------|--------|---------|--------|--------|--------|---------|----------|----------|---------|--------|--------|----------|------------|
| 1     | 24.00   | 21.90  | 17.80   | 17.80  | 15.90  | 17.80  | 9.00    | 35.70    | 1372.90  | 68.10   | 26.20  | 10.60  |          |            |
| 2     | 21.90   | 26.20  | 17.80   | 17.80  | 149.70 | 26.20  | 7.50    | 30.80    | 693.30   | 68.10   | 24.00  | 10.60  |          |            |
| 3     | 21.90   | 78.60  | 15.90   | 35.70  | 71.50  | 12.30  | 10.60   | 30.80    | 542.70   | 61.30   | 24.00  | 10.60  |          |            |
| 4     | 21.90   | 30.80  | 15.90   | 215.50 | 30.80  | 9.00   | 7.50    | 30.80    | 4662.80  | 61.30   | 24.00  | 10.60  |          |            |
| 5     | 19.80   | 33.20  | 15.90   | 58.00  | 26.20  | 19.80  | 24.00   | 33.20    | 4025.70  | 51.60   | 21.90  | 9.00   |          |            |
| 6     | 17.80   | 43.40  | 14.10   | 33.20  | 26.20  | 9.00   | 35.70   | 28.50    | 3719.60  | 51.60   | 21.90  | 10.60  |          |            |
| 7     | 14.10   | 71.50  | 14.10   | 28.50  | 30.80  | 7.50   | 28.50   | 28.50    | 1223.00  | 51.60   | 21.90  | 10.60  |          |            |
| 8     | 9.00    | 33.20  | 14.10   | 26.20  | 21.90  | 15.90  | 33.20   | 35.70    | 693.30   | 51.60   | 21.90  | 9.00   |          |            |
| 9     | 7.00    | 58.00  | 14.10   | 26.20  | 30.80  | 12.30  | 64.60   | 38.20    | 472.40   | 46.10   | 21.90  | 9.00   |          |            |
| 10    | 5.90    | 38.20  | 51.60   | 24.00  | 24.00  | 9.00   | 26.20   | 71.50    | 351.20   | 175.00  | 21.90  | 9.00   |          |            |
| 11    | 5.90    | 40.80  | 48.80   | 30.80  | 26.20  | 9.00   | 19.80   | 0.00     | 522.30   | 64.60   | 21.90  | 9.00   |          |            |
| 12    | 19.80   | 30.80  | 61.30   | 21.90  | 21.90  | 51.60  | 19.80   | 54.80    | 258.80   | 54.80   | 19.80  | 7.50   |          |            |
| 13    | 274.80  | 33.20  | 40.80   | 19.80  | 101.20 | 24.00  | 51.60   | 64.60    | 229.60   | 58.00   | 19.80  | 7.50   |          |            |
| 14    | 155.80  | 40.80  | 68.10   | 48.80  | 33.20  | 17.80  | 38.20   | 43.40    | 215.50   | 51.60   | 19.80  | 7.50   |          |            |
| 15    | 54.80   | 30.80  | 82.10   | 24.00  | 26.20  | 14.10  | 19.80   | 40.80    | 208.40   | 74.90   | 19.80  | 7.50   |          |            |
| 16    | 35.70   | 28.50  | 82.10   | 21.90  | 21.90  | 12.30  | 15.90   | 35.70    | 194.80   | 58.00   | 17.80  | 10.60  |          |            |
| 17    | 46.10   | 24.00  | 117.40  | 30.80  | 19.80  | 10.60  | 17.80   | 33.20    | 229.60   | 46.10   | 17.80  | 12.30  |          |            |
| 18    | 26.20   | 26.20  | 48.80   | 21.90  | 17.80  | 7.50   | 28.50   | 35.70    | 1223.00  | 48.80   | 17.80  | 12.30  |          |            |
| 19    | 21.90   | 40.80  | 38.20   | 19.80  | 15.90  | 7.50   | 30.80   | 89.70    | 258.80   | 46.10   | 17.80  | 10.60  |          |            |
| 20    | 7.50    | 24.00  | 35.70   | 19.80  | 14.10  | 7.50   | 28.50   | 627.20   | 181.60   | 43.40   | 17.80  | 10.60  |          |            |
| 21    | 7.50    | 21.90  | 40.80   | 17.80  | 14.10  | 9.00   | 24.00   | 1934.80  | 162.10   | 35.70   | 15.90  | 7.50   |          |            |
| 22    | 40.80   | 21.90  | 33.20   | 17.80  | 12.30  | 9.00   | 30.80   | 10071.30 | 131.70   | 35.70   | 14.10  | 7.50   |          |            |
| 23    | 26.20   | 19.80  | 28.50   | 15.90  | 12.30  | 7.50   | 58.00   | 4951.60  | 113.20   | 33.20   | 14.10  | 7.50   |          |            |
| 24    | 24.00   | 19.80  | 26.20   | 26.20  | 12.30  | 7.00   | 54.80   | 1223.00  | 105.10   | 33.20   | 14.10  | 7.50   |          |            |
| 25    | 24.00   | 19.80  | 24.00   | 24.00  | 10.60  | 7.00   | 35.70   | 502.10   | 93.40    | 30.80   | 12.30  | 7.00   |          |            |
| 26    | 30.80   | 21.90  | 21.90   | 15.90  | 10.60  | 6.40   | 48.80   | 308.00   | 82.10    | 30.80   | 12.30  | 7.00   |          |            |
| 27    | 35.70   | 17.80  | 19.80   | 12.30  | 9.00   | 6.40   | 48.80   | 258.80   | 74.90    | 30.80   | 12.30  | 7.00   |          |            |
| 28    | 28.50   | 17.80  | 21.90   | 12.30  | 9.00   | 5.90   | 51.60   | 266.80   | 97.40    | 28.50   | 12.30  | 7.00   |          |            |
| 29    | 38.20   | 24.00  | 19.80   | 12.30  | 7.50   | 14.10  | 149.70  | 1089.20  | 74.90    | 26.20   |        | 7.00   |          |            |
| 30    | 28.50   | 19.80  | 17.80   | 14.10  | 10.60  | 30.80  | 64.60   | 4785.80  | 74.90    | 26.20   |        | 6.40   |          |            |
| 31    |         | 19.80  |         | 10.60  | 9.00   |        | 46.10   |          | 71.50    | 26.20   |        | 6.40   |          |            |
| Total | 1096.00 | 979.20 | 1068.50 | 921.60 | 843.30 | 403.80 | 1130.40 | 26780.20 | 22360.50 | 1569.90 | 527.10 | 272.80 | 57953.30 | <b>Ton</b> |
| Mean  | 36.50   | 31.60  | 35.60   | 29.70  | 27.20  | 13.50  | 36.50   | 892.70   | 721.30   | 50.60   | 18.80  | 8.80   |          |            |
| Max   | 274.80  | 78.60  | 117.40  | 215.50 | 149.70 | 51.60  | 149.70  | 10071.30 | 4662.80  | 175.00  | 26.20  | 12.30  | 10071.30 |            |
| Min   | 5.90    | 17.80  | 14.10   | 10.60  | 7.50   | 5.90   | 7.50    | 0.00     | 71.50    | 26.20   | 12.30  | 6.40   | 0.00     |            |

**WATER YEAR : 2013****THALE SAP SONGKHLA****Khlong Tamot at Ban Mae Khree , Phatthalung (X.267)**

Lat 07 - 20 - 18 N Long 100 - 06 - 36 E

Location : on left bank at Ban Mae Khree.

|                                      | Ban Mae Khree              | Amphoe Tamot | Changwat Phatthalung |
|--------------------------------------|----------------------------|--------------|----------------------|
| <b>Drainage Area</b>                 | 295 sq.km.                 |              |                      |
| <b>Method of sampling</b>            | Depth Integrating          |              |                      |
| <b>Instrument Used</b>               | US.D-49                    |              |                      |
| <b>Period of Available Records</b>   | 2008-Cont'd                |              |                      |
| <b>Actual Measurement</b>            | 2008-Cont'd                |              |                      |
| <b>Using Rating Curve Water Year</b> | 2013                       |              |                      |
| <b>Number of observation</b>         | 20                         |              |                      |
| <b>R-Square</b>                      | 0.8995                     |              |                      |
| <b>Remarks</b>                       | Continued Sediment Station |              |                      |

$$QS = 8.4742 QW^{1.13710}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun    | Jul    | Aug    | Sep   | Oct     | Nov     | Dec     | Jan     | Feb    | Mar    | Annual   |     |
|-------|---------|---------|--------|--------|--------|-------|---------|---------|---------|---------|--------|--------|----------|-----|
| 1     | 13.70   | 32.90   | 17.10  | 17.80  | 10.40  | 1.40  | 0.00    | 46.90   | 244.00  | 78.00   | 27.30  | 15.70  |          |     |
| 2     | 15.10   | 41.00   | 17.10  | 17.10  | 10.40  | 1.40  | 0.00    | 46.90   | 271.60  | 74.90   | 25.10  | 14.40  |          |     |
| 3     | 17.10   | 49.60   | 17.10  | 17.10  | 17.10  | 1.40  | 0.00    | 46.90   | 410.20  | 81.00   | 24.00  | 13.70  |          |     |
| 4     | 18.40   | 60.70   | 17.10  | 17.10  | 17.10  | 1.40  | 0.00    | 29.60   | 740.90  | 221.40  | 24.00  | 12.40  |          |     |
| 5     | 21.20   | 63.50   | 15.10  | 17.10  | 17.10  | 1.40  | 0.80    | 32.90   | 866.50  | 208.90  | 24.00  | 11.10  |          |     |
| 6     | 23.30   | 69.20   | 13.70  | 17.10  | 17.10  | 1.40  | 3.00    | 90.20   | 1055.50 | 74.90   | 24.00  | 9.40   |          |     |
| 7     | 13.70   | 97.90   | 13.00  | 17.10  | 13.70  | 1.10  | 17.80   | 148.10  | 706.30  | 67.80   | 24.00  | 8.50   |          |     |
| 8     | 10.40   | 63.50   | 10.40  | 17.10  | 13.70  | 0.90  | 19.20   | 310.90  | 310.90  | 53.70   | 24.00  | 7.00   |          |     |
| 9     | 10.40   | 49.60   | 10.40  | 17.80  | 13.70  | 0.60  | 19.20   | 268.80  | 236.30  | 53.70   | 23.30  | 5.60   |          |     |
| 10    | 13.70   | 48.20   | 10.40  | 24.00  | 10.40  | 0.60  | 17.10   | 260.50  | 172.20  | 46.90   | 23.30  | 4.30   |          |     |
| 11    | 17.10   | 73.40   | 12.40  | 25.10  | 10.40  | 2.20  | 17.10   | 148.10  | 169.70  | 46.90   | 22.60  | 3.40   |          |     |
| 12    | 19.80   | 60.70   | 17.80  | 23.30  | 10.40  | 7.50  | 17.10   | 99.40   | 145.70  | 45.70   | 22.60  | 3.00   |          |     |
| 13    | 29.60   | 73.40   | 27.30  | 18.40  | 13.70  | 15.10 | 12.40   | 107.60  | 125.50  | 44.50   | 21.80  | 1.80   |          |     |
| 14    | 42.20   | 66.40   | 69.20  | 17.10  | 14.40  | 10.40 | 8.00    | 127.50  | 105.70  | 44.50   | 21.80  | 1.40   |          |     |
| 15    | 34.10   | 63.50   | 73.40  | 17.10  | 11.10  | 6.60  | 7.00    | 78.00   | 105.70  | 44.50   | 21.20  | 1.40   |          |     |
| 16    | 30.70   | 49.60   | 74.90  | 17.10  | 10.40  | 2.20  | 10.40   | 56.60   | 117.50  | 46.90   | 20.60  | 4.70   |          |     |
| 17    | 82.50   | 35.20   | 74.90  | 17.10  | 8.00   | 0.60  | 13.70   | 46.90   | 201.50  | 46.90   | 19.80  | 7.00   |          |     |
| 18    | 213.90  | 46.90   | 70.70  | 17.10  | 8.00   | 0.60  | 17.10   | 72.10   | 389.90  | 46.90   | 19.20  | 8.00   |          |     |
| 19    | 211.30  | 50.90   | 49.60  | 17.10  | 8.00   | 0.00  | 21.20   | 73.40   | 244.00  | 46.90   | 19.20  | 6.60   |          |     |
| 20    | 129.50  | 46.90   | 45.70  | 15.10  | 8.00   | 0.00  | 18.40   | 413.60  | 157.70  | 41.00   | 18.40  | 5.60   |          |     |
| 21    | 76.50   | 42.20   | 42.20  | 10.40  | 5.60   | 0.00  | 21.20   | 653.70  | 131.50  | 35.20   | 18.40  | 5.60   |          |     |
| 22    | 38.70   | 35.20   | 39.80  | 10.40  | 5.60   | 0.00  | 24.00   | 1378.80 | 117.50  | 35.20   | 18.40  | 5.60   |          |     |
| 23    | 24.00   | 29.60   | 34.10  | 10.40  | 5.60   | 0.00  | 24.00   | 1215.20 | 96.30   | 35.20   | 18.40  | 4.70   |          |     |
| 24    | 27.30   | 29.60   | 26.20  | 10.40  | 5.60   | 0.00  | 266.10  | 901.50  | 90.20   | 35.20   | 17.80  | 4.30   |          |     |
| 25    | 43.30   | 29.60   | 24.00  | 10.40  | 5.60   | 0.00  | 82.50   | 333.60  | 90.20   | 35.20   | 17.80  | 3.40   |          |     |
| 26    | 36.40   | 28.40   | 22.60  | 10.40  | 5.60   | 0.20  | 56.60   | 184.30  | 84.00   | 35.20   | 17.80  | 0.90   |          |     |
| 27    | 45.70   | 26.20   | 21.80  | 10.40  | 3.40   | 0.60  | 143.60  | 125.50  | 82.50   | 35.20   | 17.10  | 0.60   |          |     |
| 28    | 26.20   | 25.10   | 21.20  | 10.40  | 2.20   | 0.30  | 194.10  | 145.70  | 82.50   | 31.80   | 17.10  | 0.50   |          |     |
| 29    | 28.40   | 24.00   | 20.60  | 10.40  | 1.40   | 0.10  | 137.60  | 246.70  | 81.00   | 31.80   |        | 0.30   |          |     |
| 30    | 24.00   | 20.60   | 19.20  | 9.40   | 1.40   | 0.00  | 107.60  | 236.30  | 81.00   | 31.80   |        | 0.30   |          |     |
| 31    |         | 17.10   |        | 9.40   | 1.40   |       | 57.90   |         | 79.50   | 30.70   |        | 0.20   |          |     |
| Total | 1338.20 | 1450.60 | 929.00 | 476.20 | 286.50 | 58.00 | 1334.70 | 7926.20 | 7793.50 | 1788.40 | 593.00 | 171.40 | 24145.70 | Ton |
| Mean  | 44.60   | 46.80   | 31.00  | 15.40  | 9.20   | 1.90  | 43.10   | 264.20  | 251.40  | 57.70   | 21.20  | 5.50   |          |     |
| Max   | 213.90  | 97.90   | 74.90  | 25.10  | 17.10  | 15.10 | 266.10  | 1378.80 | 1055.50 | 221.40  | 27.30  | 15.70  | 1378.80  |     |
| Min   | 10.40   | 17.10   | 10.40  | 9.40   | 1.40   | 0.00  | 0.00    | 29.60   | 79.50   | 30.70   | 17.10  | 0.20   | 0.00     |     |

**WATER YEAR : 2013****THALE SAP SONGKHLA****Upper Khlong Tha Nae at Ban Khao Pu , Phatthalung (X.276)**

Lat 07 - 42 - 25 N Long 99 - 50 - 29 E

Location : on right bank at the bridge.

|                                      |                            |                          |                             |
|--------------------------------------|----------------------------|--------------------------|-----------------------------|
|                                      | <b>Ban</b> Khao Pu         | <b>Amphoe</b> Si Banphot | <b>Changwat</b> Phatthalung |
| <b>Drainage Area</b>                 | 47 sq.km.                  |                          |                             |
| <b>Method of sampling</b>            | Depth Integrating          |                          |                             |
| <b>Instrument Used</b>               | US.D-49                    |                          |                             |
| <b>Period of Available Records</b>   | 2009-Cont'd                |                          |                             |
| <b>Actual Measurement</b>            | 2009-Cont'd                |                          |                             |
| <b>Using Rating Curve Water Year</b> | 2013                       |                          |                             |
| <b>Number of observation</b>         | 20                         |                          |                             |
| <b>R-Square</b>                      | 0.9115                     |                          |                             |
| <b>Remarks</b>                       | Continued Sediment Station |                          |                             |

$$QS = 8.9271 QW^{1.42930}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct     | Nov      | Dec     | Jan    | Feb    | Mar    | Annual   |            |
|-------|--------|--------|--------|--------|--------|--------|---------|----------|---------|--------|--------|--------|----------|------------|
| 1     | 11.60  | 7.10   | 8.30   | 9.60   | 19.40  | 7.70   | 20.70   | 163.00   | 376.20  | 20.70  | 9.60   | 4.30   |          |            |
| 2     | 11.60  | 9.60   | 8.30   | 8.30   | 107.40 | 12.30  | 11.60   | 115.60   | 239.90  | 15.90  | 9.60   | 4.30   |          |            |
| 3     | 10.90  | 105.50 | 6.50   | 7.10   | 57.30  | 8.90   | 8.90    | 50.90    | 178.10  | 15.90  | 8.90   | 4.30   |          |            |
| 4     | 10.90  | 91.60  | 11.60  | 34.00  | 80.30  | 10.20  | 11.60   | 34.00    | 376.20  | 13.00  | 8.90   | 3.80   |          |            |
| 5     | 10.90  | 44.40  | 17.00  | 35.40  | 39.90  | 8.90   | 25.80   | 20.70    | 901.50  | 13.00  | 8.90   | 3.80   |          |            |
| 6     | 10.20  | 28.50  | 12.30  | 24.40  | 29.70  | 7.10   | 31.20   | 24.40    | 1580.60 | 13.00  | 8.30   | 3.30   |          |            |
| 7     | 12.30  | 18.30  | 8.90   | 19.40  | 25.80  | 5.90   | 42.90   | 14.40    | 330.00  | 10.90  | 8.30   | 3.30   |          |            |
| 8     | 10.90  | 12.30  | 6.50   | 15.20  | 27.20  | 7.70   | 57.30   | 12.30    | 190.20  | 10.90  | 5.40   | 3.30   |          |            |
| 9     | 13.00  | 12.30  | 5.40   | 11.60  | 18.30  | 5.90   | 64.10   | 19.40    | 424.20  | 10.20  | 8.30   | 3.30   |          |            |
| 10    | 11.60  | 13.00  | 3.30   | 9.60   | 18.30  | 5.40   | 38.30   | 12.30    | 335.70  | 13.00  | 7.70   | 3.00   |          |            |
| 11    | 12.30  | 80.30  | 12.30  | 20.70  | 17.00  | 7.70   | 25.80   | 13.00    | 296.60  | 14.40  | 6.50   | 3.00   |          |            |
| 12    | 15.90  | 60.60  | 28.50  | 15.90  | 14.40  | 24.40  | 21.80   | 370.30   | 285.70  | 12.30  | 5.40   | 2.90   |          |            |
| 13    | 80.30  | 47.70  | 57.30  | 17.00  | 11.60  | 14.40  | 15.90   | 448.80   | 218.60  | 18.30  | 4.80   | 2.90   |          |            |
| 14    | 62.40  | 28.50  | 69.40  | 13.00  | 12.30  | 11.60  | 10.90   | 266.00   | 136.80  | 38.30  | 4.30   | 2.90   |          |            |
| 15    | 53.90  | 13.70  | 50.90  | 10.20  | 13.00  | 10.20  | 8.30    | 136.80   | 80.30   | 95.50  | 3.80   | 3.30   |          |            |
| 16    | 44.40  | 19.40  | 57.30  | 10.20  | 12.30  | 7.10   | 5.40    | 62.40    | 76.60   | 71.10  | 7.10   | 5.90   |          |            |
| 17    | 65.90  | 15.20  | 186.00 | 25.80  | 11.60  | 4.80   | 4.30    | 41.30    | 69.40   | 46.00  | 6.50   | 5.90   |          |            |
| 18    | 55.70  | 15.20  | 84.00  | 18.30  | 10.90  | 3.30   | 78.60   | 140.30   | 52.40   | 35.40  | 8.90   | 5.40   |          |            |
| 19    | 44.40  | 53.90  | 44.40  | 13.70  | 10.20  | 3.00   | 109.60  | 1023.80  | 42.90   | 35.40  | 8.30   | 5.40   |          |            |
| 20    | 31.20  | 34.00  | 39.90  | 10.90  | 9.60   | 5.90   | 71.10   | 992.10   | 38.30   | 28.50  | 8.30   | 5.40   |          |            |
| 21    | 23.20  | 17.00  | 34.00  | 8.90   | 8.90   | 5.40   | 62.40   | 1961.60  | 28.50   | 23.20  | 7.10   | 4.80   |          |            |
| 22    | 17.00  | 12.30  | 34.00  | 7.70   | 8.30   | 4.30   | 87.80   | 3255.20  | 24.40   | 20.70  | 7.10   | 5.40   |          |            |
| 23    | 15.20  | 9.60   | 25.80  | 7.70   | 8.30   | 3.30   | 163.00  | 673.90   | 18.30   | 18.30  | 5.90   | 4.80   |          |            |
| 24    | 13.70  | 41.30  | 20.70  | 36.90  | 9.60   | 3.30   | 151.50  | 1066.40  | 15.20   | 20.70  | 5.40   | 4.80   |          |            |
| 25    | 11.60  | 47.70  | 18.30  | 24.40  | 8.30   | 3.00   | 0.00    | 274.90   | 12.30   | 28.50  | 5.90   | 4.30   |          |            |
| 26    | 11.60  | 35.40  | 15.90  | 19.40  | 8.30   | 2.60   | 49.20   | 210.30   | 27.20   | 23.20  | 5.40   | 5.90   |          |            |
| 27    | 8.90   | 28.50  | 15.90  | 15.20  | 7.10   | 3.80   | 115.60  | 186.00   | 36.90   | 23.20  | 4.80   | 6.50   |          |            |
| 28    | 8.90   | 11.60  | 14.40  | 13.70  | 6.50   | 6.50   | 73.00   | 302.10   | 31.20   | 19.40  | 4.80   | 6.50   |          |            |
| 29    | 7.70   | 11.60  | 14.40  | 11.60  | 8.30   | 36.90  | 147.60  | 313.20   | 28.50   | 18.30  |        | 7.10   |          |            |
| 30    | 7.10   | 10.20  | 14.40  | 8.90   | 7.10   | 41.30  | 64.10   | 855.90   | 25.80   | 15.90  |        | 7.10   |          |            |
| 31    |        | 8.90   |        | 8.30   | 5.90   |        | 12.30   |          | 25.80   | 15.20  |        | 7.10   |          |            |
| Total | 705.20 | 945.20 | 925.90 | 493.00 | 633.10 | 282.80 | 1590.60 | 13061.30 | 6504.30 | 758.30 | 194.20 | 144.00 | 26237.90 | <b>Ton</b> |
| Mean  | 23.50  | 30.50  | 30.90  | 15.90  | 20.40  | 9.40   | 51.30   | 435.40   | 209.80  | 24.50  | 6.90   | 4.60   |          |            |
| Max   | 80.30  | 105.50 | 186.00 | 36.90  | 107.40 | 41.30  | 163.00  | 3255.20  | 1580.60 | 95.50  | 9.60   | 7.10   | 3255.20  |            |
| Min   | 7.10   | 7.10   | 3.30   | 7.10   | 5.90   | 2.60   | 0.00    | 12.30    | 12.30   | 10.20  | 3.80   | 2.90   | 0.00     |            |

**WATER YEAR : 2013****SOUTHERN PENINSULA WEST COAST****Khlong Langu at Ban Wang Pa Khian , Satun (X.150)**

Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

**Location : on right bank at Ban Wang Pa Khian.**

|                                      | Ban Wang Pa Khian          | Amphoe Langu | Changwat Satun |
|--------------------------------------|----------------------------|--------------|----------------|
| <b>Drainage Area</b>                 | 480 sq.km.                 |              |                |
| <b>Method of sampling</b>            | Depth Integrating          |              |                |
| <b>Instrument Used</b>               | US.D-49                    |              |                |
| <b>Period of Available Records</b>   | 1998-Cont'd                |              |                |
| <b>Actual Measurement</b>            | 1998-Cont'd                |              |                |
| <b>Using Rating Curve Water Year</b> | 2013                       |              |                |
| <b>Number of observation</b>         | 22                         |              |                |
| <b>R-Square</b>                      | 0.7497                     |              |                |
| <b>Remarks</b>                       | Continued Sediment Station |              |                |

$$QS = 1.4319 QW^{1.57450}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep     | Oct      | Nov      | Dec      | Jan     | Feb    | Mar    | Annual    |     |
|-------|---------|---------|----------|----------|----------|---------|----------|----------|----------|---------|--------|--------|-----------|-----|
| 1     | 10.30   | 137.10  | 21.70    | 52.70    | 55.90    | 43.60   | 51.70    | 229.20   | 403.90   | 61.30   | 25.60  | 12.70  |           |     |
| 2     | 9.70    | 132.90  | 19.50    | 149.80   | 2099.60  | 55.90   | 41.60    | 178.70   | 559.00   | 60.20   | 24.90  | 12.70  |           |     |
| 3     | 10.30   | 50.70   | 19.50    | 1019.10  | 5897.00  | 46.60   | 90.60    | 149.80   | 472.10   | 58.00   | 22.50  | 12.10  |           |     |
| 4     | 10.30   | 60.20   | 17.30    | 3788.90  | 1700.50  | 103.40  | 221.80   | 122.80   | 832.80   | 56.90   | 21.00  | 12.10  |           |     |
| 5     | 11.50   | 47.50   | 16.60    | 5328.10  | 199.80   | 132.90  | 640.60   | 105.30   | 1140.50  | 54.80   | 21.00  | 12.10  |           |     |
| 6     | 16.60   | 81.70   | 16.60    | 1538.40  | 245.20   | 49.60   | 1998.90  | 107.20   | 2213.50  | 51.70   | 21.00  | 12.10  |           |     |
| 7     | 13.40   | 116.80  | 14.70    | 242.00   | 199.80   | 41.60   | 3154.20  | 99.70    | 1576.00  | 49.60   | 21.00  | 12.10  |           |     |
| 8     | 10.30   | 99.70   | 14.00    | 162.90   | 430.70   | 44.60   | 1585.60  | 97.90    | 693.60   | 47.50   | 19.50  | 12.10  |           |     |
| 9     | 9.70    | 92.30   | 13.40    | 124.80   | 1071.60  | 90.60   | 1049.00  | 130.90   | 449.00   | 45.50   | 18.00  | 12.10  |           |     |
| 10    | 14.00   | 107.20  | 491.00   | 97.90    | 382.60   | 85.20   | 444.40   | 329.50   | 329.50   | 45.50   | 18.00  | 12.10  |           |     |
| 11    | 13.40   | 60.20   | 2674.90  | 85.20    | 245.20   | 236.90  | 221.80   | 199.80   | 262.10   | 45.50   | 18.00  | 11.50  |           |     |
| 12    | 18.70   | 43.60   | 5347.60  | 97.90    | 174.20   | 4499.00 | 174.20   | 374.80   | 219.20   | 41.60   | 18.00  | 10.90  |           |     |
| 13    | 16.00   | 35.10   | 5937.00  | 80.10    | 336.90   | 2259.70 | 219.20   | 656.30   | 190.30   | 39.70   | 18.00  | 10.90  |           |     |
| 14    | 17.30   | 30.70   | 3709.20  | 85.20    | 197.50   | 604.40  | 370.90   | 1781.80  | 167.30   | 39.70   | 17.30  | 10.90  |           |     |
| 15    | 16.00   | 26.50   | 2088.30  | 87.00    | 116.80   | 289.70  | 619.80   | 462.80   | 149.80   | 38.80   | 16.60  | 10.90  |           |     |
| 16    | 12.10   | 24.00   | 1976.80  | 73.30    | 76.70    | 169.70  | 430.70   | 197.50   | 143.40   | 38.80   | 16.60  | 10.90  |           |     |
| 17    | 635.40  | 24.00   | 2329.60  | 65.80    | 59.10    | 109.10  | 272.20   | 190.30   | 390.80   | 36.90   | 16.60  | 10.90  |           |     |
| 18    | 3505.00 | 52.70   | 1034.00  | 56.90    | 51.70    | 83.50   | 630.20   | 135.00   | 544.10   | 35.10   | 16.60  | 10.30  |           |     |
| 19    | 234.30  | 58.00   | 472.10   | 47.50    | 49.60    | 68.10   | 2466.60  | 169.70   | 209.40   | 33.30   | 16.00  | 10.30  |           |     |
| 20    | 51.70   | 137.10  | 726.20   | 45.50    | 42.60    | 63.50   | 3645.90  | 242.00   | 145.50   | 32.40   | 15.30  | 10.30  |           |     |
| 21    | 34.20   | 147.70  | 1049.00  | 42.60    | 38.80    | 69.30   | 2731.40  | 1079.20  | 122.80   | 31.60   | 14.70  | 10.30  |           |     |
| 22    | 26.50   | 55.90   | 374.80   | 38.80    | 36.00    | 60.20   | 2604.80  | 5347.60  | 112.90   | 31.60   | 14.70  | 10.30  |           |     |
| 23    | 26.50   | 39.70   | 216.80   | 42.60    | 35.10    | 47.50   | 1299.10  | 7227.20  | 99.70    | 30.70   | 14.70  | 10.30  |           |     |
| 24    | 24.90   | 33.30   | 154.10   | 51.70    | 34.20    | 42.60   | 731.70   | 5937.00  | 90.60    | 29.80   | 14.70  | 10.30  |           |     |
| 25    | 99.70   | 36.00   | 118.80   | 51.70    | 36.90    | 38.80   | 619.80   | 2294.50  | 83.50    | 29.80   | 14.70  | 10.30  |           |     |
| 26    | 81.70   | 29.00   | 94.20    | 39.70    | 42.60    | 36.90   | 510.10   | 726.20   | 78.30    | 28.10   | 14.70  | 10.30  |           |     |
| 27    | 47.50   | 28.10   | 80.10    | 36.90    | 37.80    | 34.20   | 300.30   | 412.80   | 73.30    | 27.30   | 13.40  | 7.00   |           |     |
| 28    | 47.50   | 23.30   | 70.40    | 33.30    | 36.00    | 35.10   | 569.00   | 318.40   | 70.40    | 27.30   | 12.70  | 5.10   |           |     |
| 29    | 35.10   | 24.90   | 63.50    | 32.40    | 35.10    | 60.20   | 559.00   | 351.90   | 67.00    | 26.50   |        | 5.10   |           |     |
| 30    | 130.90  | 21.70   | 55.90    | 29.80    | 34.20    | 68.10   | 770.40   | 453.60   | 65.80    | 26.50   |        | 5.10   |           |     |
| 31    |         | 21.70   |          | 29.00    | 37.80    |         | 340.50   |          | 63.50    | 25.60   |        | 5.10   |           |     |
| Total | 5190.50 | 1879.30 | 29217.60 | 13657.50 | 14037.50 | 9570.50 | 29366.00 | 30109.40 | 12019.60 | 1227.60 | 495.80 | 319.20 | 147090.50 | Ton |
| Mean  | 173.00  | 60.60   | 973.90   | 440.60   | 452.80   | 319.00  | 947.30   | 1003.60  | 387.70   | 39.60   | 17.70  | 10.30  |           |     |
| Max   | 3505.00 | 147.70  | 5937.00  | 5328.10  | 5897.00  | 4499.00 | 3645.90  | 7227.20  | 2213.50  | 61.30   | 25.60  | 12.70  | 7227.20   |     |
| Min   | 9.70    | 21.70   | 13.40    | 29.00    | 34.20    | 34.20   | 41.60    | 97.90    | 63.50    | 25.60   | 12.70  | 5.10   | 5.10      |     |

**WATER YEAR : 2013****SOUTHERN PENINSULA WEST COAST****Khlong Ta Kuaw Pa at Ban Hin Dan , Phang Nga (X.187)**

Lat 08 - 46 - 25 N Long 98 - 23 - 36 E

**Location : on left bank at the bridge on Surat Thanu - Phang Nga Highway.**

|                                      | Ban Hin Dan                | Amphoe Ta Kuaw Pa | Changwat Phang Nga |
|--------------------------------------|----------------------------|-------------------|--------------------|
| <b>Drainage Area</b>                 | 546 sq.km.                 |                   |                    |
| <b>Method of sampling</b>            | Depth Integrating          |                   |                    |
| <b>Instrument Used</b>               | US.DH-59                   |                   |                    |
| <b>Period of Available Records</b>   | 2003-Cont'd                |                   |                    |
| <b>Actual Measurement</b>            | 2003-Cont'd                |                   |                    |
| <b>Using Rating Curve Water Year</b> | 2013                       |                   |                    |
| <b>Number of observation</b>         | 20                         |                   |                    |
| <b>R-Square</b>                      | 0.8716                     |                   |                    |
| <b>Remarks</b>                       | Continued Sediment Station |                   |                    |

$$QS = 10.6380 QW^{1.06400}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr      | May      | Jun       | Jul      | Aug      | Sep      | Oct      | Nov      | Dec     | Jan     | Feb     | Mar    | Annual    |     |
|-------|----------|----------|-----------|----------|----------|----------|----------|----------|---------|---------|---------|--------|-----------|-----|
| 1     | 382.70   | 596.30   | 974.40    | 958.00   | 5491.00  | 1153.50  | 230.40   | 668.70   | 230.40  | 115.40  | 80.50   | 42.80  |           |     |
| 2     | 425.00   | 524.50   | 2504.40   | 2255.20  | 15231.20 | 1620.70  | 326.80   | 596.30   | 189.80  | 115.40  | 80.50   | 40.30  |           |     |
| 3     | 453.30   | 467.50   | 2594.10   | 3050.00  | 10230.20 | 1301.10  | 4669.20  | 625.20   | 189.80  | 115.40  | 80.50   | 37.90  |           |     |
| 4     | 410.80   | 425.00   | 2280.20   | 12222.40 | 5656.00  | 1471.00  | 4142.30  | 368.70   | 183.00  | 115.40  | 80.50   | 34.20  |           |     |
| 5     | 439.10   | 495.90   | 1835.90   | 6925.30  | 2624.00  | 1258.80  | 3433.20  | 326.80   | 189.80  | 107.60  | 80.50   | 34.20  |           |     |
| 6     | 396.80   | 610.80   | 1322.30   | 3561.50  | 2280.20  | 763.50   | 4382.50  | 495.90   | 183.00  | 107.60  | 72.90   | 33.00  |           |     |
| 7     | 396.80   | 731.30   | 1174.50   | 2744.00  | 2924.50  | 639.70   | 5326.30  | 596.30   | 176.30  | 107.60  | 72.90   | 30.60  |           |     |
| 8     | 382.70   | 654.20   | 1007.10   | 2684.00  | 2474.50  | 747.40   | 5285.20  | 699.20   | 176.30  | 107.60  | 72.90   | 28.20  |           |     |
| 9     | 368.70   | 731.30   | 1195.60   | 2155.30  | 2714.00  | 876.60   | 4142.30  | 828.00   | 176.30  | 107.60  | 72.90   | 24.60  |           |     |
| 10    | 389.70   | 654.20   | 3851.30   | 1599.20  | 2414.80  | 1642.10  | 2924.50  | 844.20   | 176.30  | 103.70  | 72.90   | 22.20  |           |     |
| 11    | 481.70   | 610.80   | 4346.80   | 1577.80  | 1749.60  | 6790.00  | 2055.80  | 683.20   | 176.30  | 103.70  | 72.90   | 21.30  |           |     |
| 12    | 453.30   | 567.50   | 11270.10  | 1599.20  | 1577.80  | 9288.50  | 1749.60  | 860.40   | 169.60  | 103.70  | 72.90   | 19.40  |           |     |
| 13    | 389.70   | 610.80   | 10060.90  | 1535.10  | 1728.10  | 4998.00  | 1556.40  | 538.80   | 169.60  | 103.70  | 72.90   | 17.50  |           |     |
| 14    | 410.80   | 654.20   | 5656.00   | 2130.40  | 1907.00  | 2330.20  | 1174.50  | 481.70   | 176.30  | 103.70  | 72.90   | 14.80  |           |     |
| 15    | 467.50   | 610.80   | 8931.70   | 2205.20  | 1706.60  | 925.40   | 1216.70  | 396.80   | 183.00  | 103.70  | 72.90   | 12.90  |           |     |
| 16    | 410.80   | 610.80   | 9610.30   | 2534.20  | 1492.40  | 553.20   | 1069.70  | 396.80   | 189.80  | 103.70  | 69.00   | 11.10  |           |     |
| 17    | 1048.80  | 625.20   | 6360.20   | 3433.20  | 1301.10  | 654.20   | 990.70   | 396.80   | 196.50  | 103.70  | 54.00   | 9.30   |           |     |
| 18    | 1174.50  | 811.90   | 5203.10   | 3593.70  | 1195.60  | 1048.80  | 925.40   | 382.70   | 196.50  | 99.80   | 54.00   | 5.70   |           |     |
| 19    | 779.60   | 1069.70  | 4346.80   | 3722.30  | 1090.60  | 2504.40  | 876.60   | 354.70   | 189.80  | 92.10   | 54.00   | 4.00   |           |     |
| 20    | 715.30   | 1090.60  | 3690.10   | 3177.50  | 1090.60  | 3497.40  | 925.40   | 354.70   | 183.00  | 92.10   | 54.00   | 3.20   |           |     |
| 21    | 683.20   | 1069.70  | 3337.20   | 2804.10  | 1048.80  | 1792.70  | 1132.50  | 326.80   | 176.30  | 92.10   | 54.00   | 3.20   |           |     |
| 22    | 654.20   | 1343.50  | 2834.20   | 3018.20  | 990.70   | 1132.50  | 909.10   | 333.70   | 156.30  | 92.10   | 54.00   | 3.20   |           |     |
| 23    | 610.80   | 1385.90  | 2205.20   | 4454.10  | 1069.70  | 1007.10  | 779.60   | 361.70   | 156.30  | 92.10   | 46.50   | 3.20   |           |     |
| 24    | 538.80   | 1343.50  | 1792.70   | 3819.00  | 1111.60  | 1069.70  | 699.20   | 396.80   | 149.70  | 88.20   | 46.50   | 3.20   |           |     |
| 25    | 524.50   | 2230.20  | 1407.20   | 4382.50  | 1385.90  | 1007.10  | 731.30   | 326.80   | 143.00  | 88.20   | 46.50   | 2.70   |           |     |
| 26    | 510.20   | 3241.30  | 1048.80   | 3593.70  | 1301.10  | 1007.10  | 715.30   | 333.70   | 136.40  | 88.20   | 46.50   | 1.90   |           |     |
| 27    | 467.50   | 1685.10  | 1111.60   | 2774.00  | 1195.60  | 1048.80  | 763.50   | 747.40   | 123.30  | 84.30   | 45.30   | 1.90   |           |     |
| 28    | 467.50   | 1174.50  | 1090.60   | 2355.30  | 1048.80  | 1258.80  | 795.70   | 567.50   | 123.30  | 84.30   | 45.30   | 1.90   |           |     |
| 29    | 410.80   | 1385.90  | 1069.70   | 1599.20  | 1007.10  | 2055.80  | 747.40   | 510.20   | 123.30  | 84.30   |         | 1.90   |           |     |
| 30    | 553.20   | 1111.60  | 958.00    | 1343.50  | 990.70   | 2355.30  | 668.70   | 326.80   | 103.70  | 80.50   |         | 1.90   |           |     |
| 31    |          | 1027.90  |           | 1513.70  | 974.40   |          | 668.70   |          | 103.70  | 80.50   |         | 1.90   |           |     |
| Total | 15798.30 | 30152.40 | 105071.00 | 95320.80 | 79004.20 | 57799.40 | 56014.50 | 15127.30 | 5196.70 | 3068.00 | 1801.10 | 474.10 | 464827.80 | Ton |
| Mean  | 526.60   | 972.70   | 3502.40   | 3074.90  | 2548.50  | 1926.60  | 1806.90  | 504.20   | 167.60  | 99.00   | 64.30   | 15.30  |           |     |
| Max   | 1174.50  | 3241.30  | 11270.10  | 12222.40 | 15231.20 | 9288.50  | 5326.30  | 860.40   | 230.40  | 115.40  | 80.50   | 42.80  | 15231.20  |     |
| Min   | 368.70   | 425.00   | 958.00    | 958.00   | 974.40   | 553.20   | 230.40   | 326.80   | 103.70  | 80.50   | 45.30   | 1.90   | 1.90      |     |

**WATER YEAR : 2013****SOUTHERN PENINSULA WEST COAST****Khlong Bang Yai at Satree Phuket School , Phuket (X.191)**

Lat 07 - 53 - 20 N Long 98 - 23 - 40 E

**Location : on left bank at Satree Phuket School.**

|                                      |                            |                      |                        |
|--------------------------------------|----------------------------|----------------------|------------------------|
|                                      | <b>Ban -</b>               | <b>Amphoe</b> Mueang | <b>Changwat</b> Phuket |
| <b>Drainage Area</b>                 | 54                         | sq.km.               |                        |
| <b>Method of sampling</b>            | Depth Integrating          |                      |                        |
| <b>Instrument Used</b>               | US.D-49                    |                      |                        |
| <b>Period of Available Records</b>   | 1996-Cont'd                |                      |                        |
| <b>Actual Measurement</b>            | 1996-Cont'd                |                      |                        |
| <b>Using Rating Curve Water Year</b> | 2013                       |                      |                        |
| <b>Number of observation</b>         | 19                         |                      |                        |
| <b>R-Square</b>                      | 0.7181                     |                      |                        |
| <b>Remarks</b>                       | Continued Sediment Station |                      |                        |

$$QS = 8.3899 QW^{1.03110}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct     | Nov    | Dec    | Jan    | Feb   | Mar   | Annual  |            |
|-------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|-------|-------|---------|------------|
| 1     | 2.40   | 3.60   | 5.40   | 8.80   | 36.50  | 11.30  | 13.20   | 25.60  | 25.60  | 4.50   | 3.30  | 3.30  |         |            |
| 2     | 2.20   | 3.00   | 17.60  | 38.90  | 40.60  | 10.70  | 13.20   | 17.60  | 14.70  | 4.20   | 3.30  | 3.30  |         |            |
| 3     | 1.90   | 3.00   | 6.60   | 23.40  | 27.80  | 5.10   | 56.00   | 20.30  | 10.30  | 3.90   | 3.60  | 3.30  |         |            |
| 4     | 2.70   | 2.70   | 5.60   | 72.80  | 18.70  | 6.80   | 61.50   | 20.30  | 15.10  | 3.90   | 3.60  | 3.30  |         |            |
| 5     | 2.40   | 2.70   | 3.60   | 34.00  | 11.30  | 30.20  | 113.30  | 24.90  | 14.10  | 5.60   | 3.90  | 3.30  |         |            |
| 6     | 2.20   | 2.40   | 6.00   | 18.00  | 58.70  | 34.00  | 157.00  | 17.60  | 14.70  | 5.10   | 3.60  | 3.00  |         |            |
| 7     | 2.20   | 3.60   | 3.60   | 16.60  | 35.70  | 19.50  | 82.50   | 16.60  | 15.10  | 3.90   | 3.60  | 3.00  |         |            |
| 8     | 2.20   | 3.00   | 3.30   | 13.20  | 26.30  | 93.80  | 69.90   | 19.50  | 13.70  | 3.90   | 3.30  | 3.00  |         |            |
| 9     | 2.40   | 3.90   | 6.80   | 11.30  | 18.00  | 39.70  | 55.10   | 17.60  | 10.70  | 3.90   | 3.30  | 3.00  |         |            |
| 10    | 2.40   | 2.70   | 108.80 | 10.30  | 12.20  | 32.50  | 41.40   | 18.00  | 11.70  | 3.90   | 3.30  | 3.00  |         |            |
| 11    | 3.30   | 2.40   | 86.40  | 11.30  | 17.60  | 41.40  | 31.70   | 18.00  | 11.30  | 3.90   | 3.60  | 2.70  |         |            |
| 12    | 3.30   | 14.70  | 30.20  | 9.30   | 16.60  | 84.50  | 27.10   | 18.70  | 9.30   | 3.90   | 4.20  | 2.40  |         |            |
| 13    | 3.00   | 3.90   | 25.60  | 8.80   | 18.00  | 38.90  | 26.30   | 89.50  | 7.80   | 3.90   | 3.60  | 2.40  |         |            |
| 14    | 3.90   | 3.00   | 27.80  | 8.40   | 12.70  | 26.30  | 26.30   | 41.40  | 9.80   | 3.90   | 3.60  | 2.40  |         |            |
| 15    | 6.80   | 3.00   | 20.30  | 7.20   | 7.80   | 18.00  | 21.00   | 26.30  | 8.10   | 3.90   | 3.60  | 2.40  |         |            |
| 16    | 3.60   | 2.70   | 45.50  | 11.30  | 9.30   | 14.70  | 20.30   | 21.00  | 8.80   | 3.90   | 3.60  | 2.40  |         |            |
| 17    | 6.60   | 2.70   | 27.10  | 7.80   | 9.30   | 13.20  | 17.10   | 30.20  | 7.50   | 3.90   | 3.30  | 2.70  |         |            |
| 18    | 3.60   | 2.40   | 18.70  | 6.80   | 7.50   | 8.80   | 27.10   | 17.60  | 8.40   | 3.90   | 3.30  | 3.30  |         |            |
| 19    | 3.30   | 10.30  | 13.20  | 6.20   | 9.80   | 9.30   | 100.20  | 16.60  | 7.80   | 3.90   | 3.30  | 3.00  |         |            |
| 20    | 3.30   | 5.40   | 10.70  | 6.60   | 6.60   | 12.20  | 38.90   | 17.60  | 7.80   | 3.90   | 3.30  | 2.70  |         |            |
| 21    | 3.30   | 3.90   | 7.20   | 6.00   | 6.60   | 11.70  | 25.60   | 16.60  | 7.50   | 3.90   | 3.30  | 3.30  |         |            |
| 22    | 3.30   | 5.10   | 6.80   | 6.00   | 6.60   | 8.40   | 24.90   | 23.40  | 7.20   | 3.90   | 3.30  | 3.00  |         |            |
| 23    | 3.30   | 3.60   | 6.60   | 14.70  | 6.60   | 4.50   | 20.30   | 21.80  | 6.20   | 3.90   | 3.30  | 2.70  |         |            |
| 24    | 6.00   | 7.20   | 7.80   | 22.60  | 6.20   | 4.80   | 24.90   | 36.50  | 5.40   | 3.90   | 3.30  | 2.70  |         |            |
| 25    | 4.80   | 3.90   | 7.50   | 14.70  | 6.80   | 7.50   | 30.20   | 27.80  | 5.40   | 3.90   | 3.30  | 2.40  |         |            |
| 26    | 4.20   | 7.80   | 7.20   | 9.80   | 7.20   | 7.20   | 28.60   | 23.40  | 5.40   | 3.90   | 3.30  | 3.30  |         |            |
| 27    | 3.30   | 6.20   | 7.20   | 6.20   | 6.00   | 7.50   | 67.00   | 21.80  | 5.40   | 3.90   | 3.30  | 3.00  |         |            |
| 28    | 3.00   | 4.80   | 6.60   | 6.80   | 6.20   | 13.20  | 85.40   | 27.10  | 5.10   | 3.90   | 3.00  | 2.40  |         |            |
| 29    | 3.90   | 4.20   | 6.20   | 6.80   | 11.30  | 18.00  | 53.20   | 21.80  | 4.80   | 3.90   |       | 2.40  |         |            |
| 30    | 6.80   | 4.20   | 6.20   | 6.60   | 6.20   | 14.10  | 37.30   | 35.70  | 5.10   | 3.60   |       | 2.70  |         |            |
| 31    |        | 4.20   |        | 7.20   | 13.70  |        | 31.70   |        | 5.10   | 3.00   |       | 3.00  |         |            |
| Total | 105.60 | 136.20 | 542.10 | 438.40 | 484.40 | 647.80 | 1428.20 | 750.80 | 294.90 | 123.50 | 96.30 | 88.80 | 5137.00 | <b>Ton</b> |
| Mean  | 3.50   | 4.40   | 18.10  | 14.10  | 15.60  | 21.60  | 46.10   | 25.00  | 9.50   | 4.00   | 3.40  | 2.90  |         |            |
| Max   | 6.80   | 14.70  | 108.80 | 72.80  | 58.70  | 93.80  | 157.00  | 89.50  | 25.60  | 5.60   | 4.20  | 3.30  | 157.00  |            |
| Min   | 1.90   | 2.40   | 3.30   | 6.00   | 6.00   | 4.50   | 13.20   | 16.60  | 4.80   | 3.00   | 3.00  | 2.40  | 1.90    |            |



**WATER YEAR : 2013****SOUTHERN PENINSULA WEST COAST****Lower Khlong Palian at Ban Yan Ta Khaow , Trang (X.236)**

Lat 07 - 22 - 20 N Long 99 - 40 - 39 E

**Location : on right bank at Ban Yan Ta Khaow.**

|                                      | <b>Ban</b> Yan Ta Khaow    | <b>Amphoe</b> Yan Ta Khaow | <b>Changwat</b> Trang |
|--------------------------------------|----------------------------|----------------------------|-----------------------|
| <b>Drainage Area</b>                 | 587 sq.km.                 |                            |                       |
| <b>Method of sampling</b>            | Depth Integrating          |                            |                       |
| <b>Instrument Used</b>               | US.D-49                    |                            |                       |
| <b>Period of Available Records</b>   | 2005-Cont'd                |                            |                       |
| <b>Actual Measurement</b>            | 2005-Cont'd                |                            |                       |
| <b>Using Rating Curve Water Year</b> | 2013                       |                            |                       |
| <b>Number of observation</b>         | 24                         |                            |                       |
| <b>R-Square</b>                      | 0.8054                     |                            |                       |
| <b>Remarks</b>                       | Continued Sediment Station |                            |                       |

$$QS = 9.6135 QW^{1.05490}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2012 to 31 March 2013**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep      | Oct      | Nov      | Dec      | Jan     | Feb     | Mar     | Annual    |            |
|-------|---------|---------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|-----------|------------|
| 1     | 161.10  | 254.20  | 247.00   | 319.60   | 290.40   | 337.80   | 353.40   | 661.40   | 1316.40  | 345.40  | 218.30  | 34.20   |           |            |
| 2     | 116.60  | 243.40  | 232.60   | 438.60   | 1258.80  | 330.50   | 337.80   | 600.90   | 1208.50  | 361.30  | 225.40  | 44.80   |           |            |
| 3     | 98.40   | 250.60  | 250.60   | 651.30   | 3196.00  | 334.20   | 357.40   | 573.90   | 993.70   | 361.30  | 225.40  | 64.80   |           |            |
| 4     | 85.60   | 447.30  | 243.40   | 1495.10  | 1727.50  | 349.40   | 389.30   | 543.20   | 1309.20  | 365.40  | 207.60  | 95.90   |           |            |
| 5     | 106.20  | 279.50  | 283.20   | 2637.00  | 938.60   | 405.30   | 499.50   | 516.90   | 2057.20  | 349.40  | 180.50  | 24.70   |           |            |
| 6     | 124.30  | 341.50  | 265.10   | 1469.40  | 737.40   | 443.00   | 691.80   | 508.20   | 3149.40  | 315.90  | 145.00  | 0.00    |           |            |
| 7     | 154.80  | 413.30  | 261.40   | 1042.90  | 783.30   | 405.30   | 727.30   | 482.00   | 2324.90  | 275.90  | 116.60  | 0.00    |           |            |
| 8     | 180.50  | 377.40  | 261.40   | 822.90   | 810.70   | 401.40   | 859.30   | 512.60   | 1460.90  | 239.80  | 95.90   | 0.00    |           |            |
| 9     | 214.70  | 385.40  | 275.90   | 661.40   | 883.70   | 430.00   | 1208.50  | 508.20   | 1075.20  | 204.00  | 90.80   | 0.00    |           |            |
| 10    | 221.90  | 393.40  | 810.70   | 587.00   | 727.30   | 438.60   | 859.30   | 610.90   | 865.30   | 232.60  | 101.00  | 0.00    |           |            |
| 11    | 236.20  | 353.40  | 737.40   | 560.70   | 752.70   | 495.10   | 641.20   | 573.90   | 752.70   | 214.70  | 114.00  | 0.00    |           |            |
| 12    | 247.00  | 334.20  | 987.50   | 551.90   | 656.30   | 1055.80  | 538.80   | 722.20   | 707.00   | 200.40  | 127.00  | 3.20    |           |            |
| 13    | 261.40  | 369.30  | 1068.80  | 499.50   | 810.70   | 847.20   | 835.00   | 788.40   | 661.40   | 207.60  | 138.60  | 32.30   |           |            |
| 14    | 225.40  | 349.40  | 1237.20  | 626.00   | 752.70   | 656.30   | 1201.40  | 847.20   | 582.60   | 214.70  | 154.80  | 38.20   |           |            |
| 15    | 180.50  | 319.60  | 1012.10  | 508.20   | 595.80   | 538.80   | 889.70   | 681.60   | 556.30   | 236.20  | 106.20  | 62.50   |           |            |
| 16    | 157.90  | 283.20  | 1133.70  | 460.30   | 530.00   | 482.00   | 853.20   | 573.90   | 556.30   | 247.00  | 73.80   | 85.60   |           |            |
| 17    | 174.10  | 243.40  | 1302.00  | 464.70   | 469.00   | 456.00   | 752.70   | 560.70   | 859.30   | 243.40  | 76.00   | 124.30  |           |            |
| 18    | 236.20  | 239.80  | 1049.30  | 430.00   | 443.00   | 413.30   | 944.70   | 499.50   | 804.60   | 232.60  | 78.30   | 101.00  |           |            |
| 19    | 138.60  | 272.30  | 920.30   | 421.30   | 443.00   | 430.00   | 1036.60  | 534.40   | 631.10   | 229.00  | 73.80   | 141.80  |           |            |
| 20    | 124.30  | 257.80  | 816.80   | 417.40   | 443.00   | 430.00   | 1194.20  | 605.90   | 560.70   | 218.30  | 67.00   | 157.90  |           |            |
| 21    | 135.40  | 261.40  | 828.90   | 425.70   | 443.00   | 430.00   | 993.70   | 926.30   | 508.20   | 200.40  | 51.40   | 151.50  |           |            |
| 22    | 151.50  | 279.50  | 503.80   | 430.00   | 430.00   | 425.70   | 1094.70  | 2702.20  | 469.00   | 190.30  | 30.40   | 124.30  |           |            |
| 23    | 170.80  | 290.40  | 430.00   | 438.60   | 373.30   | 405.30   | 993.70   | 3763.10  | 425.70   | 174.10  | 1.60    | 93.40   |           |            |
| 24    | 200.40  | 315.90  | 447.30   | 456.00   | 323.20   | 381.30   | 816.80   | 3184.40  | 381.30   | 154.80  | 0.00    | 60.30   |           |            |
| 25    | 236.20  | 373.30  | 438.60   | 409.40   | 297.70   | 353.40   | 712.00   | 2074.60  | 353.40   | 141.80  | 0.00    | 44.80   |           |            |
| 26    | 337.80  | 373.30  | 438.60   | 381.30   | 268.70   | 323.20   | 707.00   | 1330.80  | 326.90   | 138.60  | 0.00    | 53.60   |           |            |
| 27    | 308.60  | 357.40  | 421.30   | 357.40   | 239.80   | 286.80   | 651.30   | 987.50   | 315.90   | 145.00  | 1.60    | 95.90   |           |            |
| 28    | 326.90  | 319.60  | 393.40   | 334.20   | 239.80   | 279.50   | 835.00   | 871.50   | 312.30   | 157.90  | 22.80   | 116.60  |           |            |
| 29    | 341.50  | 301.30  | 361.30   | 319.60   | 225.40   | 401.40   | 773.10   | 1081.70  | 308.60   | 170.80  |         | 138.60  |           |            |
| 30    | 315.90  | 275.90  | 330.50   | 297.70   | 312.30   | 434.30   | 1159.70  | 1796.60  | 326.90   | 183.80  |         | 157.90  |           |            |
| 31    |         | 250.60  |          | 268.70   | 301.30   |          | 816.80   |          | 330.50   | 200.40  |         | 167.70  |           |            |
| Total | 5970.70 | 9807.00 | 17990.10 | 19183.80 | 20704.40 | 13400.90 | 24724.90 | 30624.60 | 26491.40 | 7152.80 | 2723.80 | 2215.80 | 180990.20 | <b>Ton</b> |
| Mean  | 199.00  | 316.40  | 599.70   | 618.80   | 667.90   | 446.70   | 797.60   | 1020.80  | 854.60   | 230.70  | 97.30   | 71.50   |           |            |
| Max   | 341.50  | 447.30  | 1302.00  | 2637.00  | 3196.00  | 1055.80  | 1208.50  | 3763.10  | 3149.40  | 365.40  | 225.40  | 167.70  | 3763.10   |            |
| Min   | 85.60   | 239.80  | 232.60   | 268.70   | 225.40   | 279.50   | 337.80   | 482.00   | 308.60   | 138.60  | 0.00    | 0.00    | 0.00      |            |

**WATER YEAR : 2013****SOUTHERN PENINSULA WEST COAST****Khlong Phangnga at Ban Bang Tong , Phangnga (X.245)**

Lat 08 - 30 - 49 N Long 98 - 30 - 15 E

**Location : on right bank at Ban Bang Tong.**

|                                      | Ban Bang Tong              | Amphoe Mueang | Changwat Phangnga |
|--------------------------------------|----------------------------|---------------|-------------------|
| <b>Drainage Area</b>                 | 242 sq.km.                 |               |                   |
| <b>Method of sampling</b>            | Depth Integrating          |               |                   |
| <b>Instrument Used</b>               | US.D-49                    |               |                   |
| <b>Period of Available Records</b>   | 2005-Cont'd                |               |                   |
| <b>Actual Measurement</b>            | 2005-Cont'd                |               |                   |
| <b>Using Rating Curve Water Year</b> | 2013                       |               |                   |
| <b>Number of observation</b>         | 20                         |               |                   |
| <b>R-Square</b>                      | 0.7195                     |               |                   |
| <b>Remarks</b>                       | Continued Sediment Station |               |                   |

$$QS = 9.2471 QW^{1.05770}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

| Date  | Apr     | May     | Jun      | Jul      | Aug      | Sep      | Oct      | Nov     | Dec     | Jan     | Feb     | Mar    | Annual    |     |
|-------|---------|---------|----------|----------|----------|----------|----------|---------|---------|---------|---------|--------|-----------|-----|
| 1     | 83.40   | 196.70  | 249.00   | 302.00   | 2198.50  | 290.20   | 592.30   | 296.10  | 196.70  | 108.40  | 86.20   | 59.40  |           |     |
| 2     | 83.40   | 180.50  | 933.70   | 952.60   | 3266.60  | 272.50   | 392.50   | 284.30  | 188.60  | 108.40  | 86.20   | 59.40  |           |     |
| 3     | 83.40   | 148.50  | 450.40   | 1227.90  | 1773.80  | 249.00   | 392.50   | 272.50  | 184.50  | 108.40  | 83.40   | 57.20  |           |     |
| 4     | 83.40   | 148.50  | 349.50   | 5572.50  | 1293.10  | 188.60   | 1534.30  | 254.90  | 180.50  | 105.60  | 83.40   | 55.00  |           |     |
| 5     | 77.90   | 152.50  | 371.00   | 1473.00  | 990.40   | 231.50   | 1571.20  | 243.20  | 172.50  | 105.60  | 83.40   | 55.00  |           |     |
| 6     | 77.90   | 156.50  | 284.30   | 980.90   | 1098.00  | 219.80   | 1534.30  | 219.80  | 164.50  | 105.60  | 83.40   | 50.70  |           |     |
| 7     | 75.20   | 504.90  | 243.20   | 792.80   | 867.80   | 214.00   | 1682.70  | 214.00  | 160.50  | 105.60  | 80.70   | 46.50  |           |     |
| 8     | 75.20   | 237.30  | 219.80   | 690.30   | 1098.00  | 202.40   | 1448.50  | 225.70  | 156.50  | 180.50  | 80.70   | 42.20  |           |     |
| 9     | 75.20   | 457.60  | 266.60   | 568.40   | 858.40   | 196.70   | 1293.10  | 202.40  | 148.50  | 111.20  | 77.90   | 35.80  |           |     |
| 10    | 75.20   | 225.70  | 1044.10  | 560.50   | 764.80   | 196.70   | 943.10   | 214.00  | 148.50  | 111.20  | 77.90   | 35.80  |           |     |
| 11    | 75.20   | 152.50  | 1448.50  | 536.60   | 708.90   | 1271.30  | 746.10   | 237.30  | 144.50  | 108.40  | 75.20   | 29.60  |           |     |
| 12    | 77.90   | 148.50  | 4702.70  | 512.90   | 727.50   | 1022.60  | 592.30   | 378.20  | 144.50  | 108.40  | 75.20   | 29.60  |           |     |
| 13    | 83.40   | 144.50  | 2166.90  | 536.60   | 990.40   | 653.20   | 536.60   | 214.00  | 144.50  | 108.40  | 72.40   | 25.40  |           |     |
| 14    | 100.00  | 136.60  | 1773.80  | 839.60   | 690.30   | 718.20   | 457.60   | 202.40  | 144.50  | 108.40  | 72.40   | 25.40  |           |     |
| 15    | 202.40  | 136.60  | 4236.90  | 980.90   | 662.50   | 450.40   | 421.40   | 278.40  | 140.50  | 108.40  | 69.70   | 19.20  |           |     |
| 16    | 214.00  | 136.60  | 2867.30  | 746.10   | 634.70   | 378.20   | 385.30   | 284.30  | 140.50  | 105.60  | 69.70   | 18.20  |           |     |
| 17    | 802.10  | 136.60  | 1799.90  | 718.20   | 560.50   | 342.30   | 363.80   | 266.60  | 136.60  | 102.80  | 67.00   | 17.20  |           |     |
| 18    | 219.80  | 225.70  | 1485.30  | 584.30   | 497.00   | 313.80   | 335.20   | 214.00  | 140.50  | 102.80  | 67.00   | 16.20  |           |     |
| 19    | 136.60  | 202.40  | 1260.40  | 552.50   | 450.40   | 302.00   | 307.90   | 196.70  | 140.50  | 100.00  | 64.20   | 15.20  |           |     |
| 20    | 136.60  | 243.20  | 1044.10  | 600.30   | 414.20   | 952.60   | 335.20   | 192.60  | 136.60  | 97.30   | 64.20   | 14.70  |           |     |
| 21    | 136.60  | 392.50  | 914.80   | 764.80   | 385.30   | 576.40   | 450.40   | 188.60  | 136.60  | 94.50   | 64.20   | 12.70  |           |     |
| 22    | 136.60  | 414.20  | 727.50   | 896.00   | 363.80   | 544.60   | 407.00   | 196.70  | 136.60  | 94.50   | 64.20   | 10.20  |           |     |
| 23    | 144.50  | 254.90  | 528.70   | 1098.00  | 342.30   | 421.40   | 489.10   | 196.70  | 136.60  | 91.70   | 61.50   | 8.80   |           |     |
| 24    | 148.50  | 278.40  | 450.40   | 1402.20  | 313.80   | 378.20   | 544.60   | 392.50  | 132.60  | 91.70   | 61.50   | 6.80   |           |     |
| 25    | 144.50  | 414.20  | 407.00   | 849.00   | 307.90   | 342.30   | 435.90   | 249.00  | 132.60  | 91.70   | 59.40   | 3.00   |           |     |
| 26    | 140.50  | 662.50  | 371.00   | 699.60   | 302.00   | 313.80   | 443.10   | 219.80  | 132.60  | 88.90   | 59.40   | 1.70   |           |     |
| 27    | 385.30  | 450.40  | 320.90   | 536.60   | 296.10   | 302.00   | 392.50   | 219.80  | 111.20  | 88.90   | 57.20   | 1.70   |           |     |
| 28    | 254.90  | 568.40  | 284.30   | 512.90   | 290.20   | 302.00   | 371.00   | 272.50  | 111.20  | 86.20   | 57.20   | 1.70   |           |     |
| 29    | 302.00  | 568.40  | 243.20   | 481.20   | 296.10   | 755.40   | 356.60   | 225.70  | 111.20  | 86.20   |         | 1.20   |           |     |
| 30    | 296.10  | 371.00  | 243.20   | 421.40   | 260.70   | 858.40   | 349.50   | 208.20  | 108.40  | 91.70   |         | 1.20   |           |     |
| 31    |         | 328.10  |          | 718.20   | 320.90   |          | 307.90   |         | 108.40  | 94.50   |         | 1.20   |           |     |
| Total | 4927.70 | 8774.90 | 31688.40 | 28108.80 | 24024.90 | 13460.50 | 20413.50 | 7260.90 | 4472.50 | 3201.50 | 2004.80 | 757.90 | 149096.30 | Ton |
| Mean  | 164.30  | 283.10  | 1056.30  | 906.70   | 775.00   | 448.70   | 658.50   | 242.00  | 144.30  | 103.30  | 71.60   | 24.40  |           |     |
| Max   | 802.10  | 662.50  | 4702.70  | 5572.50  | 3266.60  | 1271.30  | 1682.70  | 392.50  | 196.70  | 180.50  | 86.20   | 59.40  | 5572.50   |     |
| Min   | 75.20   | 136.60  | 219.80   | 302.00   | 260.70   | 188.60   | 307.90   | 188.60  | 108.40  | 86.20   | 57.20   | 1.20   | 1.20      |     |

**WATER YEAR : 2013**  
**SOUTHERN PENINSULA WEST COAST**  
**Khlong Duson at Ban Panjor , Satun (X.279)**

Lat 06 - 46 - 39 N    Long 100 - 04 - 16 E

**Location : on right bank at Ban Panjor.**

|                                      |                            |                         |                       |
|--------------------------------------|----------------------------|-------------------------|-----------------------|
|                                      | <b>Ban</b> Panjor          | <b>Amphoe</b> Khuan Don | <b>Changwat</b> Satun |
| <b>Drainage Area</b>                 | 262                        | sq.km.                  |                       |
| <b>Method of sampling</b>            | Depth Integrating          |                         |                       |
| <b>Instrument Used</b>               | US.D-49                    |                         |                       |
| <b>Period of Available Records</b>   | 2011-Cont'd                |                         |                       |
| <b>Actual Measurement</b>            | 2011-Cont'd                |                         |                       |
| <b>Using Rating Curve Water Year</b> | 2013                       |                         |                       |
| <b>Number of observation</b>         | 22                         |                         |                       |
| <b>R-Square</b>                      | 0.7355                     |                         |                       |
| <b>Remarks</b>                       | Continued Sediment Station |                         |                       |

$$QS = 2.9840 QW^{1.39060}$$

**Suspended Sediment , in Tons per Day. Water Year 1 April 2013 to 31 March 2014**

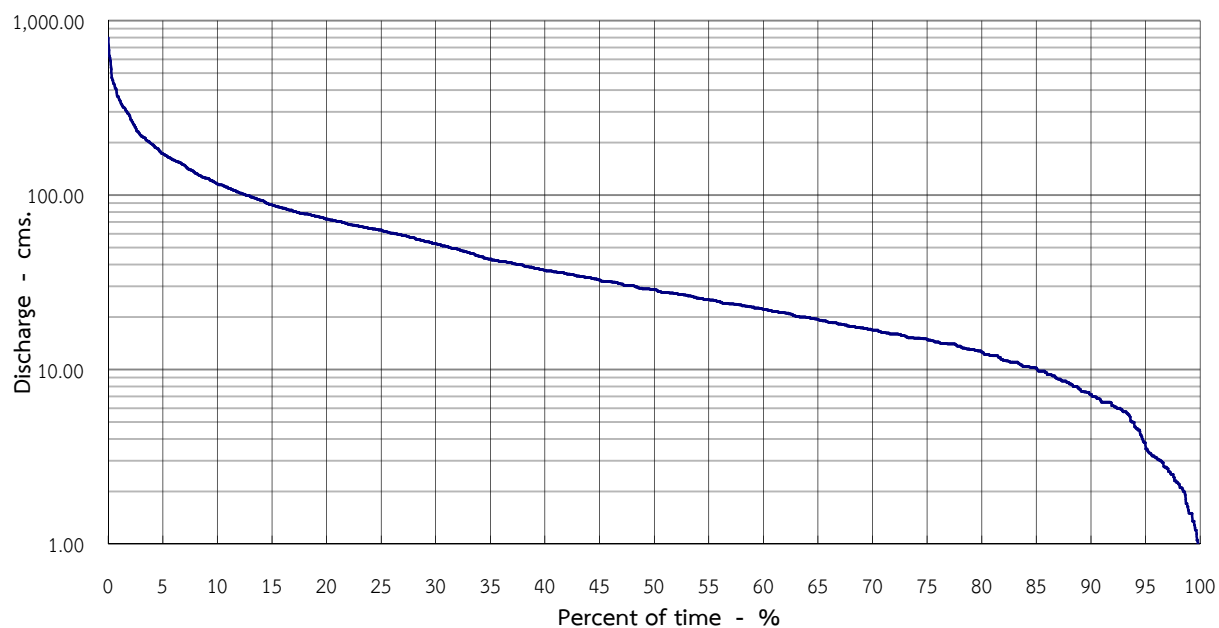
| Date  | Apr    | May    | Jun     | Jul     | Aug     | Sep     | Oct     | Nov     | Dec     | Jan    | Feb    | Mar    | Annual   |            |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|----------|------------|
| 1     | 3.80   | 19.50  | 8.50    | 22.50   | 16.50   | 20.90   | 18.70   | 86.30   | 83.30   | 22.50  | 13.20  | 2.70   |          |            |
| 2     | 3.80   | 49.10  | 8.50    | 24.00   | 285.20  | 57.70   | 21.70   | 64.00   | 92.30   | 22.50  | 12.60  | 2.50   |          |            |
| 3     | 3.80   | 26.40  | 9.00    | 72.00   | 306.30  | 25.70   | 24.80   | 56.40   | 100.00  | 22.50  | 12.60  | 2.20   |          |            |
| 4     | 4.10   | 22.50  | 8.00    | 209.10  | 112.70  | 56.40   | 29.90   | 50.30   | 171.30  | 23.30  | 12.10  | 7.10   |          |            |
| 5     | 4.50   | 24.00  | 8.00    | 196.10  | 66.70   | 42.00   | 68.00   | 43.20   | 236.30  | 21.70  | 12.10  | 7.10   |          |            |
| 6     | 7.60   | 22.50  | 7.60    | 100.00  | 65.40   | 25.70   | 132.50  | 57.70   | 327.80  | 21.70  | 11.60  | 6.60   |          |            |
| 7     | 5.70   | 23.30  | 7.60    | 55.20   | 81.80   | 20.90   | 231.60  | 43.20   | 132.50  | 22.50  | 7.60   | 6.20   |          |            |
| 8     | 4.90   | 15.80  | 7.10    | 60.20   | 84.80   | 20.90   | 179.10  | 44.30   | 92.30   | 21.70  | 7.60   | 2.50   |          |            |
| 9     | 4.90   | 13.20  | 7.60    | 104.70  | 165.50  | 22.50   | 119.20  | 36.40   | 74.70   | 20.90  | 7.60   | 2.00   |          |            |
| 10    | 5.30   | 13.70  | 50.30   | 56.40   | 109.50  | 26.40   | 69.40   | 54.00   | 69.40   | 22.50  | 9.00   | 2.00   |          |            |
| 11    | 6.20   | 12.10  | 96.90   | 45.50   | 76.10   | 116.00  | 45.50   | 54.00   | 69.40   | 20.90  | 11.60  | 1.80   |          |            |
| 12    | 8.50   | 10.60  | 876.10  | 65.40   | 62.80   | 327.80  | 40.90   | 47.90   | 57.70   | 20.20  | 11.00  | 4.90   |          |            |
| 13    | 6.60   | 10.00  | 720.20  | 39.80   | 76.10   | 157.80  | 49.10   | 119.20  | 50.30   | 19.50  | 11.00  | 5.30   |          |            |
| 14    | 7.10   | 9.00   | 464.00  | 35.30   | 54.00   | 93.90   | 74.70   | 112.70  | 44.30   | 19.50  | 10.00  | 4.90   |          |            |
| 15    | 9.00   | 8.50   | 431.00  | 34.20   | 39.80   | 57.70   | 109.50  | 59.00   | 42.00   | 18.70  | 5.70   | 2.70   |          |            |
| 16    | 14.50  | 8.50   | 255.20  | 29.90   | 33.20   | 36.40   | 134.20  | 42.00   | 39.80   | 17.20  | 5.30   | 9.00   |          |            |
| 17    | 55.20  | 9.00   | 252.90  | 26.40   | 29.90   | 31.00   | 217.90  | 44.30   | 69.40   | 16.50  | 5.70   | 8.00   |          |            |
| 18    | 154.00 | 24.00  | 169.30  | 24.80   | 27.30   | 27.30   | 185.40  | 34.20   | 73.30   | 15.80  | 9.50   | 8.00   |          |            |
| 19    | 38.60  | 21.70  | 554.30  | 22.50   | 24.00   | 24.80   | 264.80  | 32.00   | 45.50   | 15.80  | 9.50   | 6.60   |          |            |
| 20    | 21.70  | 17.20  | 512.10  | 21.70   | 22.50   | 22.50   | 217.90  | 84.80   | 38.60   | 15.10  | 7.60   | 6.20   |          |            |
| 21    | 21.70  | 19.50  | 217.90  | 20.20   | 21.70   | 20.90   | 377.80  | 159.70  | 35.30   | 15.10  | 4.50   | 5.30   |          |            |
| 22    | 21.70  | 15.10  | 124.20  | 18.70   | 20.20   | 18.00   | 402.60  | 200.40  | 33.20   | 15.10  | 4.50   | 2.20   |          |            |
| 23    | 21.70  | 13.20  | 80.40   | 18.00   | 19.50   | 18.00   | 206.90  | 245.70  | 29.90   | 14.50  | 4.10   | 2.00   |          |            |
| 24    | 21.70  | 15.80  | 55.20   | 24.00   | 18.00   | 17.20   | 161.60  | 112.70  | 32.00   | 13.70  | 4.50   | 2.00   |          |            |
| 25    | 21.70  | 28.10  | 42.00   | 17.20   | 17.20   | 17.20   | 198.20  | 84.80   | 34.20   | 13.70  | 9.00   | 2.20   |          |            |
| 26    | 21.70  | 15.80  | 34.20   | 15.80   | 16.50   | 17.20   | 152.20  | 68.00   | 28.90   | 13.20  | 8.50   | 4.10   |          |            |
| 27    | 21.70  | 12.60  | 32.00   | 14.50   | 19.50   | 17.20   | 107.90  | 54.00   | 27.30   | 13.20  | 8.50   | 4.50   |          |            |
| 28    | 21.70  | 10.60  | 33.20   | 13.70   | 20.20   | 20.20   | 104.70  | 50.30   | 26.40   | 13.70  | 8.00   | 4.10   |          |            |
| 29    | 17.20  | 10.60  | 26.40   | 13.20   | 20.20   | 18.70   | 204.70  | 55.20   | 25.70   | 13.70  |        | 4.10   |          |            |
| 30    | 15.10  | 9.50   | 24.00   | 13.20   | 16.50   | 20.20   | 240.90  | 65.40   | 24.80   | 13.70  |        | 2.20   |          |            |
| 31    |        | 9.00   |         | 12.60   | 13.70   |         | 130.80  |         | 24.00   | 13.20  |        | 2.00   |          |            |
| Total | 575.70 | 520.40 | 5123.70 | 1426.80 | 1943.30 | 1399.10 | 4523.10 | 2262.10 | 2231.90 | 553.80 | 244.50 | 133.00 | 20937.40 | <b>Ton</b> |
| Mean  | 19.20  | 16.80  | 170.80  | 46.00   | 62.70   | 46.60   | 145.90  | 75.40   | 72.00   | 17.90  | 8.70   | 4.30   |          |            |
| Max   | 154.00 | 49.10  | 876.10  | 209.10  | 306.30  | 327.80  | 402.60  | 245.70  | 327.80  | 23.30  | 13.20  | 9.00   | 876.10   |            |
| Min   | 3.80   | 8.50   | 7.10    | 12.60   | 13.70   | 17.20   | 18.70   | 32.00   | 24.00   | 13.20  | 4.10   | 1.80   | 1.80     |            |

## Appendix

Flow Duration Curve for Daily Discharge  
(2004-2013)

Flow Duration Curve for Daily Discharge (2004-2013)

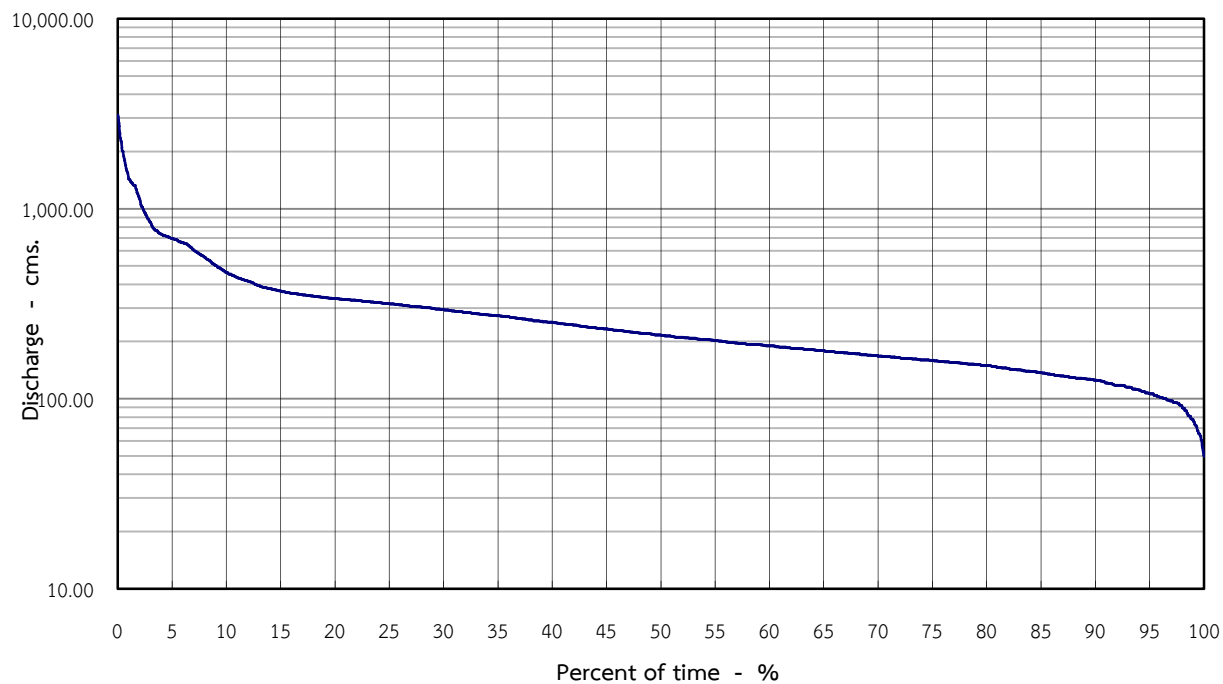
Station P.1 Ping River A.Muang P.Chiangmai



| Percent of time - % | 1     | 10    | 20   | 30   | 50   | 60   | 80   | 85   | 90  | 95  | 100 |
|---------------------|-------|-------|------|------|------|------|------|------|-----|-----|-----|
| Discharge - cms.    | 359.6 | 115.8 | 73.0 | 52.5 | 28.8 | 22.2 | 12.6 | 10.2 | 7.2 | 3.7 | 0.8 |

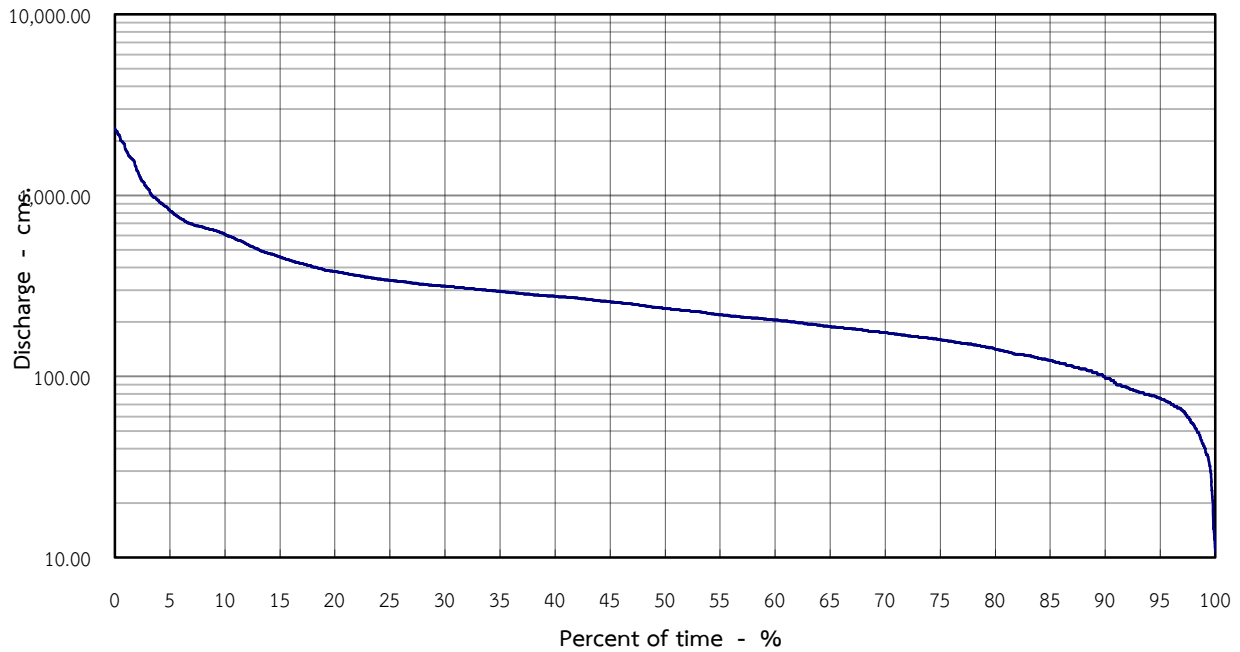
Flow Duration Curve for Daily Discharge (2004-2013)

Station P.7A Ping River A.muang P.Khampaengpet



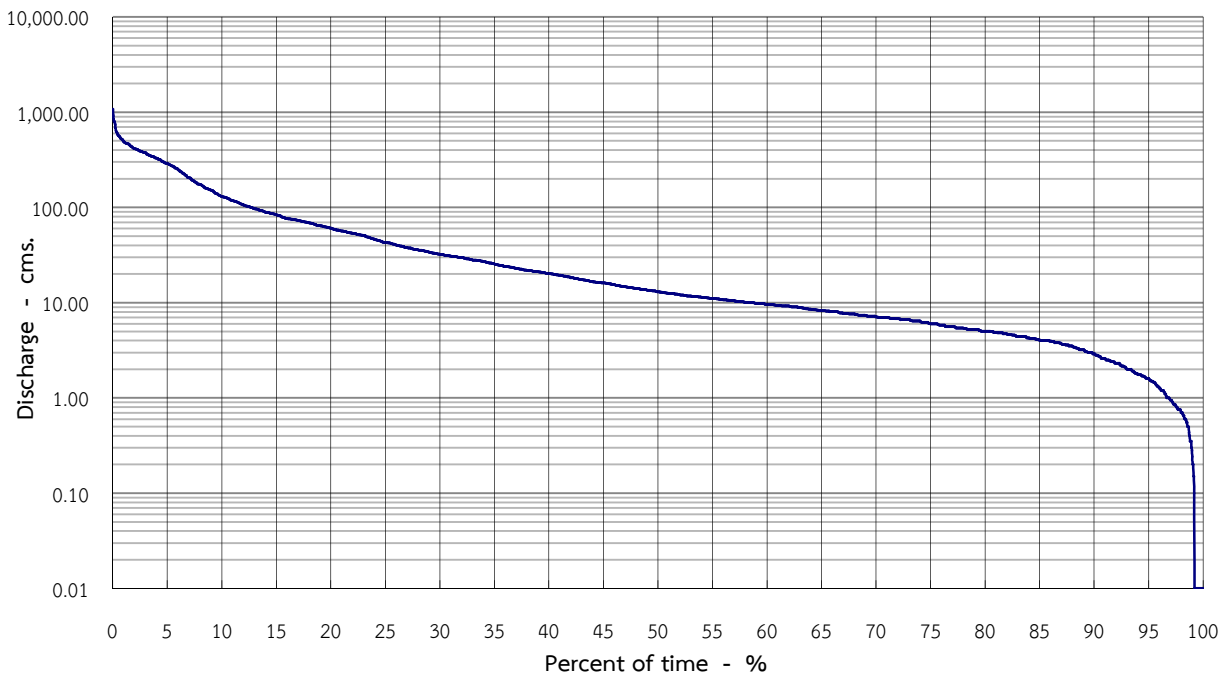
| Percent of time - % | 1       | 10    | 20    | 30    | 50    | 60    | 80    | 85    | 90    | 95    | 100  |
|---------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Discharge - cms.    | 1,439.3 | 462.0 | 337.0 | 294.0 | 217.0 | 190.0 | 149.0 | 137.0 | 125.6 | 106.8 | 49.8 |

Flow Duration Curve for Daily Discharge (2004-2013)  
Station P.17 Ping River A.Banphot Phisai P.Nakhon



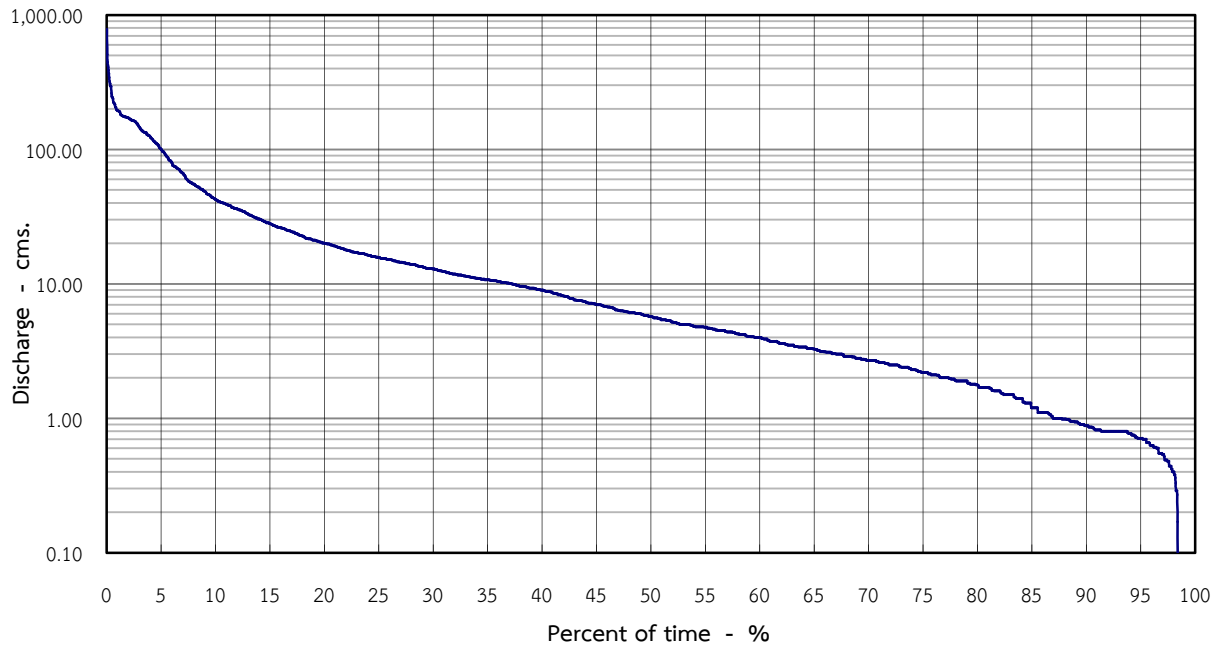
| Percent of time - % | 1       | 10    | 20    | 30    | 50    | 60    | 80    | 85    | 90   | 95   | 100  |
|---------------------|---------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| Discharge - cms.    | 1,790.3 | 611.4 | 380.0 | 315.5 | 237.5 | 205.2 | 142.0 | 122.7 | 97.7 | 76.0 | 10.8 |

Flow Duration Curve for Daily Discharge (2004-2013)  
Station W.4A Wang River A.Sam Ngao P.Tak



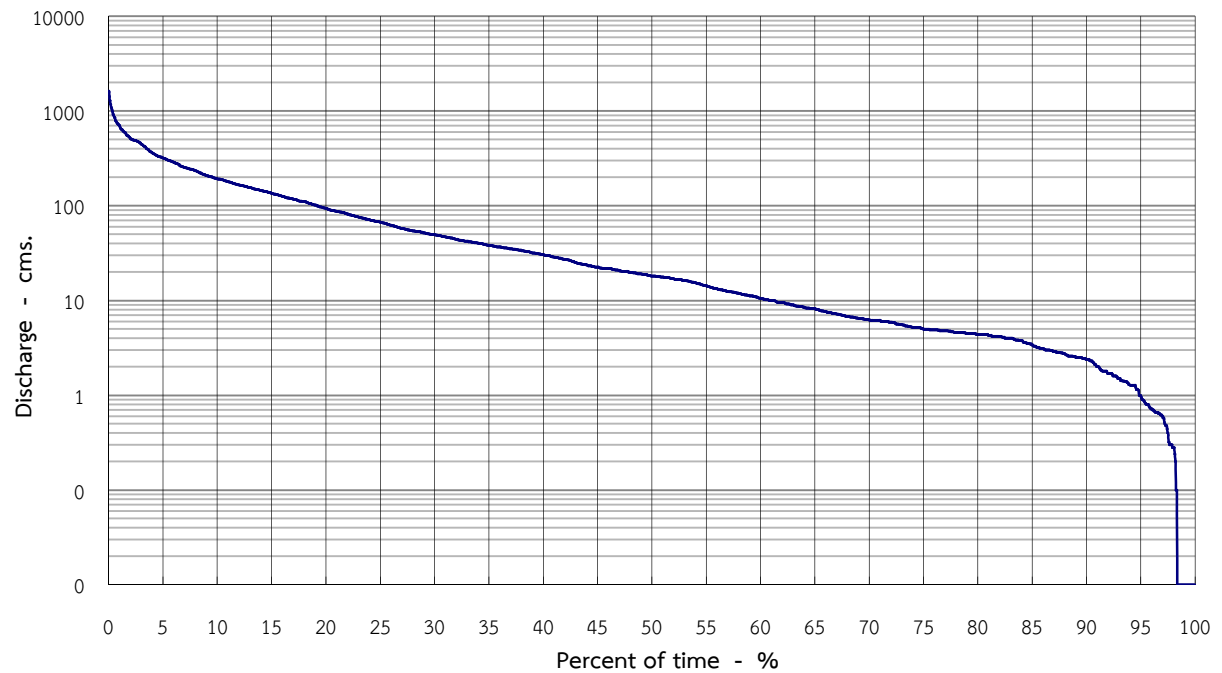
| Percent of time - % | 1     | 10    | 20   | 30   | 50   | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|-------|------|------|------|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 488.0 | 130.1 | 60.4 | 32.2 | 13.0 | 9.6 | 5.0 | 4.1 | 2.9 | 1.6 | 0.0 |

Flow Duration Curve for Daily Discharge (2004-2013)  
Station W.21 Wang River A.Muang P.Lampang

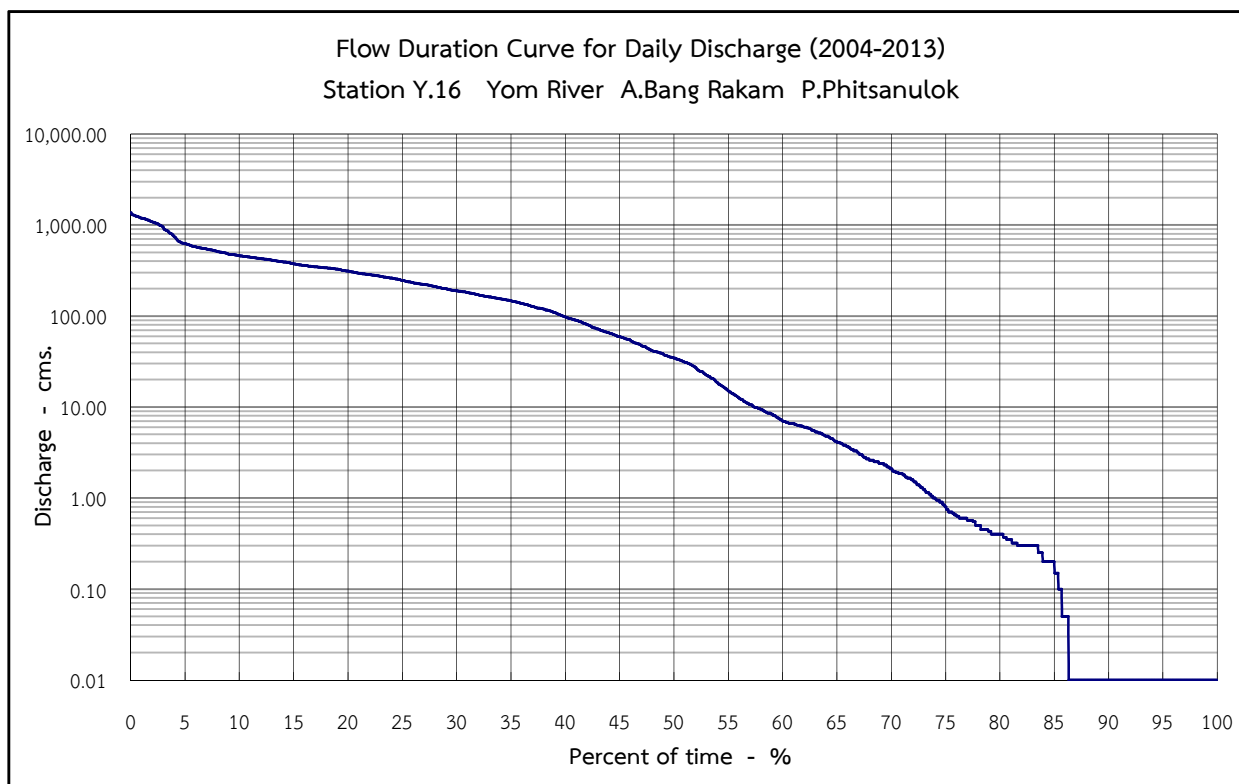


| Percent of time - % | 1     | 10   | 20   | 30   | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 194.5 | 49.8 | 21.8 | 12.8 | 5.0 | 3.4 | 1.3 | 1.0 | 0.8 | 0.6 | 0.0 |

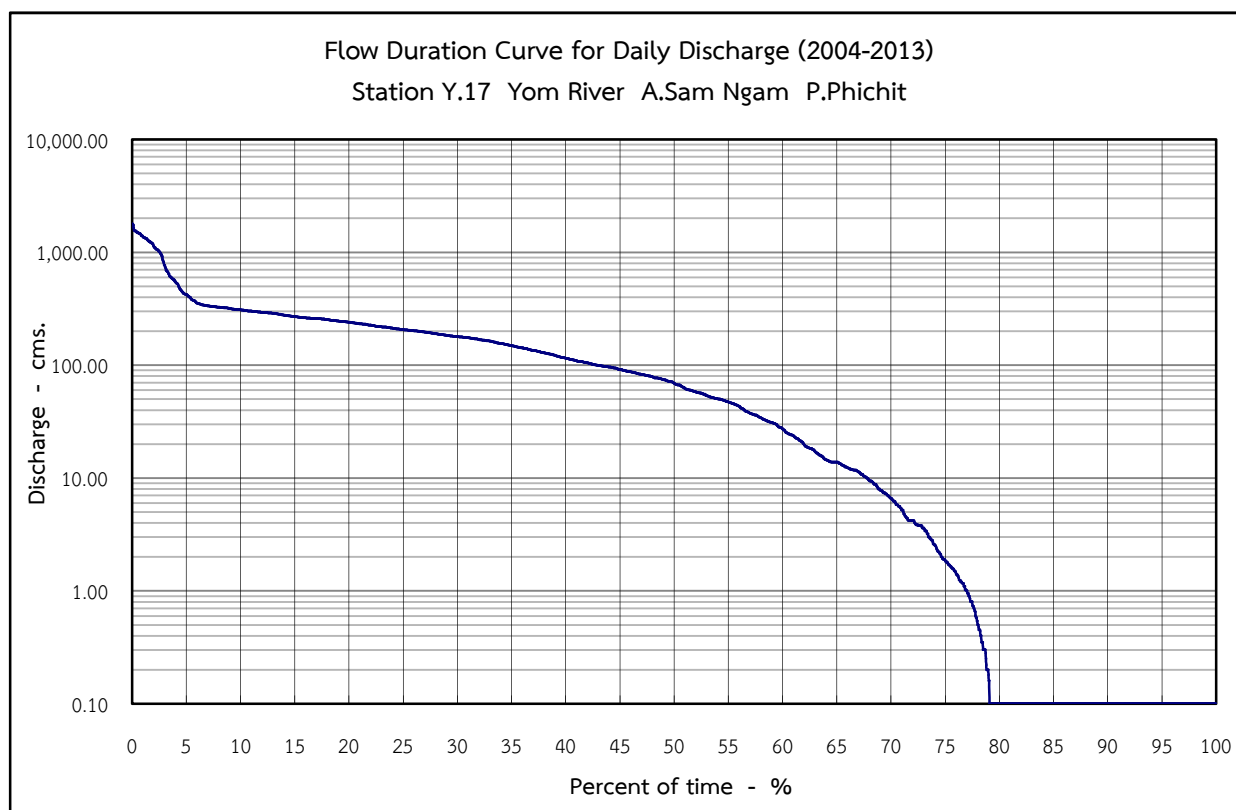
Flow Duration Curve for Daily Discharge (2004-2013)  
Station Y.1C Yom River A.Muang P.Phrae



| Percent of time - % | 1     | 10    | 20   | 30   | 50   | 60   | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|-------|------|------|------|------|-----|-----|-----|-----|-----|
| Discharge - cms.    | 702.7 | 192.6 | 94.4 | 49.6 | 18.2 | 10.6 | 4.4 | 3.4 | 2.4 | 1.0 | 0.0 |

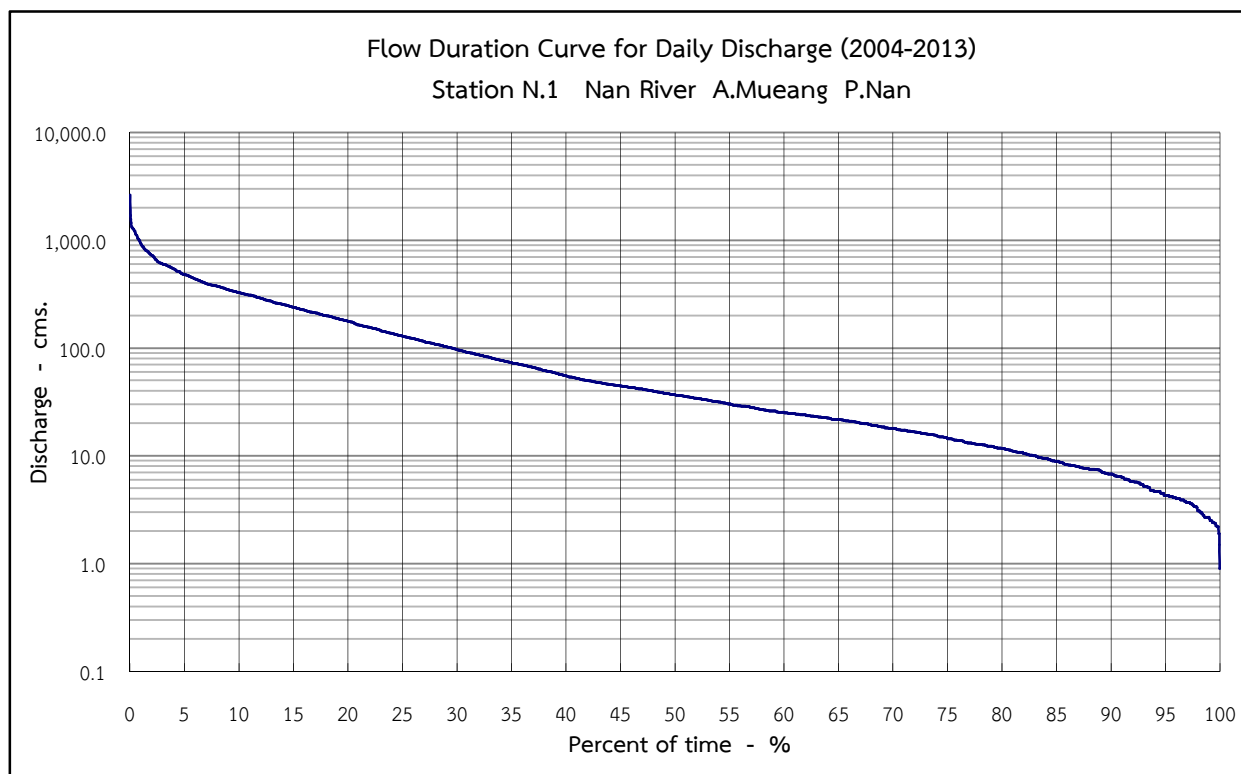


| Percent of time - % | 1       | 10    | 20    | 30    | 50   | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|---------|-------|-------|-------|------|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 1,192.0 | 458.8 | 312.2 | 189.3 | 34.6 | 7.0 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 |

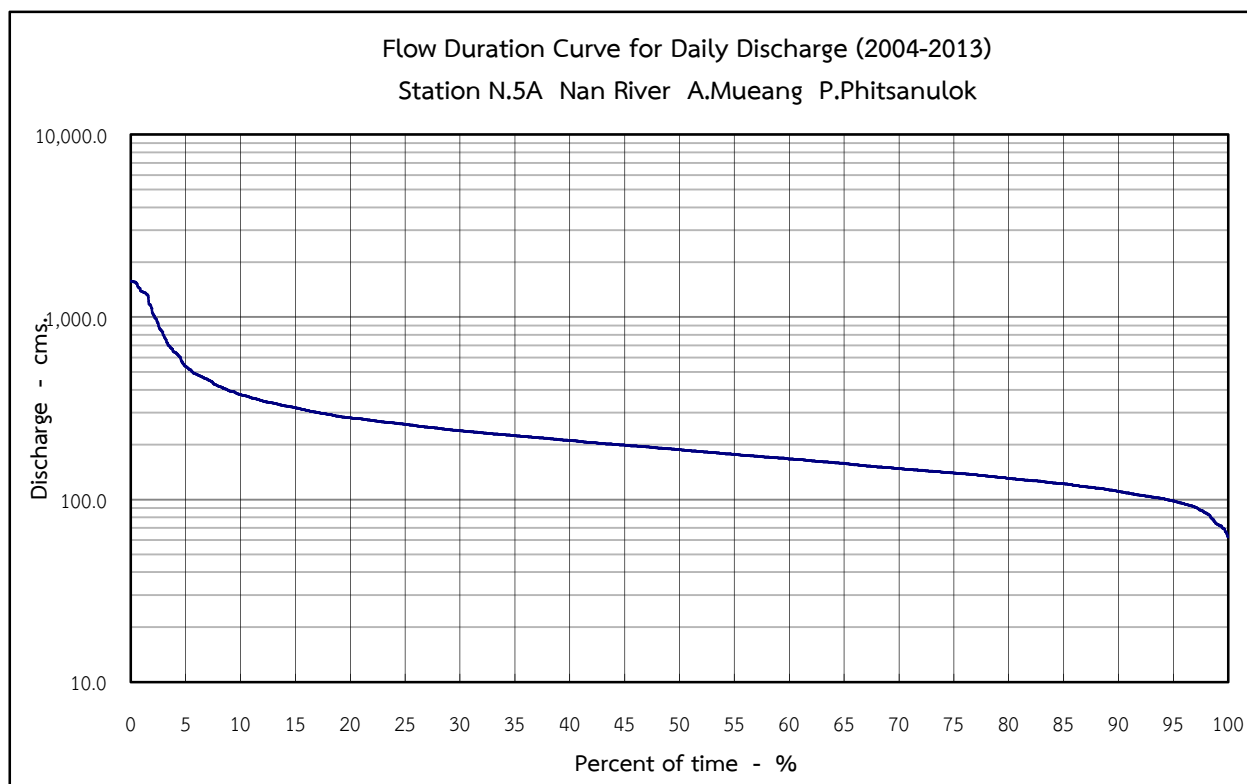


| Percent of time - % | 1       | 10    | 20    | 30    | 50   | 60   | 80  | 85  | 90  | 95  | 100 |
|---------------------|---------|-------|-------|-------|------|------|-----|-----|-----|-----|-----|
| Discharge - cms.    | 1,377.5 | 308.8 | 239.8 | 178.7 | 69.0 | 27.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

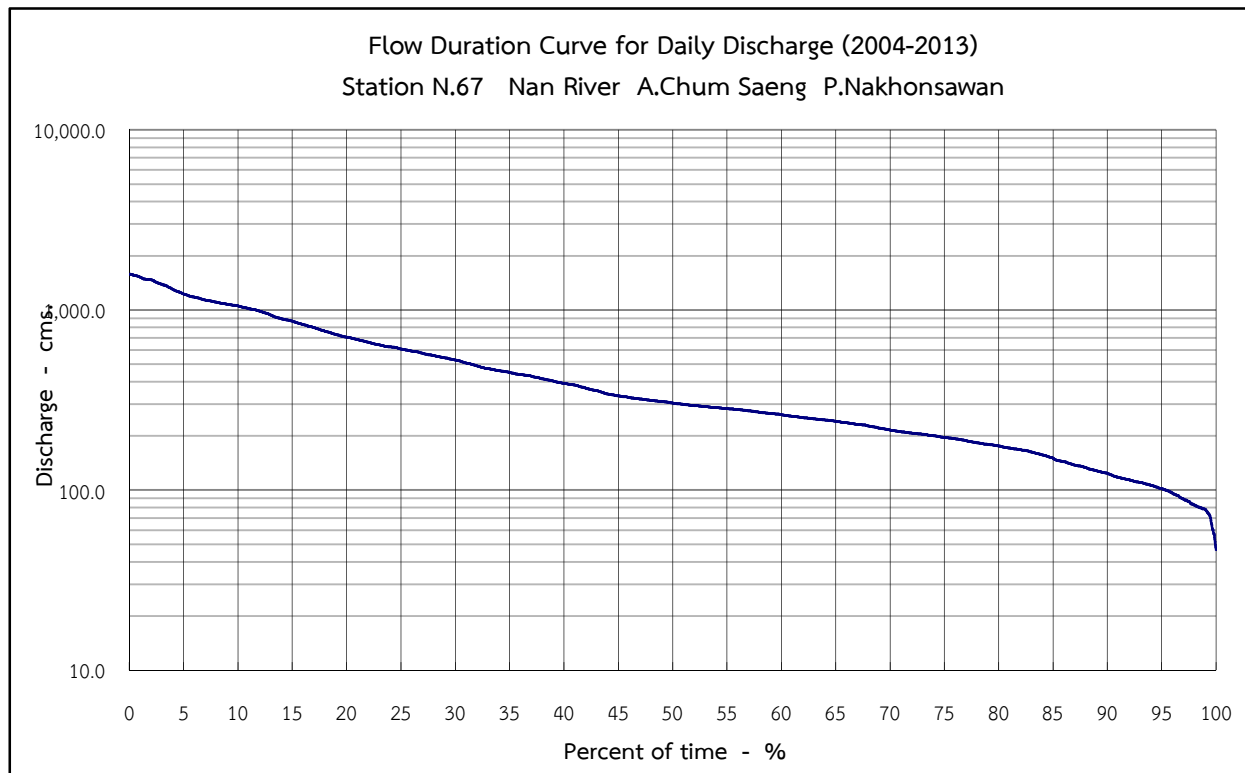




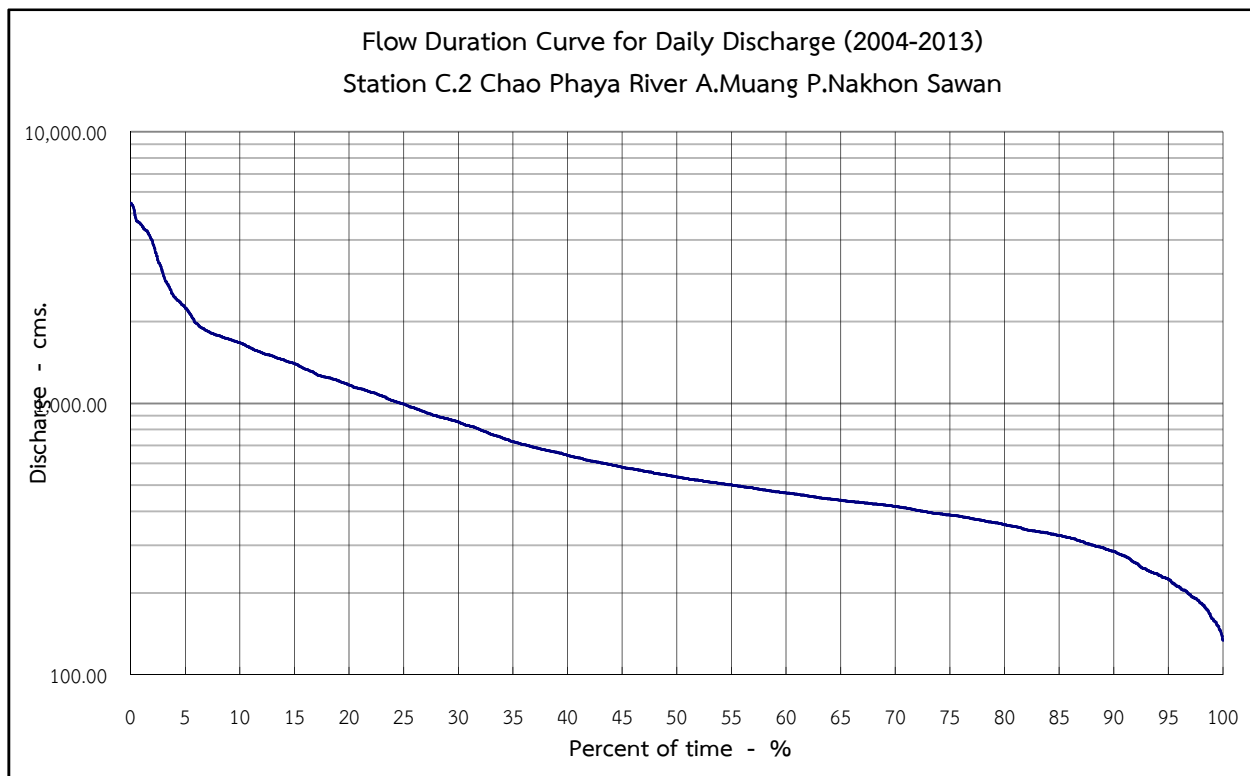
| Percent of time - % | 1     | 10    | 20    | 30   | 50   | 60   | 80   | 85  | 90  | 95  | 100 |
|---------------------|-------|-------|-------|------|------|------|------|-----|-----|-----|-----|
| Discharge - cms.    | 934.7 | 326.8 | 177.4 | 96.9 | 37.0 | 25.3 | 11.7 | 8.9 | 6.8 | 4.3 | 0.9 |



| Percent of time - % | 1       | 10    | 20    | 30    | 50    | 60    | 80    | 85    | 90    | 95   | 100  |
|---------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Discharge - cms.    | 1,380.1 | 375.2 | 281.0 | 238.6 | 187.7 | 167.0 | 131.0 | 122.0 | 110.8 | 98.2 | 62.2 |



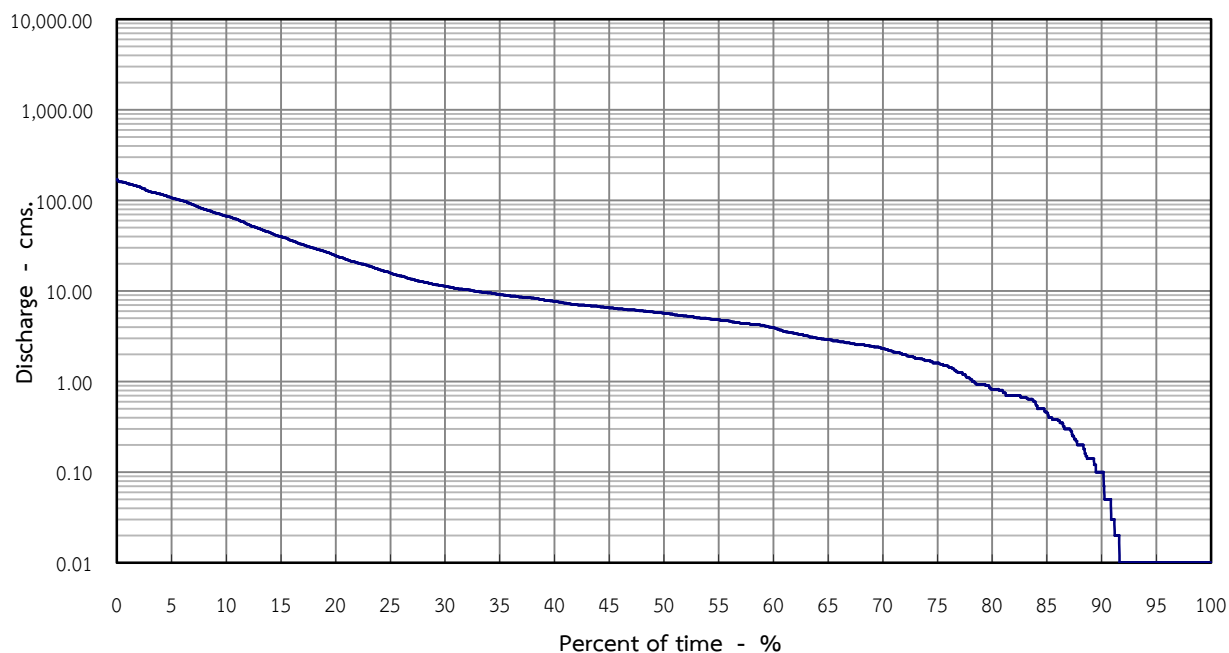
| Percent of time - % | 1       | 10      | 20    | 30    | 50    | 60    | 80    | 85    | 90    | 95    | 100  |
|---------------------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Discharge - cms.    | 1,518.5 | 1,053.9 | 706.2 | 527.0 | 304.0 | 261.9 | 175.6 | 150.3 | 123.6 | 101.9 | 46.6 |



| Percent of time - % | 1       | 10      | 20      | 30    | 50    | 60    | 80    | 85    | 90    | 95    | 100   |
|---------------------|---------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| Discharge - cms.    | 4,530.0 | 1,670.0 | 1,167.0 | 854.0 | 535.0 | 467.5 | 357.2 | 326.6 | 285.0 | 224.8 | 134.0 |

Flow Duration Curve for Daily Discharge (2004-2013)

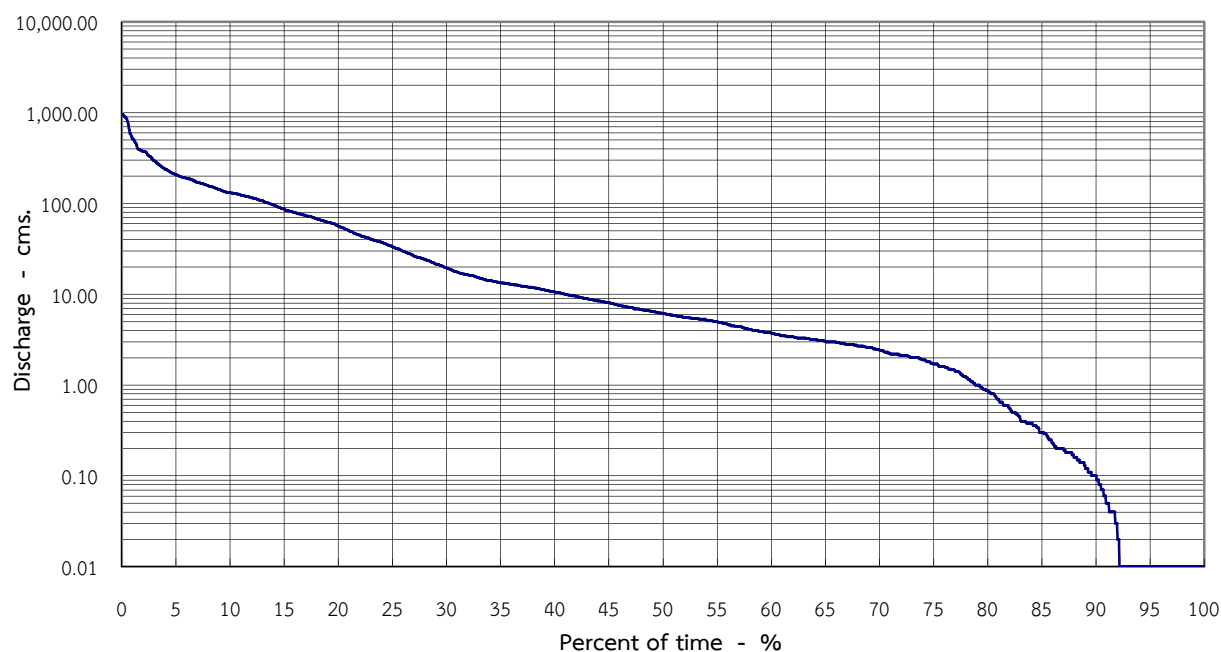
Station S.4B Pasak River A.Muang P.hetchabun



| Percent of time - % | 1     | 10   | 20   | 30   | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 153.9 | 67.3 | 24.7 | 11.3 | 5.7 | 4.0 | 0.8 | 0.5 | 0.1 | 0.0 | 0.0 |

Flow Duration Curve for Daily Discharge (2004-2013)

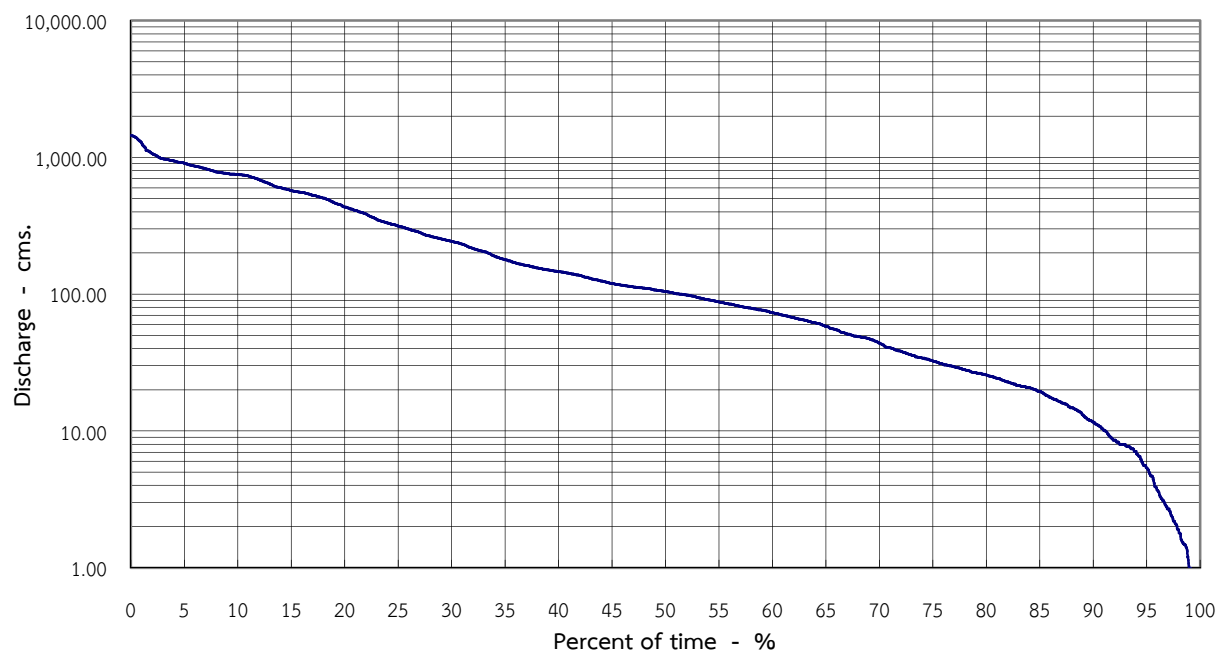
Station E.23 Chi River A.Muang P.Chaiyaphum



| Percent of time - % | 1     | 10    | 20   | 30   | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|-------|------|------|-----|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 514.5 | 131.4 | 56.6 | 19.6 | 6.2 | 3.8 | 0.9 | 0.3 | 0.1 | 0.0 | 0.0 |

Flow Duration Curve for Daily Discharge (2004-2013)

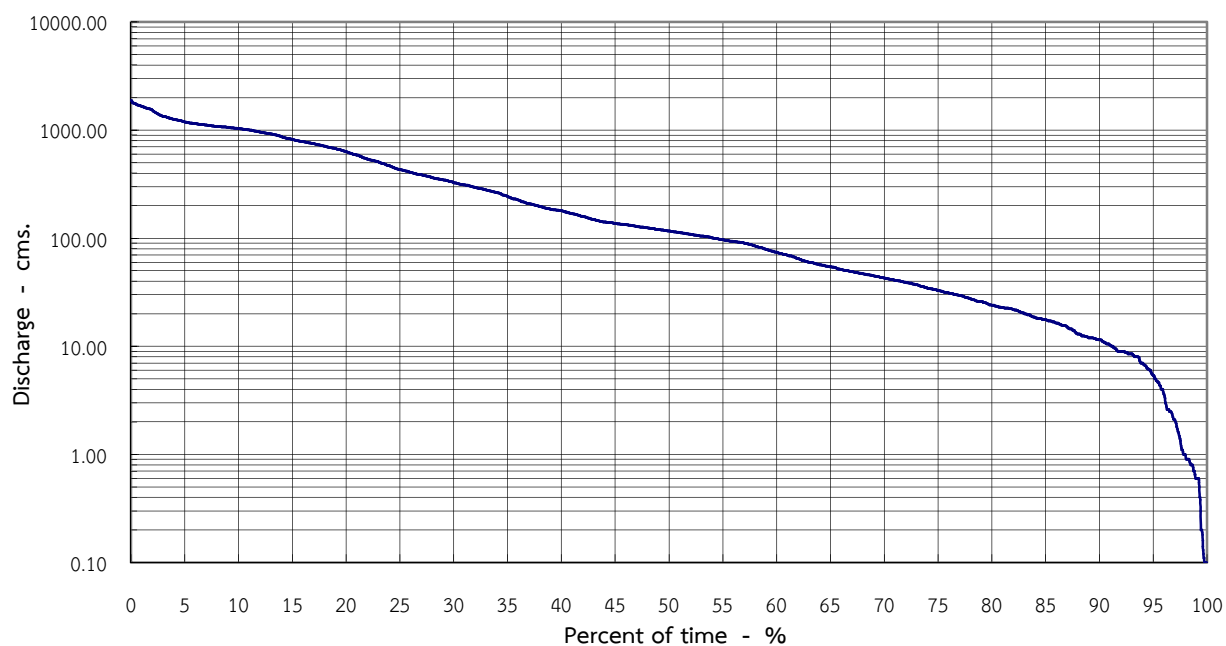
Station E.18 Chi River K.A.Thung Khao Luang P.Roi Et



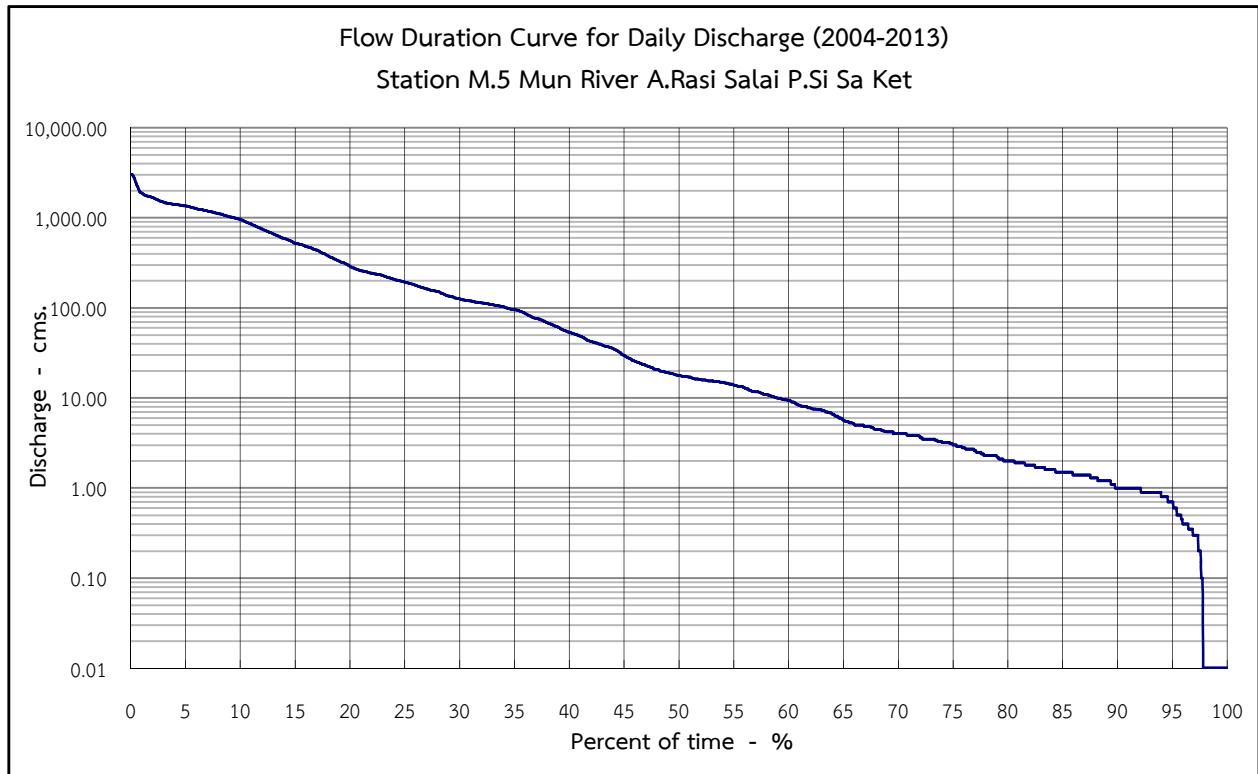
| Percent of time - % | 1       | 10    | 20    | 30    | 50    | 60   | 80   | 85   | 90   | 95  | 100 |
|---------------------|---------|-------|-------|-------|-------|------|------|------|------|-----|-----|
| Discharge - cms.    | 1,276.6 | 749.3 | 433.6 | 243.7 | 104.6 | 73.1 | 25.8 | 19.4 | 11.6 | 5.4 | 0.6 |

Flow Duration Curve for Daily Discharge (2004-2013)

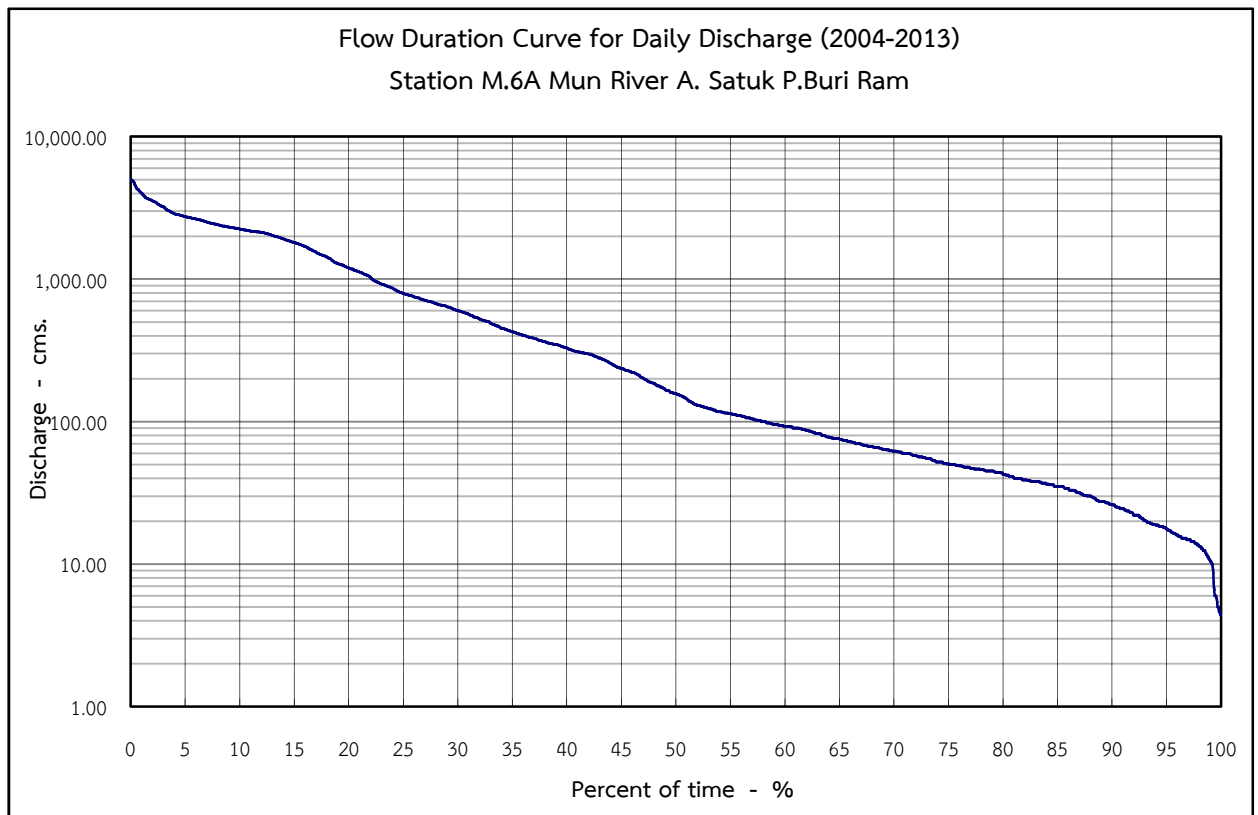
Station E.20A Chi River A.Maha Chana Chai P.Yasothon



| Percent of time - % | 1       | 10      | 20    | 30    | 50    | 60   | 80   | 85   | 90   | 95  | 100 |
|---------------------|---------|---------|-------|-------|-------|------|------|------|------|-----|-----|
| Discharge - cms.    | 1,659.1 | 1,033.2 | 632.1 | 327.6 | 116.6 | 74.2 | 24.0 | 17.6 | 11.5 | 5.4 | 0.1 |

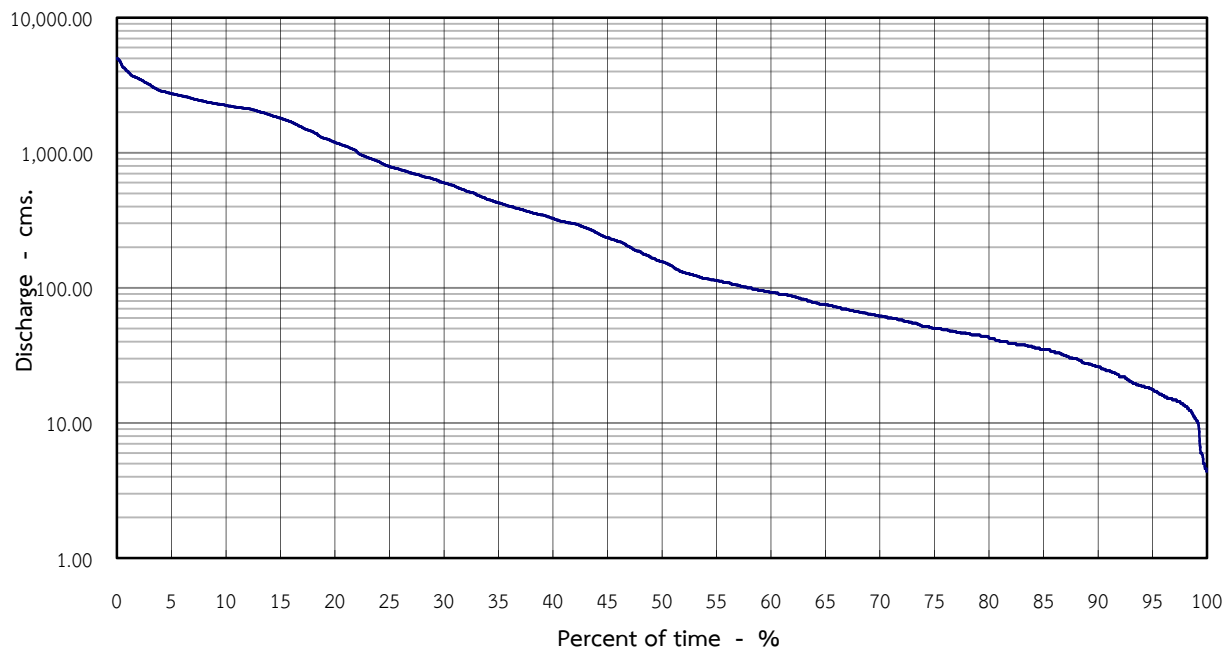


| Percent of time - % | 1       | 10    | 20    | 40    | 50   | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|---------|-------|-------|-------|------|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 1,892.0 | 953.7 | 290.0 | 126.0 | 17.7 | 9.4 | 2.0 | 1.5 | 1.0 | 0.7 | 0.0 |



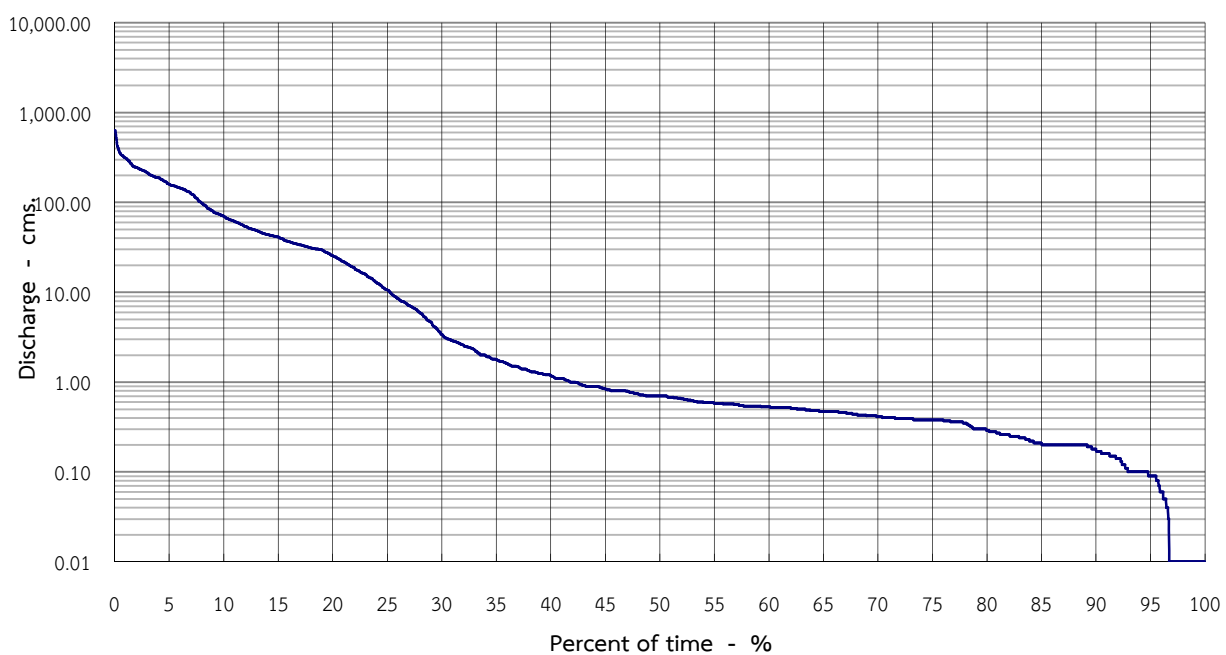
| Percent of time - % | 1       | 10    | 20    | 40   | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|---------|-------|-------|------|-----|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 1,185.0 | 368.5 | 154.4 | 64.0 | 8.6 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Flow Duration Curve for Daily Discharge (2004-2013)  
Station M.7 Mun River A. Mueang P.Ubon Ratchathani

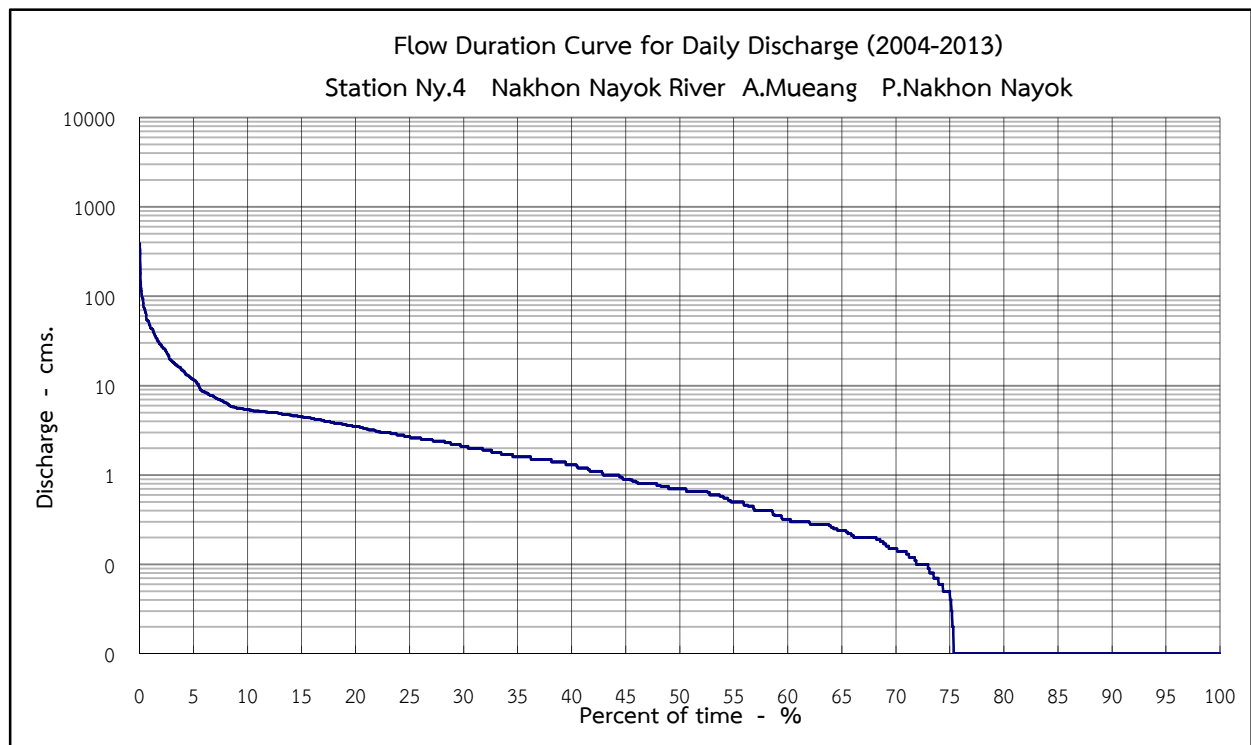


| Percent of time - % | 1       | 10      | 20      | 40    | 50    | 60   | 80   | 85   | 90   | 95   | 100 |
|---------------------|---------|---------|---------|-------|-------|------|------|------|------|------|-----|
| Discharge - cms.    | 4,011.5 | 2,244.0 | 1,200.3 | 601.0 | 157.0 | 92.5 | 42.6 | 35.0 | 26.2 | 17.7 | 4.4 |

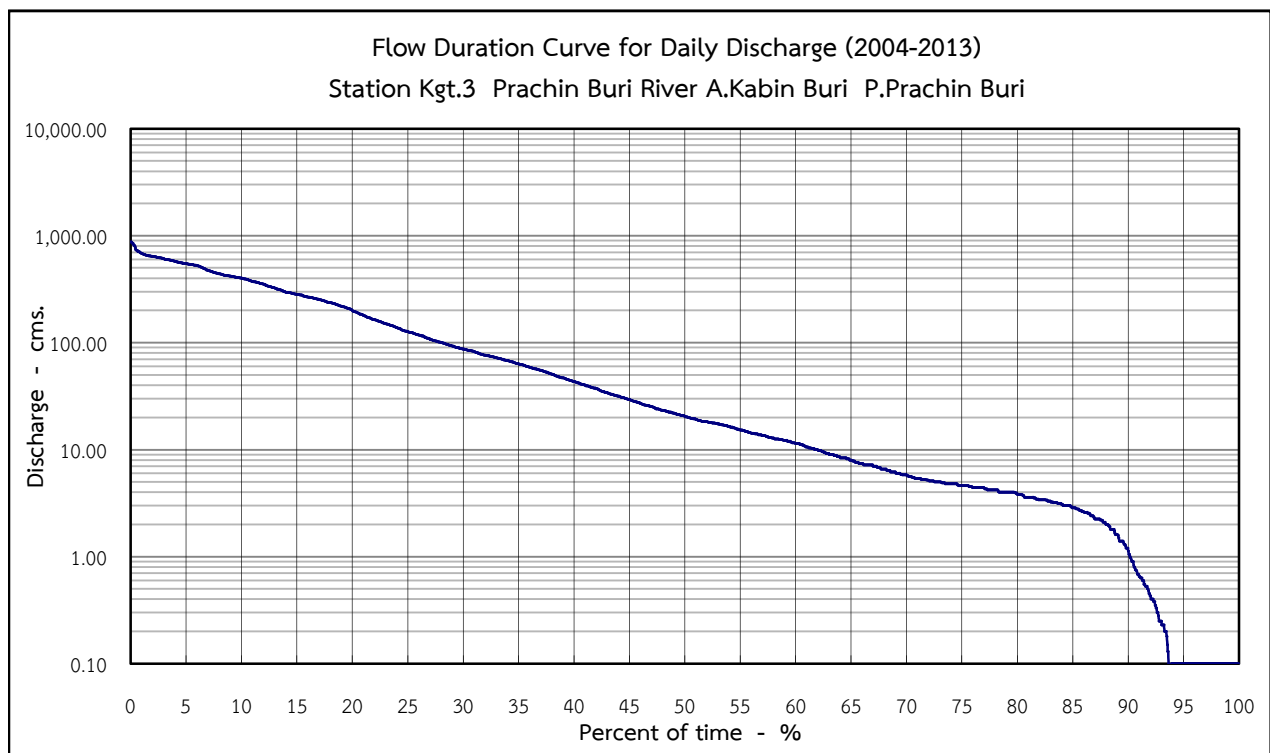
Flow Duration Curve for Daily Discharge (2004-2013)  
Station M.9 Huai Samran A.Mueang P.Si Sa Ket



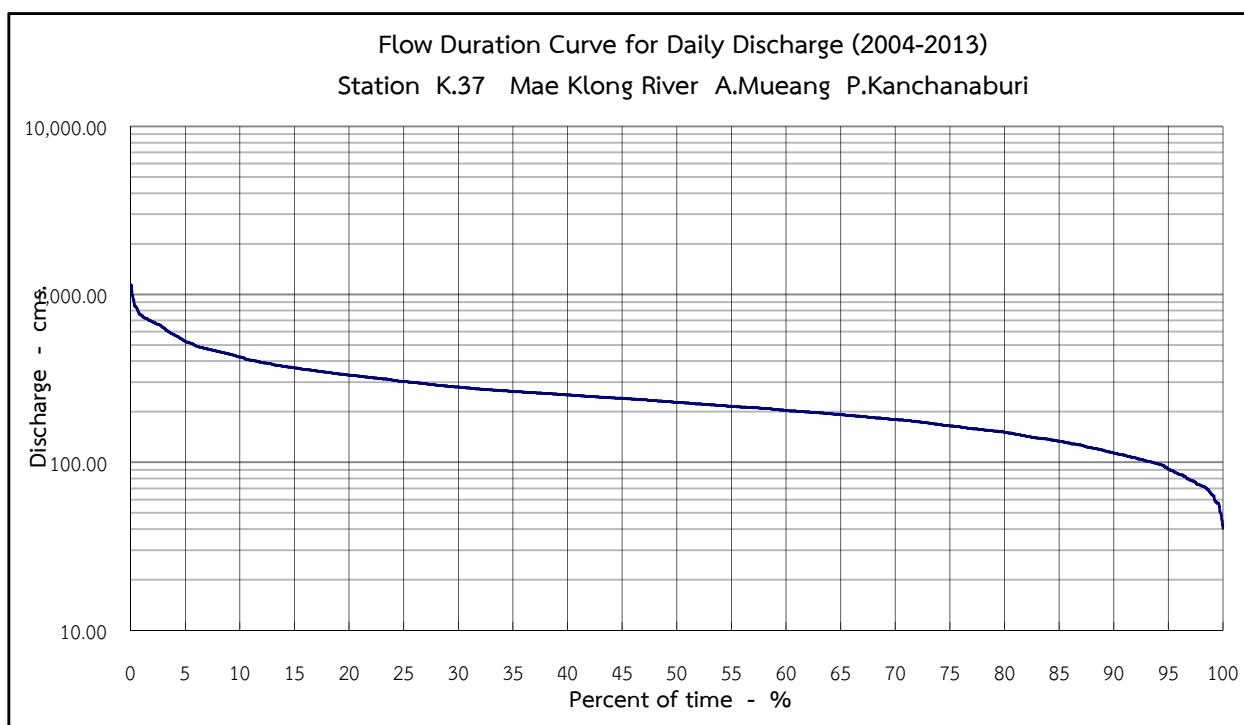
| Percent of time - % | 1     | 10   | 20   | 40  | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 311.2 | 69.6 | 25.4 | 3.4 | 0.7 | 0.5 | 0.3 | 0.2 | 0.2 | 0.1 | 0.0 |



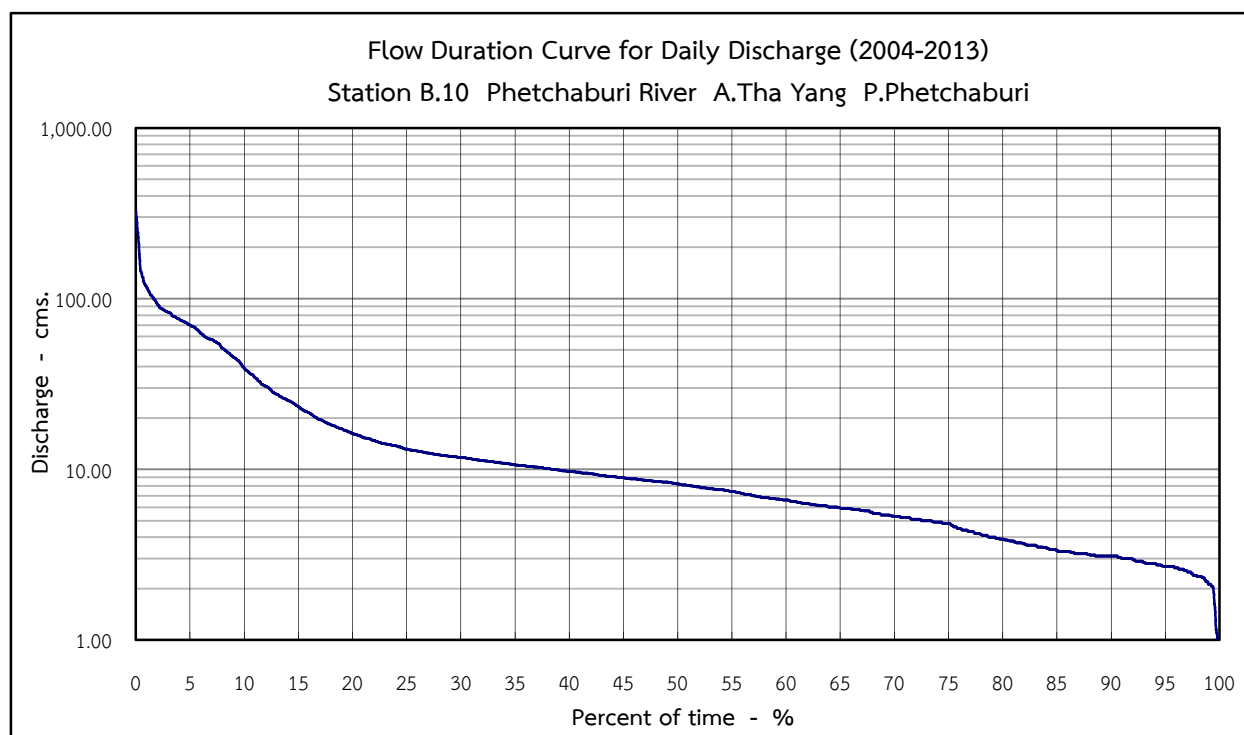
| Percent of time - % | 1    | 10  | 20  | 30  | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 45.5 | 5.4 | 3.5 | 2.1 | 0.7 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



| Percent of time - % | 1     | 10    | 20    | 30   | 50   | 60   | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|-------|-------|------|------|------|-----|-----|-----|-----|-----|
| Discharge - cms.    | 683.7 | 401.2 | 199.4 | 87.0 | 20.5 | 11.4 | 3.8 | 2.9 | 1.1 | 0.0 | 0.0 |

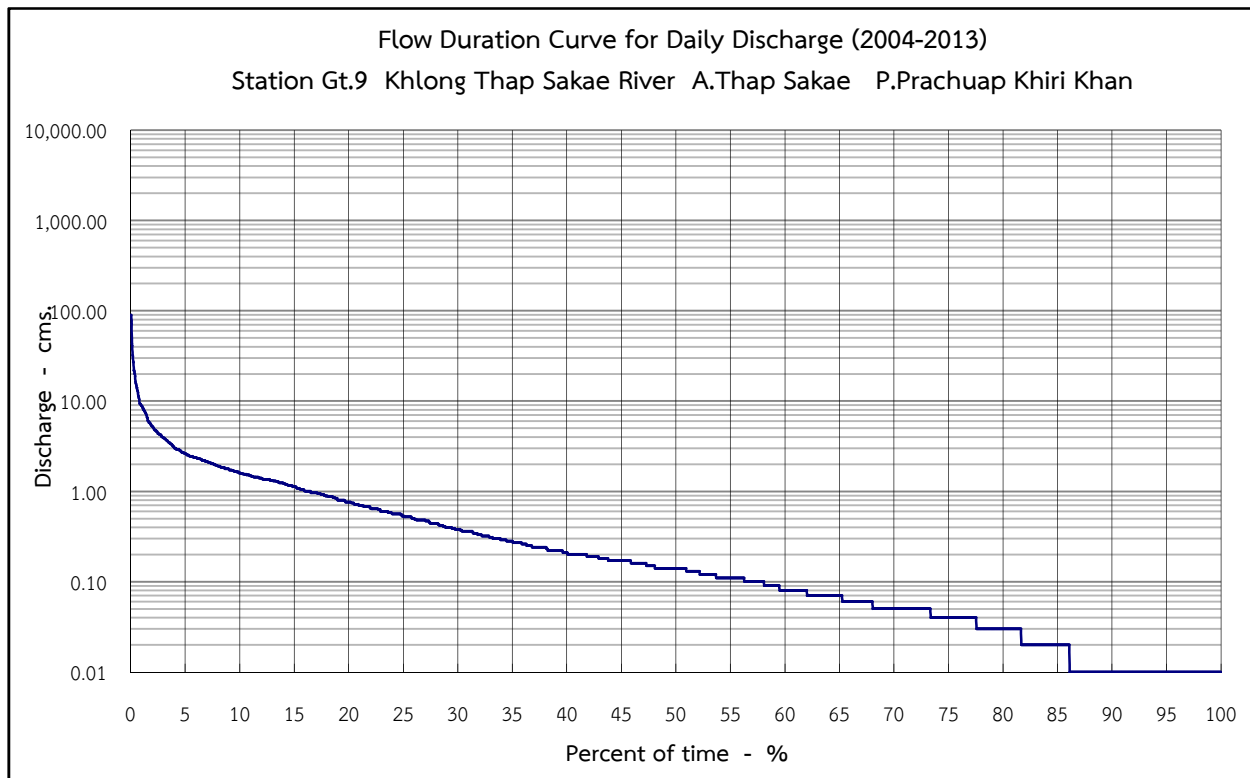


|                     |       |       |       |       |       |       |       |       |       |      |      |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Percent of time - % | 1     | 10    | 20    | 30    | 50    | 60    | 80    | 85    | 90    | 95   | 100  |
| Discharge - cms.    | 747.0 | 423.6 | 330.0 | 280.2 | 227.2 | 203.4 | 150.5 | 133.2 | 113.5 | 90.8 | 40.3 |

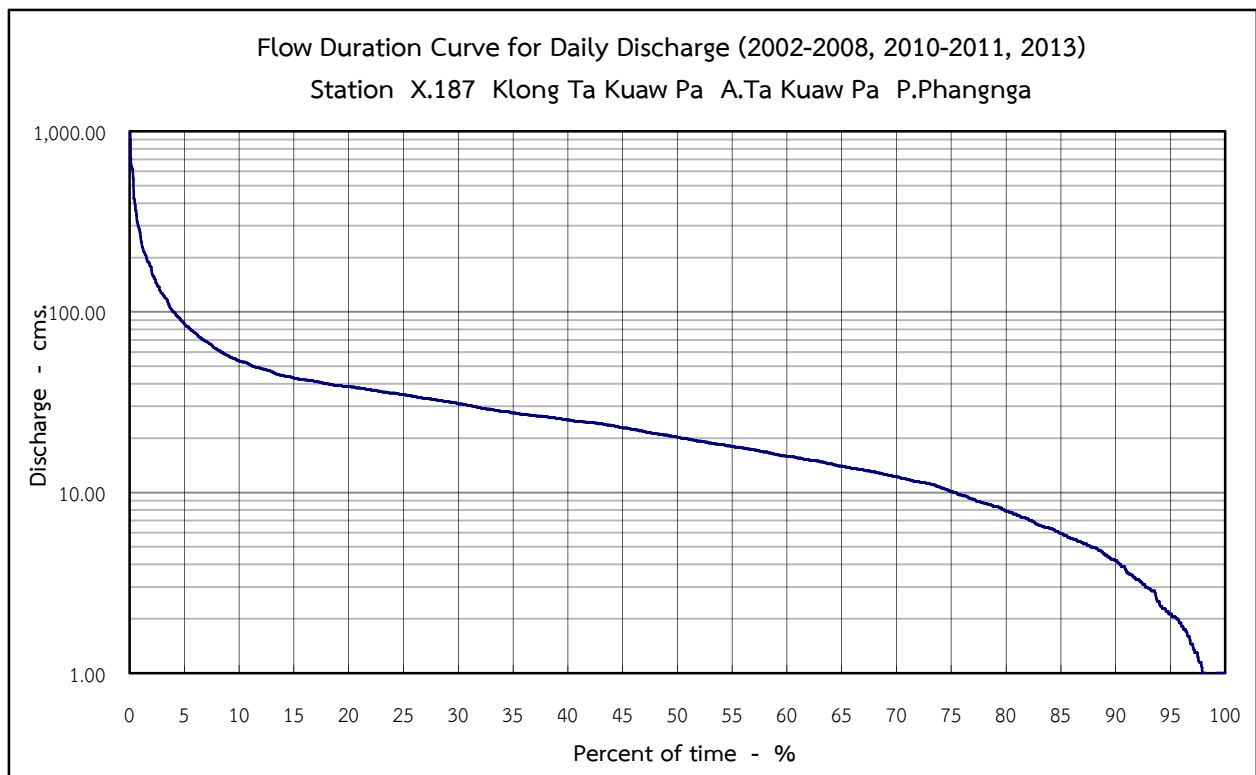


|                     |       |      |      |      |     |     |     |     |     |     |     |
|---------------------|-------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| Percent of time - % | 1     | 10   | 20   | 30   | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
| Discharge - cms.    | 116.0 | 39.2 | 16.2 | 11.8 | 8.2 | 6.6 | 3.9 | 3.4 | 3.1 | 2.7 | 0.4 |

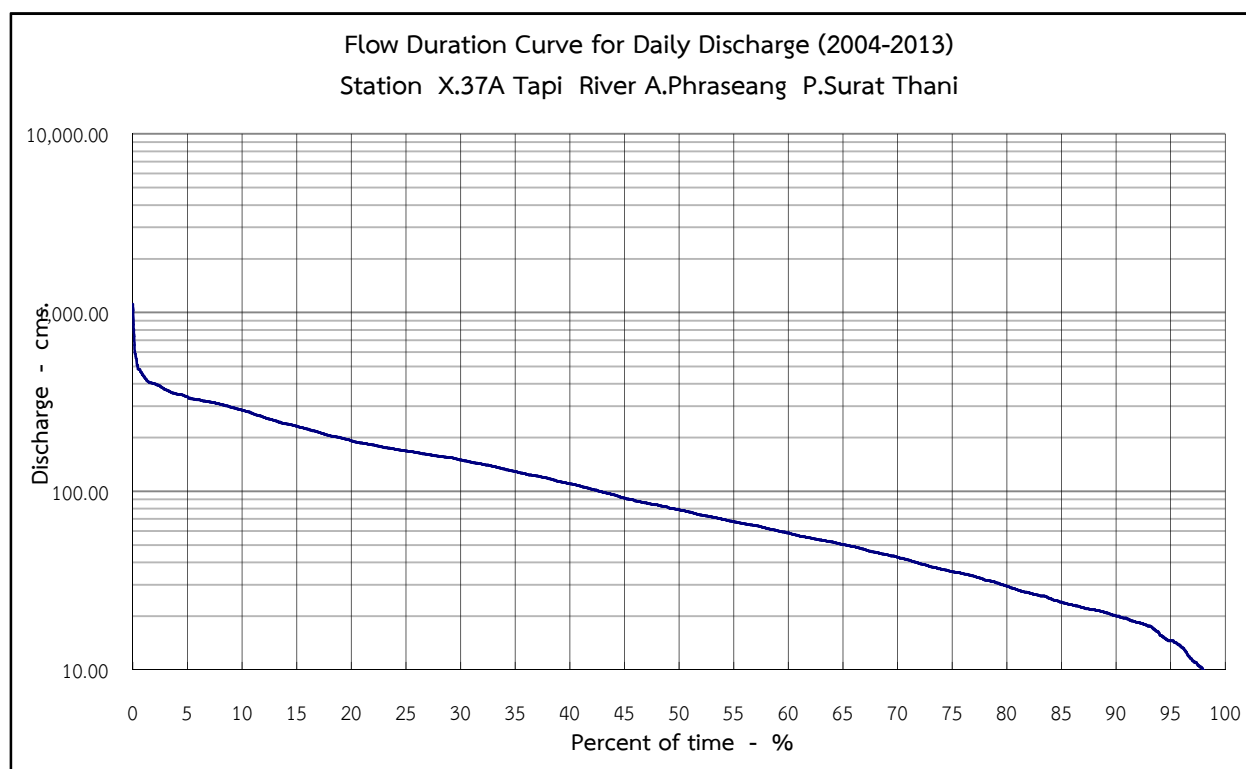




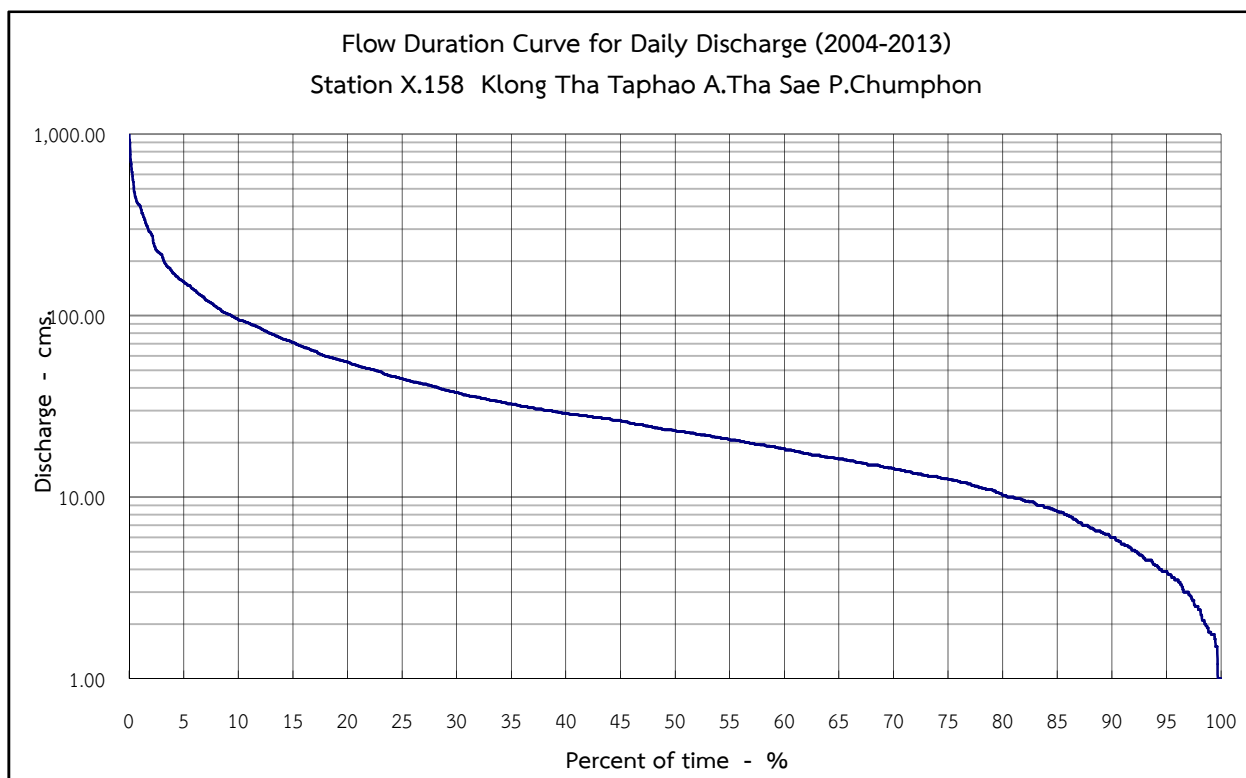
| Percent of time - % | 1   | 10  | 20  | 30  | 50  | 60  | 80  | 85  | 90  | 95  | 100 |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Discharge - cms.    | 8.8 | 1.6 | 0.8 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



| Percent of time - % | 1     | 10    | 20   | 30   | 50   | 60   | 80  | 85  | 90  | 95  | 100 |
|---------------------|-------|-------|------|------|------|------|-----|-----|-----|-----|-----|
| Discharge - cms.    | 427.2 | 126.0 | 70.9 | 49.0 | 26.7 | 18.0 | 8.3 | 6.5 | 4.6 | 3.0 | 0.0 |

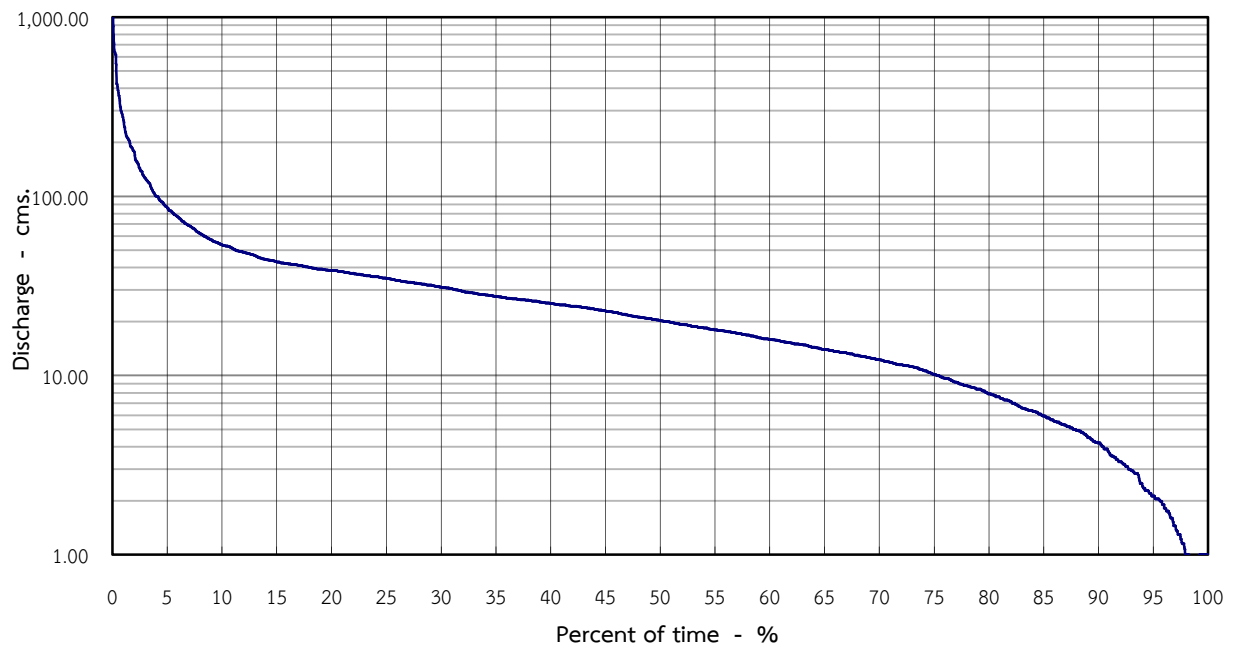


| Percent of time - % | 1     | 10    | 20    | 30    | 50   | 60   | 80   | 85   | 90   | 95   | 100 |
|---------------------|-------|-------|-------|-------|------|------|------|------|------|------|-----|
| Discharge - cms.    | 441.0 | 284.4 | 191.5 | 149.8 | 79.0 | 58.4 | 29.5 | 24.0 | 20.1 | 14.6 | 7.8 |



| Percent of time - % | 1     | 10   | 20   | 30   | 50   | 60   | 80   | 85  | 90  | 95  | 100 |
|---------------------|-------|------|------|------|------|------|------|-----|-----|-----|-----|
| Discharge - cms.    | 401.9 | 94.7 | 55.6 | 37.6 | 23.2 | 18.5 | 10.2 | 8.4 | 6.0 | 3.9 | 0.0 |

Flow Duration Curve for Daily Discharge (2004-2013)  
Station X.90 Klong U-Taphao River A. Klong Hoi-Khong P.Songkhla



|                     |       |      |      |      |      |      |     |     |     |     |     |
|---------------------|-------|------|------|------|------|------|-----|-----|-----|-----|-----|
| Percent of time - % | 1     | 10   | 20   | 30   | 50   | 60   | 80  | 85  | 90  | 95  | 100 |
| Discharge - cms.    | 266.1 | 53.7 | 38.6 | 31.1 | 20.3 | 15.9 | 7.9 | 6.0 | 4.2 | 2.1 | 0.0 |